



PT BIO FARMA (PERSERO)

📍 Jl. Pasteur No. 28, Bandung 40161, Indonesia.

☎ +62 22-2033755 (37412)

📠 +62 22-2041306

📞 0821 21511511

✉ corcom@biofarma.co.id

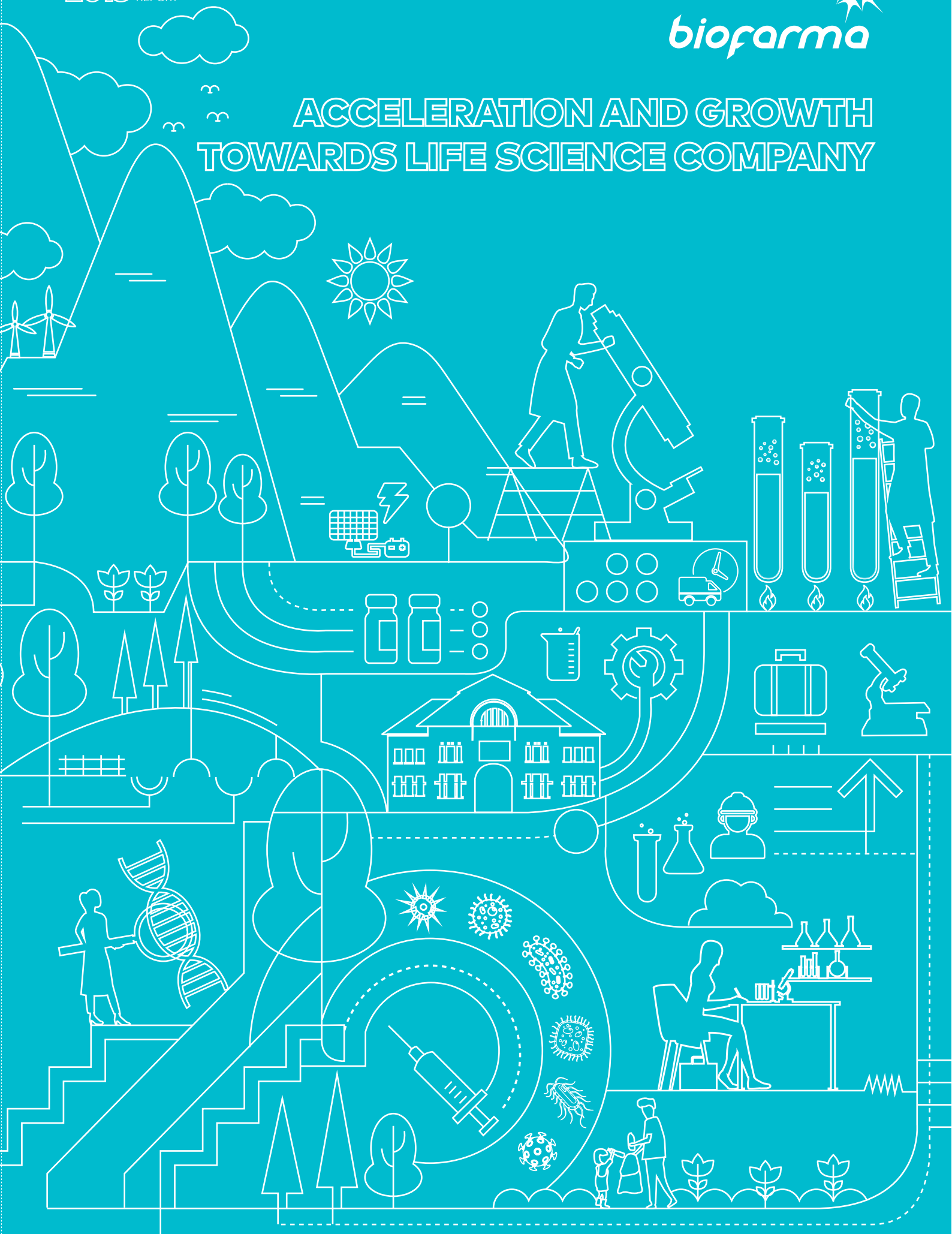
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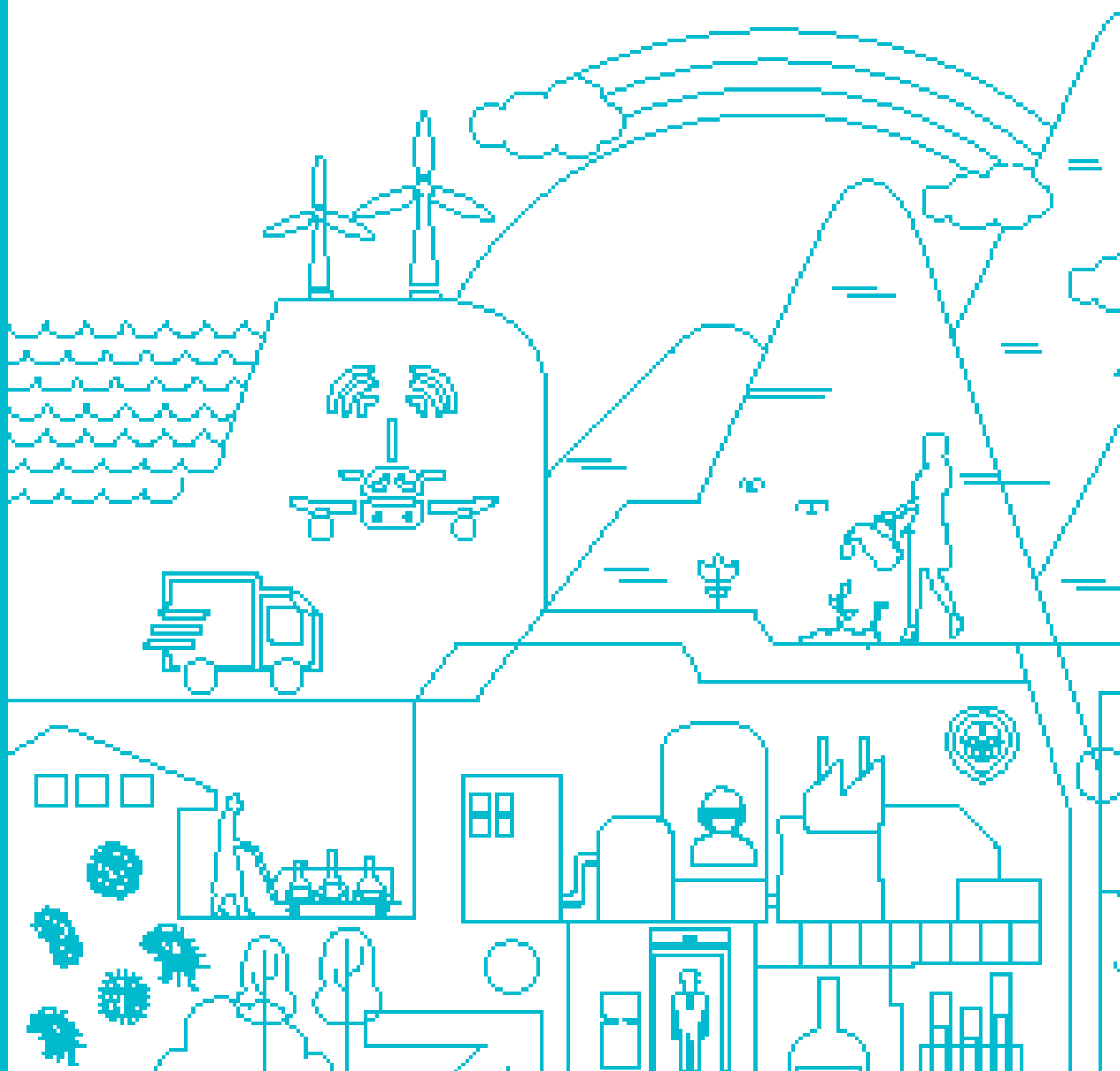
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ACCELERATION AND GROWTH TOWARDS LIFE SCIENCE COMPANY







ACCELERATION AND GROWTH TOWARDS LIFE SCIENCE COMPANY

Bio Farma continues to accelerate its growth towards becoming a fully-fledged Life Science company in order to expand the health and quality of life of the community.

Growth is a process of perpetual change that moves towards a better state over a fixed period. In line with the accelerating changes in world order, economy, technology, and health, Bio Farma needs to accelerate and grow towards becoming a Life Science Company. Life Science has facilitated various scientific innovations and breakthroughs that have a high impact on human health, improve the quality of life, as well as increase the competitiveness of the national economy.

The acceleration towards becoming a Life Science company also strengthens Indonesia's position as a Center of Excellence for the development of vaccines and biotechnology products from the OIC Countries; supports Sustainable Development Goal Number 3 (SDG 3), namely Improving Health and Welfare; as well as providing global health security, both from emerging diseases as well as old diseases that have re-emerged.



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Theme Continuity

2015



BIO TECH INNOVATION FOR A BETTER FUTURE

With the dedication of all employees of Bio Farma, since 2011 we have been determined and committed in producing a wide range of biotechnological innovation, because innovation is our value.

Implementation of Environmentally Friendly Business Process Innovation as well as Innovation in the field of Environment and CSR, making Bio Farma as the only Indonesian Pharmaceutical Industry to achieve gold PROPER from the Ministry of Environment and Forestry.

In 2015, Innovation Biotechnology has resulted in the development of biological products Erythropoietin (EPO) as well as the development of other life science products. Now is the time for Bio Farma to continue to innovate in the field of biotechnology to create a better future.

2016



BIOTECH INNOVATION FOR A GLOBAL COMPETITIVENESS

Bio Farma has vast expertise and experience in its 126 years of operations. In that long history, we are always working to improve the quality of life in Indonesia and in the world. Our products are used in more than 130 countries worldwide. We are the largest vaccine producer in Southeast Asia with an annual production of 3.2 billion doses.

We are confident that we continue improving our performance in the present and the future. Our production processes are managed according to Sustainable Development Goals (SDGs). We continue to innovate in biotechnology, actively maintain vaccine supply and national vaccine security for national immunization program demand and save the lives of millions worldwide.

2017



CHANGE AND ACCELERATION TOWARDS A LEADING LIFE SCIENCE COMPANY

Global challenges in health sector due to the necessary new vaccine development resulting from emerging diseases and reemerging disease have pushed us to accelerate and change. In 2017, Indonesia was trusted to become the Center of Excellence leader of Vaccine and Biotechnology Product Research for Islamic countries. This trust is an acknowledgment of Indonesia's performance through Bio Farma as having a vaccine and biotechnology product industry that is more advanced than that of members of OIC countries. Indonesia is the only member of OIC countries that has a complete vaccine industry acknowledged by WHO. In line with Nawacita program number six, which is increasing productivities and competitiveness in international market, Indonesia's vaccine industry can be massively produced in the world and push the advancement of other developing countries. The year 2017, with the spirit of change and acceleration, we believe that the path to become life science company will be achieved for real in order to improve a better life quality.

2018



ACCELERATION TRANSFORMATION TOWARDS LIFE SCIENCE COMPANY

Following the government's strategic measure to reorganize State-owned Enterprises into holding companies, Bio Farma has made preparations to accelerate its transformation towards a Life Science Company to improve the public's quality of life.

Bio Farma Becomes Holding Company for Pharmaceutical State-Owned Enterprises



President Joko Widodo signed Government Regulation (PP) Number 76 of 2019 concerning Additional Capital Participation of the Republic of Indonesia in the Limited Liability Company (Persero) PT Bio Farma. Thus, Bio Farma will control PT Kimia Farma (Persero) Tbk (KAEF) and PT Indofarma (Persero) Tbk (INAF).

President Jokowi signed the PP on October 15, 2019. This policy was issued by the Government as a strategic step in strengthening the capital structure and increasing the business capacity of Bio Farma.

The government considers it necessary to increase capital participation in the Limited Liability Company PT Bio Farma (Persero). The additional state capital participation as referred to, according to this PP, results firstly in the status of Kimia Farma and Indofarma being changed to a limited liability company that is fully subject to Law Number 40 of 2007 concerning Limited Liability Companies. Secondly, Bio Farma becomes a shareholder of Kimia Farma and Indofarma.

129 Years of Bio Farma's Presence for the Nation and Global Society

As of August 6, 2019, Bio Farma has been present for 129 years to the country and the global community. Bio Farma continuously strives to improve competitiveness at the global level by involving stakeholders and increasing the distribution of prosperity. Thus, surrounding communities participate and conduct environmentally friendly operations.

What has been performed by Bio Farma is a form of implementation of Bio Farma's commitments, State-Owned Enterprises are here to contribute to the country in achieving the Sustainable Development Goal of 2030 in Indonesia.

For Bio Farma, the endeavours made to distribute prosperity have been aimed at people who are in ring 1 of Bio Farma, by helping the community through expertise in biotechnology, such as Koi Mizumi fish cultivation in Sukabumi, arrowroot sheep cultivation, and the registration process of the Ciletuh-Palabuhan Ratu Geopark for the registration process to UNESCO.

Bio Farma applies its expertise in the field of biotechnology, for the benefit of people in Bio Farma's adjacent environment, especially those in ring 1. The assistance that Bio Farma provides is solely adapted to the potential in the area in which it can improve the standard of living; allowing people to have independence both economically and socially.

Bio Farma is a State-owned enterprise that is 100% owned by the government and the only producer of vaccines and antisera in Indonesia with products that have received the WHO PQ, gained trust in more than 140 countries, with 50 of them are members of the Organisation of Islamic Cooperation (OIC). Bio Farma has also become a reference for the development of biotechnology and vaccines through its appointment as a Centre of Excellence. With a production capacity of 3.2 billion doses per year, Bio Farma is able to meet the needs for vaccines both domestically and abroad, which are exported through WHO, UNICEF, and PAHO channels, as well as through bilateral cooperation.

In July 2019, Bio Farma's newest product, namely monovalent Oral Polio Vaccine Type 2 (mOPV2) managed to receive the WHO PQ and was exported to Angola.

Bio Farma's transformation within the Life Science business in the global arena must follow the principles of the UNIDO Five Declaration (United Nations Industrial Development Organization) which requires Industry to apply the inclusive principles of prosperity distribution, and to run environmentally friendly and sustainable operations. Operations must be environmentally friendly, so as to avoid excessive use of natural resources and the negative impact of industrial activities.

In the transformation of Bio Farma's business from what was originally only the vaccine and antisera industry to the Life Science industry. The philosophy dedicated to Improving Quality of Life, Bio Farma has two strategic roles, namely, providing quality vaccines for national needs, and playing an active role in increasing the availability and independence of vaccine production in developing countries and Islamic countries to maintain global health security. As a State-Owned Enterprise, its presence must be felt by all levels of society in Indonesia, both those in big cities and those in the interior.

Since the end of January 2019, Bio Farma has developed a vaccination service called Immunicare, with the motto "Solution to Immunity", which aims to meet the needs of the community for complete and comfortable vaccination services, as well as to assist the government in efforts to increase Adult Immunisation coverage.

The goal of Bio Farma to enter the retail market where it previously played for the B2B and B2G sector is to bring Bio Farma's vaccination services closer to the end user, in this case the community, coupled with increasing public awareness to maintain their health, we want to increase access to medicine for the community so that it can help to increase adult immunization coverage.

Bio Farma as a BUMN is present for the country so that its existence can be felt in the midst of society, from generation to generation in accordance with Bio Farma's philosophy.

Bio Farma's Standing in Local and Global Communities

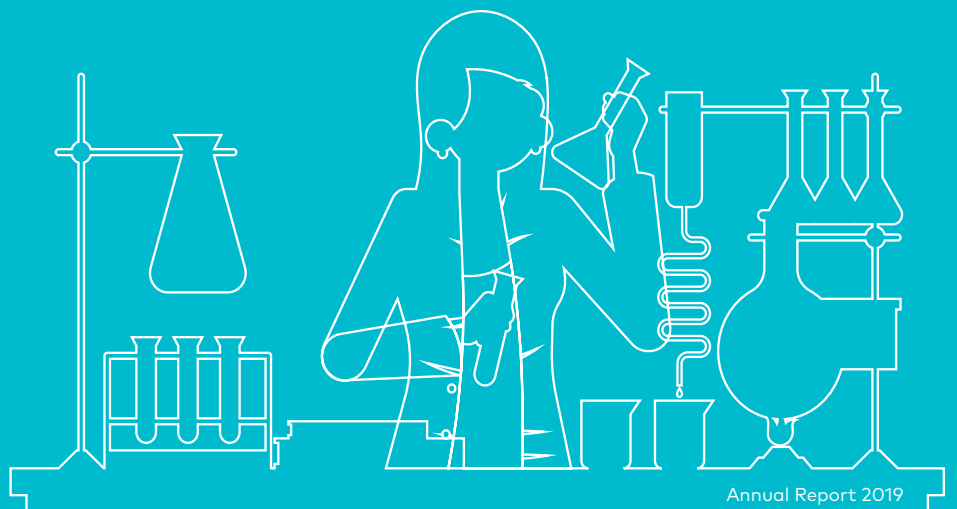
On August 6, 2019, it has been 129 years Bio Farma existed to improve the quality of life of the nation, plays an important role in preventing disease both in Indonesia and the world and is the fourth best company out of 200 vaccine companies in the world. After Europe, the United States, and India, Bio Farma is the largest vaccine company in the world. In addition, as much as 70 percent of global vaccine needs are supplied from Indonesia, India and China.

Currently, only about 30 vaccine manufacturers whose products have obtained qualifications from the World Health Organization (WHO), one of which is Bio Farma. In Southeast Asia, Bio Farma is one of the largest manufacturer in terms of product type and capacity. More than 13 of Bio Farma's vaccine products have received certification from the World Health Organization (WHO).

Bio Farma strongly prioritises domestic needs by meeting national vaccine needs, including vaccine needs for Diphtheria Extraordinary Events (KLB) some time ago, provision of vaccines for Hajj and Umrah pilgrims, as well as other vaccine needs for the world through WHO and UNICEF. The government, in this case the Ministry of Health, buys Bio Farma vaccine products directly and provides them free of charge to the public in a routine immunization program.

Bio Farma has a strategic role in fulfilling the need for vaccines and maintaining the availability of vaccines in the global arena and collaborates with various international institutions, including: Organisation of Islamic Cooperation (OIC), IDB, Bill & Melinda Gates Foundation, Developing Countries Vaccine Manufacturers Network (DCVMN), International Vaccine Institute (IVI), World Health Organization (WHO) and UNICEF.

A number of countries appreciate the preparatory efforts made by the Indonesian government and consider that the establishment of the Centre of Excellence on Vaccine and Bio-technology Products is very important for the independence of OIC countries in providing vaccines and biotechnology products. Through this Centre of Excellence, it is expected that joint research on vaccines and bio-technology preparations can be carried out in the long term to jointly develop vaccines with independent technology in overcoming health problems that occur or may arise in the future in OIC countries.



Entering Industry 4.0, Bio Farma Strengthens Collaboration with the Ministry of Industry of the Republic of Indonesia and Sucofindo

Bio Farma is a world-class Life Science company with global competitiveness towards industry 4.0. Bio Farma has begun to formulate strategies in terms of research and development, production processes, and supply chain value that utilize big data and artificial intelligence. Bio Farma collaborates with the Directorate of Chemical, Pharmaceutical and Textile Industry (IKFT) of the Indonesian Ministry of Industry, and has signed a Memorandum of Understanding (MoU) on cooperation in the field of pilot projects for the implementation of Industry 4.0 which aims to support the government program "Making Indonesia 4.0" and is oriented towards cooperation on the downstream chemical and pharmaceutical industry growth and development program. This Memorandum of Understanding (MoU) was signed by the Director of the Downstream Chemical and Pharmaceutical Industry of the Indonesian Ministry of Industry, Taufiek Bawazier and the Operations Director of Bio Farma, M. Rahman Roestan on October 30, 2019.

The implementation of industry 4.0 was marked by the submission of the MoU and Cooperation Agreement (PKS) submitted by the Director General of the Chemical, Pharmaceutical and Textile Industry of the Indonesian Ministry of Industry, Muhammad Khayam to the Operations Director of Bio Farma M. Rahman Roestan, and witnessed by the Board of Executives and all Bio Farma employees on November 19, 2019 at Bio Farma Bandung. This MoU is for a Pilot Project to see and get an up-to-date overview of the company's

profile, performance and potential towards the 4.0 industrial platform. The pharmaceutical industry in Indonesia has very high added value, therefore the government has paid special attention to this industry with the issuance of Presidential Instruction No. 6 of 2016. Bio Farma, as part of the Pharmaceutical Industry, was chosen to be one of the companies representing IKFT as a pilot for the pharmaceutical industry in Indonesia which is ready to compete in the era of 4.0. Bio Farma's readiness to face competition in the era of the internet of things (IoT) can also be applied in other industries.

To immerse itself in the industry 4.0, Bio Farma has prepared the latest technology in the disruptive era, such as the Electronic Batch Record (EBR) which uses communication technology as its foundation. Another thing Bio Farma does is to innovate and to collaborate in order to be able to compete in this 4.0 era. The key to industry 4.0 is connectivity where the elements involved must be connected and integrated. What has been done by Bio Farma is to collaborate with academics, governments, and research institutions both at home and abroad, for the purposes of technology transfer with the ultimate goal of discovering new products. Bio Farma has augmented infrastructure related to 4.0, including preparing an IT master plan to support the Pharma 4.0 industry, and developing systems or applications that support industry 4.0, including research collaboration to make an IoT (Internet of Things) Proof of Concept.

Factory Cell Industry 4.0

To strengthen the foundation of industry 4.0 at Bio Farma on November 19, 2019, in charge of the Factory Cell 4.0 project, Ahmad Osman from Sucofindo, submitted a Non-Disclosure Agreement (NDA) to Bio Farma Operations Director M. Rahman Roestan. In this agreement, Sucofindo was appointed by the Ministry of Industry of the Republic of Indonesia as a consultant who will provide assistance, consultation and evaluation in the context of implementing the Industry 4.0

Factory Cell Model Formulation at Bio Farma. This collaboration is a form of synergy between SOEs together to prepare themselves to enter industry 4.0. Sucofindo will help Bio Farma to implement 4.0 and Bio Farma can be a role model for other industries. It is hoped that Sucofindo and Bio Farma can progress and grow together to actualise "Making Indonesia 4.0" and will support the needs of both Bio Farma and the Ministry of Industry.

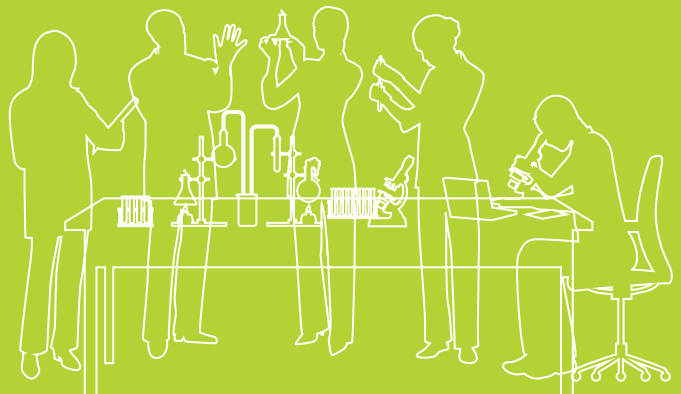
Indonesia has become a Centre of Excellence for the OIC's Biotechnology and Vaccine Self-Reliance

After the Cold Chain System workshop for members of the Organisation of Islamic Cooperation (OIC) on 1 - 2 October 2019, the Indonesian Ministry of Health and Bio Farma were invited to the 13th Meeting of the OIC Steering Committee on Health organized by OIC in Abu Dhabi UAE, on October 7, 2019. The meeting, which was held in preparation for the 7th high-level meeting of the Minister of Health of the OIC (Islamic Conference of Health Ministers) Member States in December 2019 in Abu Dhabi, discussed several agendas, including the submission of reports from Indonesia regarding the activities of the Centre of Excellence (CoE) in the field of Biotechnology and Vaccines which includes the OIC workshop on Cold Chain Management System, and plans to develop a centre of excellence for vaccines and biotechnology products for the next 10 years.

In the report on Indonesia's activities as a Centre of Excellence (CoE) delivered by the Corporate Secretary of Bio Farma, Bambang Heriyanto, there have been several activities related to CoE activities, including the official launch of CoE by the Minister of Health through a Seminar on the Centre of Excellence on Vaccine in May. In 2018, in Jakarta, Bio Farma was appointed as a laboratory and research facility for OIC. This lab facility was originally intended to be expanded at the Centre for Science and Technology Development (PUSPITEK) Serpong in the future.

Other activities at this CoE are the implementation of the Workshop on Cold Chain Management System on 1-2 October 2019, in Bandung, as well as the creation of the Secretariat for the Centre for Excellence for Vaccines and Biotechnology Products located at the 8th Floor of the Adhyatma Building of the Ministry of Health of the Republic of Indonesia and the Centre of Excellence itself in the form of a laboratory located at Bio Farma.

After the appointment of Indonesia as a Centre of Excellence for Biotechnology and Vaccines, the Government of Indonesia, through the Ministry of Health, has made several agendas, especially for increasing the capacity building of OIC members. In the short term, the Ministry of Health has invited 16 delegates of OIC members in early October 2019, to learn about vaccine handling, through a cold chain system workshop, which is a method for handling vaccines, from factories to use by patients. This training will continue to develop in line with the increasing competence of each OIC member, so that the ultimate goal of establishing this CoE can be manifested, and the emergence of independence for the manufacture of vaccines to protect the public from the threat of global diseases and developing the potential for research collaboration among OIC Member countries.



The Bill & Melinda Gates Foundation and PATH Entrust Research and Development of New Products to Bio Farma

Bio Farma, the World Health Organization (WHO), the Bill & Melinda Gates Foundation (BMGF), and PATH discussed collaborative research and development of new Bio Farma products in the future, during April 24-26 in Bandung.

Bio Farma has again won the trust of world research institutions, to be involved in research and production of the latest vaccines, to prevent several diseases, such as polio, which will hopefully be eradicated in 2020. Research on the latest generation of polio vaccine (nOPV) includes the development of vaccine technology, Clinical Trials, stage 1 - 3, and the production process.

The Bill & Melinda Gates Foundation has long been concerned with global health. One of the most effective and cost-efficient measures is disease prevention, and the most effective form of prevention is through vaccines. The Bill & Melinda Gates Foundation is looking for partners who have the capability to join them. Bio Farma is considered to have the capability to join them and the process has been ongoing, the assistance provided is said to have been running for about five years.

The Bill and Melinda Gates Foundation plays a major role in providing solutions related to child health in Indonesia. Previously, Minister of Finance Sri Mulyani attended the 2018 IMF-World Bank Group Annual Meeting, at which Bill & Melinda Gates Foundation said that they would assist research at State-Owned Enterprises (BUMN) through Bio Farma for vaccine development. The goal is that the related vaccine types are not only produced by Western countries. Indonesia is expected to have the capacity so that it can become a world player in the field of vaccine production.

This form of collaboration will start from the research process, technology transfer, production process, and clinical trials from stages 1 - 3. It is expected that these new vaccine studies will add to Bio Farma's portfolio, and not only that, all the results of this research are expected to become products that can be accepted by the market in a timely manner (time to market). With the addition of the newest product portfolio, it is hoped that Bio Farma's market share will also increase. For 2019, Bio Farma will increase its market share, especially for the Southeast Asian market, Africa, and the stockpile for Europe.



Bio Farma will Explore Immunotherapy Products for Cancer

Bio Farma is again expanding its collaboration network with two South Korean companies, namely ForeverNK Inc. and Aribio Co. Ltd. The beginning of this collaboration was marked by the signing of a Memorandum of Understanding (MoU) between Bio Farma and two companies based in Seongnam, regarding the exploration and development of potential business opportunities for products that are therapeutic for cancer treatment. Products made will use the "NK Cell Therapy" technology provided by ForeverNK Inc. while the "NK Cell Conditioned Media", will be obtained from Aribio Co. Ltd. This MoU was signed by the President Director of Bio Farma, Honesti Basyir, ForeverNK Chief Executive Officer, Jung Hoon Oh, and Vice Chairman, Soo-Hyun Sung, on December 16, 2019 in Jakarta.

NK (Natural Killer) Cells are innate lymphoid cells that provide early protection against cancer development by killing abnormal cells in the body that undergo cellular transformation without the need for prior stimulation. This NK Cell therapy technology, will be provided by ForeverNK.

Meanwhile, NK Cell Conditioned Media is a medium or "place" for NK Cells to grow which will be made in a tissue culture made by Aribio.

Bio Farma, which is currently a State-Owned Enterprises Pharmaceutical Holding Company as of October 2019, will commence to expand into the pharmaceutical product business in immunotherapy, one of which is the product of the exploration of this MoU. Immunotherapy is a type of treatment that encourages the body's own immune system to be more effective against diseases, including cancer. Bio Farma will play a role in examining and evaluating technology and products to apply it in Indonesia in collaboration with hospitals, applying for a license, to be marketed in Indonesia through clinical services. It is expected that this collaboration, after the signing of the MoU, will create a product that can be useful in addition to cosmetics and NK Cell therapy for a better life.



Bio Farma Wins "Very Good" Predicate in the 2018 GCG Implementation Assessment

Bio Farma won the title "Very Good" for the implementation of Good Corporate Governance (GCG) in 2018 with a score of 90,938 on 11 February - 9 March 2019. GCG assessment was conducted for 35 working days by the Java Province Financial and Development Supervisory Agency (BPKP). With the assessment coverage consisting of: Commitment to the Implementation of Sustainable Governance, Shareholders and GMS, Board of Commissioners, Directors, Information Disclosure and Transparency, and other aspects which are summarized in 43 indicators and 153 parameters.

Bio Farma has participated in GCG assessments seven times: in 2006, 2007-2008, 2009 - 2010, 2011-2012, 2014, 2017 and 2018. There have also been three internal assessments, namely 2013, 2015, and 2017. During these last three years 2015 - 2017, Bio Farma's GCG assessment was in the very good category with results of: 87, 90, 49, and 90.53.

The results that have so far been achieved by Bio Farma can be a barometer to consistently implement what is good and improve itself on items that still need attention, because the implementation of GCG is not only able to create added value for the company, but is also a form of corporate evaluation to make the company compete globally and survive in all the existing dynamics.

It is hoped that the scores achieved in 2018 will not satisfy us quickly, but only to remind us to always apply GCG principles consistently, so that the recommendations given by the BPKP TEAM can be an improvement effort for Bio Farma and the results of this GCG assessment can improve existing processes, or create processes that can provide added value to the Company and optimise the roles and functions of the Board of Commissioners and their apparatuses, such as the Board of Commissioners Committee and the Secretary of the Board of Commissioners when carrying through their duties



Financial Highlights

"In 2019, Bio Farma recorded good financial performance and improved from the previous period through effective and efficient local and export market penetration strategies."

BUSINESS RESULTS FOR 5 YEARS OF FISCAL YEAR

COMPREHENSIVE SALES/INCOME, PROFIT (LOSS) & TOTAL PROFIT (LOSS)

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4

Net Sales

Company Products	2,329,624	1,927,724	1,872,113	2,038,035	2,059,844	1.07	21,809
Partnership Products	-	358,956	1,111,028	1,133,975	456,537	(59.74)	(677,438)
Trading Partnership	11,436	23,764	20,120	53,111	14,593	(72.52)	(38,518)
Services	4,858	5,315	8,310	10,104	11,618	14.98	1,514
Total Net Sales	2,345,918	2,315,759	3,011,571	3,235,225	2,542,592	(21.41)	(692,633)

Cost of Goods Sold and Services

Company Products	(852,361)	(763,398)	(923,185)	(1,010,966)	(945,314)	(6.49)	65,652
Partnership Products	(11,165)	(215,497)	(710,318)	(758,734)	(345,865)	(54.42)	412,869
Trading Partnership	-	(21,437)	(16,766)	(39,981)	(8,497)	(78.75)	31,484
Service Expenses	(3,962)	(4,962)	(6,861)	(14,070)	(11,559)	(17.85)	2,511
Total Cost of Goods Sold & Services	(867,488)	(1,005,294)	(1,657,130)	(1,823,750)	(1,311,235)	(28.10)	512,515
GROSS PROFIT (LOSS)	1,478,430	1,310,465	1,354,440	1,411,475	1,231,357	(12.76)	(180,118)
Other Income	129,064	164,728	115,158	454,802	428,503	(5.78)	(26,299)

Business Results for 5 Years of Fiscal Year (continuation)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Selling Expenses	(126,818)	(133,996)	(137,478)	(137,763)	(122,498)	(11,08)	15,265
General and Administrative Expenses	(421,759)	(402,002)	(409,734)	(410,885)	(380,589)	(7,37)	30,296
Research, Development and Surveillance Expenses	(93,443)	(114,481)	(124,570)	(126,062)	(158,411)	25,66	(32,349)
Other Expenses	(66,201)	(139,745)	(84,182)	(464,199)	(507,749)	9,38	(43,550)
Total	(579,157)	(625,496)	(640,806)	(684,108)	(740,743)	8,28	(56,635)
PROFIT (LOSS) BEFORE INCOME TAX	899,274	684,968	713,634	727,368	490,614	(32,55)	(236,754)
Income Tax Benefits (Expenses)							
Current Tax	(232,893)	(185,425)	(194,907)	(178,928)	(124,185)	(30,59)	54,743
Deferred Tax	4,213	1,498	6,629	(5,214)	(10,489)	101,17	(5,275)
Total Income Tax Expense	(228,681)	(183,927)	(188,278)	(184,142)	(134,674)	(26,86)	49,468
NET PROFIT (LOSS)	670,593	501,042	525,356	543,226	355,940	(34,48)	(187,286)
Other Comprehensive Income							
Items that will not be reclassified to profit or loss							
Actuarial Gain (Loss) on Post-Employment Benefits	828,226	(8,313)	(27,239)	6,067	(7,579)	(224,76)	(13,636)
Fixed Asset Revaluation Surplus	1,980,782	-	-	-	-	-	-
Other Comprehensive Income for the Year After Tax	1,979,954	(8,313)	(27,239)	6,067	(7,579)	(224,76)	(13,636)
TOTAL COMPREHENSIVE INCOME	-	492,729	498,117	549,293	348,371	(36,58)	(200,922)

SALES OF COMPANY PRODUCTS

(Rp Million)

Description	2015				2016				2017			
	Government	Private		Total	Government	Private		Total	Government	Private		Total
		Local	Export			Local	Export			Local	Export	
Product Sales												
Bacterial Vaccine	137,172	6,748	161,368	305,289	91,703	8,244	143,650	243,597	46,831	15,239	124,796	186,865
Viral Vaccine	191,216	47,576	1,466,512	1,705,305	274,617	57,956	1,103,825	1,436,398	137,984	45,137	1,118,104	1,301,225
Combination Vaccine	242,231	3,265	7,909	253,404	185,244	15,451	-	200,695	306,291	17,510	9	323,810
Sera & Diagnostics	-	80,664	25	80,689	-	63,412	-	63,412	-	76,074	-	76,074
Total	570,619	138,253	1,635,814	2,344,687	551,564	145,063	1,247,475	1,944,102	491,106	153,960	1,242,909	1,887,974
Less: Sales Discounts	-	(15,063)	-	(15,063)	-	(16,378)	-	(16,378)	-	(15,861)	-	(15,861)
Net Product Sales	570,619	123,190	1,635,814	2,329,624	551,564	128,685	1,247,475	1,927,724	491,106	138,098	1,242,909	1,872,113

Description	2018				2019			
	Government	Private		Total	Government	Private		Total
		Local	Export			Local	Export	
Product Sale								
Bacterial Vaccine	152,415	26,040	52,295	230,750	37,344	6,276	147,431	191,051
Viral Vaccine	129,138	51,494	1,025,599	1,206,231	159,263	53,653	1,327,832	1,540,748
Combination Vaccine	523,630	16,689	144	540,463	263,893	12,363	534	276,789
Sera & Diagnostics	-	82,426	21	82,447	-	76,834	-	76,834
Total	805,182	176,649	1,078,059	2,059,891	460,499	149,126	1,475,797	2,085,422
Less: Sales Discounts	-	(21,856)	-	(21,856)	-	(25,578)	-	(25,578)
Net Product Sales	805,182	154,794	1,078,059	2,038,035	460,499	123,548	1,475,797	2,059,844

RECAPITULATION OF CORPORATE PRODUCT SALES PER SEGMENT/PRODUCT GROUP

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Product Sales							
Bacterial Vaccine	305,289	243,598	186,865	230,750	191,051	(17.20)	(39,699)
Viral Vaccine	1,705,305	1,436,397	1,301,225	1,206,231	1,540,748	27.73	334,517
Combination Vaccine	253,404	200,695	323,810	540,463	276,789	(48.79)	(263,674)
Sera & Diagnostics	80,689	63,412	76,074	82,447	76,834	(6.81)	(5,613)
Total	2,344,687	1,944,102	1,887,974	2,059,891	2,085,422	1.24	25,531
Less: Sales Discounts	(15,063)	(16,378)	(15,861)	(21,856)	(25,578)	17.03	3,722
Net Product Sales	2,329,624	1,927,724	1,872,113	2,038,035	2,059,844	1.07	21,809

SALES OF PARTNERSHIP PRODUCTS

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Government	-	129,812	868,174	1,053,971	371,436	(64.76)	(682,535)
Private	-	235,105	248,404	80,559	87,352	8.43	6,793
Total	-	364,917	1,116,579	1,134,529	458,788	(59.56)	(675,741)
Less: Sales Discounts	-	(5,961)	(5,551)	(554)	(2,251)	306.32	(1,697)
Partnership Product Net Sales	-	358,956	1,111,028	1,133,975	456,537	(59.74)	(677,438)

SALES TRADING PARTNERSHIP

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Private							
Polyvalent Snake Anti Venom	3,393	1,125	-	4,539	3,755	(17.27)	(784)
Imovac Rabies Vero	8,528	-	-	-	-	-	-
HJ HPV-Gardasil	-	22,804	15,355	30,683	131	(99.57)	(30,552)
HJ Diptheria Antitoxin	-	-	2,898	10,866	914	(91.59)	(9,952)
HJ Live Attenuated JE 1 ds	-	-	111	-	-	-	-
Td 10 (Trading Partnership)	-	-	1,983	5,767	216	(96.25)	(5,551)
HJ Urokinase 60.000 iu	-	-	-	1,505	6,842	354.62	5,337
HJ Vaksin Varicella	-	-	-	3,337	4,545	36.20	1,208
Sub Total	11,921	23,929	20,348	56,698	16,403	(71.07)	(40,295)
Less: Sales Discounts	(486)	(165)	(228)	(3,588)	(1,810)	(49.55)	1,778
Trading Partnership Net Sales Amount	11,435	23,764	20,120	53,111	14,593	(72.52)	(38,518)

SALES OF SERVICES

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Immunisation	3,529	3,975	7,047	7,834	7,171	(8.46)	(663)
Laboratory	1,329	1,660	1,696	2,816	4,203	49.25	1,387
Polyclinic	-	-	-	-	1,010	-	1,010
Pharmacy Services	-	-	-	-	188	-	188
Total	4,859	5,635	8,743	10,650	12,572	18.05	1,922
Less: Sales Discounts	-	(320)	(433)	(546)	(954)	74.73	(408)
Net Sales of Services	4,857	5,315	8,310	10,104	11,618	14.98	1,514
Total Product Sales, Product Partnerships, Trading Partnerships and Services	2,345,917	2,315,759	3,011,571	3,235,225	2,542,592	(21.41)	(692,633)

RECAPITULATION OF BIO FARMA SALES IN 2019

(Rp Million)

Group	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Product Sales							
Bacterial Vaccine	305,289	243,598	186,865	230,750	191,051	(17.20)	(39,699)
Viral Vaccine	1,705,305	1,436,397	1,301,225	1,206,231	1,540,748	27.73	334,517
Combination Vaccine	253,404	200,695	323,810	540,463	276,789	(48.79)	(263,674)
Sera & Diagnostics	80,689	63,412	76,074	82,447	76,834	(6.81)	(5,613)
Total	2,344,687	1,944,102	1,887,974	2,059,891	2,085,422	1.24	25,531
Less: Sales Discounts	(15,063)	(16,378)	(15,861)	(21,856)	(25,578)	17.03	3,722
Net Product Sales	2,329,624	1,927,724	1,872,113	2,038,035	2,059,844	1.07	21,809
Sales of Partnership Products							
Government	-	129,812	868,174	1,053,971	371,436	(64.76)	(682,535)
Private	-	235,105	248,404	80,559	87,352	8.43	6,793
Total	-	364,917	1,116,579	1,134,529	458,788	(59.56)	(675,741)
Less: Sales Discounts	-	(5,961)	(5,551)	(554)	(2,251)	306.21	(1,697)
Partnership Product Net Sales	-	358,956	1,111,028	1,133,975	456,537	(59.74)	(677,438)

Group	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Sales Trading Partnership							
Private							
Polyvalent Snake Anti Venom	3,393	1,125	-	4,539	3,755	(17.27)	(784)
Imovac Rabies Vero	8,528	-	-	-	-	-	-
HJ HPV-Gardasil	-	22,804	15,355	30,683	131	(99.57)	(30,552)
HJ Difteria Antitoxin	-	-	2,898	10,866	914	(91.59)	(9,952)
HJ Live Attenuated JE 1 ds	-	-	111	-	-	-	-
Td 10 (Trading Partnership)	-	-	1,983	5,767	216	(96.25)	(5,551)
HJ Urokinase 60.000 iu	-	-	-	1,505	6,842	354.55	5,337
HJ Vaksin Varicella	-	-	-	3,337	4,545	36.20	1,208
Sub Total	11,921	23,929	20,348	56,698	16,403	(71.07)	(40,295)
Less: Sales Discounts	(486)	(165)	(228)	(3,588)	(1,810)	(49.55)	1,778
Trading Partnership Net Sales Amount	11,435	23,764	20,120	53,111	14,593	(72.52)	(38,518)
Services Sales							
Immunisation	3,529	3,975	7,047	7,834	7,171	(8.46)	(663)
Laboratory	1,329	1,660	1,696	2,816	4,203	49.25	1,387
Polyclinic	-	-	-	-	1,010	-	1,010
Pharmacy Services	-	-	-	-	188	-	188
Total	4,859	5,635	8,743	10,650	12,572	18.05	1,922
Less: Sales Discounts	-	(320)	(433)	(546)	(954)	74.64	(408)
Net Sales of Services	4,857	5,315	8,310	10,104	11,618	14.98	1,514
Total Product Sales, Product Partnerships, Trading Partnerships and Services	2,345,917	2,315,759	3,011,571	3,235,225	2,542,592	(21.41)	(692,633)

NET PRODUCT SALES PER SEGMENT (PER SECTOR)

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Government Sector	570,619	618,376	1,359,280	1,859,153	831,936	(55.25)	(1,027,217)
Private Sector	139,485	386,015	409,382	298,013	234,859	(21.19)	(63,154)
Export Sector	1,635,814	1,248,368	1,242,909	1,078,059	1,475,797	36.89	397,738
Total Net Sales	2,345,918	2,252,759	3,011,571	3,235,225	2,542,592	(21.41)	(692,633)

PROFIT (LOSS): DISTRIBUTED TO OWNERS OF THE COMPANY AND DISTRIBUTED TO INTERESTS

NON-CONTROL

As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% fully owned by the Republic of Indonesia, represented by the Minister for State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Stock Exchange. Indonesia and Bio Farma do not have subsidiary entities so they do not provide any information here regarding Profit (Loss): Distributed to owners of the parent entity and Distributed to non-controlling interests.

COMPREHENSIVE INCOME FOR THE PERIOD: DISTRIBUTED TO OWNERS OF THE COMPANY AND DISTRIBUTED TO NON-CONTROLLING INTERESTS

As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, represented by the Minister for State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Indonesia Stock Exchange. and Bio Farma does not have a subsidiary, so it does not provide information regarding: Comprehensive income for the period: Distributed to owners of the parent entity and Distributed to non-controlling interests.

BIO FARMA DOES NOT HAVE SUBSIDIARIES, THEREFORE BIO FARMA PROVIDES TOTAL CURRENT PROFIT (LOSS) AND COMPREHENSIVE INCOME FOR THE PERIOD

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4

Other Comprehensive Income

Items that will not be reclassified to profit or loss

Actuarial Gain (Loss) on Post-Employment Benefits	828,226	(8,313)	(27,239)	6,067	(7,569)	(224.76)	(13,636)
Fixed Asset Revaluation Surplus	1,980,782	-	-	-	-	-	-
Total Other Comprehensive Income for the Year After Tax	1,979,954	(8,313)	(27,239)	6,067	(7,569)	(224.76)	(13,636)
TOTAL COMPREHENSIVE INCOME	-	492,729	498,117	549,293	348,371	(36.58)	(200,922)

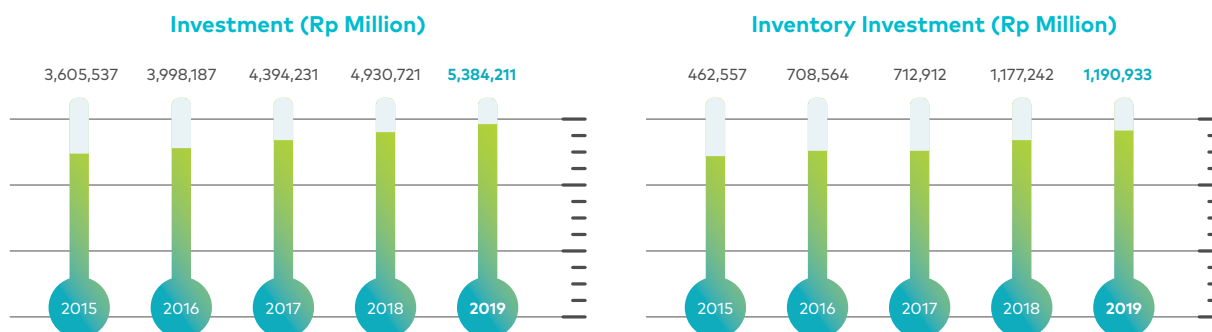
PROFIT (LOSS) PER SHARE

As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% (fully) by the Republic of Indonesia represented by the Minister of State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Indonesia Stock Exchange so that there is no information regarding Profit (Loss) Per Share.

Bio Fama's Financial Position on the Five Fiscal Years

Total of Bio Fama's Investment (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Acquisition Cost							
Land	2,059,183	2,059,183	2,099,451	2,099,451	2,099,451	-	-
Buildings	557,670	631,496	724,634	733,709	780,629	6.39	46,920
Machinery & Plant Equipment	1,186,837	1,277,105	1,374,341	1,457,901	1,687,890	15.78	229,989
Office Equipment	110,848	130,023	143,468	153,731	174,116	13.26	20,385
Utility Equipment	70,319	98,139	106,328	163,073	204,622	25.48	41,549
Motor Vehicles	4,671	4,701	4,701	2,250	2,250	-	-
Assets Under Construction							
Buildings	241,052	281,524	239,723	554,306	796,143	43.63	241,837
Machine Tools, Office Factory & Utility	219,971	500,840	790,146	1,033,233	1,063,313	2.91	30,080
In-Travel Fixed Assets							
Machine Tools, Office Factory & Utility	-	-	44,741	4,138	-	-	(4,138)
Total Costs	4,450,551	4,983,012	5,527,533	6,201,793	6,808,414	9.78	606,621
Accumulated Depreciation & Impairment							
Building	148,287	178,620	212,551	247,988	283,802	14.44	35,814
Machinery & Plant Equipment	587,907	668,202	756,398	779,753	927,009	18.88	147,256
Office Equipment	70,916	92,180	110,751	185,145	140,658	(24.03)	(44,487)
Utility Equipment	34,202	41,618	49,188	56,106	70,578	25.79	14,472
Motor Vehicle	3,702	4,205	4,414	2,081	2,155	3.56	74
Total	845,014	984,825	1,133,302	1,271,072	1,424,202	12.05	153,130
Book Value	3,605,537	3,998,187	4,394,231	4,930,721	5,384,211	9.20	453,490



INVENTORY INVESTMENT

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Raw/Auxiliary Materials	205,936	272,003	212,601	612,583	401,651	(34.43)	(210,932)
Equipment	222,475	756	768	-	-	-	-
Product In Process	33,162	357,924	461,660	485,667	502,635	3.49	16,968
Finished Product	4,866	81,857	39,940	76,355	302,802	296.57	226,447
Trading Partnership	2,010	1,077	2,254	8,852	4,524	(48.89)	(4,328)
Total	468,449	713,618	717,222	1,183,457	1,211,612	2.38	28,155
Less: Allowance for Impairment of Inventory Value	5,892	5,053	4,310	(6,216)	(20,679)	232.67	(14,463)
Total Inventory-Net	462,557	708,564	712,912	1,177,242	1,190,933	1.16	13,691

Movements in the Allowance for Impairment of Inventory Value

Beginning Balance	4,057	5,892	5,053	4,310	6,216	44.22	1,906
Current Year Charges	4,442	3,368	4,397	12,050	19,658	63.14	7,608
Current Year Recovery	(2,607)	(4,207)	(5,139)	(10,145)	(5,195)	(48.79)	4,950
Ending Balance	5,892	5,053	4,310	6,216	20,679	232.67	14,463

INVESTMENT REALISATION BASED ON USE

(Rp Million)

Investment Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	4/3	4-3

Routine

Buildings	14,122	2,517	56,907	99,148	74.23	42,241
Machinery & Plant Equipment	49,267	50,113	35,078	51,852	47.82	16,774
Office Equipment	10,741	8,224	10,248	6,508	(36.49)	(3,740)
Utility Equipment	1,817	4,866	6,618	1,781	(73.09)	(4,837)
Intangible Assets	4,826	-	-	-	-	-
Investments in Joint Ventures (Vial)	-	-	-	-	-	-
Motor Vehicles	30	-	-	-	-	-
Total	80,803	65,720	108,851	159,289	46.34	50,438

(Rp Million)

Investment Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	4/3	4-3

Development

Buildings	100,176	83,321	267,136	189,888	(28.92)	(77,248)
Machinery & Plant Equipment	336,211	373,382	273,011	223,244	(18.23)	(49,767)
Office Equipment	7,583	4,519	8,671	5,610	(35.30)	(3,061)
Utility Equipment	12,535	11,814	25,879	32,258	24.65	6,379
Intangible Assets	5,363	3,182	-	1,767	-	1,767
Investments in Joint Ventures (Vial)	-	-	-	-	-	-
Motor Vehicles	-	-	-	-	-	-
Total	461,867	476,218	574,697	452,767	(21.22)	(121,930)

INVESTMENT REALISATION BY GROUP

(Rp Million)

Investment Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	4/3	4-3
Buildings	114,298	51,336	324,043	289,036	(10.80)	(35,007)
Machinery & Plant Equipment	385,478	423,495	308,089	275,096	(10.71)	(32,993)
Office Equipment	18,324	12,742	18,919	12,118	(35.95)	(6,801)
Utility Equipment	14,351	16,680	32,497	34,039	4.75	1,542
Intangible Assets	10,189	3,183	-	1,767	-	1,767
Investments in Joint Ventures (Vial)	-	-	-	-	-	-
Motor Vehicles	30	-	-	-	-	-
Investment Advances	-	-	69,097	20,140	(70.85)	(48,957)
Total	542,671	507,436	752,645	632,196	(16.00)	(120,449)

TOTAL OVERALL INVESTMENT REALISATION IN 2019 BY USE

(Rp Million)

Investment Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	4/3	4-3
Buildings	114,298	85,838	324,043	289,036	(10.80)	(35,007)
Machinery & Plant Equipment	385,478	423,495	308,089	275,096	(10.71)	(32,993)
Office Equipment	18,324	12,743	18,919	12,118	(35.95)	(6,801)
Utility Equipment	14,351	16,680	32,497	34,039	4.75	1,542
Intangible Assets	10,189	3,182	-	1,767	-	1,767
Investments in Joint Ventures (Vial)	-	-	-	-	-	-
Motor Vehicles	30	-	-	-	-	-
Total	542,671	541,938	683,548	612,056	(10.46)	(71,492)

CASH FLOWS FROM INVESTMENT ACTIVITIES

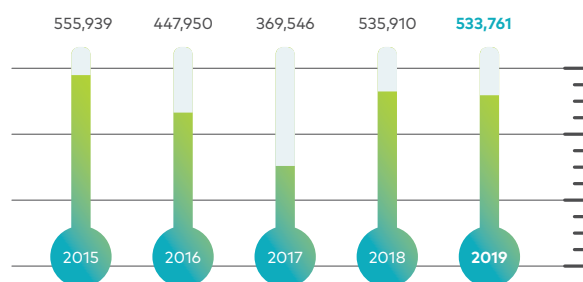
(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Cash Flows from Operating Activities							
Cash Receipts from Customers	2,106,478	2,334,948	3,111,408	3,335,796	2,298,639	(31.09)	(1,037,157)
Tax Receipts (Restitution)	28,876	124,792	167,613	298,007	224,538	(24.65)	(73,469)
Interest Receipt	37,422	7,960	3,558	4,505	5,709	26.73	1,204
Interest Payment	-	(9,343)	(8,071)	(24,025)	(61,404)	155.58	(37,379)
WHO Grants/ Donations Receipt	800	13,588	1,917	8,112	105,110	1,195.73	96,998
Other Receipts (Payments) - Net	(23,774)	1,238	614	5,954	(2,259)	(137.94)	(8,231)
Tantiem payment	(13,737)	(14,750)	(11,021)	(15,446)	(11,215)	(27.39)	4,231
Payment of Taxes	(326,409)	(391,829)	(537,335)	(459,064)	(291,892)	(36.42)	167,172
Receipt of Insurance Claims	-	-	575	39	138	253.85	99
Cash Payments to Suppliers and Employees	(1,584,191)	(1,519,679)	(2,362,898)	(2,885,703)	(2,083,749)	(27.79)	801,954
Net Cash Provided From (Used in) Operating Activities	225,465	546,926	366,360	268,174	183,614	(31.53)	(84,560)
Cash Flows from Investing Activities							
Purchase of Fixed Assets	(535,175)	(393,170)	(293,309)	(538,677)	(393,729)	(26.91)	144,948
Payment for Intangible Assets	(3,962)	(11,173)	(3,245)	(46)	(118)	156.52	(72)
Deposit Guarantee Placement	25,000	-	-	-	-	-	-
Sale of Fixed Assets	-	-	-	30	-	-	(30)
Investments in Vial Companies	-	-	-	-	-	-	-
Net Cash Provided From (Used in) Investing Activities	(514,137)	(404,343)	(9,296,554)	(538,693)	(393,847)	(26.89)	144,846

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4

Cash Flows from Financing Activities

Receipt of Short-Term Loans	-	235,000	782,496	1,616,325	1,951,500	20.74	335,175
Short-Term Loan Payment	-	(235,000)	(782,496)	(1,411,325)	(1,656,500)	17.37	(245,175)
Dividend Payment	(145,015)	(234,707)	(150,313)	(236,410)	(162,968)	(31.07)	73,442
Partnership and Community Development Program Payments	(4,712)	-	-	-	-	-	-
Long-Term Loan Receipts	-	-	-	450,000	100,000	(77.78)	(350,000)
Net Cash Provided From (Used In) Funding Activities	(149,727)	(234,707)	(150,313)	418,590	232,032	(44.57)	(186,558)
Increase (decrease) in Net Cash	(438,398)	(92,123)	(80,507)	148,071	21,800	(85.28)	(126,271)
Effect of Difference in Cash Exchange Rates and Cash Equivalents	22,621	(15,865)	2,103	18,293	(23,949)	(230.92)	(42,242)
Cash Balance and Cash Equivalents at the Beginning of the Year	971,717	555,939	447,950	369,546	535,910	45.02	166,364
Cash Balance and Cash Equivalents at the End of the Year	555,939	447,950	369,546	535,910	533,761	(0.40)	(2,149)

Cash Flow (Rp Million)

TOTAL ASSETS

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Current Assets							
Cash and Cash Equivalents	555,939	447,950	369,546	535,910	533,761	(0.40)	(2,149)
Securities Available for Sale	-	-	-	-	-	-	-
Accounts Receivable	507,746	288,626	313,138	254,065	569,246	124.06	315,181
Other Receivables	822	446	122	800	15,325	1.815.63	14,525
Inventory	462,557	708,564	712,912	1,177,242	1,190,933	1.16	13,691
Advances	102,353	54,052	27,734	121,851	49,302	(59.54)	(72,549)
Prepaid Taxes	242,720	298,817	359,948	279,928	142,791	(48.99)	(137,137)
Prepaid Expenses	10,163	12,137	12,474	12,410	15,925	28.32	3,515
Income that is to be Received	1,592	800	14	84	1	(98.81)	(83)
Other Current Assets	111,888	38,162	168,198	9,640	6,635	(31.17)	(3,005)
Total Current Assets	1,995,781	1,849,555	1,964,087	2,391,930	2,523,919	5.52	131,989
Non-Current Assets							
Deferred Tax Assets	22,087	23,585	30,214	25,000	14,511	(41.96)	(10,489)
Fixed Assets	3,605,537	3,998,187	4,394,231	4,930,721	5,384,211	9.20	453,490
Intangible Assets	36,005	38,634	32,522	25,347	8,198	(67.66)	(17,149)
Other Non-Current Assets	21,253	12,493	28,395	23,794	5,847	(75.43)	(17,947)
Investments in Vial Companies	-	-	-	-	-	-	-
Biological Assets	-	-	-	4,368	2,620	(40.02)	(1,748)
Leasing Assets	-	-	-	-	1,093	-	1,093
Total Non-Current Assets	3,684,882	4,072,899	4,485,362	5,009,229	5,416,479	8.13	407,250
Total Assets	5,680,663	5,922,454	6,449,449	7,401,159	7,940,399	7.29	539,240

LIABILITIES

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Short-Term Liabilities							
Accounts Payable	208,598	259,234	371,253	336,112	201,987	(39.90)	(134,125)
Tax Debt	46,518	47,624	57,801	68,519	60,639	(11.50)	(7,880)
Accrued Cost	170,308	113,405	107,859	110,911	122,773	10.70	11,862
Prepaid Income	899	44	1,008	1,646	738	(55.16)	(908)
Other Current Liabilities	30,341	32,861	41,635	23,117	33,331	44.18	10,214
Short-Term Loans	-	-	-	205,000	500,000	143.90	295,000
Deferred Grant Income	-	-	-	-	47,631	-	47,631
Total Short-Term Liabilities	456,663	453,169	579,556	745,305	967,101	29.76	221,796
Long-Term Liabilities							
Post-Employment Benefits Estimated Liabilities	152,022	167,133	219,937	243,015	275,056	13.18	32,041
Other Non-Current Liabilities	27,846	-	-	-	-	-	-
Long-Term Debt	-	-	-	450,000	550,000	22.22	100,000
Total of Long-Term Liabilities	179,868	167,133	219,937	693,015	825,056	19.05	132,041
Total Liabilities	636,532	620,302	799,493	1,438,320	1,792,157	24.60	353,837

EQUITY

(Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Capital Stock	1,650,000	2,000,000	2,000,000	2,000,000	2,000,000	-	-
Other Equity Components	1,909,600	1,901,287	1,874,048	1,880,116	1,872,547	(0.40)	(7,569)
Retained Profit (Loss)							
- Reserved	816,422	899,824	1,250,552	1,539,498	1,919,756	24.70	380,258
- Not Reserved Yet	(2,484)	-	-	-	-	-	-
Profit for the Period	670,593	501,041	525,356	543,226	355,940	(34.48)	(187,286)
Total Equity	5,044,132	5,302,152	5,649,956	5,962,839	6,148,243	3.11	185,404
Total Liabilities and Equity	5,680,663	5,922,454	6,449,449	7,401,159	7,940,400	7.29	539,241

FINANCIAL RATIO

Bio Farma's financial aspect ratios for the last 5 years are as follows:

Financial Ratio	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Cash Ratio (%)	121.74	98.85	63.76	71.90	55.19	(23.24)	(16.71)
Current Ratio (%)	437.04	408.14	338.90	320.93	260.98	(18.68)	(59.95)
Acid Test Ratio (%)	335.75	251.78	117.79	105.99	114.05	7.60	8.06
Gross Profit Margin (%)	63.02	56.59	44.97	43.63	48.43	11	4.80
Operating Margin (%)	35.65	28.50	22.67	22.77	22.41	(1.58)	(0.36)
Net Profit Margin (%)	28.59	21.64	17.44	16.79	14.00	(16.62)	(2.79)
Return on Equity (ROE) (%)	17.14	12.47	12.97	14.19	9.05	(36.22)	(5.14)
Return on Investment (ROI)(%)	20.27	16.53	16.93	15.71	12.19	(22.41)	(3.52)
Return on Assets (ROA)(%)	11.80	8.46	8.15	8.24	5.78	(29.85)	(2.46)
Total Liabilities to Equity Ratio (Debt to Equity) (%)	12.62	11.70	14.15	24.12	29.15	20.85	5.03
Inventory Turnover (ITO) (Times)	2.20	1.72	2.33	1.93	1.11	(42.49)	(0.82)
Accounts Receivable Turnover (RTO) (Times)	6.17	5.87	10.08	11.50	6.25	(45.65)	(5.25)
Sales Growth (%)	114.77	98.71	130.05	107.43	78.59	(26.85)	(28.84)

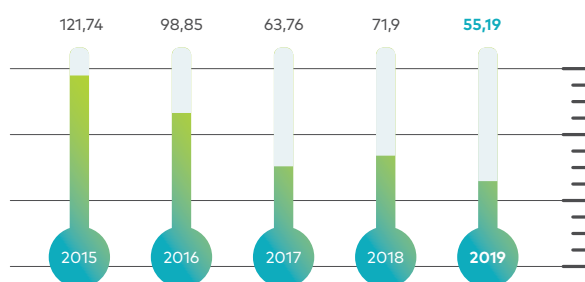
Financial Ratio (continuation)

Financial Ratio	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Operating Profit Growth (%)	115.05	78.91	103.44	107.93	77.35	(28.33)	(30.58)
Profit Before Tax Growth (%)	115.90	76.17	104.18	101.92	67.45	(33.82)	(34.47)
Net Cash Flow Provided from Operating Activities (Rp Million)	225.465	546.926	366.360	268.174	183.614	(31.53)	(84.560)
Exchange rate (Rp/US\$)	13.795	13.436	13.548	14.481	13.901	(4.01)	(580)
EBITDA	-	-	-	911.010	740.569	(18.71)	(170.441)
Debt to EBITDA	-	-	-	0.72	1.42	97.22	0.70

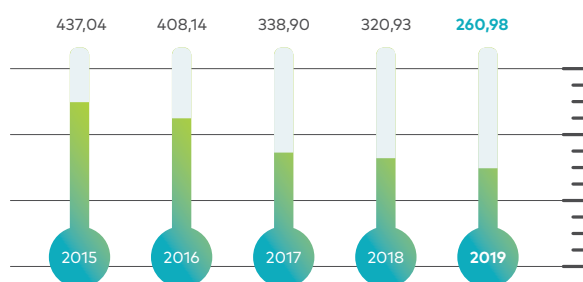
Cash Ratio (continuation)

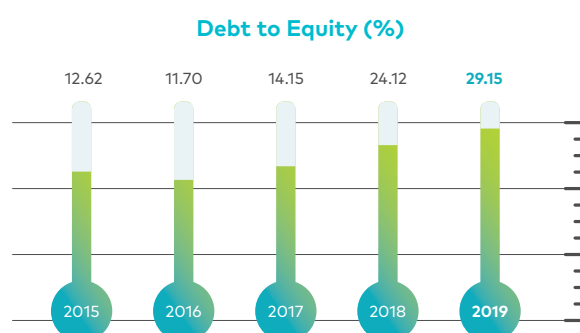
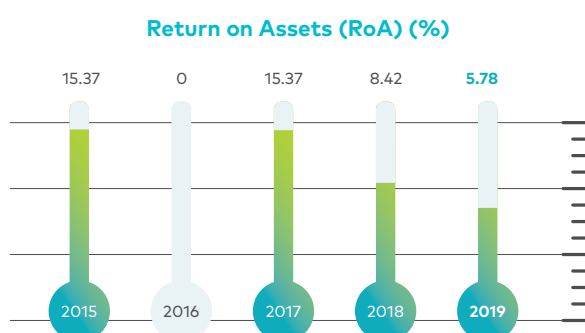
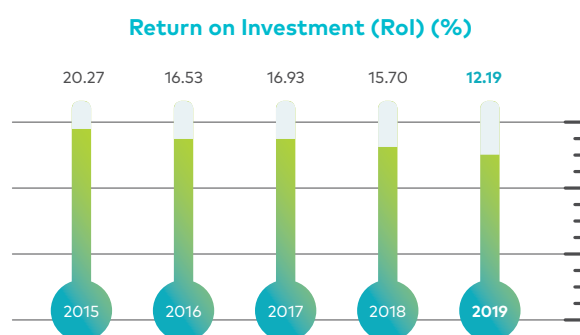
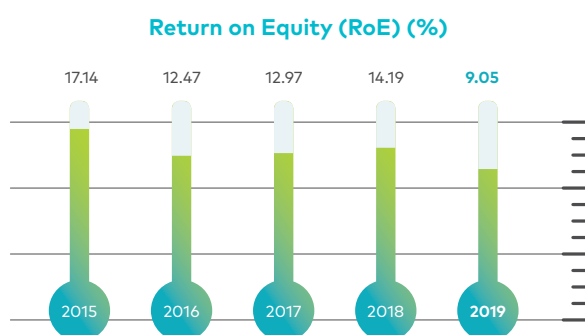
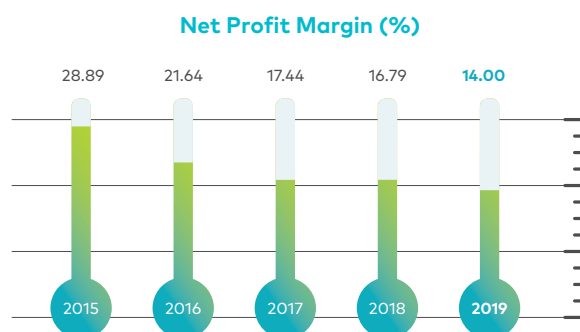
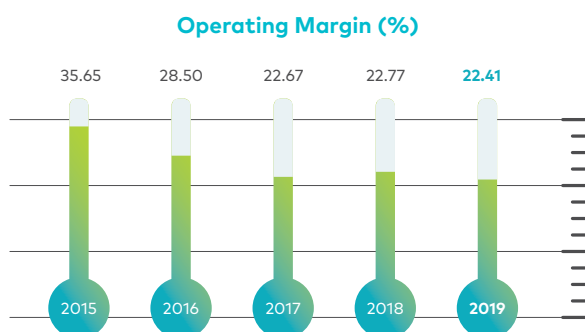
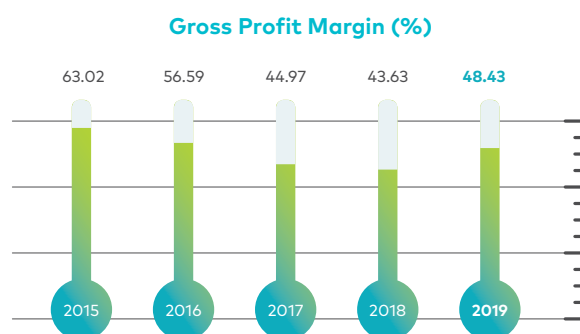
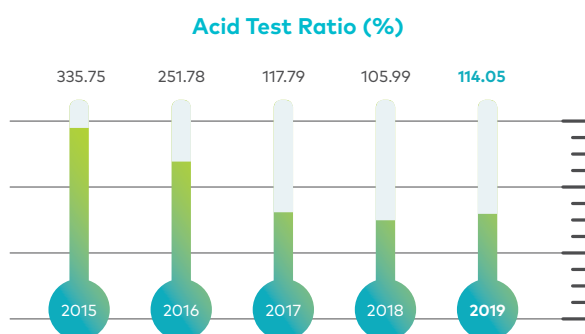
Indicators	Score	Value	Score	Value	Value	Score
	2018			2019		
Return on Equity (ROE)	20	14.81	18	20	9.05	14
Return on Investment (ROI)	15	15.78	13.5	15	9.32	7.5
Cash Ratio	5	58.14	5	5	55.19	5
Current Ratio	5	553.7	5	5	260.98	5
Collection Periods	5	26.14	5	5	81.72	4.5
Inventory Turnover	5	71.13	4	5	170.96	3
Total Asset Turnover	5	53.43	2.5	5	48.91	2.5
Ratio of Own Capital to Total Assets	10	70.45	7.5	19	68.7	8
Total	70	863.58	60.5	79	704.83	49.5

Cash Ratio (%)

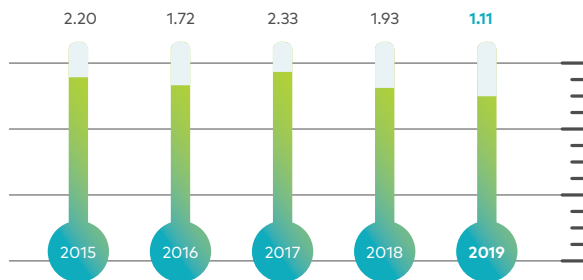


Current Ratio (%)

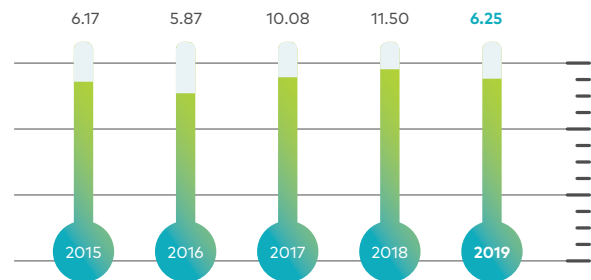




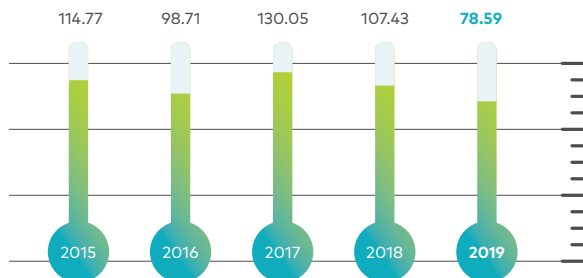
Inventory Turnover (ITO) (Times)



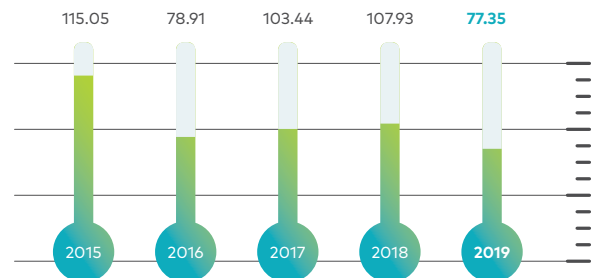
Accounts Receivable Turnover (RTO) (Times)



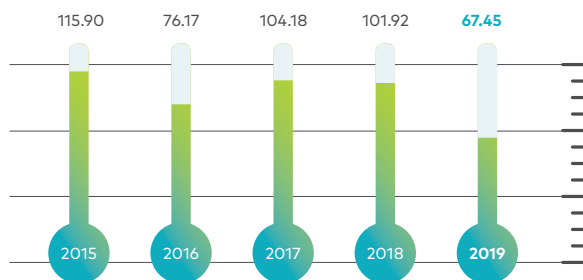
Sales Growth (%)



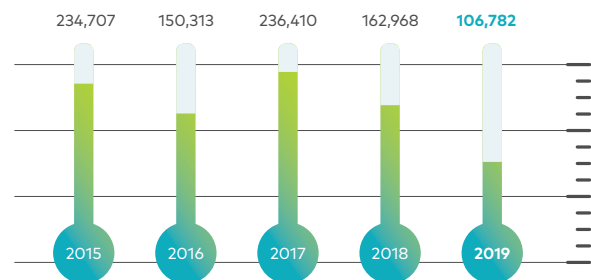
Operating Profit Growth (%)



Profit Before Tax Growth (%)



Dividend (Rp Million)



SHARE PRICE INFORMATION AND CHRONOLOGICAL SHARE LISTING

SHARE PRICE INFORMATION

The authorised capital of the shares as of December 31, 2019, and the shares of December 31, 2018, was Rp8 trillion consisting of 8 million shares with a nominal value of Rp1 million per share and issued and paid up capital of Rp2 trillion consisting of 2 million shares with a nominal value in the amount of Rp1 million per share.

Share Highlights

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Issued and Paid-up Capital at the Beginning of the Year	5,000,000	8,000,000	8,000,000	8,000,000	8,000,000	-	-
Capitalisation of Reserves to Paid-in Capital	(3,350,000)	(6,000,000)	(6,000,000)	(6,000,000)	(6,000,000)	-	-
Issued and Paid-up Capital	1,650,000	2,000,000	2,000,000	2,000,000	2,000,000	-	-

SHARE OWNERSHIP COMPOSITION

As of December 31, 2019, Bio Farma is still a Non-Listed, Non-Financial, State-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, represented by the Minister of State-Owned Enterprises (BUMN) of the Republic of Indonesia so that both the public, employees, Directors, and Bio Farma's Board of Commissioners does not have share ownership in Bio Farma. Bio Farma has not listed its shares on the Indonesia Stock Exchange, so no information is being provided here about the number of shares outstanding.

SHARE OVERVIEW

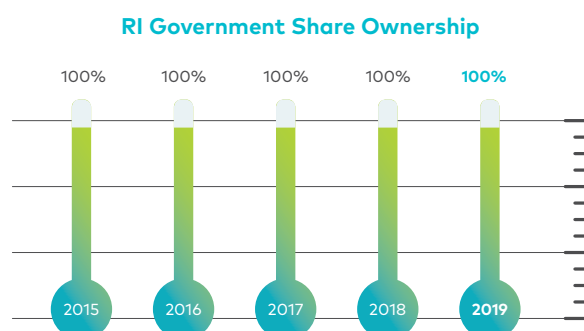
As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, represented by the Minister of State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Indonesia Stock Exchange. Therefore, no information is being provided here in the form of tables and graphs about:

- The number of shares outstanding in the form of tables and charts.

- Market capitalization is based on the price at the Stock Exchange where the shares are listed.
- The highest, lowest, and closing share prices are based on the prices on the Stock Exchange where the shares are listed.
- The trading volume of shares on the Stock Exchange where the shares are listed.
- The closing price is based on the price at the Stock Exchange where the shares are listed.
- The trading volume of shares on the Stock Exchange where the shares are listed. For each quarter within the last 2 (two) financial years.

SHARE LISTING CHRONOLOGY

As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, represented by the Minister for State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Indonesia Stock Exchange; thus, no information is provided here regarding the corporate action of selling shares.



CORPORATE ACTION

As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, represented by the Minister for State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Indonesia Stock Exchange; thus, no information is provided here regarding the corporate action of selling shares.

TERMINATION ACTION WHILE TRADING OF SHARES (SUSPENSION) AND/OR DELISTING OF SHARES

As of December 31, 2019, Bio Farma is still a non-listed, non-financial, state-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, represented by the Minister of State-Owned Enterprises (BUMN) of the Republic of Indonesia who has not listed shares on the Indonesia Stock Exchange; thus, no information is being provided here on the Temporary Suspension of Share Trading (Suspension) and/or the Delisting of Shares (Delisting).



Management REPORT



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In world's achievement level, Bio Farma is one of the 200 vaccine companies which have authorisation from the World Health Organization (WHO) to export its products. The addition of seven export destination countries including Russia, the US, Dominica, DR Congo, Bahrain, Oman, Kuwait, motivates Bio Farma to keep maintaining aspects of global trust in terms of quality, safety, and efficacy established by the WHO.

- Report of the Board of Commissioners
- Report of the Board of Director

FARID WADJDI HUSAIN
President Commissioner



Report of the Board of Commissioners

Bio Farma's competitive advantage in the field of biotechnology lies in the fact that Bio Farma actively participates in research and development on the latest technology and biotechnology products in the arena of vaccines, serums, and other biological products for national and global needs. Our knowledge-based and R&D driven approach is in line with the Company's overall philosophy which aims to improve the quality of life, by putting our profusion of experience, expertise, and wisdom to good use.

FARID WADJDI HUSAIN
President Commissioner

Dear valued shareholders,

Assalamualaikum Warahmatullahi Wabarakatuh

On behalf of the Board of Commissioners of PT Bio Farma (Persero), please allow me to hereby present to all Shareholders the 2019 Annual Report, which shows the Company's performance achievements to December 31, 2019.

Our most profound gratitude to the mighty Lord for His virtue; and for allowing the Company to follow an excellent path through 2019. In defiance of all hindrances, the Company has been able to overcome all challenges successfully. The good status that we have earned has resulted from a tremendous combined effort from the Board of Commissioners, the Board of Directors, and all Bio Farma's employees who have together contributed to the stability of the Company's business process.

A montage of defining events has shaped Bio Farma's journey in 2019, including Bio Farma's steady growth in the eyes of the national and global community. On the global stage, Bio Farma has become a medium to obtain proficiency from researchers in the health sector, specifically in the field of vaccines. This has been witnessed when Indonesia was appointed to host a Workshop on Cold Chain Systems and Distribution for 16-member countries of the Organisation of the Islamic Cooperation (OIC) following after the establishment of Indonesia as a Centre of Excellence for Vaccines and Biotechnology Products.

At the national level, President Joko Widodo has now signed Government Regulation Number 76 of 2019 concerning the Additional Capital Participation of the Republic of Indonesia into the Limited Liability Company (Persero) PT Bio Farma. As a result of this development, Bio Farma will now also manage PT Kimia Farma (Persero) Tbk and PT Indofarma (Persero) Tbk. Minister of State-Owned Enterprises appointed Honesti Basyir to be the President Director of PT Bio Farma (Persero), which has now become the State-owned Enterprise Pharmaceutical Holding company.

After the SOEs Pharmaceutical Holding was formed and in light of the respective advantages, it is expected that the various companies will now complement each other and work together. Bio Farma, as the holding company, will encourage Kimia Farma and Indofarma to produce products that comply with the World Health Organization (WHO) standards, which should be very possible to achieve

considering that 14 out of 17 Bio Farma's products already have the WHO certificates that are required as a condition for exporting their products.

The collaboration between Bio Farma and Brawijaya University Bio Science Laboratory has succeeded in producing and ready to be marketed, in a form of a Diabetes Diagnostic Kit (KIT DM) GAD 65 which was launched at the 9th National Life Science Research Forum (FRLN), in Jakarta in September 2019.

Entering industry 4.0, Bio Farma has intensified collaboration with both the Indonesian Ministry of Industry and Sucofindo, and our company has prevailed in the Innovative Industrial Research and Development Institution (IIRDI) Award in the Health/ Drug Sector. Indonesia is urged to continue to guard the independence of biotechnology and vaccines as the Centre of Excellence in OIC countries. After having been appointed as the holding company for the SOEs Pharmaceuticals, Bio Farma has prepared a series of strategies, including increasing production capacity, and Bio Farma is ready to expand the market to the African continent through collaboration with world research institutions such as PATH and the Bill & Melinda Gates Foundation. They all entrust the research and development of new products to Bio Farma for the development of new products such as immunotherapy for cancer.

In 2019, Bio Farma also won awards & appreciation in the field of taxation. Bio Farma won the title of "Very Good" for the implementation of Good Corporate Governance (GCG) in 2018 with a score of 90,938. This achievement has become the basis for Bio Farma to gain credit trust of Rp2.25 trillion from a syndicate of state-owned and private banks, which will be harnessed to increase production capacity and market expansion as well as to receive certification and other prestigious awards.

At a world level, Bio Farma is one of the 200 vaccine companies having a license from the World Health Organization (WHO) to export its products. The addition of seven export destination countries, including Russia, the United States, Dominica, DR Congo, Bahrain, Oman, Kuwait, is an impetus for Bio Farma to continue to maintain the aspects of global trust in terms of quality, safety, and efficacy that have been determined by WHO.

Dear respected shareholders,

Bio Farma has been in existence for 129 years and we always do our best to improve the quality of life of the nation and country. The existence of Bio Farma is a silent witness to the success of Indonesia and the world in helping eradicate infectious diseases such as smallpox, and to suppress and control the rate of transmission of diseases that can be prevented by vaccination, such as measles, rubella, and polio.

Regarding the eradication of polio, one of the oldest diseases in the world, Bio Farma is one of the major suppliers of polio vaccines in the world, now sending its products to 2/3 of the countries in the world. For this ability, and through Bio Farma, Indonesia won global trust again in 2018 through the UNICEF Supply Division Team headquartered in Copenhagen Denmark, to realise global stockpiling of Monovalent Oral Polio Vaccine (mOPV2) type 2 products to be produced in 2019.

The credence in providing the mOPV2 vaccine is a matter of pride for Indonesia and Bio Farma, for it is the third player in the world after CDC Atlanta and Sweden for the provision of finished products and mOPV2 vaccine concentrate for countries that are still struggling to eradicate polio, particularly countries in Africa.

The provision of this vaccine is performed as a measure to anticipate the return of the type 2 polio virus outbreak after the re-discovery of the Circulating Vaccine-Derived Poliovirus type 2 (cVDPV2) outbreak which occurred in the eastern Mediterranean and several regions in Africa. The first export of this product was carried out on July 16, 2019, with the destination country of Angola.

The confidence in providing the mOPV2 vaccine is a matter of pride for Indonesia and Bio Farma, for it is the third player in the world after CDC Atlanta and Sweden to provide finished products and mOPV2 vaccine concentrate for countries that are still struggling to eradicate polio, particularly countries in Africa.

Bio Farma has now developed into a Life Science company. Bio Farma has exported its products to more than 140 countries, especially the developing countries, and 50 of them are countries that are

members of the OIC. Among the OIC countries, there are only seven countries that have vaccine manufacturers: Indonesia, Iran, Senegal, Turkey, Egypt, Saudi Arabia, and Morocco. Among these seven, it is only Indonesia that has been acknowledged by WHO as having a complete product, mainly for the basic immunisation program.

At this moment, there are only about 30 vaccine manufacturers who have received qualifications from the World Health Organization (WHO), one of which is Bio Farma. In Southeast Asia, Bio Farma is the largest in terms of product type and capacity, and has become a Centre of Excellence and reference point for vaccine manufacturers in Islamic countries. Furthermore, it is the only vaccine manufacturer certified by WHO, with more than 13 vaccine products having received certification from the World Health Organization (WHO).

Bio Farma prioritizes domestic needs by meeting national vaccine needs, providing vaccines for Hajj and Umrah pilgrims, as well as other vaccine needs for the world through WHO and UNICEF. The government, in this case the Ministry of Health, buys Bio Farma vaccine products directly and provides them free of charge to the public in a routine immunisation program.

Bio Farma possesses a strategic role in vaccine fulfilment and manages the availability of vaccines in the global arena and collaborates with innumerable international institutions, including: Organisation of Islamic Cooperation (OIC), the IDB, the Bill & Melinda Gates Foundation, the Developing Countries Vaccine Manufacturers Network (DCVMN), the International Vaccine Institute (IVI), the World Health Organization (WHO), and UNICEF.

A number of countries appreciate these preparatory endeavours made by the Indonesian government and consider the establishment of the Centre of Excellence on Vaccine and Bio-technology Products to be extremely pivotal for the independence of OIC countries in providing vaccines and biotechnology products. Through this Centre of Excellence, it is expected that joint research on vaccines and biotechnology supplies can be carried out over the long term to jointly develop vaccines, and using independent technology to overcome future health problems that may arise in OIC countries, and in response to the challenges faced by OIC countries,

namely the high burden of disease, low production capacity of the pharmaceutical industry, and limited access to medicines.

Dear shareholders,

The Indonesian pharmaceutical industry was one of the priority sectors to be improved in 2019 because it is deemed to have made a significant contribution to Indonesia's economic growth. As it is expected that the industry can be a driving force for the Indonesian economy the Indonesian government has now started to implement new tax incentives including a tax allowance, tax holiday, and super deduction tax. The government's focus point is strengthening research development in Indonesia as research is needed in the pharmaceutical industry to reduce dependence on imports to 75%.

The Ministry of Industry of the Republic of Indonesia has determined that the pharmaceutical industry is one of the sectors that has had an excellent performance and makes a significant contribution to the national economy. In the first quarter of 2019, the pharmaceutical industry, including both chemical drug products and traditional medicines, was able to grow up to 8.12% or exceed economic growth at 5.07%. Also contributing to the gross domestic product (GDP) of the non-oil and gas processing industry, the pharmaceutical industry experienced growth of 3.24%, partly influenced by the National Health Insurance (JKN) program which has a large market value.

Currently, the pharmaceutical industry's export-import balance still shows a deficit, even though the export value of these commodities increased from US\$1.01 billion in 2017 to US\$1.13 billion in 2018. In the framework of industrial development, the Government has a national industrial development policy which is contained in Law Number 3 of 2014 concerning Industry and Government Regulation (PP) Number 14 of 2015 and concerns the 2015-2035 National Industrial Development Master Plan (RIPIN). In this policy, the pharmaceutical industry and the pharmaceutical ingredients industry are seen to be among the priority industries that can play a major role as the prime movers of the economy. Thus, as a future flagship industry, the pharmaceutical and pharmaceutical ingredients industry continues to be developed through various

incentives. One of these is by reducing taxes and import duties borne by the government and other forms of incentives.

The pharmaceutical industry has its own specialties. Pharmacy is an industry that is capital intensive, high-tech, and dependent on intensive research and development. The rules are heavily regulated, and the market is fragmented. Presently, there are 206 domestic pharmaceutical companies. This number is dominated by 178 national private companies, 24 multinational companies, and four State-Owned Enterprises (BUMN). The domestic pharmaceutical industry is an industry that has been established for a long time and is now able to meet 75% of domestic drug needs. However, the pharmaceutical industry is currently still constrained by the production of raw materials; thus, almost 90% of its raw materials are still imported. Hence, the Government will try to boost investment rates in the upstream pharmaceutical sector. We are still importing US\$4 billion in medicinal raw materials and around US\$800 million in the form of finished drugs.

The growth of the pharmaceutical sector is motivated by many factors. One of them is the aspiration to achieve a Healthy Indonesia in accordance with the 5th Agenda of Nawa Cita, namely, improving the Quality of Indonesian Human Life. To realize a Healthy Indonesia, at least three pillars are needed, including: (1) implementing a healthy lifestyle paradigm, (2) strengthening health services, and (3) implementing the national health insurance (JKN).

The pillars of strengthening health services can be obtained from the availability of medicines, vaccines, health facilities, and the affordability of these health services. Bio Farma, as part of the pharmaceutical industry, plays a role in implementing a healthy lifestyle paradigm, and strengthening health services through the provision of vaccines, both for infants and adults.

However, the pharmaceutical industry still faces the challenge that 90% of the industry's raw materials, especially basic chemicals, still rely on imports from China, India, the United States and several European countries. Thus, it will indeed be a challenge for the national pharmaceutical industry to apply prices that compete with pharmaceutical

products from overseas and the objective of realising the independence of the vaccine industry will be arduous to materialise.

The independence of the national vaccine industry can only be manifested through synergy between the Ministries and related institutions in accordance with Presidential Instruction No. 6 of 2016, concerning the Acceleration of Development of the Pharmaceutical Industry and Medical Devices. In this synergy, there are 12 related institutions: 1. Coordinating Minister for Economic Affairs; 2. Coordinating Minister for Human Development and Culture; 3. Minister of Health; 4. Minister of Finance; 5. Minister of Research, Technology and Higher Education; 6. Minister of Industry; 7. The Minister of Trade; 8. Minister of Agriculture; 9. The Minister of State-Owned Enterprises; 10. Head of the Investment Coordinating Board; 11. Head of the Food and Drug Supervisory Agency; and 12. Head of the Government Procurement Policy Agency.

From Bio Farma's point of view, as a pharmaceutical business actor, the synergy of these 12 institutions provides us with new hope for realizing independence, considering that Indonesia (through Bio Farma) has been trusted to serve as a Centre of Excellence for vaccine research in the Organisation of Islamic Cooperation (OIC) since 2017.

CHANGES IN THE COMPOSITION OF THE BOARD OF COMMISSIONERS

The Board of Commissioners, as the Company's organ, has the collective duty and responsibility to provide supervision in accordance with the Articles of Association of the Company, to provide advice to the Board of Directors, and to ensure that the Company implements GCG in an effective, efficient and sustainable manner. The Board of Commissioners may not participate in making operational decisions.

The position of each member of the Board of Commissioners, including the President Commissioner, is equal. The duty of the President Commissioner to act as *primus inter pares* is to coordinate the activities of the Board of Commissioners.

COMPOSITION OF THE BOARD OF COMMISSIONERS FOR FISCAL YEAR 2019: PERIOD OF JANUARY 1, 2019-JANUARY 7, 2019

At the start of 2019, there was a change in the composition of the Board of Commissioners and Heridadi was dismissed with respect for he had ended his tenure as an Independent Commissioner and he was replaced by Elen Setiadi. This was done in accordance with the Minister of SOEs Decree Number: 13/MBU/01/2019 on January 8, 2019, regarding the Dismissal and Appointment of Members of the Board of Commissioners of PT Bio Farma (Persero).

Thus, for the period of January 1, 2019-January 7, 2019 the Board of Commissioners consisted of: Farid Wadjdi Husain as President Commissioner and serving concurrently as an Independent Commissioner; Yuni Suryanto, Made Arya Wijaya and H.M. Subuh as Commissioners; and Saud Usman and Heridadi as Independent Commissioners.

COMPOSITION OF THE BOARD OF COMMISSIONERS FOR FISCAL YEAR 2019: PERIOD OF JANUARY 8, 2019-JULY 15, 2019

Further changes in the composition of the Board of Commissioners were subsequently carried out, and H.M. Subuh was honourably dismissed as his term as a Commissioner of Bio Farma had ended and he was replaced by Oscar Primadi. This was done in accordance with the Decree of the Minister of State-Owned Enterprises Decree Number: 150/MBU/07/2019 on July 16, 2019, concerning the Dismissal and Appointment of Members of the Board of Commissioners of PT Bio Farma (Persero).

Thus, the composition of the Board of Commissioners for the period of January 8, 2019-July 15, 2019 was as follows: Farid Wadjdi Husain serving as a President Commissioner and concurrently as an Independent Commissioner; Yuni Suryanto, Made Arya Wijaya and H. M. Subuh, Elen Setiadi as Commissioners; and Saud Usman as an Independent Commissioner.

COMPOSITION OF THE BOARD OF COMMISSIONERS FOR FISCAL YEAR 2019: PERIOD OF JULY 15, 2019-DECEMBER 31, 2019

The composition of the Board of Commissioners as of December 31, 2019 was as follows: Farid Wadjdi Husain serving as a President Commissioner and

concurrently as an Independent Commissioner; Yuni Suryanto, Made Arya Wijaya, Elen Setiadi and Oscar Primadi serving as Commissioners; and Saud Usman as an Independent Commissioner.

PERFORMANCE EVALUATION OF THE BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS IN 2019

In general, the duties of the Board of Commissioners are to act as supervisors and advisors to the Board of Directors while the Board of Directors remains in charge of daily management and is fully responsible for the operations of the Company.

Shareholders set goals, targets, and KPIs for each Budget year, and these achievements will be manifested during several stages of Bio Farma's Long-Term Plan (RJPP). The current Long-Term Plan is for the 2018-2022 period and will be followed up with future stages in line with the road map towards the Bio Farma 2030 vision and mission. This is done on the basis of the Long-Term Plan and the Decree of the Minister of SOEs KEP-101/MBU/2002 on June 4, 2002, Concerning the Preparation of SOEs Work Plan and Budget (RKAP).

Evaluation & assessment of the Performance of the 2019 Company's Work Plan and Budget Making is done in line with the Decree of the Minister of SOEs No. 01/PER-BUMN/2012 concerning GCG, which states, among other things, that improving the performance and competitiveness of SOEs is necessary to ensure its development targets and should be evaluated every year.

In connection with the implementation of the duties of the Board of Directors, the Board of Commissioners stipulates a formula which is confirmed by Decree number: 04/DK/BF/07/2015 dated July 31, 2015, concerning Changes in Supervision and Advice Policy. Bio Farma Directors serve in accordance with the Circular of the Ministry of SOEs No. S-08/S.MBU/2013 dated January 16, 2013, concerning Guidelines for Determining KPIs and Superior Performance Assessment Criteria (KPKU) in SOEs and Regulation of the Minister of SOEs No. PER-09/MBU/07/2016 dated July 3, 2016,

concerning the SOEs Partnerships and Community Development Program.

In carrying out its duties, the Board of Commissioners is assisted by the Audit Committee and the Risk, Development and GCG Committee. The success of the performance of the Board of Commissioners is assessed using a formula stipulated by the Decree of the Board of Commissioners No. KEP-02/DK/BF/04/2018 and KEP-03/DK/BF/04/2018 dated April 26, 2018.

Evaluating the performance of the Board of Commissioners, Board of Directors, Audit Committee, Risk Committee, Development, and GCG encourages the two organs of the Company to always work in a measured and professional manner in the interests of a better Bio Farma showing continuous improvement that is always based on the guiding principles of Good Corporate Governance and Ethical Standards.

ASSESSMENT OF THE BOARD OF DIRECTORS' PERFORMANCE REGARDING THE MANAGEMENT OF THE COMPANY

ASSESSMENT OF CORPORATE PERFORMANCE ASPECTS MANAGED BY THE BOARD OF DIRECTORS

The Board of Commissioners' assessment of the Board of Directors' performance is based on the level of success of the Board of Directors in realising the 2019 Work Plan and Budget as planned for 2019. On the other hand, the success of the Board of Directors certainly cannot be separated from the contribution/supervision and advice from the Board of Commissioners. The GMS confirmed the 2019 Work Plan and Budget on December 21, 2018, concerning Ratification of the 2019 Work Plan and Budget and Bio Farma's RKA-PKBL Endorsement for 2019. To assess the success of the Board of Directors in realising the 2019 Work Plan and Budget, the Board of Commissioners issued a 'Decision of the Board of Commissioners' regarding the Establishment of Key Performance Indicators (KPI) as the basis for the Performance Evaluation of the Board of Directors in 2019. As a complement to the Decree (SK) of the Board of Commissioners,

targets and planning for Corporate KPIs for 2019 were also determined that refer to the circular letter from the Secretary of the Ministry of BUMN No. 08/S.MBU/2013 on January 16, 2013, concerning the Submission of Guidelines for Determining KPIs and Superior Performance Assessment Criteria (KPKU) to the Office of the Ministry of State-Owned Enterprises and a letter from the Minister of SOEs No. S-487/MBU/08/2016 on August 31, 2017, concerning Aspirations of Shareholders/Capital Owners for the Preparation of the 2019 Work Plan and Budget.

CORPORATE PERFORMANCE ASSESSMENT FORMULA MANAGED BY THE BOARD OF DIRECTORS

Continuing the discussion on the performance appraisal of the Board of Commissioners, the Board of Directors, and the Supporting Committee for the Board of Commissioners, the Ministry of State-Owned Enterprises Office pointed to the aspirations of shareholders as a reference regarding the preparation of the 2019 Company's Work Plan and Budget. It was also explained that the Ministry of SOEs issued a circular No. S-08/S-MBU/2013 related to the Guidelines for Determining KPIs and the Criteria for Superior Performance Assessment (KPKU) in State-Owned Enterprises.

The achievement/realisation of corporate KPIs is the basis for implementing quantitative and objective assessments, including in the calculation of bonuses/incentives/sanctions as well as career planning for the Directors. The five perspectives used in the evaluation of the performance of the Board of Directors consist of 18 indicators, namely:

1. Financial and Market Perspectives with a total weight of 22% consisting of 4 indicators: operating income 6%, EBITDA Margin 6%, Debt to Equity Ratio 5%, Return on Equity 5%;
2. Focus on Customers and Markets with a total weight of 20% consisting of 2 indicators: Increasing of exported product 10%, Customer Satisfaction 10%;
3. Product and process effectiveness perspective with a total weight of 18% consisting of 4 indicators: WHO PQ 5%, KLH Proper 5%, CAPEX Absorption Realization 4%, Inventory

Turn Over 4%;

4. Manpower Focus Perspective with a total weight of 15% consisting of 3 indicators: Competency Development 5%, Workforce Productivity 5%, Talent Pool for Candidates for Directors 5%;
5. Leadership Perspective including Governance and Community Social Responsibility with a total weight of 15% consisting of 3 indicators: GCG Score 6%, SOEs Portal Data Entry 6%, Community and Partnership Development Program & SR 3%, and
6. The Agent of Development perspective with a total weight of 10% consists of 2 indicators: SOEs Synergy 5%, Financial Independence and 5% Creation.

Corporate Performance for 2019 was calculated based on the formula stipulated by the Decree of the Board of Commissioners and with reference to 6 (six) perspectives and consisting of 18 (Eighteen) KPIs. The total Achievement Score from the 18 KPIs referred to is 92.58% (Very Satisfactory-Outstanding).

The Board of Commissioners and the Board of Directors then signed the agreed Key Performance Indicator 2019 Ratification Sheet which is of course still related to the 2019 Company Work Plan and Budget and suggestions from controlling shareholders. As a complement to the 2019 KPI Ratification Sheet above, it is supplemented with a list of 18 KPIs, accompanied by a detailed elucidation of each indicator including the calculation formula.

In addition to the calculation of KPI which is based on the numbers stated in the 2019 Company Work Plan and Budget, the level of achievement is also calculated. This is a comparison between the realisation and the target for 2019 corporate performance. The multiplication between the achievements and the weights is the "level of achievement" for the 18 KPIs referred to. From the sum of the 18 "achievement levels", the total was 92.58% which was then verified by an Independent Auditor who was specifically assigned to do this. The outstanding result of 92.58% (for 18 KPIs) is the overall assessment of corporate performance. Managed by the Board of Directors, the score is based on the formula set by the Board of Commissioners. For the purposes of the Company Health Assessment,

a formula set by the controlling shareholder is usually used while the results of the calculations are verified again by the Independent Auditor (PWC) and included in the 2019 Performance Evaluation Report. Compared to the score of 91.76% in 2018, the corporate performance score in 2019 has improved by 0.82%, as it is now up to 92.58%.

BIO FARMA'S 2019 FINANCIAL PERFORMANCE

The Company's performance in 2019 showed positive growth as a result of strategic implementation & hard work as well as various efforts in creating new opportunities and initiatives. In 2019, Bio Farma recorded net sales of Rp2.54 trillion. This was a decrease of Rp692.63 billion or 21.41% compared to net sales in 2018 of Rp3.24 trillion. Although the total net sales decreased, sales of the Company's products actually increased by 1.07%, an increase of Rp21.81 billion, due to the sales achievement of the Viral Vaccine group, up 27.84% from the realisation in 2018 or an increase of Rp332.34 billion that is mainly due to the sales of Bulk Polio Type 2 amounting to Rp137.57 billion.

The decrease in net sales was caused by a decrease in sales of Partnership Products in 2019 of Rp454.54 billion, which is a decrease of Rp677.44 billion or 59.74% compared to 2018, namely Rp1.12 trillion and Rp639.29 billion and a decrease in sales of Trading Partnership Products in 2019 amounted to Rp14.59 billion, decreased by Rp38.52 billion or 72.52% compared to 2018, namely Rp53.11 billion and Rp76.55 billion.

In 2019, Bio Farma recorded Product Sales in the Government Sector of Rp831.94 billion, a decrease of Rp1.03 trillion or 55.25% compared to the 2018 figure which was Rp1.86 trillion. The decline was due to the fact that in 2019, the total contracts signed between the Government & Bio Farma amounted to Rp831.94 billion. Sales of the Company's products for the Pentabio 5 ds vaccine decreased by 55.25% or Rp1.02 trillion compared to the total contracts in 2018. The realization of the Company's product

sales for the Pentabio 5 ds vaccine decreased by Rp259.74 billion and the Td 10 ds vaccine decreased by Rp99.67 billion due to the completion of the fulfilment of the vaccine needs for ORI Diphtheria in 2018 and the realisation of IPV vaccine sales fell by 66.62% or Rp110.81 billion.

Bio Farma recorded Product Sales in the Private Segment/Sector in 2019 of Rp234.86 billion, a decrease of Rp63.15 billion or 21.19% compared to the 2018 figure of 298.01 billion. The main thing that caused the decline in sales in the private sector was the decline in sales of the company's products from the Bacterial vaccine group, especially the BCG vaccines for infants and children 20 ds, TT 10 ds, Bio Td 1 ds and DT 10 ds which were respectively: 49.40%, 48.71%, 96.64% and 73.81% or Rp3.01 billion, Rp690 million, Rp16.36 billion, and Rp114.91 million.

Compared with 2018, there was a decrease in sales of the company's products from the Bacterial vaccine group, especially the BCG vaccine for infants and children 20 ds, TT 10 ds, BioTd 1 ds and DT 10 ds which were respectively: 49.40%, 48.71%, 96.64% and 73.81% or at Rp3.01 billion, Rp690 million, Rp16.36 billion, and Rp114.91 million.

Product Sales in the Export Segment/Sector in 2019 amounted to Rp1.48 trillion, an increase of Rp397.74 billion or 36.89% compared to the 2018 figure of Rp1.08 trillion.

Compared with 2018, the increase in export sales was mainly due to the sales of vaccines for TT 10 ds, Bio Td 1 ds, Td 10 ds, DT 10 ds, Measles 10 ds, Diphtheria bulk, Polio Tetanus bulk, Pertussis bulk, Polio bulk and Measles bulk. These were 64%, 81.01%, 4,657.96%, 30,919.56%, 67.10%, 288%, 32%, 157.80%, 382.18%, 14.41% and 519.59% respectively.

Bio Farma recorded cash and cash equivalents at the end of 2019 amounting to Rp533.76 billion, a decrease of Rp2.15 billion or 0.4% compared to the 2018 figure which was Rp535.91 billion.

This fact shows that export sales now contribute 58.04% to total net income, an increase of 74.19% when compared to the contribution of export sales in 2018 which was only 32.72%. This significant increase is mainly due to the existence of several new contracts from African countries to meet vaccine needs, and a request from UNICEF to provide the monovalent Oral Polio Vaccine Type 2 (mOPV2) vaccine.

PERFORMANCE OF THE BOARD OF DIRECTORS IN OPERATIONAL ASPECTS

WORK ACCIDENTS (SAFETY)

For Bio Farma, HR is considered to be vital, for employees are one of the most essential assets in order to achieve the goals set by the Company. Furthermore, a safe and comfortable work environment means that avoiding anything with potential to cause a work accident is an absolute requirement. Each work unit is equipped with SOPs and a monitoring system, and improvements to the work environment are being carried out continuously.

The Board of Commissioners always encourages the Board of Directors to strive to achieve a Zero Accident target. The Board of Commissioners' concerns regarding safety issues are manifested in the view that Bio Farma views production performance as meaningless should HR undergo a work accident. Bio Farma considers safety performance and production operations to be two sides of a coin that are inseparable from each other. The Board of Commissioners is very satisfied that all units have complied with the Zero Accident target in the work safety statistics in 2019. The Board of Commissioners requests the Board of Directors to apply high security standards and to monitor them vigilantly.

An accident is something that is undesirable so the Board of Commissioners does not hesitate to remind the Board of Directors to always be vigilant and consistent with the implementation of a well-ordered health and safety system. In recent years, Bio Farma has received a Zero Accident award from the Ministry of Energy and Mineral Resources.

IMPROVING FINANCIAL PERFORMANCE THROUGH STRENGTHENING THE 2019 STRATEGY

Various strategies were performed by Bio Farma in 2019 to increase profits and sales and to achieve future success.

OPPORTUNITIES ON EXPANDING AND IMPROVING "RESEARCH, PRODUCT DEVELOPMENT & INNOVATION"

Bio Farma always pays special attention to activities in Research and Product Development & Innovation in an effort to improve the company's core business. In supporting these activities, Bio Farma collaborates with various competent parties to support company performance.

OPPORTUNITIES TO EXPAND AND IMPROVE "PARTNERSHIP PRODUCTS & TRADING PARTNERSHIP PRODUCTS"

In the field of marketing, Bio Farma carries out customer-oriented strategies including maintaining existing markets and expanding new markets. To increase the marketing of familiar products and new products, we are continually fostering and building more strategic partnerships through face to face meetings with customers in order to figure out their customers want and global market needs. Bio Farma not only sells the Company's products and services but also sells Partnership Products & Trading Partnership Products.

SUSTAINABLE EFFICIENCY BY EVERY BIO FARMA INDIVIDUAL

OPERATING EFFICIENCY AND COST OPTIMISATION EFFORTS

The efficiency program applies to every Bio Farma employee. This is an initiative that the Board of Commissioners and Directors of Bio Farma continue to encourage in an effort to increase competitiveness and in order to keep costs as low as possible. These efforts to control costs have a positive impact on Bio Farma's finances. While strengthening this strategy to achieve success, efforts are also being made to maximise efficiency.

PERFORMANCE OF THE BOARD OF DIRECTORS IN THE PROJECT DEVELOPMENT ASPECT

The Board of Commissioners continues to provide motivation to the Board of Directors to increase investments in capital goods and building in order to increase the value of Bio Farma, as well as expanding production capacity, increasing production efficiency, and diversifying business lines. Recent investments include a Vaccine Production and Packaging Facility Building, BCG Vaccine Downstream Facility, Animal House 2, Laboratory Animal Centre, Piping & Utilities Recombinant Vaccine Facility, Development of Vaccines & Packaging, and others.

We feel urged to provide quality vaccines in order to break the chain of diphtheria transmission and have rescheduled a few contracts with UNICEF and diverted the packaging schedule for several viral vaccines in order for us to highlight the ORI program of the Ministry of Health of the Republic of Indonesia. We, Bio Farma, as part of State-Owned Enterprises, are here to preserve health from generation to generation in Indonesia.

ANALYSES ON THE BUSINESS PROSPECTS OF THE COMPANY PREPARED BY THE BOARD OF DIRECTORS AND THE BASIS OF CONSIDERATIONS

Dear shareholders,

The pharmaceutical industry is a unique industry, with strict regulations that cannot ignore the factors of safety, efficiency, quality/safety, efficacy and quality. The uniqueness of this industry can be seen from the composition of the investment it attracts. This focuses on Research, Development and Innovation takes a long time to get a Return on Investment if compared to other industries, and for this reason, not many companies operate in this industry. This is of course an opportunity as well as a challenge for Bio Farma, which has now begun to expand into the biotechnology industry. Biotechnology is the foundation in almost all pharmaceutical biotherapy processes in the era of the fourth RI. This technology is widely applied to manipulate various biological materials that can be

used as therapy for various conditions and types of diseases, especially those that are deadly.

In recent years, the world has begun to enter the era of the latest industrial revolution, namely the fourth Industrial Revolution (RI 4.0) which is a continuation of the 3.0 industrial revolution, which relies on the internet to allow industry players to transmit data in real time. It is believed that the emergence of RI 4.0 will change the overall business model, because it combines technological and digital elements that make it possible to make everything faster and cheaper.

For the biotechnology industry, the use of RI 4.0 can also be directed towards the use of big data analysis, artificial intelligence, and machine learning. Because these three things can be useful for mapping genes from viruses/bacteria, the time needed to carry out new vaccine research will also be shorter. This will enable our research to be carried out more quickly, accurately, and cheaply. And perhaps in the next few years, Bio Farma can produce vaccines that no longer use animal products (non- animal origin) in making vaccines while promoting safety, quality, and efficacy.

The Pharmaceutical Industry in general will be greatly aided by the presence of the Industrial Revolution 4.0. This movement is believed to be a massive revolution that makes it possible to combine the digital world with the physical and biological world through a process of super-fast technological development, more integrated and massively influencing business processes by utilising Big Data, Artificial Intelligence, and Machine Learning.

Bio Farma is a world-class Life Science company with global competitiveness towards industry 4.0. Bio Farma has begun to formulate strategies in terms of research and development, production processes, and supply chain value that utilizes big data and artificial intelligence. Bio Farma collaborates with the Directorate of Chemical, Pharmaceutical and Textile Industry (IKFT) of the Indonesian Ministry of Industry, and has signed a Memorandum of Understanding (MoU) on cooperation in the field of pilot projects. Implementation of Industry 4.0 aims to support

the government program "Making Indonesia 4.0" and this is oriented towards cooperation on the downstream chemical and pharmaceutical industry growth and development program. This Memorandum of Understanding (MoU) was signed by the Director of the Downstream Chemical and Pharmaceutical Industry of the Indonesian Ministry of Industry, Taufiek Bawazier and the Operations Director of Bio Farma, M. Rahman Roestan on 30 October 2019.

The implementation of industry 4.0 was marked by the submission of the MoU and Cooperation Agreement (PKS) submitted by the Director General of the Chemical, Pharmaceutical and Textile Industry of the Ministry of Industry of the Republic of Indonesia, Muhammad Khayam to the Operations Director of Bio Farma M. Rahman Roestan and witnessed by the Board of Executives and all Bio Farma employees on November 19, 2019 at Bio Farma Bandung. This MoU is a Pilot Project to get an up-to-date overview of the company's profile, performance and potential towards the 4.0 industrial platform. The Pharmaceutical Industry in Indonesia has very high added value, therefore the government has paid special attention to this industry with the issuance of Presidential Instruction No. 6 of 2016. Bio Farma is part of the Pharmaceutical Industry, and was chosen to be one of the companies representing IKFT as a pilot for the pharmaceutical industry in Indonesia which is ready to compete in the era of 4.0. Bio Farma's readiness to face competition in the era of the Internet of Things (IoT) can also be applied in other industries.

To enter industry 4.0, Bio Farma has prepared the latest technology in the disruptive era, such as the Electronic Batch Record (EBR) which uses communication technology as its foundation. Bio Farma is also well prepared innovate and collaborate to compete in this 4.0 era. The key to industry 4.0 is connectivity, where the elements involved must be connected and integrated. What has been done by Bio Farma is to collaborate with academics, governments, and research institutions both at home and abroad, for the purpose of technology transfer with the ultimate goal of discovering new products. Bio Farma has added infrastructure related to 4.0, including preparing an IT master plan to support the Pharma 4.0 industry, and by developing systems or applications

that support industry 4.0 including research collaboration to make an IoT (Internet of Things) Proof of Concept.

To strengthen the foundation of industry 4.0 at Bio Farma, Sucofindo was appointed as the consultant who will provide assistance, consultation and evaluation in the context of implementing the Formulation of Industry 4.0 Factory Cell Models at Bio Farma. This collaboration is a form of synergy between SOEs working together to prepare themselves to enter industry 4.0. Sucofindo will help Bio Farma to implement 4.0 and Bio Farma can in turn be a role model for other industries. It is hoped that Sucofindo and Bio Farma can advance and grow together to realize "Making Indonesia 4.0" and that this will support the needs of both Bio Farma and the Ministry of Industry.

Future vaccine developments not only function as prevention, but also for medicinal or therapeutic purposes. The Board of Commissioners has asked the Board of Directors to prioritize the Research, Development, and Product Innovation that is currently being developed, leading to the use of genetic engineering for the latest generation of TB vaccine antigens, and HBsAG antigens for therapeutic Hepatitis B vaccines, as well as several Biosimilar products such as herceptin or trastuzumab which utilize monoclonal antibodies in mammalian cells for anti-cancer biosimilar products.

Coupled with the emergence of a start-up company, which is specifically to provide results from DNA sequencing of a virus or bacteria that will be used as a vaccine, of course this will accelerate the discovery of new vaccines, and will produce a punctual time to market.

Changes in future health trends, mean that the health industry will not only be limited to treatment and prevention, but has also begun to expand to health services, including financing through health insurance. For this reason, the State-Owned Enterprises pharmaceutical holding was formed to create a health industry ecosystem that is comprehensive from upstream to downstream. The Board of Commissioners hopes that the Board of Directors, management, and all Bio Farma employees, can answer this challenge with the competencies they have had for 129 years. We must

help members of the State-Owned Enterprises pharmaceutical holding to enter the global market, and most importantly, become the motor to synergize with human resources who have the competence to create national pharmaceutical innovation products.

We must be able to summon other State-Owned Enterprises pharmaceutical holding members to fly our national's flag on the global stage, with pharmaceutical products, herbal products, and medical devices that comply with WHO standards.

Dear shareholders,

The economy in an Islamic country shows its expansion through the adoption of the latest technological developments from various fields, including pharmaceuticals. This drive is motivated by the increasing demand for preventive therapy to support the holistic and healthy lifestyle of the majority of millennial Muslims in North America and Europe. The data shows that cumulatively, Islamic countries spending on health products, including pharmaceuticals, is US \$ 87 billion and is expected to reach US \$ 131 billion by 2023.

Based on data released by the Global Islamic Economic Report, the Muslim population reached 1.8 billion people in 2017, equivalent to 24% of the world's population, thus making Muslims a potential market for all industries, including the health industry. This is based on the increasing awareness of the governments of Islamic countries in maintaining the health of their citizens, both through treatment and prevention.

The total population of Muslims in the world is 1.8 billion people, equivalent to 24% of the world's population. Islamic countries spend US\$87 billion on health products, including pharmaceuticals, and this is estimated to reach US\$131 billion by 2023, cumulatively.

The Board of Commissioners considers the expenditure on pharmaceutical goods in Islamic countries to be a very significant amount, providing very good potential for Bio Farma to enter the vaccine market in Islamic countries, considering that

Indonesia is the only OIC member country with the most complete vaccine products and already having the WHO PQ.

Therefore, the Board of Commissioners continues to remind the Board of Directors to always increase market share, through the sale of vaccines to friendly countries, both bilaterally through international organizations such as the Organisation of Islamic Cooperation (OIC), particularly to African countries, as well as to countries that are in the Developing Countries Vaccine Manufacturer Network (DCVMN), by transmitting the spirit of independence in the manufacture of halal vaccines, and by maintaining good relations with the World Health Organization (WHO) and UNICEF.

HALAL ISSUES FOR PHARMACEUTICAL PRODUCTS

The issue of having product content that is in accordance with Islamic law has become a major issue among Muslims in the world. It is hoped that future research for pharmaceutical products will promote the element of halal in addition to maintaining safety, efficacy, and quality, and that this can start from the selection of raw materials, then production methods and product development, through to distribution and use by the community.

In Indonesia itself, the issue of halal is of particular concern to all industry players, especially after the enactment of Law No. 33 of 2014 on Halal Product Guarantee (UU JPH) which was officially applied in October 2019. For Bio Farma, the presence of the JPH Law is a challenge. Especially considering that 90% of active pharmaceutical ingredients (API) come from non-Muslim countries, which may not understand the concept of halal.

To realise pharmaceutical halal products, synergy and escort from government agencies and also religious leaders - in this case the Indonesian Ulema Council (MUI) - are very much needed, so that the halal concept can be started from research, selection of raw materials, production processes, and final products, up until their use by the community.

Bio Farma is committed to continue developing halal vaccine and Life Science products in accordance with the principles of Islamic law from the research stage and in the selection of raw materials, by always paying attention to aspects of quality, safety and efficacy. This is in accordance with the Company's policy to produce high quality, globally competitive products oriented towards customer satisfaction through continuous improvement efforts.

The Board of Commissioners very much appreciates the efforts and performance of the Board of Directors. From 2018 until now it is still actively overseeing synergies with government institutions and LPPOM MUI, for the management of halal certificates for Bio Farma products in stages. It is hoped that with the existence of halal certificates for vaccine products, the enthusiasm of the public to receive vaccines will increase.

We also appreciate the Board of Directors, with the spirit of Ukhuwah Islamiyah, inviting the OIC countries that are members of the Vaccine Manufacturer Group to jointly create a halal vaccine concept that can be accepted by all Islamic countries and even other countries in the world. As a first step, Indonesia, which has officially become a Centre of Excellence for Biotechnology and Vaccines in 2017, and referring to Bio Farma's experience that has succeeded in making vaccines with WHO quality, now invites Tunisia, Morocco, and Saudi Arabia to jointly carry out joint research for the production of halal vaccines.

Bio Farma's export sales data now shows a 33.2% contribution to the Islamic State, and this continues to increase. The real challenge is not only to increase the market, but also in harmonisation to find a halal vaccine in the form stated in the OIC's Strategic Action Plan 2014-2023.

VIEWS ON THE MANAGEMENT AND IMPLEMENTATION OF THE WHISTLEBLOWING SYSTEM (WBS) IN BIO FARMA

Bio Farma's success in responding to the challenges of Industry 4.0, and in fighting in the international marketplace, is dependent on how the Board of Directors sees all the opportunities, challenges, and risks faced. Therefore, we hope that the Bio Farma Board of Directors will always carry out proper studies on every decision to be taken in accordance with the principles of Good Corporate Governance (GCG).

Whistleblowing is the disclosure of acts of violation or disclosure of actions that are against the law, including unethical/immoral actions or other actions that can harm Bio Farma or Stakeholders, that may be committed by Bio Farma employees or Bio Farma leaders. Through whistleblowing, Bio Farma leaders or other institutions can act on these violations.

Since 2013, Bio Farma has implemented a whistleblowing system (WBS) based on the Decree of the Board of Directors Number: 1026/DIR/II/2013 dated February 22, 2013 concerning Policies for the Application of a Whistle Blowing System at PT Bio Farma (Persero) with the aim of upholding business ethics, work ethics and efforts to eradicate Corruption, Collusion and Nepotism, fraudulent practices, or other actions against the law that can harm the company. Bio Farma implements a Whistle Blowing System (WBS) which is an early warning system (EWS) to avoid potential fraudulent practices that can be detected as early as possible. The WBS system allows all Bio Farma personnel and other stakeholders to submit reports of suspected acts of violations and fraud, and on other forms of ethical violations that may have occurred in the Company.

In 2015, Bio Farma began building a website-based violation reporting system called the WBS (Whistleblowing System) application. Reporters can report online through a web-based system at the address <http://aplikasi.biofarma.co.id/gcg>.

The Board of Commissioners and the Board of Directors determine the Admin of Whistleblowing allegedly committed by the Employees, Directors, Board of Commissioners and Supporting Organs of the Board of Commissioners. The team that handles reporting of violations is the Board of Directors or the Board of Commissioners.

The mechanism for submitting reports of violations or disclosure of acts that are against the law, unethical/immoral acts or other actions that are prohibited and may harm the Company refers to the SOE Ministerial Regulation No. PER-01/MBU/2011 and is regulated in the Decree of the Board of Directors Number: 01026/DIR/II/2013 on February 22, 2013. And furthermore, the Handling of Complaints/Reporting Alleged Violations is also regulated in the Decree of the Board of Directors Number: 01026/DIR/II/2013 on February 22, 2013.

The party that manages the complaint/Reporting of Alleged Violations is regulated in the Decree of the Board of Directors Number: 01729/DIR/III/2013 on March 25, 2013 which has been updated by Decree Number: KEP-16/DK/BF/X/2014, Number: 05021/DIR/X/2014 concerning the Appointment of a Whistleblowing Admin. In implementing WBS, the Company provides protection for whistleblowing and for those who are in good faith, the Company also provides legal protection.

To ensure the effectiveness of the implementation of the Alleged Violation Reporting System, periodic monitoring and evaluation of the Alleged Violation

Reporting System shall be conducted at least once a year. This is done to meet the targets set at the beginning of the design of this system and also to ensure that these achievements are in accordance with the company's business demands and applicable laws and regulations. This monitoring and evaluation can be carried out by the Directors themselves through the Internal Audit Unit or using an independent external party. Monitoring and evaluation is carried out to produce recommendations for improvements to the Reporting System for Alleged Violations as well as to monitor recommendations for improvements. The results of monitoring and evaluation are written in the form of a report to the Board of Directors.

In 2019, the WBS Management Team did not receive reports related to violations committed by the Company's organs and Bio Farma's personnel, so that the number of complaints received and processed in 2019 was not presented and sanctions/ follow-up on complaints that were processed in 2019 were not presented.

As a manifestation of the effective and good implementation of Good Corporate Governance, the socialization and enforcement of the application of the Whistle Blowing System will always be improved and system improvements will be carried out periodically in the context of continuous improvement in accordance with the Company's business development.

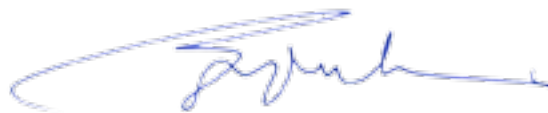
CLOSING REMARKS

In the future, competition in the pharmaceutical industry will be increasingly challenging. The invention of Artificial Intelligence, Machine Learning and Big Data Analysis technology could either pose a threat or help Bio Farma to achieve its goal of becoming a Life Science company. Hopefully the quest to achieve a Life Science company will further strengthen Bio Farma, and our smart and sharp spirit and synergy will lead us through 2020 with full enthusiasm and confidence. We expect that with the merger of pharmaceutical companies in the form of the State-Owned Enterprises pharmaceutical holding, the potential for increasing market share and the value of the holding companies as well as access to medicine will increase. In 2020, Bio Farma will face a WHO assessment; thus, it will further open up world trust in the products produced by Bio Farma.

Remembering our 129 years of experience and shared determination, the Board of Commissioners reminds all Bio Farma staff to work hard, work smart, and maintain the company's values while facing the more "challenging" Company Work Plan and Budget for 2020, and working towards a better Bio Farma. In closing, the Board of Commissioners expresses its appreciation to all Shareholders, and all Stakeholders, then our sincere appreciation to the Board of Directors, Management, and all Bio Farma employees who have worked with sincerity and dedication for their assistance and cooperation so that the Board of Commissioners can carry out their supervisory and advisory functions as well as ensure that Good Corporate Governance (GCG) becomes the basis for the company's operations and in turn will create optimum returns to shareholders and stakeholders.

Jakarta, 15 March 2020

On behalf of the Board of Commissioners
PT Bio Farma (Persero)



FARID WADJDI HUSAIN
President Commissioner



HONESTI BASYIR
President Director

Report of Board of Directors

"Now is the time for Bio Farma to embrace bio-technology innovation that is globally competitive by implementing the Company's 2017-2021 strategy"

HONESTI BASYIR
President Director

Dear respected shareholders and stakeholders,

Assalamualaikum warahmatullahi wabarakatuh. It is my honour to be able to represent Bio Farma on behalf of the Board of Directors, and to deliver the results of Bio Farma's operational and financial performance in 2019. Measuring the Company's performance in terms of profit growth, return on equity and profitability margins, 2019 has been a year where the Company has gained very encouraging results by creating new opportunities and innovations that have supported production growth and Bio Farma's product sales. The innovations consist of development of new products, and market expansion initiatives in the government, private, and export sectors.

Bio Farma has prepared a sequenced plan of action after being appointed as the State-Owned Enterprises Pharmaceutical Holding company, including increasing market share both domestically and for the export market. This strategy is in line with Bio Farma's valued status as an SOE which enhances the health status of the Indonesian people by providing for domestic vaccine needs. The role of Bio Farma in the global market is shown by having to expand the export market and expanded into the African continent and several countries of the Organisation of Islamic Cooperation (OIC) such as Nigeria and Tanzania whose MoU was signed last August 2019 at the Indonesia-Africa Infrastructure Dialogue event in Bali. On top of expanding market share, Bio Farma is well-prepared to perform technology transfer, exclusively to OIC member countries. In the spirit of the Sustainable Development Goals, Bio Farma is providing vaccines to meet the objective of preventing deaths among new-borns and toddlers by 2030.

On July 16, 2019, Bio Farma re-released another export product to Angola in the form of Monovalent Oral Polio Vaccine type 2 (mOPV2), of 3.4 million doses to be used to prevent the spread of the wild type 2 polio virus in the region. The mOPV2 is a new product that recently received WHO Prequalification (PQ) in June 2019. As one of the latest Bio Farma products, it requires special handling in the production process related to the requirements for containment, biosafety, and biosecurity for polio virus type 2.

This increased Bio Farma's sales achievement positively: now reaching Rp2.54 trillion.

This achievement in 2019 provides the groundwork to be able to turn the hindrances of the past into upcoming successes in 2020. Bio Farma has created various innovation in development of new products; and has therefore succeeded in creating good shareholder value. Through this noble performance, we are determined to create a better future in terms of growth, efficiency, value creation and other vital aspects, for all of our shareholders and stakeholders.

ANALYSIS OF THE COMPANY'S PERFORMANCE

STRATEGIES AND STRATEGIC POLICIES

Performance Analysis of our Strategy and Strategic Policy for 2019 clearly shows that our strategy has been running well. We have created added value for shareholders and stakeholders alike through (i) smart product research, development and innovation that allowed new market penetration to be launched on time, (ii) collaboration and synergy with several parties to increase new market share, (iii) reducing costs further while increasing the Company's competitiveness, (iv) strengthening core business performance to increase the Company's revenue.

PRODUCT RESEARCH, DEVELOPMENT, AND INNOVATION

Bio Farma is paying particular attention to its Research, Development, and Product Innovation activities in an attempt to expand the Company's core business. In supporting Product Research, Development, and Innovation activities, Bio Farma collaborates with innumerable competent parties to support the Company's performance.

Bio Farma endeavours to encompass innovations in many areas of knowledge and expertise, in accordance to international standards and the latest quality management systems. Since 1997, Bio Farma has been one of about 30 vaccine manufacturers in the world who have obtained WHO Prequalification. In terms of quality control, Bio Farma has further acquired GMP (Good Manufacturing Practices) certification from the National Agency of Drug and Food Control (BPOM), Good Laboratory Practices (GLP), Good Clinical Practices (GCP), Good Distribution Practices

(GDP), plus the recognized integrated management systems of ISO 9001: 2015, ISO 14001:2015, and OHSAS 18001:2007. Moreover, Bio Farma has been recognised for having World Class Standard guidelines incorporating ISO 26000 guidance for CSR, ISO 31000 Enterprise Risk Management, International Financial Reporting Standards (IFRS), and ISO 27000 Information Technology.

Bio Farma has an Innovation Management System (SMI), which embraces production, business processes, and implementation strategies that are processed both top down and bottom up. By strengthening R&D through its Innovation Management System, Bio Farma is showing its commitment towards further innovation in the pharmaceutical industry in Indonesia, and the independence of medicinal products, including biopharmaceutical products such as vaccines. Strengthening our R&D makes it a privilege to be an independent innovator in the pharmaceutical industry and maker of biopharmaceutical products. For at this moment in time, Indonesia has become a Centre of Excellence in the Organisation of Islamic Cooperation (OIC) in the field of vaccines and biotechnology.

During 2019, Bio Farma conducted product research and development activities including vaccine development for: Rotavirus, sIPV, Influenza, Typhoid Conjugate, Acellular Pertussis, Hepatitis B, nOPV1, nOPV2 & nOPV3, and for biosimilar development: Erythropoietin (EPO), Trastuzumab, and development of stem cells. Bio Farma is conducting product innovation in a preliminary study of halal medium for single harvest diphtheria production a study of toxoid concentration with a target titre of 4000 Lf, and manufacturing of local BCG working seed lots.

Bio Farma also conduct several Surveillance and Clinical Trial activities including: Environmental Polio Surveillance, Rotavirus Surveillance, Pharmacovigilance implementation.

Another product innovation is the Typhoid Conjugate vaccine (vaccine to prevent typhus) which is a new generation of typhoid vaccine. This vaccine can provide longer immunity against typhus than the current typhoid vaccine, and can be used for children aged two years. Another product is the Rotavirus vaccine which is used to prevent diarrheal diseases caused by rotavirus bacteria in infants.

This vaccine is planned to be launched in 2020. Meanwhile, innovative strategy to avoid product counterfeiting, Bio Farma plans to implement a track and trace system that can monitor vaccine distribution from the factory to the consumer.

The innovation that has been launched by Bio Farma is the Pentabio products, according to its name, are five types of vaccines in one package consisting of Diphtheria, Tetanus, Pertussis, Hepatitis B and Haemophilus Influenzae type b (DTP-HB-Hib) vaccines, this innovation has allowed production efficiency to be achieved, reducing the amount of syringe waste and vial packaging, and saving energy and resource use.

Bio Farma has a commitment to innovating and transforming as a Life Science Company. A few of Bio Farma's Life Science products have now also entered into Bio Farma's product pipeline. Bio Farma is willing to accelerate the development of Life Science in order to personify the independence of the pharmaceutical industry in the development of products, raw materials, vaccines, biotechnology products, and medical devices. Bio Farma is fully cognisant of the fact that taking care of a company beyond the age of 100 is indubitably arduous.

We are committed to putting our best endeavours towards the invention of new products in order to survive in this industry. Bio Farma always requires hard-wearing human resources. And further research and innovation will certainly also need the full support of the government, considering that most of the technology in the field of Life Science in Indonesia is obtained through technology transfer from developed nations.

JOINT EFFORTS AND SYNERGIES WITH DIVERSE PARTIES

Bio Farma keenly participates in world public health by directly providing vaccines and technology transfer. In doing so, Bio Farma cooperates with global-scale international networks, research institutions, regional-level professional organisations, and multinational companies. Also, with the companies and governments that are producing health policies benefitting the community.

Bio Farma's progress has been globally recognised. Since 1997, Bio Farma has been one of about 30 vaccine manufacturers in 22 countries in the world who have received World Health Organization (WHO) Prequalification; hence, the company is trusted to meet vaccine needs in more than 140 countries, especially in the developing countries, 50 of which are members of the OIC. By having this credible capacity, Bio Farma is trusted to assist cooperation between Indonesia and the countries of the Organisation of Islamic Cooperation (OIC) related to vaccine research and production. In fact, Bio Farma has been appointed as a leading institution in vaccine production at the OIC (Organisation of Islamic Cooperation).

Last year, Indonesia (through Bio Farma) established a cooperation with Morocco and Tunisia in developing vaccines. In 2019, the Turkish Government intends to have a vaccine industry such as Bio Farma. The Turkish government plans to develop vaccine production facilities through investment; hence, it requires partners to transfer vaccine production technology. In the future, the Turkish government also wants to create independence in halal vaccine production, much in the same way as Bio Farma has implemented a Halal Guarantee System. The Turkish delegation recognised that Bio Farma is strong on technology, research, and development, and is recognized amongst the OIC member countries. For this reason, the Turkish Government is interested in collaborating with Bio Farma.

Dear Shareholders, heading to the targeted polio eradication in 2024, the use of type 2 Oral Polio Vaccine (OPV) was terminated by WHO in May 2016 and replaced with an IPV vaccine (Inactivated Polio Vaccine) and this change has the potential to reduce the Company's revenue growth rate. To deal with these new conditions, the Company is pursuing a number of strategies, such as increasing the production capacity for products that have received WHO PQ and conducting partnerships for new products in the form of research and development and marketing collaboration.

Going forward, Bio Farma will be discussing collaborative research and development of new Bio Farma products together with national and international research institutes. Bio Farma has again won the trust of world research institutions,

to be involved in the research and production of the latest vaccines, in preventing some diseases that are re-emerging (diseases such as polio). One of them is the latest generation of polio vaccine research (nOPV2), namely Novel Oral Polio Vaccine type 2, which is currently undergoing clinical trials 1-3.

Product research and development is being carried out in accordance with Government policies and global trends (WHO and UNICEF) through accelerating the time to market of diversified products according to market needs and reducing import dependency. In addition to undertaking the latest generation of Polio Vaccine research (nOPV2), Bio Farma is also collaborating with various universities and research institutions, and the domestic and foreign vaccine industry, to be able to accelerate the availability of other products onto the market. Currently, we are intensifying the development of new products including the Sabin Inactivated Polio Vaccine (sIPV) vaccine, Rotavirus vaccine, Hepatitis B vaccine, Typhoid Conjugate vaccine, Flu vaccine, Measles Rubella (MR) vaccine, and Pneumococcus vaccine. Furthermore, the Company has begun research and development beyond vaccines and antisera, such as the Erythropoietin biosimilar group (EPO) and Trastuzumab; and the GAD65 Rapid Test Diabetes Mellitus (DM) Rapid Test, which is an early detection tool for diabetes mellitus, which was created in collaboration with Bio Farma in UB's Bioscience, and just launched in September 2019. We also plan to develop blood products/group products. The market prospects for blood products are immense, especially for albumin and immunoglobulin which have so far been fulfilled by imported products.

REDUCING CASH COST AND INCREASE COMPETITIVENESS

Bio Farma's policy and the strategy of reducing costs and increasing competitiveness aims to make for greater efficiency. The efficiency program is being implemented by every Bio Farma employee. This is an initiative that the Directors of Bio Farma continue to encourage in an effort to improve competitiveness and in order to keep costs as low as possible. For Bio Farma believes that controlling costs will have a beneficial impact on Bio Farma's finances.

Thus, efficiency is being boosted in order to achieve more competitive prices in the international

marketplace. Therefore, Bio Farma now has greater readiness to face competition with other countries in Asia and meet global vaccine needs.

The strategies that have been carried out by Bio Farma in the context of controlling cost to increase competitiveness include implementing a green process system in every activity implemented throughout the Bio Farma environment. This will foster green habits including: minimizing the use of raw materials, purchasing raw materials carefully and accurately, placing employees according to skill, better efficiency in the number of employees, minimizing overtime, saving electricity, water and paper, saving equipment regularly, maintaining efficient layout of facilities, maintaining work safety, managing production schedules, avoiding the accumulation of inventory, and other savings.

IMPROVING BUSINESS PERFORMANCE TO INCREASE THE REVENUE OF THE COMPANY

In 2019, Bio Farma improved the production and sales performance of Bio Farma products, namely bacterial vaccines, viral vaccines, combination vaccines, sera and services. These operational achievements had a positive impact on the Company's net sales. In 2019, Bio Farma recorded a net sales value of Rp2.54 trillion.

Bio Farma is a vertically diversified and integrated pharmaceutical company oriented to the Government, private, and export sectors. Bio Farma is committed to maintaining the Company's financial strength through increased revenue generation by focusing on strengthening the performance of the Company's core business operations: namely, selling the Company's products, partnership products, trading partnership products, and services.

COMPARISON BETWEEN RESULTS ACHIEVED AND TARGETED

In general, Bio Farma showed quite positive performance in 2019. The assessment of the Risk-Based rating of the Company in 2019 received a score of 77.10 with the criteria of "HEALTH A", the achievement was 85.33% compared to 2018 with a score of 90.35 with the criteria of "HEALTH AA".

PROCUREMENT

In 2019, procurement of goods was recorded at Rp1.96 trillion, down by Rp820.89 billion or 29.49% compared to 2018. In 2018, the spending was Rp2.78 trillion and therefore Rp248.25 billion or 9% above the RKAP of Rp2.53 trillion.

SALES

In 2019, the Company's product sales were recorded at Rp2.06 trillion, an increase of Rp21.81 billion or 1.07% compared to the realisation in 2018 of Rp2.04 trillion which was Rp421.43 billion or 16.98% under the 2019 Company's Work Plan and Budget of Rp2.48 trillion.

Sales of the Company's Partnership Products in 2019 were recorded at Rp456.54 billion, a decrease of Rp677.44 billion or 59.74% when compared to sales in 2018 of Rp1.13 trillion which was Rp639.29 billion or 58.34% below the 2019 Company's Work Plan and Budget of Rp1.09 trillion.

Net sales of the Company's Trading Partnership in 2019 were recorded at Rp14.59 billion, which was a decrease of Rp38.52 billion or 72.52% compared to the 2018 figure of Rp53.11 billion and therefore Rp76.54 billion or 83.99% under the Company's Work Plan and Budget of Rp91.14 billion.

Services sales in 2019 were recorded at Rp11.62 billion, an increase of Rp1.51 billion or 14.98% compared to 2018 at Rp10.10 billion which was Rp2.59 billion or 18.24% under the Company's Work Plan and Budget of Rp14.21 billion.

The Company's performance in 2019 in terms of sales stood at Rp2.54 trillion, down by Rp692.633 billion or 21.41% compared to the realisation in 2018 of Rp3.24 trillion which was Rp1.14 trillion or 30.95% under the 2019 Company's Work Plan and Budget amounting to Rp3.68 trillion.

Government Sector Sales in 2019 were recorded at Rp831.94 trillion, down by Rp1.03 trillion or 55.25% compared to 2018 of Rp1.86 trillion which was Rp1.04 trillion or 55.59% under the 2019 Company's Work Plan and Budget of Rp1,87 trillion.

Private Sector Sales in 2019 were recorded at Rp234.86 billion, a decrease of Rp63.15 billion or 21.19% compared to the 2018 figure of Rp298.01 billion which was Rp148.54 billion or 38.74% under the 2019 Company's Work Plan and Budget of Rp383,40 billion.

Export Sector Sales in 2019 were recorded at Rp1.48 trillion, an increase of Rp397.74 billion or 36.89% compared to the 2018 figure of Rp1.08 trillion which was Rp50.07 billion or 3.51% above the 2019 Company's Work Plan and Budget of Rp1,43 billion.

In 2019, there was low sales achievement in the Government sector. Total Contracts signed between the Government & Bio Farma only amounted to Rp831.94 billion or 44.41% of the 2019 Company's Work Plan and Budget. This was due to the completion of the vaccine requirement for Diphtheria in 2018.

Product Sales in the Private Sector in 2019 amounted to Rp234.86 billion, a decrease of Rp63.15 billion or 21.19% compared to the 2018 figure which was Rp298.01 billion, and therefore Rp148.54 billion, or 38.74% under the 2019 Company's Work Plan and Budget. This was due to the unrealized marketing of several new products in 2019 due to product readiness such as JE Inactivated products, EPO, Flubio Halal, Anti-Rabies Serum, and Yellow Fever. It was also due to the decrease in sales of the company's products from the Bacteria vaccine group, especially BCG vaccines for infants and children 20 ds, TT 10 ds, BioTd 1 ds and DT 10 ds respectively by 49.40%, 48.71%, 96.64% and 73.81% or Rp3.01 billion, Rp690 million, Rp16.36 billion and Rp114.91 million.

PRODUCTION EXPENSES

The realisation of production expense in 2019 for producing finished products and products in the process was Rp1.55 trillion, decreased by Rp285 billion or decreased by 15.54% when compared to the realisation of production expenses in 2018 which amounted to Rp1.83 trillion and amounted to Rp345.69 billion or 18.24% under the 2019 Company's Work Plan and Budget of Rp1.89 trillion.

In 2019, the realization of production costs for bacterial vaccines was Rp275.52 billion, an increase of Rp8.83 billion or an increase of 3.31% compared to the realization of production costs in 2018,

amounting to Rp266.70 billion and Rp10.03 billion or 3.51% under the 2019 Company's Work Plan and Budget amounting to Rp285.55 billion.

In 2019, the realisation of production costs for viral vaccines was recorded at Rp681.44 billion, an increase of Rp254.64 billion or an increase of 59.64% when compared to the realization of production costs in 2018, amounting to Rp426.87 billion and Rp135.78 billion or 24.88% above the 2019 Company's Work Plan and Budget of Rp545.66 billion.

In 2019, the realisation of production expense for combination vaccines was recorded at Rp215.19 billion, a decrease of Rp92.70 billion or a decrease of 30.11% when compared to the realisation of production expense in 2018, amounting to Rp307.89 billion, and Rp52.89 billion or 19.73% under the 2019 Company's Work Plan and Budget amounting to Rp268.09 billion.

In 2019, the realization of production expense for sera was recorded at IDR39.53 billion, an increase of Rp16.11 billion or an increase of 68.78% when compared to the realization of production expenses in 2018 which was IDR23.42 billion and IDR26.03 billion or 39.71% under the 2018 RKAP of Rp65.56 billion.

In 2019, the realization of production costs for Partnership products was recorded at Rp337.52 billion, a decrease of Rp471.80 billion or a decrease of 58.30% compared to the realization of production costs in 2018, amounting to Rp809.32 billion and Rp392.52 billion or 53.77% under the 2018 RKAP amounting to Rp730.04 billion.

COST OF GOODS SOLD

In 2019, Bio Farma posted Cost of Sales of Finished Products of Rp945.31 billion or absorbed 77.33% of the Company's Work Plan and Budget in 2019 and decreased by 6.49% compared to 2018.

In 2019, Bio Farma booked the Cost of Partnership Product Sales in 2019 of Rp345.87 billion, a decrease of Rp412.87 billion or 54.42% compared to 2018 which was Rp758.73 billion, and Rp383.07 billion, or 52,55% below the 2019 Company's Work Plan and Budget of Rp728.94 billion.

In 2019, Bio Farma posted Cost of Sales of Trading Partnership Products in 2019 of Rp8.50 billion, a decrease of Rp31.48 billion or 78.75% compared to 2018 which was Rp39.98 billion and Rp69.17 billion, or 89.06% below the 2019 Company's Work Plan and Budget of Rp77.67 billion.

In 2019, Bio Farma posted a Cost of Services Sales in 2019 of Rp11.56 billion, a decrease of Rp2.51 billion or 17.85% compared to 2018 which was Rp14.07 billion, and Rp1.23 billion, or 9.62 % below the 2019 Company's Work Plan and Budget of Rp12.79 billion.

In 2019, Bio Farma posted a cost of goods sold, partnership products, trading partnerships & services in 2019 amounting to Rp2.26 trillion, an increase of Rp432.80 billion or 23.73% compared to 2018 which was Rp1.82 trillion and Rp214.74 billion, or 10.52% above the 2019 Company's Work Plan and Budget of Rp2.04 trillion.

PROFIT (LOSS)

In 2019, gross profit (loss) was recorded at Rp1.23 trillion or decreased by Rp180.12 billion or 12.76% compared to 2018 which amounted to Rp1.41 trillion and Rp409.28 billion or 24.95% below the Company's Work Plan and Budget of Rp1, 64 trillion.

2019 recorded Profit (Loss) before Income Tax of Rp490.61 billion or a decrease of Rp236.75 billion or 32.55% compared to 2018 which was Rp727.37 billion and Rp349.83 billion or 41.62% under the 2019 Company's Work Plan and Budget in the amount of Rp840.45.

In 2019, Bio Farma recorded a net profit of Rp355.94 billion or decreased by Rp187.29 billion or 34.48% compared to 2018 net of Rp543.23 billion and Rp263.91 billion or 42.58% under the 2019 Company's Work Plan and Budget of Rp619.85 billion.

CHALLENGES FACED BY BIO FARMA AND THE STEPS TAKEN

In 2019, Bio Farma faced both internal and external challenges. The main challenges faced by the company were: the changes and replacements to the priority needs for vaccine products globally that took place in accordance with the appeal from WHO; the changes in regulations and WHO requirements for product prequalification that have

become increasingly stringent; the increasing level of product registration requirements in each country; the changes in production process technology aimed towards capacity building and process modernisation (construction of new facilities); and the new vaccine requirements for mass immunisation programs. In facing these challenges, Bio Farma communicates with various parties, such as with WHO and other relevant institutions.

Adjustments to international vaccine policy and regulatory directions. The speed of change in international vaccine regulation is still not in line with the speed of vaccine research and development. Vaccine research activities have not been well integrated, and vaccine research activities in Indonesia include university research institutes, as well as government research institutes. This means that the public release of research results is often delayed. In facing these obstacles, Bio Farma plays an active role and participates in various international institutions such as the Developing Countries Vaccine Manufacturers Network (DCVMN), the Global Alliance for Vaccines and Immunization (GAVI), and the Organisation of Islamic Cooperation (OIC) so that they can prepare themselves if there is a change in policy and international vaccine regulation. In addition, domestically we work closely with the Republic of Indonesia's Ministry of Research and Technology, the Ministry of Health, the Indonesian Agency for Health Research, and various universities and research institutes in the country to accelerate vaccine research and Life Science products through the National Life Science Research Forum (FRLN).

The steps taken by Bio Farma to overcome the problem of product sales performance are to coordinate with the Directorate of Public Drug Management and Health Supplies (Dit Oblik) in the Ministry of Health of the Republic of Indonesia to accelerate the addition of RKO (Drug Needs Planning). Bio Farma has also approached the Directorate General of Disease Prevention and Control (Directorate General of P2P) of the Ministry of Health of the Republic of Indonesia related to the possibility of procuring a central allocation of stock in 2019.

Other challenges faced by the pharmaceutical industry in general are those related to level of readiness for the application of Law Number 33

of 2014 concerning the Halal Product Guarantee (JPH Law). The Pharmaceutical Industry has strict and complicated regulations that prioritize aspects of quality, safety and efficacy, while bio-pharmaceuticals are a challenge going forward because the raw materials are sourced from biological sources. The question is whether these biological sources will comply with these new criteria, and this includes the challenges involved in making the plasma products that are indispensable for the future of Indonesia's health such as Albumin, globulin, and factor 8.

Accelerating the development of quality, safe, and effective products that are affordable for the general public, along with fulfilling all aspects in accordance with the guarantee of halal products, are new challenges for the entire pharmaceutical and biological industry in Indonesia. However, Bio Farma is committed to comply with the new regulations, and we have already undertaken several initiatives such as conducting a Workshop on Halal preparation, inviting scholars to visit production facilities, reviewing some of the new products that are involved, and some of our vaccine products which are in the process of being prepared for submission to LPPOM MUI.

In 2019, it has been relatively difficult to increase the private sector market for the sale of basic immunization vaccines given that most of the vaccine needs have been fulfilled by the Government, except for certain regions with Regional Autonomy (OTDA) where local governments can budget for the vaccine needs that cannot be met by the Central Government. Therefore, most of the opportunities in this sector are in sales to non-OTDA channels through branded products (those products with special/different packaging) such as the Flubio vaccine and serum, and partnership products including Meningitis, Verorab, Vaxigrip, Varicella, HPV (gardasil) and Measles Rubella (MR). Bio Farma has also formed a geographical marketing matrix in the Bio Farma organizational chart, and opened several marketing representative offices in Indonesia that function to increase sales and introduce Bio Farma products to the public. As for the export sector, although currently Bio Farma has managed to sell its products to more than 140 countries, it is still necessary to further develop the global market including increasing sales through international

agents/local agents, local government markets, and sales through the United Nations International Children's Emergency Fund (UNICEF) and the Pan American Health Organization (PAHO) and all with competitive selling prices.

The vaccine industry is highly regulated, and has various unique characteristics such as high capital investment, and specific employee competencies. For this reason, as the only vaccine manufacturer in Indonesia, Bio Farma does not rule out the possibility of another pharmaceutical company wanting to develop a vaccine in Indonesia. Bio Farma is one of about 30 vaccine manufacturers that have been qualified by the World Health Organization (WHO) and the largest in Southeast Asia in terms of product type and capacity, as well as being a reference point for the Centre of Excellence for vaccine manufacturers in Islamic countries.

ANALYSIS OF BUSINESS PROSPECTS

We believe that Bio Farma's business prospects will be improved by conducting research, development, and product innovation. New market penetration can be launched on time, and collaboration and synergy with various parties can increase market share, reduce costs by carrying out efficiency measures and increasing cost competitiveness. The growth in production and sales of Bio Farma products are based on various product groups: company products (bacterial, viral, combination & sera vaccines), partnership products, trading partnership products and services. There are also various sectors: government sector, private sector and export sector.

Bio Farma's position as a domestic vaccine manufacturer has several very strategic business prospects. Indonesia has a role in securing the supply of national vaccines and independence in meeting vaccine needs for national immunization programs in the country. With a large amount of production capacity, we have extra capacity that can be used to help other countries that do not have vaccine factories, especially in Islamic countries that are members of the Organisation of Islamic Cooperation (OIC) and in other developing countries that are members of the Developing Countries

Vaccine Manufacturers Network (DCVMN), we are already able to fly the red and white flag on the global scene.

Bio Farma is the only vaccine manufacturer in Indonesia and when viewed on the current global vaccine manufacturer's map, we can see that there are around 200 vaccine industries in the world, but only around 30 vaccine producing countries have received pre-qualified products from the World Health Organization (WHO). Bio Farma is one of them, so the company has an important role in providing and supplying 60% of the world's vaccine needs. The vaccine industry market is highly developed, and emerging markets always increase by around 30%, with growth in developing countries, including Indonesia, at around 14-17%.

We believe that Bio Farma is in a very good position to amplify the opportunities and strengths it has. This is due to how we, as vaccine manufacturer, have succeeded in developing our local and global wings, so that we see a future with profitability and sustainable growth.

The new round of the pharmacy industry in Indonesia, especially those owned by the government, will soon begin due to the signing of Government Regulation No. 76 of 2019 by Indonesian President Joko Widodo. This concerns the addition of Republic of Indonesia State Capital Investment into PT Bio Farma's Equity (Persero), and will form a new industrial climate, wherein each member will be a pharmaceutical holding, and will continue to carry out its functions as usual, and fulfil aspects of holding regulations. As the parent, Bio Farma will continue to provide biotechnology products such as vaccines, serums, biosimilar, stem cells. Kimia Farma will produce pharmaceutical raw materials, medicines, cosmetics and Indofarma will produce herbal products and medical devices.

The purpose of this SOEs pharmaceutical holding is not only to strengthen the independence of the national pharmaceutical industry, but also to increase product availability by creating joint innovations in the supply of pharmaceutical products to support the pharmaceutical ecosystem in the future.

With the joining of these three companies in a SOEs pharmaceutical holding, it is expected that each of the companies will make a positive contribution to national pharmaceutical security. The result of the merger of the three companies is expected to have an impact on the price of pharmaceutical products (making them more affordable) and on the ease with which people will be able to get pharmaceutical products in future (access to medicine) and provide a wide and even distribution network, even to foreign countries. Most importantly, innovations that can give birth to new products needed by the people of Indonesia.

Bio Farma as the holding company will encourage Kimia Farma Tbk., and Indofarma Tbk., to be able to penetrate a wider market with qualified product standards from the World Health Organization (WHO).

As SOEs Pharmaceutical Holding the company will assist the country to participate in creating a healthy Indonesian nation with world-class biotechnology, pharmaceutical, and health care products with global competitiveness.

DEVELOPMENT OF GOOD CORPORATE GOVERNANCE IN 2019

Bio Farma has evaluated the implementation of GCG in the Company in accordance with the changes in regulations and Bio Farma's business development plan, including the improvements made to the Board Manual of the Board of Commissioners and the Board of Directors, the Code of Conduct, and the Guidelines for the Implementation of Good Corporate Governance which were ratified on December 31 2018. Furthermore, measurements will be made on the understanding of the Code of Conduct (CoC) for all Bio Farma Individuals and this will also become part of the Key Performance Indicator (KPI) of each Bio Farma employee. In 2019, the results of our commitment to the Code of Conduct reached 100% which increasingly shows the commitment of Bio Farma to implement GCG in all of the Company's business activities.

All of Bio Farma's people signed the Integrity Pact related to the implementation of Good Corporate Governance (GCG) on Friday, February 8, 2019, at Bio Farma's Hall. The signing was carried out simultaneously by the President Commissioner, all members of the Board of Commissioners, the Board of Directors, Audit Committee, Risk Committee, as well as all employees. The signing of the Integrity Pact is a commitment from all Bio Farma people to implement GCG and is a follow-up to the Decree of the Secretary of the State Ministry of SOE RI Number: SK-16/S.MBU/2012 on June 6, 2012 concerning the indicators/parameters of evaluation of the Application of Governance Good Corporate Governance in State-Owned Enterprises (SOEs).

On February 8, 2019, Bio Farma socialized Gratification Control with the aim of providing guidance for Bio Farma employees to understand the definition and concept of Gratification and to know how to behave when dealing with Gratification. Bio Farma provided guidance to employees on the importance of reporting Gratification to protect themselves and their families from the possibility of being charged with bribery. We aim to form a conscious and controlled environment in handling Gratification practices so that the principles of transparency and accountability are consistently applied when carrying out the Company's operational activities so that they can run well.

To find out the extent of the implementation of GCG practices in the Company, Bio Farma launched an Enterprise Risk Management Application on March 13, 2018. This Enterprise Risk Management (ERM) application has become a strong foundation for financial aspects and business and strategic risks, including aspects of quality, environmental and occupational health and safety (OHS) risks for the company's internal and external activities. It is expected that each work unit will better understand all aspects of its risks as a result.

Bio Farma also consistently conducts GCG Assessment every year by appointing an Independent Assessor. The result of the Bio Farma GCG assessment for fiscal year 2019 (for the parameters of Assessment and Evaluation of the Implementation of Good Corporate Governance for SOEs in accordance with SK-16/S.MBU/2012) was that Bio Farma received a score of 563.25. Based on the ASX Standards for Corporate Governance

Principle and Recommendation, Bio Farma received the title "Outstanding Corporate Governance Structure".

Bio Farma also retook the triumph of the Public Information Openness award from the Central Information Commission. This is the fifth award since 2013. This award is a commitment from Bio Farma to consistently implement Law No. 14/2008 on Public Information Openness (KIP) which requires Public Agencies including State-Owned Enterprises (BUMN) to disclose information intended for the public interest. The application of public information disclosure is able to encourage corporations to be able to compete globally and this award is a recognised achievement for Bio Farma in the domain of free access to information.

We believe that the results we have achieved cannot be separated from the good support and cooperation we enjoy between the shareholders, the Board of Commissioners, the Board of Directors, and all Bio Farma's employees. We will continue to make assorted improvements to be able to further enhance Bio Farma's reputation and our stakeholder's trust which will strengthen our ability to achieve sustainable business growth by staying true to business ethics and good corporate governance practices.

CHANGES IN THE COMPOSITION OF THE BOARD OF DIRECTORS' AND THE REASONS FOR THE CHANGES

As a Company organ, the Board of Directors has a collegial duty and responsibility in managing the Company for the interests and objectives of the Company, as well as representing the Company both inside and outside the court in accordance with the Company's Articles of Association.

Each member of the Board of Directors can carry out their duties and make decisions in accordance with the division of tasks and authority. Nevertheless, the performance of duties by each member of the Board of Directors remains a shared responsibility. The position of each member of the Board of Directors including the President Director is equal. The duty of the President Director as

primus inter pares is to coordinate the activities of the Board of Directors.

STRUCTURE AND COMPOSITION OF THE BOARD OF DIRECTORS OF BIO FARMA FOR THE PERIOD OF JANUARY 1, 2019-SEPTEMBER 13, 2019

From January 1, 2019 to September 13, 2019, Bio Farma's Board of Directors amounted to 6 (six) people consisting of 1 (one) President Director and 5 (five) Directors with the following composition: M. Rahman Roestan as President Director, Juliman as a Production Director, Sri Harsi Teteki as a Marketing Director, Disril as an HR & General Affair Director, Pardiman as a Finance Director, and Adriansjah Azhari as a Planning and Development Director.

STRUCTURE AND COMPOSITION OF BIO FARMA'S BOARD OF DIRECTORS FOR THE PERIOD OF SEPTEMBER 13, 2019-PRESENT

On the basis of the Decree of the Minister of SOEs and the General Meeting of Shareholders of the Company (Persero) PT Bio Farma No. SK-203/MBU/09/2019 on September 13, 2019, Regarding Dismissal, Changing Nomenclature of Positions, Transfer of Duties, and Appointment of Members of the Board of Directors of PT Bio Farma, the company respectfully dismissed the following members of the Board of Directors: Juliman as a Production Director, Disril Revolin Putra as a Director of Human Resources & General Affairs, Pardiman as a Finance Director, and Adriansjah Azhari as a Director of Planning and Development for his term has ended. Furthermore, the Nomenclature of the Position of Planning and Development Director was changed to Marketing, Research and Development II Director, the Production Director to Operations Director, the Finance Director to Finance and Business Partners Director, the Marketing Director to Marketing, the Research and Development I Director, the HR & General Director to none. There were also several transfers of the Assignment of Members of the Board of Directors: M. Rahman Roestan, originally the President Director became the Operational Director; Sri Harsi Teteki, originally as the Marketing Director became the Marketing, Research and Development I Director with a term of office continuing the term of service as stated in the Minister's Decree No. SK-127/MBU/07/2017 on July 10, 2017, and SK-27/MBU/01/2018. Lastly, appointing Members of the Board of Directors:

Honesti Basyir as a President Director and I.G.N. Suharta Wijaya became a Finance and Business Partners Director.

Thus, the composition of the Bio Farma Directors as of December 31, 2019 is as follows: President Director: Honesti Basyir, Finance and Business Partners Director: I.G.N. Suharta Wijaya, Operational Director: M. Rahman Roestan, and Marketing, Research & Development I Director: Sri Harsi Teteki.

With the Directors' background differences, it is expected that Bio Farma's potential can be explored again so as to bring the Company forward. In the future, the Company is expected to be able to follow the global vaccine trend and increase innovation in its vaccine products.

SEVP APPOINTMENT

Based on the decision of Bio Farma's Board of Directors regarding the Appointment of the Senior Executive Vice President (SEVP) at PT Bio Farma (Persero) with the number KEP-05777/DIR/IX/2019, KEP-05779/DIR/IX/2019 and KEP-05778/DIR/IX/2019, the PT Bio Farma Company SEVP members are as follows::

SEVP Production	: Juliman
SEVP Legal and Compliance	: Disril Revolin Putra
SEVP Research and Development	: Adriansjah Azhari

HUMAN CAPITAL MANAGEMENT

For Bio Farma, HR development is beyond imperative because employees are one of the pivotal assets in order to achieve the goals set by the Company. At every level, the Company provides equal opportunities between genders when coaching, developing and enhancing employees' career paths. Employee competency improvement is done through developing learning & development solutions.

Furthermore, the Company has also transformed the pattern of Information Technology-based HR management. The future challenge for Bio Farma is to change and encourage HR from the current

comfort zone conditions to become ready to transform in the face of competition in the Asean Economic Community (AEC).

In 2019, Bio Farma's Human Capital strategy and development is aligned with the Company's business needs, namely training and developing employees in line with the defined needs, and revamping the Human Capital management system to support the creation of a conducive work climate in order to increase productivity. In 2019, Bio Farma continued to innovate in the management of Human Capital. In line with the vision of the Company to become a world-class, globally competitive Life Science Company, the human resource management strategy is based on building a strong work culture through implementing corporate values, perfecting the organisational structure, structuring HR, enhancing the employees' competency and capability, and improving corporate governance.

Bio Farma has reviewed its human resource development plan (HR) and set a 2019 Human Capital Excellence target for Bio Farma Employees who meet the BEST criteria (Beyond Expectation, Environment Awareness and Synergized Partnership). Bio Farma implements employee development from two sides, namely increasing mutual trust amongst the Company and employees and enhancing the capabilities and capacity of Bio Farma Employees in order to achieve the Company's goals.

The non-discrimination policy makes it clear that all Bio Farma's Individuals have equal opportunities as part of the normal implementation of Company policies. This policy is regulated in the Company Ethics, Corporate Governance Policy, Management Policy and Collective Labour Agreement and is also published internally.

As of December 31, 2019, there were 1,363 employees, consisting of 1,207 Permanent Employees and 156 Contract Employees. The number of Permanent Employees of Bio Farma is 1,207 people, an increase of 1% compared to 2018.

ASSESSMENT OF THE PERFORMANCE OF COMMITTEES UNDER THE BOARD OF DIRECTORS

In 2019, performance assessment was based on the Regulation of the Directors of PT Bio Farma (Persero) Number: PER-07271/DIR/XI/2019 concerning the Research Committee, Product Committee, Technology Committee, and Investment Committee. Each of these Committees consists of the Board of Executives, and employees of Bio Farma.

Each of these committees has the task to ensure that Research and Development, the implementation of product development, the use of technology, and the implementation of investments, take place in accordance with the Company's Work Plan and Budget and/or the Company's Long-Term Plan, including other opportunities related to these matters. Validation of ideas and innovations as well as the availability of career plans for each employee must also be measured and implemented. The core task of the committee formed at the end of the 2019 period is to ensure delivery of the Five Pillars of the planned Acceleration: namely, Acceleration of New Products with a Spirit of Innovation, Focused On Time Projects, Cost Control, Increasing Domestic and Global Market Share and Increased HR Competence. Delivery of these five pillars will serve to strengthen Bio Farma as a Life Science company that has global competitiveness and at the same time solidify Bio Farma as a holding company of the Pharmaceutical SOE.

SOCIAL AND ENVIRONMENTAL RESPONSIBILITIES

In the implementation of corporate social responsibility and environmental management, Bio Farma comprehends the significance of the communication process carried out with stakeholders because it can support all activities of Bio Farma ranging from strategic planning, implementation, to the evaluation of initiatives carried out by the Company. There is a mechanism that is in place to ensure effective communication

with stakeholders including through community development activities and relations with the community, Bipartite and Tripartite, etc.

Bio Farma is proceeding to carry out its community development activities and the Partnerships and Community Development program on an ongoing basis. The programs are focused on education, health, public facilities and infrastructure, religious facilities, natural disaster relief, nature conservation efforts, and other things.

During 2019, Bio Farma distributed loans to 66 small entrepreneurs amounting to Rp3.26 billion, and channeled the SOE's synergy with PTPN X (Persero) to 87 sugarcane farmers amounting to Rp5 billion, distribution of SOE's synergy with PTPN XI (Persero) to 51 sugar cane farmers amounting to Rp5 billion and distribution of SOE's synergy with PT Bahana Artha Ventura to 19 Small and Medium Enterprises totalling Rp3 billion. Total disbursement

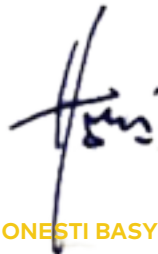
of partnership program loans was Rp16.26 billion or 99% compared to the 2019 budget of Rp16.40 billion. Granting for coaching, education assistance, training and promotion for fostered partners came to a total of Rp536.36 million or 98% when compared to the 2019 budget of Rp550 million.

CLOSING

We express our appreciation and thanks to all Stakeholders and Shareholders, the Board of Commissioners, and our Business Partners for their continued support and trust. We extend our appreciation to all of the Individuals at Bio Farma who have shown their dedication and professionalism in their work and consistency in maintaining the values of the Company. We are confident that with the support of all parties, Bio Farma will continue to increase value for shareholders, benefit the community, and encourage solutions for life for sustainable prosperity.

Jakarta, 15 March 2020

On behalf of the Board of Director
PT Bio Farma (Persero)



HONESTI BASYIR
President Director

Statement of Responsibility to the 2019 Annual Report

This 2019 Annual Report, including the Financial Statements and other related information, is the responsibility of the entire Board of Commissioners whose authority inscribed in signature below.

Jakarta, 15 March 2020

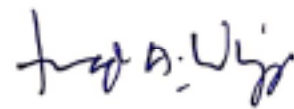
Board of Commissioner
PT Bio Farma (Persero)



FARID WADJDI HUSAIN
President Commissioner



SAUD USMAN NASUTION
Commissioner



MADE ARYA WIJAYA
Commissioner



YUNI SURYANTO
Commissioner



OSCAR PRIMADI
Commissioner



ELEN SETIADI
Commissioner

Statement of Responsibility to the 2019 Annual Report

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Jakarta, 15 March 2020

Board of Director
PT Bio Farma (Persero)



HONESTI BASYIR
President Director



M. RAHMAN ROESTAN
Director of Operations



SRI HARSİ TETEKİ
Director of Marketing,
Research, and Development I



I.G.N. SUHARTA WIJAYA
Director of Finance & Business
Partner

Company PROFILE



Bio Farma is prepared to dedicate its proficiencies in the field of biotechnology to ensure the health of the next generation of Indonesian society as well as global health (Global Health Security).

- Brief History
- Bio Farma at a Glance
- Amendment to Bio Farma's Articles of Association
- Transformation of the Bio Farma Logo
- The History of Changes to Bio Farma's Name
- The History of Bio Farma
- The Company's Business Activities According to the Articles of Association
- The Company's Business Activities
- Products & Services
- Our Innovation
- Industrial Microbiology Laboratory
- Bio Farma's Centre of Excellence Laboratory for the Organisation of Islamic Cooperation (OIC)
- Research and Development of Biological and Pharmaceutical Products
- Innovation of Bio Farma's Products
- Product Surveillance and Evaluation
- Organisational Structure
- Philosophy, Vision, Mission, Company Policies, Values (Corporate Culture), and Core Competencies
- Bio Farma Strategy
- Bio Farma's Identity
- Identities and Brief Histories of Members of the Board of Directors
- Group Structure of the Company
- Chronology of Stock Listing
- Chronology of Issuance and/or Registration of Bonds from the Initial Issuance until the End of the Fiscal Year
- Name and Address of Supporting Institutions and/or Professionals
- Information on Company Website

Brief History

COMPANY NAME & DOMICILE

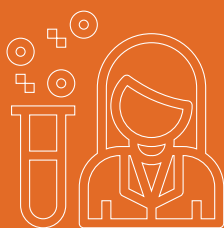
PT Bio Farma (Persero)
Based in Bandung

DATE OF ESTABLISHMENT

August 6, 1890, in Jakarta

DEED OF ESTABLISHMENT

Decree of the Minister of Justice of the Republic of Indonesia on March 5, 1998, Number C2-1423HT.01.01. 1998.



LEGAL FORM

Based:

- By Decree of the Minister of Justice of the Republic of Indonesia, issued on March 5, 1998, under number C2-1423HT.01.01. 1998.
- Official Gazette of the Republic of Indonesia issued on July 16, 2002, Number 57, Supplement Number 6884.
- The latest amendment is based on Deed Number 34. On December 14, 2016

Bio Farma officially became a legal entity in the form of a Limited Liability Company (PT).

HEAD OFFICE

Head Office Address

Jl. Pasteur No. 28, Bandung 40161, Indonesia

Telephone

+62 22-2033755

Facsimile

+62 22 - 2041306

Email

mail@biofarma.co.id

Website

www.biofarma.co.id

Blog

www.infoimunisasi.com

Call Center

1500810

Representative Office Address

Pakarti Centre Building,

Jl. Tanah Abang III No 23-27

Jakarta - Indonesia

OPERATIONAL AREA

Factory Location

Bandung, West Java

Location of Production Facility

Bandung, West Java

Location of Production Support

West Bandung Regency, West Java

Representative Office

Jakarta, DKI Jakarta

Marketing Area

Marketing our products throughout Indonesia; and more than 140 countries overseas.

Rp 8 TRILLION

AUTHORISED CAPITAL

Rp8 trillion consisting of 8 million shares with a nominal value of Rp1 million per share.

Rp 2 TRILLION

ISSUED CAPITAL

Rp2 trillion consisting of 2 million shares with a nominal value of Rp1 million per share.

100%

SHAREHOLDING

Government of the Republic of Indonesia 100%. The Company does not have a subsidiary.
Non-Listed

1.195

Permanent employees

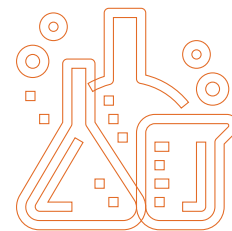
NUMBER OF EMPLOYEES

85

Contract employees

FIELDS OF BUSINESS ACTIVITY

- Research and development of Life Science products.
- Production of Life Science products.
- Marketing, trading and distribution of Life Science products and medical devices, including general goods.
- Health laboratory and clinic services.
- Other services related to points 1-4 above.



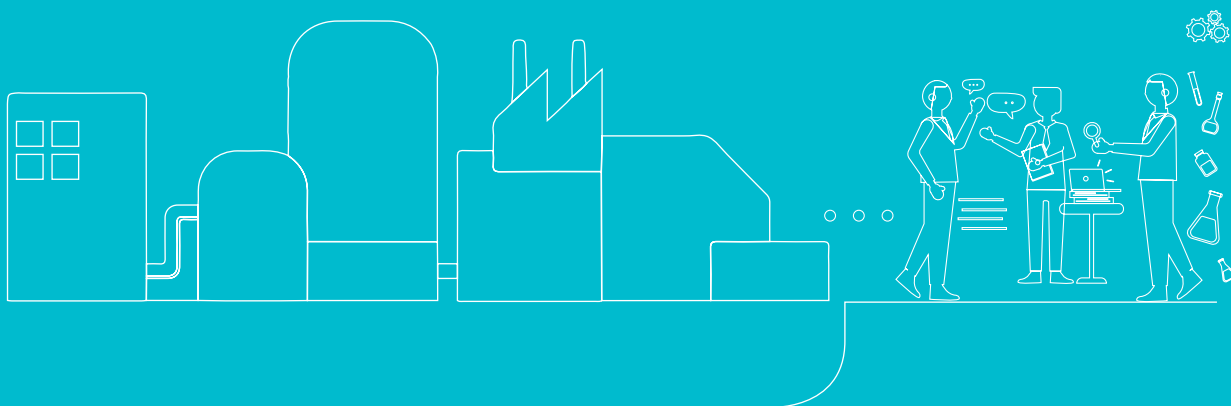
WHO WE ARE

Bio Farma is a leader in the vaccine industry in Indonesia. With the philosophy of "Dedicated to Improve the Quality of Life," Bio Farma is dedicated to working hard for better global health security, and equipped to provide solutions for global prosperity through "Biotech for a Better Future".

Supported by more than 129 years' worth of competencies, experiences, and learning processes, Bio Farma exists as a successful endeavour to safeguard and improve the quality of human life. Bearing in mind our pivotal role and responsibility for developing the nation's health, the existence of Bio Farma has been well-maintained over time.

Bio Farma at a Glance

We have come a long way in our service to safeguard and to develop the health of the nation. For more than 129 years, we have been working to improve the quality of human life with vaccines.



74

PT Bio Farma (Persero), commonly referred to as Bio Farma, is a BUMN (State-Owned Enterprise) domiciled in Bandung whose shares are wholly owned by the Government of the Republic of Indonesia. Bio Farma is the only vaccine manufacturer for humans in Indonesia and the largest in Southeast Asia that is dedicated to producing vaccines, antisera and other biological products (Life Science) internationally. It is through the production of vaccines, antisera and other biological products (Life Science) that we participate in supporting the national immunization program in order to create better quality of life in Indonesian society.

At present, Bio Farma's business activities are headquartered at Jalan Pasteur No. 28 Bandung. The facility occupies an area of 91,058 m² which is harnessed for production, research and development, marketing, and administration. Further, the Company possesses supporting facilities in Cisarua, Lembang, West Bandung Regency on an area of 282,441 m² which is used for breeding and maintaining laboratory animals. The

company also has a representative office in Gedung Pakarti Center Jl. Tanah Abang III No. 23-27 Jakarta.

Bio Farma is a leader in the vaccine industry in Indonesia and has a corporate philosophy of serving people to achieve a better quality of life. Bio Farma has hitherto played an imperative role in combating infectious diseases, both in Indonesia and in many other countries around the world. Supported by expertise, competence, experience, and long learning processes for more than 129 years, Bio Farma continues to play its role in the struggle to safeguard and to improve the quality of human life, as well as to play an important role in building national health. Hence, its existence has been well maintained over time. With the philosophy "Dedicated to Improve the Quality of Life" Bio Farma is ready to devote its hard work to improving global health security, and providing solutions for global well-being through 'Biotech for a Better Future'.

Amendment to Bio Farma's Articles of Association

The Company's Articles of Association have been amended several times. The latest Articles of Association for the Company are: No. 26 June 6, 2015, made by a notary Fathiah Helmi, S.H, and approved by the Minister of Law and Human Rights of the Republic of Indonesia on the basis of the Decree Number AHU-0104.40.20.2015 on June 10, 2015, concerning Approval of Amendment to PT Bio Farma Limited Liability Company (Persero) based on the Republic of Indonesia's Ministry of Law and Human Rights Letter No. AHU-03087.40.21.2015 on June 10, 2015, concerning the Receipt of Notification of Amendments to the Articles of Association of PT Bio Farma (Persero). And through the amendment to the Articles of Association with deed No. 16 January 19, 2016, made by the notary Fathiah

Helmi, S.H, whose Receipt of the Amendment to the Articles of Association has been received and recorded in the database of the Legal Entity Administration System Ministry of Law and Human Rights of the Republic of Indonesia based on the letter of the Ministry of Law and Human Rights No. AHU-01.03-0006021 on January 25, 2016. Furthermore, by the amendment to the increase in the authorised capital of the Company and the augmentation of paid-in capital which has been contained in Deed No. 34 on December 14, 2016, concerning the Resolution of the General Meeting of Shareholders of the Company of the Company (Persero) which was approved by Notary Fathiah Helmi, S.H, which received approval from the Minister of Law and Human Rights RI No. AHU-0024481.AH.01.02 of 2016 on December 21, 2016.



Transformation of the Bio Farma Logo

In 2008, Bio Farma undertook a logo transformation to better reflect the company's enthusiasm and optimism working as one of the world class manufacturers in the vaccine industry with global competitiveness.



Year of 1955 – 1960



Year of 1961 – 2007



Year of 2008 – Now

BIO FARMA LOGO DEFINITION

Bio Farma is an adaptive company that always anticipates business and technological trends in the field of vaccines and antisera. One way of capturing this reality is to have a representative logo which serves as the Company's identity.

BIO FARMA LOGO PHILOSOPHY

1. The logo is an adapted image in the form of a "Protein Crystal" which is in fact a "Glycoprotein". This image reflects the fact that Bio Farma is a company that is engaged in making vaccines and serums.
2. The sparkling image illustrates the dynamic spirit of Bio Farma which has a brilliant future.
3. The dominant colour is green which psychologically implies the value of hygiene and health.
4. Taken together, the orange and yellow colours suggest that we have the progressive courage to innovate and to always be at the forefront of our industry.

The History of Changes to Bio Farma's Name

In accordance with various changes over time, Bio Farma altered its name and legal entity several times up until 1997. Then, based on Government Regulation No. 1 of 1997, the Company changed again to become a Company (Persero) whose shares are wholly owned by the Government of the Republic of Indonesia under the name PT Bio Farma (Persero).



Corporate Identity



Bio Farma also has a distinctive batik corporate identity, which is designed specifically by the Batik Komar house. It depicts one of the living multi-cellular creatures that provides the raw material for making vaccines or anti-sera. The distinctive batik designs, which are also in the form of viruses, bacteria, and amoebas, communicate messages about biodiversity while also summarising the professionalism of a biotechnology company working within the field of Life Science. In fact, every batik icon demonstrates the corporate philosophy of "Dedicated to Improve the Quality of Life".

The History of Bio Farma

AUGUST 6, 1890

Bio Farma was established under the name "Parc Vaccinogene" on August 6, 1890 based on the Decree of the Governor of the Dutch East Indies Number 14 of 1890 at the Weltevreden Military Hospital, Batavia, which has now changed its function to the Gatot Soebroto Army Central Hospital (RSPAD Gatot Soebroto), Jakarta.

1895-1901

The Company underwent a name change to "Parc Vaccinogene en Instituut Pasteur."

1902-1941

The Company underwent a name change to "Landskoepok Inrichting en Instituut Pasteur." In 1923, Bio Farma began to occupy locations at Jalan Pasteur No. 28 Bandung led by L. Otten

1942-1945

During the Japanese occupation, Bio Farma changed its name back to "Bandung Boeki Kenkyushoo" led by Kikuo Kurauchi.

1945-1946

The Company did an alteration towards its name to "Gedung Cacar dan Lembaga Pasteur." The Company is led by R.M. Sardjito who was the first Indonesian leader. During the leadership of R.M. Sadjito, the location was moved to the Klaten area.

1946-1949

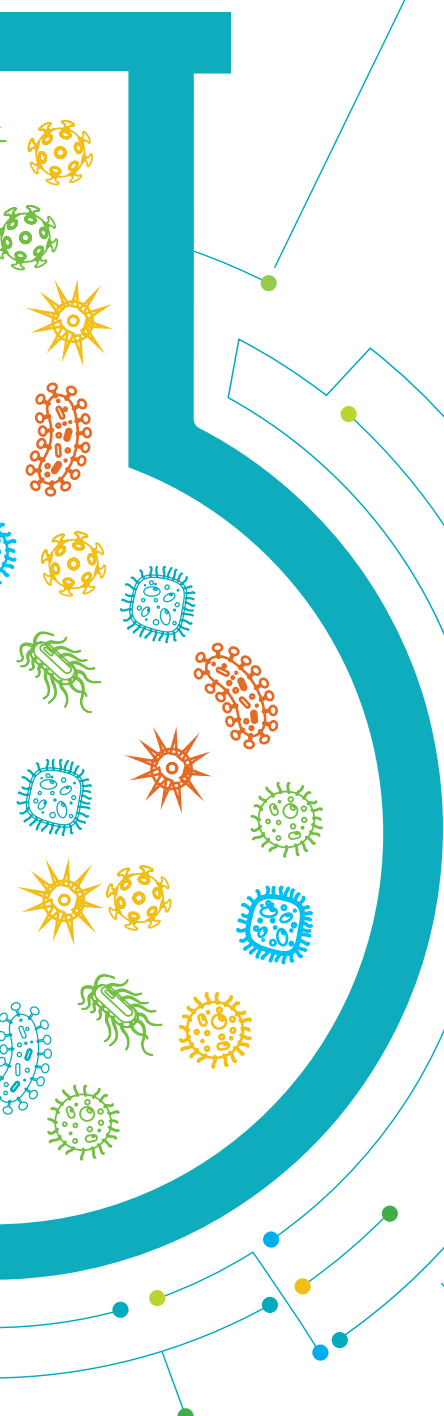
During the Military Aggression, when Bandung was occupied by the Dutch, the Company changed its name to "Landskoepok Inrichting en Institut Pasteur."

1950-1954

The Company changed its name to "Gedung Cacar and Lembaga Pasteur" which is one of the offices within the Ministry of Health of the Republic of Indonesia.

1955-1960

During the nationalization of ownership of Dutch companies in Indonesia, the Company then changed its name back to Perusahaan Negara Pasteur." The Company is better known as PN Pasteur.



2019

Bio Farma is now officially a holding company of the State-Owned Enterprises, along with PT Kimia Farma Tbk., and PT Indofarma Tbk. The establishment of this Pharmaceutical SOE Holding is based on Government Regulation (PP) Number 76 of 2019 concerning the Addition of the Republic of Indonesia's state capital participation in PT Bio Farma (Persero).

2017

Indonesia through Bio Farma is trusted as a Center of Excellence Vaccine, Organization of Islamic Cooperation (OIC).

2016

The transformation of the National Vaccine Research Forum (FRVN) into the National Life Science Research Forum (FRLN).

2015

Inauguration of the Heritage Building and Bio Farma Museum.

2014

Enhanced new Vision "To be a Class Life Science Company A world with global competitiveness".

2013

The roadmap to the Life Science industry begins. Launch of the latest Pentavalent vaccines (Diphtheria, Tetanus, Pertussis, Hepatitis B, HiB) and the launching of a National Immunization Program.

2009

Under the new management team, Bio Farma is stepping towards a world-class vaccine company with global competitiveness.

2008

The launch of the new logo reflects the passion and optimism towards a world-class vaccine industry.

1997-2011

Bio Farma has successfully obtained WHO Pre-Qualification for 12 types of vaccines so that it can enter the export market.

1997

Based on Government Regulation no. 1 of 1997, the name of the Company changed again from Perum Bio Farma to a Limited Liability Company (Persero) or better known as PT Bio Farma (Persero) until now.

1978-1996

Based on Government Regulation No. 26 in 1978, the Company changed its name to Bio Farma Public Company, better known as Perum Bio Farma.

1961-1978

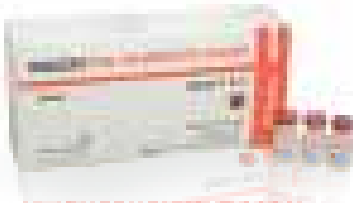
The Company changed its name to "Perusahaan Negara Bio Farma" or better known as PN Bio Farma.

Products of Bio Farma



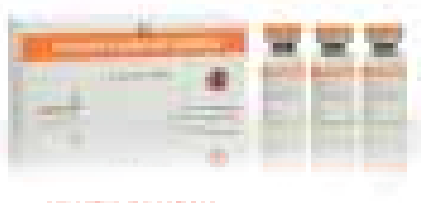
VIRAL VACCINE

80



bivalent Oral Poliomyelitis Vaccine Type 1&3

Prevention against
Poliomyelitis type 1 & 3.



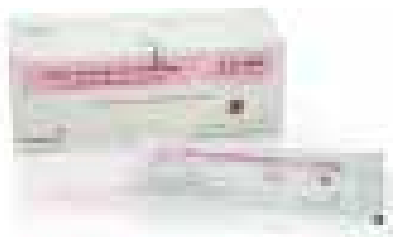
Measles Vaccine

Prevention against Measles.



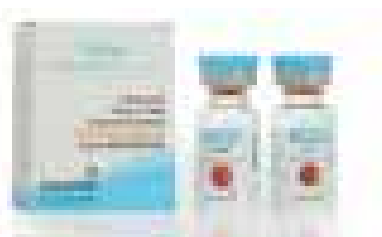
monovalent Oral Poliomyelitis Vaccine type 1

For prevention of poliomyelitis
type 1 disease.



Recombinant Hepatitis B Vaccine

Prevention against infection
caused by Hepatitis B viruses in
newborn babies.



Flubio Seasonal Influenza Vaccine

Prevention of seasonal influenza
disease.

COMBINATION VACCINE



Pentabio Vaccine (DTP-HB-HIB)

Prevention against Diphtheria, Tetanus, Pertussis, Hepatitis B, and Haemophilus influenza Type B.

BACTERIAL VACCINE



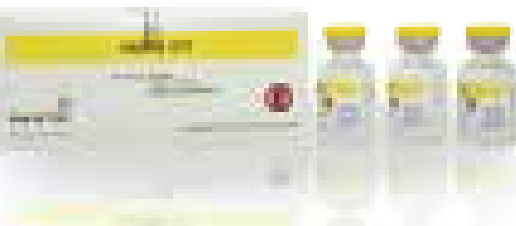
TT Vaccine

Prevention against Tetanus in newly born babies.



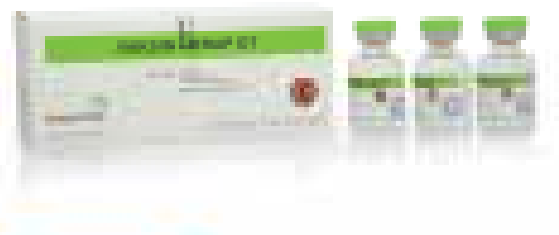
Adsorbed Td Vaccine

Prevention against Diphtheria and Tetanus for individuals of 7 years old and above.



DTP Vaccine

Prevention against Diphtheria, Tetanus, and Pertussis.



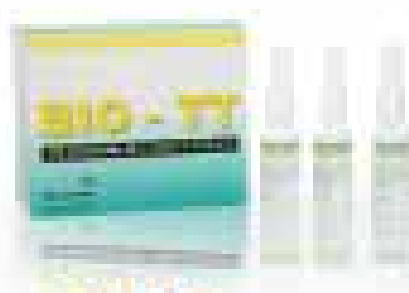
Adsorbed DT Vaccine

Prevention against Diphtheria and Tetanus.



BCG Vaccine (Freeze-Dried)

Prevention against Tuberculosis.



Bio-TT Vaccine

Prevention against Tetanus and protection against Tetanus neonatorum in women of childbearing age.



Bio-Td Adsorbed Vaccine

Prevention against Diphtheria and Tetanus for individuals of 7 years old and above.

ANTISERA



Anti-Venom Serum (Biosave)

Treatment for the bites of venomous snakes of Cobra (Najasputatrix), Banded Krait (Bungarus fasciatus), and Ground Pit Vipers (Agkistrodon rhodostoma).



Anti-Tetanus Serum (Biosat 1.5)

Prevention against and Treatment of Tetanus caused by Clostridium tetani infection.



Anti Snake Venom Serum (Biosave)

Treatment of poisonous snake bites from Cobra Snakes (Naja sputatrix), Striped Snake (Bungarus fasciatus), and Land Snake (Agkistrodon rhodostoma).

DIAGNOSTIC



Tuberculin PPD RT 23 SSI (2 TU)
Mantoux Test to determine whether someone was ever infected by Mycobacterium tuberculosis.

PARTNERSHIP PRODUCT



Menivax Acyw Vaccine (Meningitis)
Prevention against Meningitis.

-  **Varicella Vaccine**
-  **Measles Rubella Vaccine**
-  **Anti-Snake Venom Serum**

The Company's Business Activities According to the Articles of Association

The Company's Articles of Association have been amended a few times. The latest Articles of Association of the Company are: No. 26 June 6, 2015 made by a notary Fathiah Helmi, S.H, and approved by the Minister of Law and Human Rights of the Republic of Indonesia, based on Decree Number AHU-0104.40.20.2015 on June 10, 2015, concerning Approval of Amendment to PT Bio Farma Limited Liability Company (Persero) based on the Republic of Indonesia's Ministry of Law and Human Rights Letter No. AHU-03087.40.21.2015 dated June 10, 2015, concerning the Receipt of Notification of Amendments to the Articles of Association of PT Bio Farma (Persero).

The amendment to the Articles of Association with deed No. 16 January 19, 2016, made by the notary Fathiah Helmi, S.H. whose Receipt of the Amendment to the Articles of Association has been received and recorded in the database of the Legal Entity Administration System of the Ministry of Law and Human Rights of the Republic of Indonesia based on the letter of the Ministry of Law and Human Rights No. AHU-01.03-0006021 Dated January 25, 2016.

The amendments to the Increase in the Company's Authorized Capital and the Increase in Paid-in Capital have been included in Deed No. 34 on December 14, 2016, concerning the Resolution of the General Meeting of Shareholders of the Company (Persero) which was approved by Notary Fathiah Helmi, S.H., and which also received approval from the Minister of Law and Human Rights of Republic of Indonesia No. AHU-0024481.AH.01.02 of 2016 dated December 21, 2016.

In accordance with the Company's Articles of Association, the main purpose and objective of the Company is to conduct its business in the fields of research, development, production and marketing of biological products, pharmaceutical products and medical devices, as well as in optimizing the use of resources owned by the Company to produce high-quality goods and/or services and strong competitiveness to gain/pursue profits in order to increase the value of the Company by applying the general principles of a limited liability company.

The Company's Business Activities

The Company's core business activities embrace:

1. Research and development of biological products and pharmaceutical products, both conducted based on its capacity and in collaboration with other parties.
2. Production of biological products and pharmaceutical products, whether done alone or in collaboration with other parties.
3. Marketing, trading and distribution of biological products, pharmaceuticals, and medical devices, including general goods, both at home and abroad.
4. Health Laboratory Services and clinics.
5. Doing other business in services related to those stated above in points 1, 2, 3, and 4.

In addition to the these focal business activities, the Company may also conduct business activities that elevate the use of the Company's resources

for education and training purposes, as well as for agriculture, animal husbandry, the breeding of laboratory animals, property, offices, warehousing, and tourism.

Bio Farma implements its competitive advantage in the field of biotech expertise through its existing knowledge-base and its R&D-driven base. Bio Farma's business focus is in line with the philosophy of serving humanity for a better quality of life. Bio Farma focuses its best efforts on research and development, and the production and marketing of biological products and pharmaceutical products: both nationally and globally. Bio Farma also plays an active role in developing vaccine research and technology, in conducting new vaccine research, and in ensuring the independence of vaccine needs within the country as well as the availability of vaccines that meet the world's need for quality affordable vaccines.

Products & Services

PRODUCTS

VIRAL VACCINE

bOPV type 1 & 3, Measles vaccine, mOPV1, Hepatitis-B vaccine, Flubio vaccine, mOPV2.

COMBINATION VACCINES

Pentabio (DTP, Hepatitis B, Hib) vaccine.

BACTERIAL VACCINE

TT vaccine, Td vaccine, DTP Vaccine, DT vaccine, BCG vaccine, Bio TT vaccine, Bio Td vaccine

ANTISERA : Biosave, Biosat 1.5, BIOADS

DIAGNOSTICS : PPD RT 23 SSI

Our Innovation

As a state-owned enterprise, Bio Farma has gone through multiple dynamic shifts and developments, while the vaccine industry as a whole has also been subject to new strategies and innovations. Throughout these changes, Bio Farma has not only been successful in developing new businesses in the country, but has also developed a name that counts abroad.

Innovation has been a central part of Bio Farma's journey for 129 years and we can say that it has now become our backbone. Therefore, innovation has now become part of our everyday work culture, as we strive to incessantly improve, develop, and generate new ideas.

Committed to following the latest developments in the pharmaceutical world, the company has launched a pentavalent vaccine product innovation with the trademark Pentabio. It encompasses 5 antigens, namely DTP - HB - HIB (diphtheria, tetanus, pertussis, hepatitis B and haemophilus influenzae type b). After going through a variety of rigorous testing procedures, this innovative product has now finally been patented in liquid form, and its existence has also now been recognised by the WHO.

Bio Farma divides the distribution channel of pentavalent vaccines into two sectors, namely the government sector and the private sector. For the government sector, the vaccine is sent directly from our factory to the provincial health offices; and it is then redistributed to the level of government hospitals, Public Health Centres, and Integrated Healthcare Centres in each region.

One of the innovations in the field of vaccine distribution, used especially for Pentabio, is the use of a Track & Trace system. Track and Trace is a digital innovation the use of which has been initiated by Bio Farma to avert counterfeiting of products and monitor the travel course of vaccines from Bio Farma

to the vaccine users. By utilising the track & trace system, both health workers and consumers are able to check the authenticity of Bio Farma's products through applications that are integrated with their devices.

This innovation has already been tested on Pentabio products. Going forward, this system will also be implemented for all Bio Farma's products in stages.

Bio Farma also plays an innovative role in the international realm. In addition to having good synergy with national research institutions, Bio Farma also relies on good cooperation with multifarious foreign research institutions in meeting the vaccine needs of developing countries. Bio Farma also cooperates with various other large institutions, such as the Organisation of Islamic Cooperation (OIC) and the Developing Countries Vaccine Manufacturer Network (DCVMN/vaccine producing organisations in developing countries).

Indonesia's share is even greater: meaning that it is not limited to exporting finished products to 57 OIC member countries, but also includes sending semi-finished vaccines to the nine countries that produce the DCVMN vaccine. Furthermore, Bio Farma will soon conduct biotechnology transfers so that these countries will also be able to provide their own vaccines independently (self-reliance of vaccine production) to meet their basic immunisation programs.

Right at this moment, we are also focused on the research and development of quality products with halal certification and we are striving to find solutions for this together with Organisation of Islamic Cooperation (OIC) countries. This attempt focuses on the search for halal criteria for medication while maintaining high standards for safety, quality, and efficiency.

Industrial Microbiology Laboratory



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Bio Farma continues to support and innovate, while working exclusively in the pharmaceutical industry and related industries. One of the support services Bio Farma provide is Microbiology Laboratory. This laboratory is ready to assist the food, beverage, and health industries, at both the small and the medium scale, in order to help test its products. Bio Farma has assisted in the Quality Control process of its products to conduct various bacterial identification tests, such as those for *Salmonella*, *Staphylococcus aureus*, *listeria*, *E. coli*, *Bacillus cereus*, coliforms, identification of kapang and khamir, Total Plate Numbers (ALT) and others.

Thus, the Bio Farma Microbiology Laboratory has the capacity to test its product quality. This starts from examining raw materials, processes, and final products to ensure they are free from physical contamination, such as from microbes and bacteria, so that product quality can be maintained well and remains safe for use by consumers, and this also ensures the safety of workers involved in the

production process. The Microbiology Laboratory has received national and international recognition through an ISO 17025 certificate awarded in 2016 from the National Accreditation Committee (KAN) which monitors the industrial work environment so as to avoid contamination which can harm the product or the personnel who work on it.

Bio Farma's microbiology laboratory is therefore quite ready to help large-scale industries and small and medium-sized businesses to check the quality of their products; starting from raw materials, and then examining processes and final products, in order to prevent and control harmful microbiological contamination. Such testing can be applied appropriately for businesses engaged in the food and beverage, health, pharmaceutical, and cosmetic industries. For example, the food industry can check food products are free of bacteria that cause diarrhea, typhus, etc. while for the health industry, it could help monitor the environment of an entire hospital in general.

Bio Farma's Centre of Excellence Laboratory for the Organisation of Islamic Cooperation (OIC)

The Indonesian Minister of Health, Nilla F Moeloek, paid a working visit to Bio Farma on Saturday 27 July, 2019. This working visit was carried out to review the readiness of the Centre of Excellence (CoE) laboratory of the Organisation of Islamic Cooperation (OIC) as a means of sharing knowledge amongst countries for vaccine research and biotechnology.

The appointment of Indonesia in 2017 as a leading sector for manufacturing vaccines among countries that are members of the Organisation of Islamic Cooperation (OIC), is an honor for Indonesia. As a vaccine producer, Bio Farma's products have now been used in more than 140 countries. This shows that the company has already fulfilled the requirements in terms of industry readiness as well as laboratory equipment. Appointment as a Centre of Excellence in biotechnology is an extraordinary opportunity that should be taken advantage of. This is an acknowledgment of good standing from Islamic countries throughout the world.

One of the benefits of this is the general recognition of Bio Farma as a vaccine producer that is working in Islamic countries and for other Islamic countries. All Islamic countries can now get lessons from Bio Farma on making vaccines independently and thereby expanding market share for other Islamic countries. Indonesia has thus been appointed with a Centre of Excellence (CoE) for vaccines and biotechnology, and currently, the CoE Secretariat is in the Ministry of Health, and Bio Farma is one of its registered laboratories.

In the future, it is expected that there will be other laboratories are able to join both those in Indonesia and in other OIC countries in providing vaccines and/or other health products for Islamic countries, so that the 'red and white (Indonesian Flag)' can prove its existence on the global scene. For example, in October 2019, the Indonesian Ministry of Health invited the OIC member countries to take part in workshops on vaccine handling/cold chain management systems, as currently not all countries can comprehend the procedures regarding vaccine delivery.



Research and Development of Biological and Pharmaceutical Products

Bio Farma continually performs its innovations, research collaborations, and development of new products together with research institutions and national and global universities. Since 2011, Bio Farma has been a key initiator in the formation of the National Vaccine Research Forum (FRVN) which is a forum aimed at achieving vaccine independence for the 2011-2020 Vaccine Decade. This initiative commenced with a collaboration between industry, government, and universities to build a joint commitment towards greater independence in national vaccine research and production and to encourage research acceleration so that the results can be quickly felt and utilised by the user community. Bio Farma has also prepared a roadmap in order to

support future vaccine research and development. This roadmap is also expected to create more affordable vaccines in support of the 2011-2020 Vaccine Decade program by conducting some more research and development with quick win superior vaccines: namely, the Rotavirus Vaccine, SIPV Vaccine (Sabin Inactivated Polio Vaccine) as well as several other vaccine candidates that are still at the proof of concept stage.

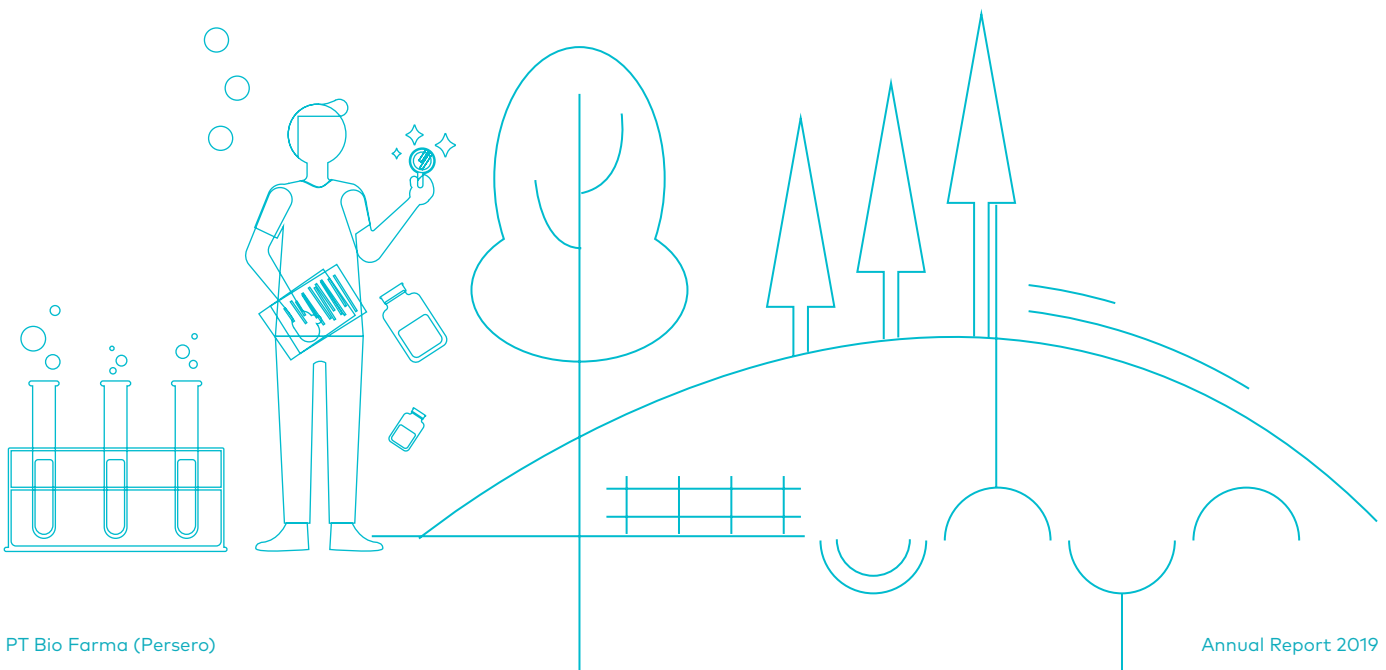
During 2019, Bio Farma has carried out various product research and development activities, namely:

1. Vaccine Development
2. Biosimilar Development
3. Stem Cell Development

Innovation in Production Activities

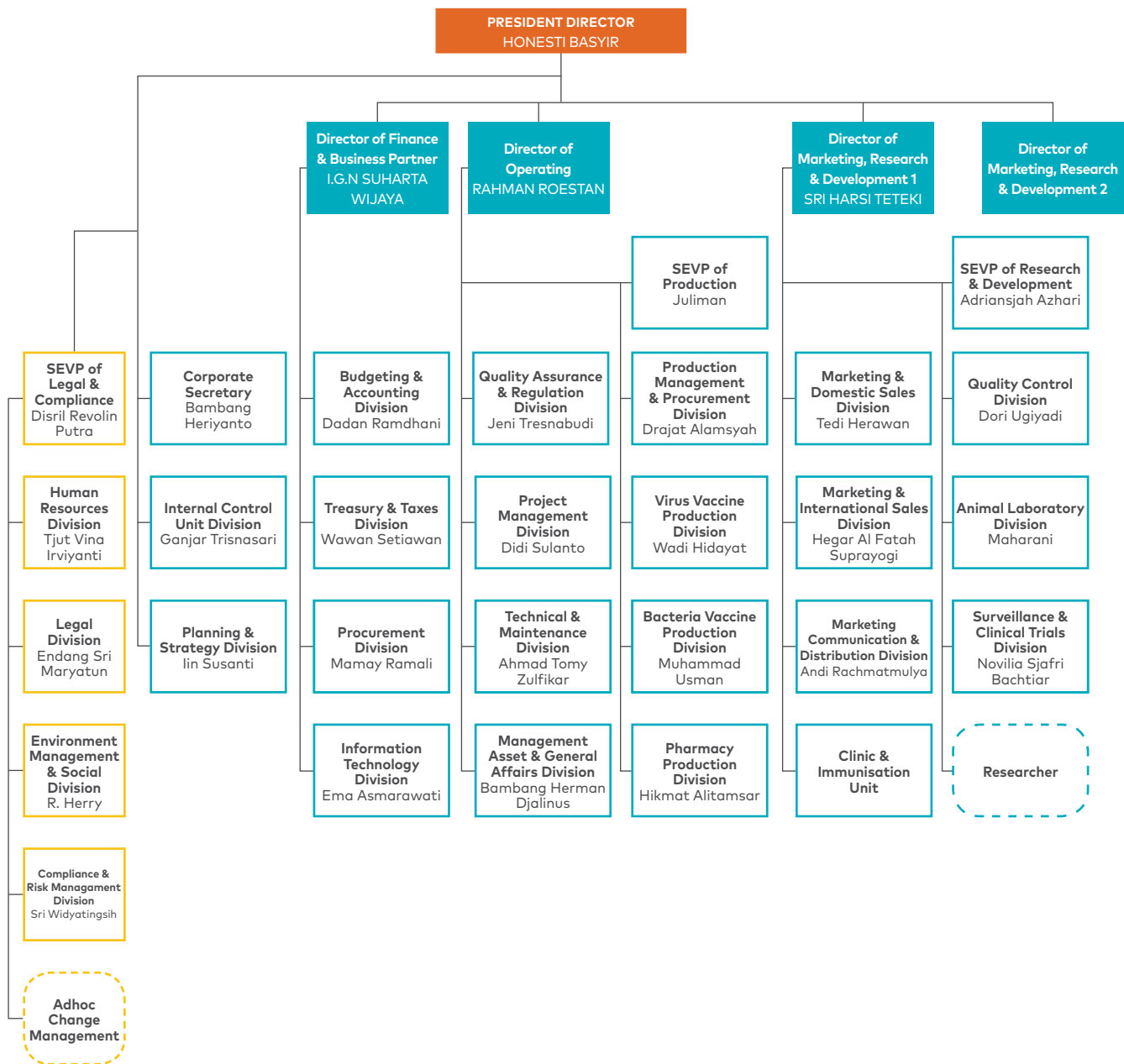
INNOVATION IN PRODUCTION ACTIVITIES: 2019

1. Scaling up the production and manufacture of inoculums in bacterial vaccines.
2. Studying the purification process without using ammonium sulphate.
3. Constructing new facilities for Tetanus bulk production according to cGMP and bio safety aspects.
4. Increasing the yield of Bordetella Pertussis culture using the fed-batch cultivation method.
5. Using disposable bags for Hib conjugate bulk production.
6. Making BCG vaccine in vial packaging.
7. Making local BCG working seed lots.
8. Conducting trials of adjuvant formulation and Td Stability vaccine.
9. Making the mOPV type 2.





Organisational Structure



The organisational structure is based on the Decree of the Directors of PT Bio Farma (Persero) No. 04276/DIR/XI/ 2017, November 17, 2017 concerning the Organizational Chart of PT Bio Farma (Persero) and as updated by the Decree of the Directors of PT Bio Farma (Persero) Number: 00117/DIR/I/2018, dated January 8, 2018, Concerning Changes to the Directors Decree Number: 04276/DIR/XI/2017 Concerning Organisational Structure of PT Bio Farma (PERSERO) and renewed by Decree of the

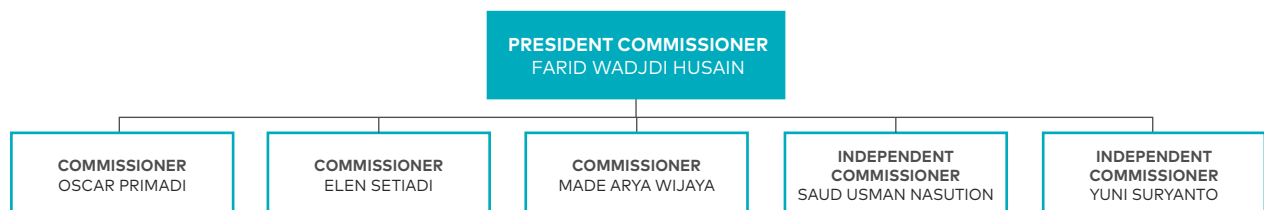
Directors of PT Bio Farma (Persero) No. KEP-05769/ DIR/IX/2019, September 16, 2019, concerning the Organisational Structure of PT Bio Farma (Persero).

The responsibilities, authority and relationships of each person who manages, carries out and verifies work that affects quality, environment and OHS is defined in:

1. Organisational Structure
2. Job Description
3. Manuals, Guidelines, and Supporting Documents

BOARD OF COMMISSIONERS ORGANISATION STRUCTURE

The organisational structure of the board of commissioners is based on SOE Ministerial Decree Number: SK - 102/MBU/04/2018 on April 20, 2018 regarding the Composition of the Board of Commissioners of PT Bio Farma (Persero).



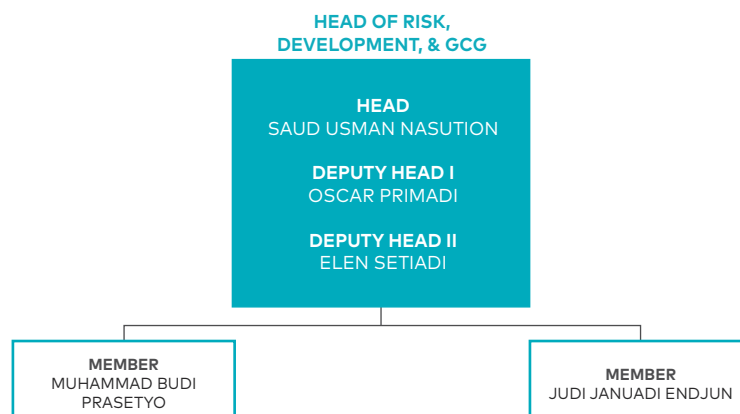
ORGANISATIONAL STRUCTURE OF THE AUDIT COMMITTEE

The organisational structure of the audit committee is based on the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-02/DK/BF/04/2018 April 26, 2018, regarding the Composition of the Audit Committee of PT Bio Farma (Persero).



ORGANISATIONAL STRUCTURE OF THE GCG RISK & DEVELOPMENT COMMITTEE

The organisational structure of the GCG risk and development committee is based on the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-03./DK/BF/04/2018 on April 26, 2018: Concerning the Composition of the PT Bio Farma (Persero) Risk, Development & GCG Committee.



Philosophy, Vision, Mission, Company Policy, Corporate Values, and Core Competence

PHYLOSOPHY

Dedicated to Improve Quality of Life

CORPORATE CULTURE AND VALUES

VISION

To become a world-class life science company with global competitiveness

MISSION

Providing and developing International standard Life Science Products to Improve Quality of Life



PROFESSIONAL

Being committed to carrying out duties with full responsibility, efficient, effective, forward-oriented, and procedural.



CUSTOMER ORIENTED

Understanding the needs and providing appropriate solutions to customer.



INTEGRITY

Being honest, transparent and trustworthy in accordance with the Company's objectives.



TEAMWORK

Cooperating by respecting the roles and opinions of others.



INNOVATION

Doing continuous improvement and development to generate new ideas.

CORE COMPETENCE

✓ *Affordable Life Science
(Biopharmaceutical)*

✓ *Innovation*

✓ *Employee Engagement*

✓ *Green Product/Process*

✓ *Global Marketing*

MANAGEMENT SYSTEM POLICIES

1. High-Quality Products.
2. Environment-Friendly Products.
3. Global Competitiveness.
4. Customer Satisfaction.
5. Continual Improvement.
6. Environmental Protection.
7. Prevention of Injury and Ill-Health.
8. Conservation of Energy and Natural Resources.
9. Conducting Company Business Activities in Accordance with the Principles of Good Corporate Governance.
10. Comply with Regulations and Other Requirements.

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BIO FARMA SALUTE



Bio Farma Strategy

It is currently the right time for Bio Farma to make changes towards achieving globally competitive biotechnology innovation by implementing the 2017-2021 corporate strategy.

1

CORPORATE PLAN & BUSINESS DEVELOPMENT STRATEGY

Our business development strategy and corporate planning began with an increase in our R&D activities, as we focus on increasing our product portfolio.

2

HUMAN CAPITAL & INNOVATION STRATEGY

HR development takes place through the application of innovation along various lines both in processes, and in products and research to encourage innovation in the company's internal workings so that the results can be appreciated by external stakeholders.

3

MANUFACTURE & SUPPLY CHAIN STRATEGY

This strategy is in place mainly to increase production capacity and it is being carried out by adding more production machinery, especially for the fill & finish process. It is also being done using information technology, and by implementing ERP to support the supply chain process so that the availability of raw materials is sufficient to ensure the production process is on target, so that our vaccine products can meet national and global needs sustainably.

4

INVESTMENT & ASSET MANAGEMENT STRATEGY

The investment and asset management strategy is being carried out by increasing our production capacity, and adding to the product portfolio. This is being realized through investment, and by adding more infrastructure and land to our production facilities. Here, the selection of land for our production facilities has always paid attention to all aspects of environmental compliance from the start.

5

FINANCIAL SUPPORT STRATEGY

The financial strategy is in place with the support of an integrated IT system in all corporate functions.



Bio Farma Identity



FARID WADJDI HUSAIN

President Commissioner

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	69 years of age, born in Sompeng, South Sulawesi, March 9, 1950
Educational Background	• Doctorate Degree from the Faculty of Medicine of Hasanuddin University in 1978. • Surgery Specialist from the Faculty of Medicine, Hasanuddin University in 1981. • Digestive Surgery Specialist from Hasanuddin University in 1984.
Legal Basis for Appointment & Dismissal	The legal basis for the appointment as President Commissioner and Independent Bio Farma Commissioner is based on the Decree of the Minister of SOEs Number: SK-102/MBU/04/2018 on April 20, 2018.
Work Experiences	• Beginning his career as a Lecturer at the Faculty of Medicine, Hasanuddin University, Makassar in 1978-2002. • Serving as a President Director of Faisal Makassar Islamic Hospital in 1995-2002. • Serving as an Expert Staff of the Coordinating Minister for People's Health for Community Participation in 2001-2002. • Serving as a Deputy Minister of the People's Health Coordinator in the Field of Health and Environmental Coordination in 2002-2005. • Serving as a Director General of Medical Services at the Ministry of Health in 2005-2010. • Serving as a President Commissioner of PT Askes (Persero) and Special Envoy of the Indonesian President for the Papua Peace Mission 2013-2015. • Serving as a President Commissioner/Independent Commissioner of PT Kimia Farma (Tbk) in 2015-2018. • Serving as a Supervisory Board of Wahidin Sudiro Husodo Hospital since 2006-2018. • He has been the Chairperson of the Central PMI Jakarta since 2015-2018.
Legal Basis	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning dual position restrictions.
Concurrent Position	• Appointed as a President Commissioner of Bio Farma and concurrently Independent Bio Farma Commissioner on April 20, 2018—Present.
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	• Vaccine global trends, potential and threats.



SAUD USMAN NASUTION

Member of Board of Commissioners

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	61 years of age, born in Sigalangan, South Sulawesi, March 9, 1950
Educational Background	• Bachelor of Law in 1994. • Participating in various vocational education including a Police Chief Position Course in 1990. • Masters of Law in 2002. • Doctorate Degree in 2015. • Completing the Indonesian National Police Education as a Polri Sespati (Batch VII) in 2004.
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as a Commissioner is based on SOE Ministerial Decree Number: SK - 102/MBU/04/2018 on April 20, 2018. • The legal basis for the appointment as a Deputy Chair I of the Risk, Development and GCG Committee is based on Decree Number: KEP-03/DK/BF/04/2018 on April 26, 2016. • The legal basis for the appointment as Chair of the Risk, Development and GCG Committee is based on the Decree of the Board of Commissioners No.: KEP-05/DK/BF/02/2019: Concerning the Composition of the PT Bio Farma (Persero) Risk, Development and GCG Committee on 18 February 2019.
Work Experiences	• Beginning his career as a North Sumatra Regional Police Officer PAMA in 1981. • Serving various strategic positions in the Regional Police (POLDA) including Maluku, Metro Jaya and East Java, 1981-2000. • Serving as a Head of Sub-Task Force for Law Enforcement in Handling Poso Conflict Cases in 2005-2007. • His last position in the Indonesian National Police was as Head of the Counter Terrorism Agency (BNPT) in 2014. • Serving as a Commissioner of PT Dahana BUMN in 2016. • Serving as a Commissioner of PT Cemindo Semen Merah Putih in 2016. • Serving as an Independent Commissioner of PT SLJ Global Tbk. 2016. • Serving as a Commissioner of PT Armina Reka Perdana in 2016. • Serving as a Supervision Commissioner of Dadi Peradi, 2016. • Appointed as a Commissioner of Bio Farma on April 20, 2018 -Present.
Concurrent Position	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning concurrent position restrictions.
Awards	
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats



MADE ARYA WIJAYA

Member of Board of Commissioners

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	54 years of age, born in Singaraja, August 17, 1965
Educational Background	He obtained his Associate Degree III from the State College of Accountancy, Jakarta in 1987. He obtained his Bachelor of Economics degree from the Jakarta Islamic University in 1995. He obtained his Master of Science in Finance, University of Colorado at Denver, USA in 2001.
Legal Basis for Appointment & Dismissal	- The legal basis for the appointment as a Bio Farma's President Commissioner is based on the Decree of the Minister of SOE Number: SK - 102/MBU/04/2018 on April 20, 2018. - The legal basis for the appointment as Deputy Chairman of the Audit Committee is based on Decree Number: SK Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018. - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019: Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero).
Work Experiences	- Starting his career as an Executive, Directorate of Other Budgets, Directorate General of Budget, 1988-1990. - Serving as an Executive Coordinator, Directorate of Other Miscellaneous Budgets, Directorate General of Budget 1990-1996. - Serving as a Head of the Sub Directorate for Budgeting System Development, Directorate of Budgeting Systems, DG Budget, 2008-2011. - Serving as an Acting Director of Budgeting Regulation Harmonisation, Directorate of Budgeting Regulation Harmonisation, Directorate General of Budget, September 2014 - November 2015. - Serving as a Director of Budgeting Regulatory Harmonisation, Directorate of Budgeting Regulatory Harmonisation, DG Budget, 2015-2018.
Concurrent Position	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning concurrent position restrictions.
Awards	
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats

**YUNI SURYANTO****Member of Board of Commissioners**

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	55 years of age, born in Yogyakarta, June 3, 1964
Educational Background	• He holds a Bachelor of Economics majoring in Accounting from the University of Gadjah Mada (UGM), in 1990. • He earned his Master of Business Administration at Oklahoma City University, USA, in 1993.
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as a Bio Farma's President Commissioner is based on the Decree of the Minister of SOE Number: SK - 102/MBU/04/2018 on 20 April 2018. • The legal basis for the appointment as Deputy Chairman of the Audit Committee is based on Decree Number: SK Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018. • Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019: Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero).
Work Experiences	• Starting a career as an Acting Head of Department of Chemical Industry Planning Ministry of Finance in 1997. • Serving as an Acting Head of Chemical Industry & Cement I Ministry of Finance, 1998. • Serving as an Acting Head of Cement Ministry of Finance in 1999. • Serving as an PPT Head of Sub-Division Consulting Services Company Ministry of SOEs, in 2000. • Serving as an PPT Head of Sub-Division Perkebunan II of the Ministry of SOE in 2001. • Serving as an Acting Head of Plantation Business II of the Ministry of SOE in 2002. • Serving as a Head of Plantation Business 1A at the Ministry of SOE in 2006. • Serving as a Commissioner of PT Jasa Raharja (Persero) in 2013. • Appointed as a Commissioner of Bio Farma on April 20, 2018-Present.
Concurrent Position	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning concurrent position restrictions. • Serving as an Assistant Deputy for Infrastructure and Logistics Business II of the Ministry of SOE in 2013 until now.
Awards	
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats



ELEN SETIADI

Member of Board of Commissioners

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	48 years of age, born in Cerenti, September 1, 1971
Educational Background	He holds a Bachelor of Laws degree from the Faculty of Law of Andalas University, Padang (Unand) - West Sumatra in 1995. He earned a Masters in Regional Programs at the University of Indonesia in 2006. He attended education and short courses abroad including the IMF Regional Training Institute in Singapore in 2006.
Legal Basis for Appointment & Dismissal	- The legal basis for the appointment as an Independent Commissioner is based on SOE Ministerial Decree Number: SK-13/MBU/01/2019 on January 8, 2019. - Legal basis for appointment as Deputy Chairman II of the Risk, Development and GCG Committee, Board of Commissioners Decree No.: KEP-05/DK/BF/02/2019 Concerning the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero) on February 18, 2019. Elen Setiadi replaced M. Subuh, whose term had expired.
Work Experiences	- Beginning his career at the Ministry of Finance of the Republic of Indonesia in 1996. - Serving various important positions including as Head of Technical and Functional Subsection in 2000. - Serving as a Head of the 2002 Legislation Section. - Serving as a Head of the Sub-Division of Trial Implementation in 2002-2005. - Serving as a Head of the Trial Section for the Coordinating Ministry for Economic Affairs in 2006. - Serving as a Head of Legal Affairs at the Coordinating Ministry for Economic Affairs in 2007. - Serving as a Head of Legal, Trial and Public Relations Bureau of the Coordinating Ministry for Economic Affairs in 2013-2016. - Serving as a Deputy Secretary of the Implementation Team of the National Council for Special Economic Zones in 2015. - Serving as a Deputy Secretary of the 2015 Infrastructure Development Acceleration Committee. - Appointed as an Independent Commissioner of Bio Farma on January 8, 2019 to date.
Concurrent Position	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning concurrent position restrictions. Serving as an Expert Staff in the Field of Economic and Political, Legal and Security Affairs of the Coordinating Ministry for Economic Affairs in 2016 to date.
Awards	As a form of devotion as a Civil Servant he was awarded the: Satya Lencana Karya Satya 10 years (2008).
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	
Education or training to improve competence	Vaccine global trends, potential and threats

**H.M. SUBUH****Dewan Komisaris**

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	57 years of age, born in Pontianak, January 19, 1962
Educational Background	He holds a Doctoral degree from the Faculty of Medicine from the University of Indonesia Jakarta in 1988. He holds a Master's degree at the School of Public Administration, Qualification Master of Public Policy (MPPM) at the University of Southern California (1999).
Legal Basis for Appointment & Dismissal	- The legal basis for the appointment as a Bio Farma's Commissioner is based on SOE Ministerial Decree Number: SK-97/MBU/06/2015 on June 22, 2015. - The legal basis for dismissal as a Bio Farma Commissioner is based on the Decree of the Minister of SOE Number: SK-150/MBU/07/2019 on July 16, 2019. M. Subuh was honourably dismissed after his term of office as Bio Farma Commissioner was replaced by Oscar Primadi. - The legal basis for the appointment as Deputy Chairman II and concurrently as a member of the Risk, Development and GCG Committee, Decree of the Board of Commissioners No. KEP-02/DK/BF/VII/2015 on July 9, 2015. - Updated with Decree No. SK. KEP-03/DK/BF/02/2016 on February 4, 2016, amended by Decree of the Board of Commissioners No. KEP-03/DK/BF/04/2018 on April 26, 2018. - Legal Basis for Dismissal as Deputy Chair II of the Risk, Development and GCG Committee is based on the Decision of the Board of Commissioners of PT Bio Farma (Persero) Number: KEP-09/DK/BF/07/2019 concerning Changes in the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero) on July 30, 2019. M. Subuh was dismissed with respect having ended his term of office as Deputy Chairman II of the Risk, Development and GCG Committee and replaced by Elen Setiadi.
Work Experiences	- Beginning his career as a Director of Sultan Syarif General Hospital Mohamad Alkadrie, West Kalimantan (2004-2009). - Serving as a Head of the West Kalimantan Provincial Health Office (2009-2010). - Serving as a Director of Communicable Disease Control in 2010-2013. - Serving as a Secretary of the Directorate General of Disease Control and Environmental Health in 2013-2014. - Serving as a Director General of Disease Control and Environmental Health (P2PL) of the Indonesian Ministry of Health in 2014-2016. - Appointed as Bio Farma Commissioner on 22 June 2015 and his term of office ended on 16 July 2019.
Concurrent Position	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015: Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning concurrent position restrictions. Currently, he is the Director General of Disease Control and Environmental Health (P2PL) of the Indonesian Ministry of Health.
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats



OSCAR PRIMADI

Board of commissioners

Nationality	Indonesian Citizen
Domicile	Jakarta
Age, Date and Place of Birth	60 years of age, born in Pontianak, October 20, 1961
Educational Background	He earned a Bachelor's degree from the Faculty of Dentistry (FKGUI) at the University of Indonesia in 1986. He earned a degree in Public Health at Mahidol University Bangkok, Thailand in 2000.
Legal Basis for Appointment & Dismissal	- The legal basis for the appointment as a Commissioner is based on SOE Ministerial Decree Number: SK - 150/MBU/07/2019 on July 16, 2019. - The legal basis for the appointment as Chair of the Risk, Development and GCG Committee is based on Decree Number: KEP-09/DK/BF/07/2019 on July 30, 2019: About appointment as Deputy Chair I of the Risk, Development and GCG Committee replacing Saud Usman Nasution who was appointed became Chair of the Risk, Development and GCG Committee. - The legal basis for the appointment as Deputy Chairman I of the Risk, Development and GCG Committee is based on Decree number KEP-03/DK/BF/04/2019 on April 20, 2019, number KEP-03/DK/BF/02/2019 on 2 February 2019 and number KEP-04/DK/BF/02/2019 on February 18, 2019.
Work Experiences	- Beginning his career as a Head of Pontianak City Health Office in 2000 - 2004. - Serving as a Head of the West Kalimantan Provincial Health Office in 2004 - 2009. - Serving as a Director of a Mental Hospital in West Kalimantan in 2009-2011. - Serving as a Head of the Centre for Continuing Education Standards and Education Agency, Ministry of Health Republic of Indonesia in 2011-2013. - Serving as a Head of Data and Information Centre of the Secretariat General, Ministry of Health in 2013-2016. - Serving as a Head of the Communication and Community Service Bureau of the General Secretariat, Ministry of Health of the Republic of Indonesia in 2016-2018. - Serving as an Inspector General of the Ministry of Health in 2018. - Appointed as a Commissioner of Bio Farma on June 16, 2019 to date.
Concurrent Position	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-19/MBU/ 10/2014 CHAPTER V on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of the Board of Commissioners & Supervisory Board of SOEs - Rules concerning concurrent position restrictions. Serving as a Secretary General of the Ministry of Health in 2018—Present.
Awards	
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

Identities and Brief Histories of Members of the Board of Directors

EMPLOYEE EDUCATION AND TRAINING PROGRAMS

In order to achieve the stated goals, the Company is committed to providing training and development in all aspects of operations in a planned and sustainable manner. This effort to improve staff competence is carried out by upholding the principle of equal opportunity for all employees of the Company. Every year, the Company focuses on developing human resources through coordinated, directed and measured training.

The Company affords opportunities and equality of rights to all employees, regardless of ethnicity, religion, race, class, gender, and conditions. This is true not only during the recruitment process, but also during the development of competencies and expertise, as well as when setting career paths, and for remuneration. The equal employment opportunities that have been established among our employees contribute positively to the direction of the Company's growth.

LIST OF SUBSIDIARIES AND/OR ASSOCIATED ENTITIES

SUBSIDIARIES' NAMES AND/OR ASSOCIATES

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma has no subsidiaries and/or associates. Therefore, no information is provided here regarding the list of subsidiaries and/or associates such as in the form of a table that comprises information about the names of subsidiaries and/or associates.

PERCENTAGE OF SHARE OWNERSHIP

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma has no subsidiaries and/or associates. Therefore, no information is provided here regarding the list of subsidiaries and/or associates such as in the form of a table that contains information about the percentage of share ownership of subsidiaries and/or associates.

DESCRIPTION OF BUSINESS FIELDS OF SUBSIDIARIES AND/OR ASSOCIATED ENTITIES

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma has no subsidiaries and/or associates. Therefore, no information is provided here regarding the list of subsidiaries and/or associates such as in the form of a table that contains information about the business fields of subsidiaries and/or associates.

DESCRIPTION OF OPERATING STATUS OF SUBSIDIARIES AND/OR ASSOCIATED ENTITIES (OPERATIONAL OR NOT OPERATIONAL)

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma has no subsidiaries and/or associates. Therefore, no information is provided here regarding the list of subsidiaries and/or associates such as in the form of a table that contains the operational status information of subsidiaries and/or associates (operating or not operating).



HONESTI BASYIR

President Director

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	51 years of age. Born in padang, on June 24, 1968
Educational Background	• He obtained a Bachelor's degree in Industrial Engineering from the Bandung Institute of Technology (ITB) in 1992 • He obtained a Masters in Corporate Finance from the Bandung School of Management in 2004
Legal Basis for Appointment & Dismissal	The legal basis for the appointment as the President Director of Bio Farma (Persero) is based on the Decree of the Minister of State-Owned Enterprises Number SK-203/MBU/09/2019 on September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Company's Directors (Persero) PT Bio Farma.
Work Experiences	• Started his career as Vice President Assistant for Business and Financial Analysis at PT Telkom Indonesia (Persero) Tbk in 2006-2009 • Served as Project Controller-1 Project Management Office of PT Telkom Indonesia (Persero) Tbk in 2009-2010 • Served as Vice President for Strategic Business Development Unit for Strategic Investment and Corporate Planning of PT Telkom Indonesia (Persero) Tbk in 2010-2012 • Served as Vice President Strategic Business Development Directorate of IT Solution & Strategic Portfolio of PT Telkom Indonesia (Persero) Tbk in 2012. • Served as Finance Director of PT Telkom Indonesia (Persero) Tbk in 2012-2014 • Served as Director of Wholesale & International Service at PT Telkom Indonesia (Persero) Tbk in 2014-2017 • Served as Plt. Director of Enterprise & Business Service of PT Telkom Indonesia (Persero) Tbk in 2016-2017 • Served as President Director of PT Kimia Farma (Persero) Tbk in 2017-2019 • Appointed as President Director of Bio Farma on September 13, 2019, replacing M. Rahman Roestan who was appointed Director of Operations
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/ 02/2015 CHAPTER IV, on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of SOEs Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-



M. RAHMAN ROESTAN

Director of Operations

Nationality	Indonesia Citizen
Domicile	Bandung
Age, Date and Place of Birth	49 years of age. Born in Bandung on August 5, 1970
Educational Background	• He obtained a Bachelor of Pharmacy and Pharmacist degree from Padjadjaran University Bandung in 1996 • He obtained Master of Business Administration (MBA) from ITB in 2004 • He obtained a Doctoral Program in Strategic Management from Padjadjaran University in 2016
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as Marketing Director is based on the Decree of the Minister of State-Owned Enterprises Number: SK-127/MBU/07/2017 on July 10, 2017 • The legal basis for the appointment as the President Director of Bio Farma is based on the Decree of the Minister of SOEs number SK-27/MBU/01/2018 on January 23, 2018, M. Rahman Roestan was appointed from the Director of Marketing to become President Director replacing Acting Juliman with a term of continuing the remaining term his position • The legal basis for the appointment as Director of Operations for Bio Farma is based on the Decree of the Minister of State-Owned Enterprises Number SK-203/MBU/09/2019 on September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Directors of the Company (Persero) PT Bio Farma
Work Experiences	• Started his career at Bio Farma in 1998, has held various structural and strategic positions including as Head of Formulation and Head of Packaging in 2001-2004 • Served as Head of the Quality Assurance System Section 2002-2006 • Served as Head of the Production Planning and Control Division from 2006-2008 • Served as Corporate Secretary from 2008-10 July 2017 • Appointed as Marketing Director of Bio Farma from 10 July 2017 to 23 January 2018 • Appointed as the President Director of Bio Farma replacing Acting Juliman on 23 January 2018 and his term of office has ended on 12 September 2019 • Appointed as Director of Operations on September 13, 2019 to the present • Served as a Management Representative for the Integrated Management System ISO 9001, ISO 14001, OHSAS 18001 since 2009 • Active in the Indonesian Pharmaceutical Entrepreneurs Association, Committee on Government and Institutional Relations since 2016 until now • Active in the Indonesian Quality Award Foundation (IQAF) as Examiner for Malcolm Baldrige Criteria for Excellence in 2010 - 2011 • Active as a resource person and trainer in various forums both at home and abroad, as well as actively writing several international journals • Also active in several organizations both at the national and international levels, including: Chairman of OIC Workshop on Vaccine Management in 2016, Vice Chairman of OIC Vaccine Manufacturer Group 2014 - present, as the Indonesian delegation at the International Health Meeting at the World Health Assembly of the World Health Organization (WHO) in Geneva and at the Forum Organization of Islamic Cooperation (OIC) 2012 - 2017, as Indonesian Delegation to OIC SCH (Steering Committee) 2013 - 2016. Web Content Manager, SRVP IDB since 2012 2010 - 2011
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/ 02/2015 CHAPTER IV, on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of SOEs Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats



SRI HARSİ TETEKİ

Director of Marketing, Reserch, & Development I

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	55 years of age. Born in Yogyakarta on June 28, 1964
Educational Background	• She obtained the title of Doctor from the Faculty of Medicine, Diponegoro University in 1989 • She obtained a Master of Health degree at the Faculty of Medicine, Diponegoro University in 2003 • Adjunct Health Insurance Expert, December 27, 2007
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as Marketing Director is based on the Decree of the Minister of State-Owned Enterprises number SK-27/MBU/01/2018 on January 22, 2018, concerning the Transfer of Duties and the Appointment of Members of the Board of Directors of PT Bio Farma (Persero) • The legal basis for the appointment as Director of Marketing, Research & Development of Bio Farma is based on the Decree of the Minister of State-Owned Enterprises number SK-203/MBU/09/2019 on September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Company's Directors (Persero) PT Bio Farma
Work Experiences	• Started her career as a Director of Marketing and Operations at TelkoMedika in 2013-2016 • Served as President Director of TelkoMedika in 2017-2018 • Appointed as Marketing Director of Bio Farma on 23 January 2017-12 September 2019 replacing M. Rahman Roestan who was appointed as the President Director of Bio Farma • Appointed as Director of Marketing for Research & Development 1 on September 13, 2019 to date • Active as a speaker in various national seminars, including discussing National Health Insurance and being active in the Undip Medical Faculty Alumni Association or Ika Medica, PAMJAKI and IDI • Active in the Undip Faculty of Medicine Alumni Association or Ika Medica, PAMJAKI and IDI
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/02/2015 CHAPTER IV, on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of State-Owned Enterprises Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	Received an award as "Best Manager" from PT TELKOM in 2007
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats

**PARDIMAN****Director of Finance**

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	58 years of age. Born in Boyolali, on February 14, 1960
Educational Background	• He obtained a Bachelor of Economics in Management from Diponegoro University, Semarang, Central Java in 1987 • He obtained a Masters in Management from Diponegoro University, Semarang, Central Java in 2002
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as Director of Finance is based on the Decree of the Minister of State-Owned Enterprises Number: SK – 101/MBU/04/2018 on April 20, 2018 • The legal basis for dismissing as Director of Finance of Bio Farma is based on the Decree of the Minister of SOEs Number: SK-203/MBU/09/2019 on September 13, 2019, regarding Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Board of Directors of a Company (Persero) PT Bio Farma. Pardiman was honorably dismissed as Director of Finance of Bio Farma who was transferred as Finance Director of PT Kimia Farma (Persero) Tbk and replaced by I.G.N. Suharta Wijaya
Work Experiences	• Started his career as a prospective staff leader at the Central BRI Education and Training Center in 1987 • As a Trainee at the BRI Ungaran Branch Office, Semarang Regional Office in 1988 • As a Classical Job Trainee at BRI Jakarta in 1988 • Served as an Account Officer for BRI Jakarta from 1989–1991 • Served as Marketing & Lending Officer of BRI Jakarta from 1991 - 1992 • Served as Head of BRI's Kolaka Sultra Branch from 1993-1996 • Served as Head of BRI Palopo Sulsel Branch from 1996–1999 • Served as Head of BRI Branch of Tulung Agung East Java from 1999 to 2001 • Served as Head of BRI Gresik East Java Branch from 2001-2002 • Served as the Head of BRI Metikayu Medan Branch from 2002-2004 • Served as the Head of BRI's Kaliasin Surabaya Branch from 2004-2006 • Served as Deputy Leader of the BRI Surabaya Region from 2006-2007 • Served as Deputy Leader of the BRI Jakarta Region from 2008 to 2009 • Served as Special Branch Manager at BRI Head Office Jakarta from 2009-2011 • Served as the Regional Leader of the BRI Palembang Region from 2011 - 2012 • Served as Regional Leader of the BRI Bandung Region in 2012-2015 • Served as Director of Consumer Micro & Funding of PT BRI Syariah in 2015 • Served as Finance Director of PT Petrokimia Gresik 2016-2017 • Served as Finance Director of Perum Bulog in 2017 • Appointed as Director of Finance for Bio Farma on April 20, 2018 and his term of office has ended on September 13, 2019
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/02/2015 CHAPTER IV, dated February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of State-Owned Enterprises Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	



I.G.N. SUHARTA WIJAYA

Director of Finance & Business Partner

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	52 years of age. Born in Singaraja, on August 16, 1967.
Educational Background	• He obtained a Bachelor of Economics from Padjadjaran University in 1990 • He obtained a Masters in Management from the Bogor Agricultural Institute in 2012
Legal Basis for Appointment & Dismissal	The legal basis for the appointment as Director of Finance and Bio Farma Business Partner is based on the Decree of the Minister of SOEs number SK-203/MBU/09/2019 on September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Company's Directors (Persero) PT Bio Farma. I.G.N. Suharta Wijaya replaces Pardiman who was transferred as Finance Director of PT Kimia Farma (Persero) Tbk
Work Experiences	• Started his career as Deputy Head of the Division / Vice President of the Corporate Division of PT BNI (Persero) Tbk in 2011-2014 • Served as Regional Leader / Regional CEO of PT BNI (Persero) Tbk, Jakarta City Regional Office 2014-2015 • Served as General Manager (Senior Vice President Local Corporate & Multinational 1 of PT BNI (Persero) Tbk in 2015 • Served as Finance Director of PT Perkebunan Nusantara VIII (Persero) in 2015-2016 • Served as Commercial Director of PT Perkebunan Nusantara VIII (Persero) Holding in 2016-2017 • Served as Finance Director of PT Perkebunan Nusantara III (Persero) in 2017 • Served as Finance Director of PT Kimia Farma (Persero) Tbk in 2017-2019 • Appointed as Director of Finance & Business Partner of Bio Farma on September 13, 2019
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/02/2015 CHAPTER IV, dated 17 February 2015 Concerning Requirements & Procedures & Dismissal of Members of State-Owned Enterprises Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Profesional recognition program ujian certified professional management accountant (PRPCPMA)

**JULIMAN****SEVP of Production**

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	57 years of age. Born in Pangkalpinang, on September 23, 1962.
Educational Background	• He obtained a Bachelor of Pharmacy degree from the Bandung Institute of Technology (ITB) in 1988 • He obtained the title of Pharmacist from the Bandung Institute of Technology in 1989 • He obtained a Masters in Operations Management from Padjajaran University in 2005
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as Production Director is based on the Decree of the Minister of State-Owned Enterprises Number: SK-221/MBU/2013 on April 12, 2013 • The legal basis for the appointment as Acting President Director concurrently as Production Director is based on the Decree of the Minister of State-Owned Enterprises Number: SK-127/MBU/07/2017 concerning Acting President Director concurrently as Production Director • The legal basis for re-appointment as Director of Production of Bio Farma is based on the Decree of the Minister of State-Owned Enterprises Number: SK - 101/MBU/04/2018 • The legal basis for dismissing as Bio Farma Production Director is based on the Decree of the Minister of State-Owned Enterprises number SK-203/MBU/09/2019 on September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Board of Directors of the Company (Persero) PT Bio Farma. Juliman was honorably discharged from his position on September 13, 2019 and was appointed as Senior Executive Vice President (SEVP) Production based on Decree No. KEP 05779 / DIR / IX/2019, on September 16, 2019
Work Experiences	• Started his career, in several National Pharmaceutical Industries and joined Bio Farma in 1994 • Served as Head of the Polio and Measles Vaccine Support Section 1994-1997 • Served as Head of Measles Vaccine Production Division in 1998 • Served as Head of the Engineering and Maintenance Division from 2002-2003 • Served as Head of the Export Marketing Division from 2003-2009 • Served as Head of Logistics Division in 2012-2013 • Appointed as Production Director of Bio Farma from April 12, 2013 to July 9, 2017 • Appointed as Acting President Director of Bio Farma and concurrently Production Director of Bio Farma from 10 July 2017 - 23 January 2018 replacing Iskandar, whose term of office has ended • Reappointed as Production Director of Bio Farma on April 20, 2018 and ended his term of office on September 13, 2019 • During his tenure, he provided many creative and innovative ideas at the Production Directorate • Active as a resource person at seminars, interviews and audiences Juliman is also often involved in various national and international level activities, including being active as a trainer for the WHO Global Training Network (GTN) program on Quality assurance of live attenuated Poliomyelitis and measles vaccines, as part of Indonesian delegation to attend the World Health Assembly Forum organized by the World Health Organization (WHO), actively participates in the annual General meeting held by DCVMN (Developing Countries Vaccines Manufacturer Network), which is a cooperative organization for vaccine producers from developing countries • Currently serves as the Board Alternate GAVI (Global Alliance for Vaccine Immunization) representing the DCVMN Organization to attend the GAVI Board meetings which are regularly held three times a year to discuss and decide policies taken by the GAVI Board regarding the Global Immunization program • Participated in various domestic and foreign trainings, including management, maintenance, validation, and various other topics related to GMP (Good manufacturing Practices), training Course on Biological Products technology (1990-1991) and Individual training Course on Measles Final Product Processing (1993), both were organized by JICA (Japan International Cooperation Agency) in collaboration with Biken Institute - Japan, as well as the Training on Lyophilization of Hib Vaccine Trial (2002) organized by the National Institute for Public Health and the Environment (RIVM) in the Netherlands • Actively participating in various meetings held by UNICEF (United Nations Children's Fund) during 2003-2012
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/02/2015 CHAPTER IV, dated on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of State-Owned Enterprises Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats



DISRIL REVOLIN PUTRA
SEVP of Legal & Compliance

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	54 years of age. Born in Tanjung Pinang, on December 18, 1965
Educational Background	• He obtained a Bachelor of Laws degree from the Islamic University of Jakarta in 1989 • He obtained a Masters in Law from the University of Indonesia in 1998.
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as Director of Human Resources & General Affairs is based on the Decree of the Minister of State-Owned Enterprises SK-131/MBU/07/2017 on July 14, 2017 • The legal basis for dismissing as Director of Human Resources & General Bio Farma is based on the Decree of the Minister of SOEs number SK-203 / MBU / 09/2019 dated September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Company's Directors (Persero) PT Bio Farma. Disril Revolin Putra was honorably discharged from his position on September 13, 2019, and was appointed as Senior Executive Vice President (SEVP) of Legal and Compliance based on Decree No. KEP 05779/DIR/ IX/2019, on September 16, 2019
Work Experiences	• Started his career at Bank Negara Indonesia (BNI) • Has held various structural and strategic positions including as Legal officer of the Human Resources Division from 1991-1995 • Served as Manager of Human Resources Division of Policy Management in 1995-2000 • Served as Deputy Leader in several BNI Branch Offices, namely Deputy Leader of Wonogiri Branch from 2000-2002 • Served as Deputy Manager of the Tangerang Main Branch from 2002-2004 • Served as Branch Manager of the Palembang Ampera Bridge in 2004-2005 • Served as Head of the Main Branch of Tebet Utara Jakarta from 2005 to 2006 • Served as Deputy Leader of the Legal Division from 2006-2008 • Served as Head of the Human Resources Division from 2008-2010 • Served as Head of the Organizational Learning Division from 2010-2011 • Served as Head of the Legal Division from 2011-2015 • Served as the Regional Leader of the Jakarta City Region in 2015-2016 • Served as SEVP Network and Services in 2016 • Served as functional in several Supervisory Committees, including members of the Nomination and Remuneration Committee for the years 2008-2010 • Served as the BNI Pension Fund Supervisory Board from 2008-2010 • Served as Chairman of the Administrative Sanctions Committee from 2008 to 2010 • Served as Chairman of the Job Evaluation and Grading Committee in 2008-2010 • Served as Chairman of the Committee for Mutations and Leadership Succession • Served as Director of Human Resources and Law at PT Pelindo II from 16 May 2016 - 14 July 2017 • Appointed as Director of Human Resources & General Bio Farma on 14 July 2017 and ended his term of office on 13 September 2019 • Participated in several trainings and assignments including the International Anti-Corruption Symposium in 2007, Sespi Bank Batch 45 2007, Leadership Development Program in 2011, Credit For Non-Credit in 2011 and Level IV Risk Management Certification in 2011
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/02/2015 CHAPTER IV, dated 17 February 2015 Concerning Requirements & Procedures & Dismissal of Members of State-Owned Enterprises Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Profesional recognition program ujian certified professional management accountant (PRPCPMA)

**ADRIANSJAH AZHARI****SEPV of Research & Development**

Nationality	Indonesian Citizen
Domicile	Bandung
Age, Date and Place of Birth	54 years of age. Born in Bloomington, Indiana, the US, on September 5, 1963.
Educational Background	• He obtained a Bachelor of Pharmacy degree from the Bandung Institute of Technology in 1988 • He obtained the title of Pharmacist from the Bandung Institute of Technology in 1989 • He obtained Master's degree in Operational Management from Padjadjaran University Bandung in 2005
Legal Basis for Appointment & Dismissal	• The legal basis for the appointment as Director of Planning and Development is based on the Decree of the Minister of State-Owned Enterprises Number: SK – 101/MBU/04/2018 • The legal basis for dismissing as Director of Planning and Development of Bio Farma is based on the Decree of the Minister of SOEs number SK-203 / MBU / 09/2019 dated September 13, 2019, concerning Dismissal, Changes in Position Nomenclature, Transfer of Duties and Appointment of Members of the Board of Directors of the Company (Persero) PT Bio Farma. Adriansjah Azhari was honorably discharged from his position on September 13, 2019 and was appointed as Senior Executive Vice President (SEVP) for Research and Development based on Decree No. KEP 05779/DIR/IX/2019, on September 16, 2019
Work Experiences	• Started his career at the Clinical Research Monitor, PT Merck Indonesia (Astra Division) Jakarta in 1989 • Started his career at Bio Farma in 1989 • Served in various structural and strategic positions including Bacteria Vaccine Division Staff from 1989-1993 • Served as Head of the Tetanus Vaccine Section 1993-1998 • Served as Head of Applied Technology in 2001 • Served as Head of the Pharmaceutical Production Division from 2002-2004 • Served as Head of the Bacterial Vaccine Division from 2004-2007 • Served as Head of Quality Assurance, Pharmacist in Charge of Quality 2007-2012 • Served as Head of the Research and Development Division in 2012-2017 • Served as Head of the Planning and Business Strategy Division for 2017-2018 • Appointed as Director of Planning and Development of Bio Farma on April 20, 2018 and ended his term of office on September 13, 2019 • Active in various national and international activities such as Developing Countries Vaccine Manufacturers' Network (DCVMN), World Health Organization (WHO), International Society for Pharmaceutical Engineering (ISPE), Project coordinator with the Bill and Melinda Gates Foundation in 2014 - present, Team Member National CPOB under BPOM from 2011 to 2013, is still actively assisting BPOM in drafting revisions of various guidelines including the Indonesian Pharmacopoeia, Member of the Indonesian Pharmacist Association • Active as a resource person in various domestic and foreign activities, including the Annual General Meeting of Developing Countries Vaccine Manufacturers' Network (DCVMN), Rio de Janeiro, Brazil; World Health Organization (WHO) QC course on Hib vaccine, NVI, The Netherlands; ISPE Indonesian Affiliate annual conference, Jakarta; National Vaccine Research Forum, Jakarta; Rotavirus symposium, Bangkok, Thailand; Proteomic Avian Flu Vaccine Seminar, Avian Influenza Research Center (AIRC), Airlangga Univ, Surabaya; WHO briefing for manufacturers WHO prequalification program "Beijing, China; Global Health Regulatory Meeting on PDPs organized by PATH, Hanoi, Vietnam and others
Concurrent Position	Concurrent positions do not contradict the Regulation of the Minister of State-Owned Enterprises No. PER-03/MBU/02/2015 CHAPTER IV, dated on February 17, 2015, Concerning Requirements & Procedures & Dismissal of Members of State-Owned Enterprises Directors - Reasons and Procedures for Dismissing SOEs Directors
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Vaccine global trends, potential and threats

Group Structure of the Company



Negara
Republik
Indonesia



100%



CORPORATE GROUP STRUCTURE IN SHAPE CHART THAT DESCRIBES PARENT ENTITIES, SUBSIDIARIES, ASSOCIATED ENTITIES, JOINT VENTURE

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma has no subsidiaries and/or associates. Accordingly, no information is provided here regarding the structure of the Group of Companies such as in the form of a chart that depicts a parent, subsidiary, associate, joint venture.

CORPORATE GROUP STRUCTURE IN SHAPE OF THE CHAPTER THAT DESCRIBES SPECIAL PURPOSE VEHICLE (SPV)

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma has no subsidiaries and/or associates. Therefore, no information is provided here regarding the Company Group Structure such as in the form of a chart that describes the Special Purpose Vehicle (SPV).

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Chronology of Stock Listing

As of December 31, 2019, Bio Farma is either a Non-Listed Non-Financial SOE or has not listed shares on the Stock Exchange. Therefore, no information is provided here about corporate actions, such as the offering price of shares for each corporate action, the number of shares listed after each corporate action, and the name of the stock exchange on which the company shares are listed.



Chronology of Issuance and/or Registration of Bonds from the Initial Issuance until the End of the Fiscal Year

As of December 31, 2019, Bio Farma did not issue bonds; thus, Bio Farma cannot provide information here about the chronology of the issuance and/or listing of bonds.

SUKUK INFORMATION

As of December 31, 2019, Bio Farma has not issued *sukuk* or state securities issued based on sharia principles, thus Bio Farma cannot provide any information here regarding *sukuk*.

CONVERSION BOND INFORMATION

As of December 31, 2019, Bio Farma did not issue Conversion Bonds, as such Bio Farma cannot provide any information regarding Conversion Bonds.

CHRONOLOGICAL PUBLISHING AND/OR REGISTRATION OF OTHER SECURITIES

As of December 31, 2019, Bio Farma had no other effects other than bonds; hence, there is no chronological information on the issuance and/or recording of other securities and non-bonds.

Name and Address of Supporting Institutions and/or Professionals

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. As of December 31, 2019, Bio Farma did not have capital market supporting institutions and/or professions. Therefore, there is no information regarding the name and address of the Registrar/Person administering the company's shares and the name of the address of the securities rating company.

Names and Addresses of Subsidiaries and/or Branch Offices or Representative Offices. Bio Farma does not have a subsidiary.

Information on Company Website

Bio Farma continues to improve its services by providing integrated information through the Company's website. Bio Farma makes it easy to be able to access information quickly, precisely, accurately and transparently to all stakeholders, including shareholders, regulators and the wider community. Bio Farma strives to maintain and improve reliability in the provision of integrated information through the Bio Farma website.

The official website of Bio Farma has fulfilled the requirement for information that must be published in accordance with Law Number 14 of 2008 concerning Openness of Public Information and Article 3 of the Regulation of the Minister of State Owned Enterprises Number PER-01/MBU/2011. Transparency is defined as openness in disclosing material and relevant information regarding the company.

The official websites of Bio Farma are as follows:

- Website : www.biofarma.co.id
- Portal : www.bumn.go.id/biofarma/application
- Corporate blog : www.infoimunisasi.com
- Vaccinations, Clinics & Laboratories: <http://imunicare.biofarma.co.id/>

Besides the website, public information disclosure is also done through print media and social media channels such as Facebook, Instagram, Twitter and YouTube which are managed by the Corporate Secretary Division - Corporate Communication Section.

SITE MAP : www.biofarma.co.id



Event Highlights

21 – 24 JANUARY 2019

Bio Farma provided free Flubio and Tetanus immunizations to cleaning staff and municipal police in Bandung



Bio Farma provided free Flubio and Tetanus immunization to 1650 Cleaning Officers and 350 Municipal Police Officers in the Bio Farma vaccination service. This event was attended by the Managing Director of the Bandung City Cleaning Regional Company, Deni Nurdyana, Head of the Public Health Office, Rita Verita, Bio Farma Director of HR & General, Disril Revolin Putra; and Bio Farma Director of Planning & Development, Adriansjah Azhari.

27 JANUARY 2019

Bio Farma Launched Imunicare



Bio Farma introduced the latest immunization service, named Imunicare to the people of Bandung City, began with "Adventure with Imunicare Immunization." The event, which was a soft launching from Imunicare, invited ten mother and toddler communities as well as several running communities

in Bandung. This event was filled with various activities that build the creativity of children and toddlers.

8 FEBRUARY 2019

Bio Farma held socialization of RJPP 2018-2022



In the socialization of RKAP 2019 and RJPP 2018-2022, the Director of Bio Farma conveyed the exposure of the strategy in achieving 2019 performance targets to all employees and internal stakeholders of Bio Farma.

8 FEBRUARY 2019

Bio Farma signed the Integrity Pact & GCG Implementation Entry Meeting Assessment Meeting



All Bio Farma employees signed the Integrity Pact related to the implementation of Good Corporate Governance (GCG) by the West Java BPKP in the Bio Farma Multipurpose Building.

9 FEBRUARY 2019

Bio Farma held a Vaccinology Training attended by 80 Doctors throughout Indonesia

This event was the result of a collaboration between PAPDI, the Adult Immunization Task Force, and Bio Farma, which was attended by 80 Doctors throughout Indonesia.

21 FEBRUARY 2019

Bio Farma signed an MoU with the Faculty of Pharmacy, Hasanuddin University, Makassar



To strengthen research collaboration, Bio Farma cooperates with UNHAS.

13 MARCH 2019

Commission VI of the Indonesian House of Representatives (Industrial, Investment, Business Competition) visited Bio Farma



A Specific Work Visit to PT Bio Farma (Persero) and PT Kimia Farma (Persero) Tbk, during the IV trial period 2018 - 2019.

31 MARCH 2019

The running community of Bio Farma employees accompanying children with Down syndrome ran as far as 1.6 km



Bio Farma took part in the commemoration of World Down Syndrome Day (HSDD) 2019, organized by the Center for Information and Activities of Parents of Children with Downs Syndrome (PIK - POTADS) HSDD. This event is celebrated every March 21, this year, taking the theme "no one leaves behind on education, or all must go to school," which campaigns that children with Down Syndrome (ADS) also have the same rights as other children in terms of education and other activities.

5 APRIL 2019

Bio Farma won "Very Good" Predicate on the Assessment of GCG Implementation in 2018



Bio Farma won the title "Very Good" for the implementation of Good Corporate Governance (GCG) in 2018, with a score of 90,938. Bio Farma's GCG score continues to show an upward trend for seven times Bio Farma's participation. Since the last three years from 2015 - 2017, both internal and external

assessments, the value of Bio Farma GCG, has always been included in the excellent category; 87.00; 90, 49 and 90.53.

24-26 APRIL 2019

Bill and Melinda Gates Foundation (BMGF), PATH, and the World Health Organization (WHO) visited Bio Farma



Bio Farma again has obtained the trust of world research institutions to be involved in research and production of the new vaccines to prevent several diseases, such as polio, to anticipate the global outbreak of type 2 polio virus, and will be available in 2020. The latest generation of polio vaccine research (nOPV), including the development of vaccine technology, Phase 1 - 3 Clinical Trials, to the production process.

25-26 APRIL 2019

The UNICEF Supply Division team from Copenhagen visited Bio Farma



WHO is working with UNICEF to realize global stockpiling mOPV type 2 through world vaccine producers, and Bio Farma (through a tender mechanism from UNICEF) has been trusted by WHO and UNICEF to provide the

product to anticipate the global outbreak of polio virus type 2.

26 APRIL 2019

Sri Mulyani reviewed the Bio Farma vaccine research and development facility in Bandung



Sri Mulyani's visit was to find out more about Bio Farma's readiness, after, on April 16, 2019, the Bio Farma Board of Directors held an audience with the Minister of Finance regarding the export development plan and Bio Farma's cooperation with various international institutions.

2 MAY 2019

The Delegation of the Ministry of Health of the Republic of Turkey led by Deputy Minister of Health of Turkey visited Bio Farma



Deputy Minister of Health Prof. Dr. Emine Alp Mese and the Ministry of the Health's Republic of Turkey Delegation visited Bio Farma to explore collaboration in providing vaccines in the country.

9 MAY 2019

Bio Farma won the trust of the Islamic Development Bank (IsDB)



In the framework of the Vaccine Alliance for production and Immunization (VAPI), IsDB trusted Bio Farma in developing vaccine transfer technology for self-reliance purpose in OIC member countries.

17 MAY 2019

Bio Farma once again shared happiness with others through the Safari Ramadhan 1440 H program



This program is in the form of providing compensation for the disabled, visually impaired, orphans, mosque marbot, and assistance to An Nahdlah Islamic boarding school in Depok, as part of BUMN Present for the Country activities.

28 MAY 2019

Bio Farma has carried out the bazaar (cheap market), as part of Safari Ramadhan 1440H



This cheap market activity was carried out in two places that were included in Bio Farma's Ring 1, namely Sukajadi District and Kertawangi Village, Cisarua District. For 2019, the number of packages to be sold is 1750 packages, consisting of 10 kg of rice, 2 kg of sugar, and 2 liters of cooking oil, attended by Camat Sukajadi, Yudy Hermawan, Head of Bio Farma Social Environmental Management Division and Partnership Section Bio Farma.

31 MAY 2019

Persib Bandung visited the Bio Farma Immunicare Clinic Immunization Service



The respected football club of West Java, especially the city of Bandung, *Persib Bandung*, visited the Bio Farma Immunicare immunization clinic service. dr. Sri Harsi Teteki and the team welcomed the arrival of the Persib Core team to get vaccination services from this clinic.

31 MAY 2019

Bio Farma again held a free homecoming program



This third-year activity was part of the activities of BUMN Present for the Nation of the Ministry of BUMN RI and BUMN synergy. This event aimed to provide easy access for people who are going home to their hometown safely and comfortably, as well as part of the Safari Ramadhan Bio Farma Activity, such as *itikaf*, breaking the fast with disabled partners, orphans, and the mosque's marbot. The travelers were released by the Mayor of Bandung, Oded M Danial, Camat Sukajadi, Head of the Bandung City Manpower Office, and the Bio Farma Board of Directors.

18-21 JUNE 2019

Bio Farma has successfully maintained an integrated certificate



As a form of responsibility and commitment to manufacture products that meet the elements of safety, quality, and efficacy by applying:

- ISO 9001: 2015 (Quality Management System)
- ISO 14001: 2015 (Environmental Management System)
- OHSAS 18001: 2007 (Occupational Safety and Health)

pational Health and Safety Management System)
This achievement was based on an audit assessment carried out on June 18-21, 2019.

21 JUNE 2019

Bio Farma signed a Letter of Intent (LoI) with the Academic Senate-Assembly (MSA) of the Legal Entity State University (PTNBH). The assembly is a set of 11 Higher Education Academic Senates (UI, ITB, IPB, UPI, UN-DIP, UGM, UNAIR, UNPAD, USU, USU, UNHAS, and ITS)



As a commitment of Bio Farma in the down-streaming of applied research innovation, it has begun to show its interest in research produced by State Universities in Indonesia. This interest will be validated through a collaborative process that starts with the signing of a Letter of Intent (LoI) as the initial step of an active partnership.

1 JULY 2019

Bio Farma held an Opening Meeting Assessment Criteria for Superior Performance Evaluators (KPKU)



Bio Farma held an Opening Meeting Assessment for the Assessment of BUMN Superior Performance Evaluation Criteria (KPKU) 2019 in Bandung.

9 JULY 2019

Vaccine Education Through Advocacy and Outreach



The Kebumen District Health Office conducted advocacy, outreach, coordination, and mobilization meetings to the community to realize the highest health status in Kebumen District through immunization. The event was attended by the Head of the Kebumen District Surveillance and Immunization Section, Eko Laksono, and the Bio, Farma advocacy team.

16 JULY 2019

Bio Farma Exported New Product to Africa



Bio Farma once again released its newest product and exported it to Angola, namely of Monovalent Oral Polio Vaccine type 2 (mPOV2), as the first export destination country for 3.4 million doses to prevent wild type 2 poliovirus.

17 JULY 2019

Bio Farma Collaboration Agreement with BPPT

Bio Farma signed the Cooperation Agreement with BPPT regarding the "Assessment and Application of High Nutrition Animal Forage Technology.

25 JULY 2019

Dissemination and Preparation of Programs for The Implementation of OIC Planning of Excellence

Indonesia, as one of the member countries of the Organisation of Islamic Cooperation (OIC), has the potential to make vaccines, which can help the OIC country in the spirit of self-reliant production and supply of vaccines. From a total of 57 OIC member countries, there are only seven countries that have vaccine factories. Since WHO has recognized Indonesia in immunization production, therefore, Indonesia was appointed by OIC countries to become a Center of Excellence (CoE) for vaccines and biotechnology products.

27 JULY 2019

The Indonesian Minister of Health, Nila F Moeloek visited Bio Farma



This work visit was to review the readiness of the Organisation of Islamic Cooperation (OIC) Center of Excellence (CoE) laboratory that could be used as a means of sharing knowledge between Islamic countries for vaccine and biotechnology research.

31 JULY 2019

National Seminar on Sustainable Business



Bio Farma continually strives to improve competitiveness at the global level by involving stakeholders to enhance the distribution of prosperity. Bio Farma together with the surrounding communities participate and run environmentally friendly operations as a form of implementation of our commitment, "SOEs are present to contribute to the country achieving the Sustainable Development Goal 2030 in Indonesia".

3 AUGUST 2019

Bio Farma Launched the Medan Branch "Imunicare" Vaccination Service



The Immunization Service by Bio Farma, Imunicare, was launched in the city of Medan to provide immunization services for Medan and surrounding residents.

17 AUGUST 2019

Republic of Indonesia 74th Independence Ceremony



Bio Farma held the 74th Independence Ceremony of the Republic of Indonesia entitled Advanced Indonesian Superior HR, which was attended by all employees and the Bio Farma Board of Directors. The ceremony was held in PT Bio Farma (Persero) area.

18 AUGUST 2019

Bio Farma and Other SOEs Cleaned Jatiluhur Reservoir



In commemoration of the 74th Independence of Indonesia, Bio Farma with Jasa Marga, Jasa Tirta II, and PT. Len Industri held an event titled "Padat Karya Tunai," which is one of a series of events "BUMN Present for the Country." The event was held in the Jatiluhur Reservoir area, Purwakarta, involving around 300 residents of Cirip Village, Kec. Sukasari, Kab. Purwakarta, to clean water hyacinth plants that vegetate in the Jatiluhur Reservoir.

20 AUGUST 2019

Bio Farma signed the Memorandum of Understanding (MoU) with two Pharmaceutical Companies from the African Continent



Bio Farma signed a Memorandum of Understanding (MoU) with two pharmaceutical companies from the African Continent, namely Bahari Pharma Ltd from Tanzania and

Biovaccines from Nigeria. The forms of cooperation include product registration, distribution of vaccines in finished products and Pre formulated bulk (intermediate products), and technology transfer for independent vaccine production in African countries.

29 AUGUST 2019

Inauguration of Imunicare in the City of Gudeg



Bio Farma's vaccination service, Imunicare, re-opened its service in Yogyakarta on August 29, 2019, located on Jl. Timoho 86.

30 AUGUST 2019

Bio Farma signed a Memorandum of Understanding (MoU) with Indonesian Red Cross (PMI) and a plasma product company from South Korea, SK Plasma



The signing of this MoU was part of a cooperation agreement between the Ministry of Health of the Republic of Indonesia and the Ministry of Health and Welfare of South Korea in implementing the Joint Working Group (JWG) on Health between Indonesia and South Korea.

5 SEPTEMBER 2019

Bio Farma signed the Memorandum of Understanding (MoU) and Synergy Cooperation with SOEs



Bio Farma and PT Pegadaian (Persero) explored the potential for cooperation for business development through business synergy cooperation between State-Owned Enterprises.

11-12 SEPTEMBER 2019

Bio Farma Media Gathering



Bio Farma held a Media Gathering with the theme "Toward Pharma 2030 Towards Improvement of National Pharmaceutical Industry Competitiveness," which was held for two days in Maribaya.

25 SEPTEMBER 2019

Bio Farma Introduced the new Board of Executives



Bio Farma introduced the composition of new directors based on the Decree of the Minister of SOEs as the General Meeting of Shareholders of PT Bio Farma (Persero) No. : SK-203 / MBU / 09/2019 dated September 13, 2019, concerning Termination, Change in Nomenclature of Position, Task Transfer, and Appointment of Members Directors of the Company (Persero) PT. Bio Farma and submitted the information of PT Bio Farma's new Board of Executives (BoE).

26 SEPTEMBER 2019

Bio Farma once again held the National Life Science Research Forum (FRLN)



Bio Farma held an annual event related to research collaboration in the form of the National Life Science Research Forum (FRLN), in Jakarta. In 2019, the FRLN raised the theme of "Research Collaboration for the Independence of Indonesian Life Science Product."

1 OCTOBER 2019**Bio Farma hosted the Cold Chain Management System Workshop for OIC Countries**

Bio Farma hosted the Cold Chain Management System Workshop for countries members of the Organisation of Islamic Cooperation (OIC), which was held in Bandung on October 1 - 2, 2019. The Indonesian Ministry of Health organized the event. It aimed to shared experiences and expertise, widened the network both for research, marketing; and conducted a vaccine distribution simulation in Indonesia. The event was a follow-up of Indonesia to become a Center of Excellence in the field of biotechnology and vaccines in December 2017.

2 OCTOBER 2019**16 OIC Member Delegation Visited Bio Farma's Center of Excellence Facility**

A total of 16 delegates from the Organization of Islamic Cooperation (OIC) visited the Bio Farma research and development facility on October 2, 2019. Delegations from Afghanistan, Bangladesh, Brunei Darussalam,

Indonesia, Nigeria, Maldives, Senegal, Turkey, Tunisia, Uganda, Morocco, and Somalia, were participants of the OIC Workshop on Cold Chain Vaccine Management System organized by the Indonesian Ministry of Health. This event was aimed at shared experiences and knowledge about vaccine management, expanded networks in the OIC country, and increased vaccine management knowledge.

7 OCTOBER 2019**Bio Farma Launched Imunicare in Denpasar, Bali**

Imunicare is launched to provide health services to the community in the city of Denpasar and its surroundings. It is also the 14th branch in Indonesia. The first outlet of the Denpasar branch vaccination service is located at Jalan Gatot Subroto Barat No 227 C and was inaugurated by the Bio Farma Board Executive Board on Monday (7/10/19).

7 OCTOBER 2019**Cold Chain System Workshop for OIC member countries**

After held a Cold Chain System workshop for members of the Organization of Islamic Cooperation (OIC) on October 1 - 2, 2019, the Indonesian Ministry of Health and Bio Farma were invited to the 13th Meeting of the OIC Steering Committee on Health organized by OIC in Abu Dhabi UAE, on October 7, 2019.

18-19 OCTOBER 2019**Santri Sehat Road Show**

Bio Farma again held the *Santri Sehat* Road Show, which was held on 18-19 October 2019, in East Java Province. As many as 200 students from the Pesantren Bustamul Makmur Kebonrejo, Genteng, Banyuwangi, and 200 students from the Al-Hikmah Bahrul Ulum Jombang pesantren received exposure to a healthy lifestyle through the provision of vaccines as a form of disease transmission prevention. The event was attended by Care-givers Ponan Bustanul Hikmah

Makmur, KH Lukman Hakim, and Corporate Communication Section.

24 OCTOBER 2019

Bio Farma won a syndicated investment credit trust from 7 National Banks



To support efforts to increase production capacity, Bio Farma won syndicated investment credit from seven National Banks. The banks led by BRI, Mandiri, and BNI as Joint Mandated Lead Arranger and Bookrunner (JMLAB) of Rp2.25 trillion, - consisting of conventional schemes amounting to Rp1.65 trillion and sharia schemes of Rp600 billion. The seven banks include BNI, BRI, Bank Mandiri, BNI Syariah, BRI Syariah, Mandiri Syariah, and Indonesia Eximbank.

28 OCTOBER 2019

Bio Farma Won Top Socio-Eco Friendly in the Processing Industry Sector from Warta Ekonomi



Bio Farma won the Devising Adaptation and Transformation Contingency award in the TOP Socio-Eco Friendly, Sector: Processing Industry category from Warta Ekonomi. The award was

presented by Deputy of Financial Services Business, Survey Services and Consultants of the Ministry of BUMN RI Gatot Trihargo, and CEO and Chief Editor of Warta Ekonomi Muhammad Ihsan to Bio Farma's Senior Executive Vice President of Production, Juliman.

8 NOVEMBER 2019

1,500 Indonesian SEA Games contingents received IPV vaccine from Bio Farma



Bio Farma gave Inactivated Polio Vaccine (IPV) vaccine to 1500 2019 Sea Games contingents, who will compete in the Philippines. The administration of this vaccine aimed to prevent the transmission of type 2 polio outbreaks, which were being endemic in the Philippines since September 2019 ago. This event was attended by the Minister of

Youth and Sports, Zainudin Amali; Chairperson of the Indonesian Olympic Games, Raja Sapta Oktohari, and team; Director of Surveillance and Health Quarantine, drg. R. Vensya Sitohang M.Epid; Marketing Director, Bio Farma Research and Development I, Sri Harsi Teteki; Head of Bio Farma Domestic Marketing and Sales Division, Tedi Herawan and team.

19 NOVEMBER 2019

Bio Farma signed a Memorandum of Understanding (MoU) with the Directorate of Chemical, Pharmaceutical and Textile Industries (IKFT) Ministry of Industry of the Republic of Indonesia



Bio Farma collaborated with the Directorate of Chemical, Pharmaceutical, and Textile Industries (IKFT) of the Ministry of Industry of the Republic of Indonesia, through the signing of a Memorandum of Understanding (MoU). The collaboration was aimed to carry out cooperation in the implementation of Industry 4.0 to support the government program "Making Indonesia 4.0"; and to build cooperative relations oriented to the growth and development program for downstream chemical and pharmaceutical industries.

23 NOVEMBER 2019

Bio Farma Won Gold Rank in 2019 Sustainability Reporting Rating



Bio Farma as a vaccine & antisera producer that has transformed into a Life Science company in Indonesia, has once again gained an achievement of achieving "Gold Rank" in the Asia Sustainability Reporting Rating 2019. The award was given directly by Michele Lemmens, Regional Head of ASEAN Hub at Global Reporting Initiative (GRI). It was received by the Director

of Finance & Bio Farma Business Partners, IGN Suharta Wijaya.

2-6 DECEMBER 2019

Senegal through the Pasteur de Dakar Institute studied Biotechnology from Indonesia



Another OIC member country, Senegal, through the Pasteur de Dakar Institute, took part in the Reverse Linkage (RL) program organized by the Islamic Development Bank (IsDB), Bappenas, Ministry of Health, BPOM and Bio Farma, on 2 - 6 December 2019. The program was themed "Development A

Reverse Linkage Project Between Senegal (Institute of Pasteur de Dakar) and Indonesia (Bio Farma) in Vaccine Production."

12 DECEMBER 2019

Minister of Technology Research / Head of the National Innovation Research Agency visited Bio Farma



The Minister of Technology Research / Head of the National Innovation Research Agency Bambang P.S Brodjonegoro paid a working visit to Bio Farma on December 12, 2019, received directly by the President Director of Bio Farma, Honesti Basyir along with the Board of Executives of Bio Farma. This visit aimed to see the

development of Research and Development innovations carried out by Bio Farma, through the mechanism of research collaboration and a consortium with universities in Indonesia, and also research collaboration with other countries.

16 DECEMBER 2019

Bio Farma collaborated with two companies from South Korea



Bio Farma has expanded its collaboration network with two South Korean companies, ForeverNK Inc. and Aribio Co. Ltd. The beginning of this collaboration was marked by the signing of a Memorandum of Understanding (MoU)

between Bio Farma and two companies based in Seongnam, regarding the assessment and development of potential business opportunities for therapeutic products for cancer treatment. Products made using "NK Cell Therapy" technology will be provided by ForeverNK Inc. while "NK Cell Conditioned Media" will be obtained from Aribio Co. Ltd.

17 DECEMBER 2019

The Islamic Conference of Health Ministers in Abu Dhabi



Indonesia is increasingly establishing itself to be a Center of Excellence (CoE) in the field of vaccines and biotechnology for countries that are members of the Organization of Islamic

Cooperation (OIC). This statement was conveyed by the Minister of Health of the Republic of Indonesia, Terawan Agus Putranto, at the 7th Islamic Conference of Health Ministers (ICHM) in Abu Dhabi, United Arab Emirates.

23 DECEMBER 2019

The Indonesian Minister of Health visited the Bio Farma Center for Excellence Organization of Islamic Cooperation Laboratory



RI Minister of Health Dr. dr. Terawan Agus Putranto, Sp. Rad (K), visited the Organisation of Islamic Cooperation (OIC) Center of Excellence (CoE) facility for Vaccines and Biotechnology products at Bio Farma Bandung.

Awards

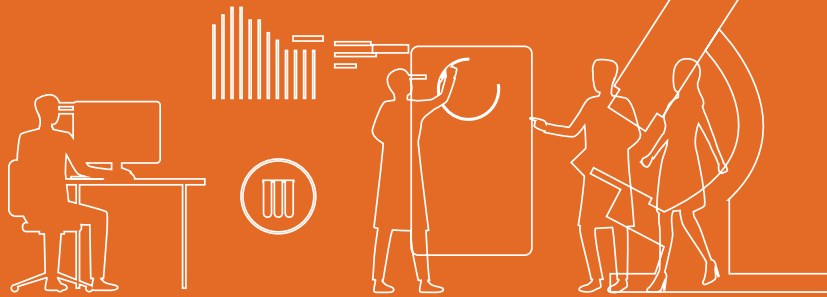


1. Corporate Taxpayer Award in Pharmaceutical sector - Regional Tax Office DJP Large Taxpayers
2. Awards and Appreciation in the Field of Taxation
3. Administrative Discipline Award from BPOM
4. Zero Accident from the Ministry of Manpower of the Republic of Indonesia
5. CSR Award for BUMN Category, Wiwaha Mukti Rahaja from Bandung City Government
6. Green CEO Newsletter 2019
7. Top 5 2019 Social Business Innovation Company, Pharmacy Category from Warta Ekonomi
8. Blood Donation Award for the Benefit of Humanity from PMI
9. Pharmacovigilance Award from BPOM
10. "The Most Inspiring Leaders of Change and Executive Figure of the Year" M. Rahman Roestan Director of Operations
11. The 2018 Best I Partnership and Community Development Program Reporting Award from the Ministry of BUMN
12. The Best State-Owned Enterprises (SOE) Award with the title Excellent from Infobank



13. Award "Appreciation Leader for Bringing Changes in 2019" from 7Sky Media and I'm Indonesia Magazine	15. West Java Development Partners through the Company's CSR / PKBL program in 2019 from the Governor of West Java	18. IT Works Top Digital Awards 2019	20. LHKPN Award from the Indonesian Corruption Eradication Commission
14. The Children's Nation Award in the field of Pharmacy and Medical Devices from the Ministry of Health	16. Central Information Commission (KIP) – Quite Informative	19. Innovative Industrial Research and Development Institution (IIRDI) from the Ministry of Research and Technology and Higher Education	21. Green Proper from the Ministry of Environment and Forestry
	17. Sustainability Report		

Certification



I. Certification From World Health Organization (WHO)

1997

tOPV 10 dosage & 20 dosage,
Measles 10 dosage

1999

TT 10 dosage & 20 dosage, DT
10 dosage

2001

DTP 10 dosage

2003

TT Uniject 1 dosage

2004

Hep. B Uniject, DTP - HB 5
dosage & 10 dosage

2006

Measles 20 dosage

2009

mOPV Type 1 20 dosage

2010

bOPV 20 dosage

2011

Td 10 dosage

2014

Pentabio 5 dosage & 10 dosage

2015

bOPV 10 dosage

2019

mOPV Type 2

Certification is received from the World Health Organization (WHO) without an expiry date.

II. Certificate Of Good Manufacturing Practice from The National Agency Of Drug and Food Control of The Republic of Indonesia (BPOM-RI)

1



Measles Vaccine Bulk
(25 April 2019): SPF
Chicken Breeding, Bulk
Production. Certification
Expiry Date: 24 April 2024

2



BCG Vaccine Bulk (25 April
2019): Bulk Production.
Certification Expiry Date:
24 April 2024

3



Diphtheria Toxoid Bulk (25
April 2019): Cultivation
& Detoxification,
Purification. Certification
Expiry Date: 24 April 2024

4



Tetanus Toxoid Bulk (25
April 2019): Cultivation
& Detoxification,
Purification. Certification
Expiry Date: 24 April 2024

5



Virus Vaccine (25 April
2019): Formulation, Filling,
Lyophilisation of Measles
Vaccine, Measles Vaccine
Packaging. Certification
Expiry Date: 24 April 2024

6



Virus Vaccine (25 April
2019): Formulation,
Polio Vaccine Filling,
Polio Vaccine Packaging.
Certification Expiry Date:
24 April 2024

7



Virus Vaccine (29 April 2014): Formulation, Hepatitis B Vaccine Filling, Hepatitis B Vaccine Packaging, Seasonal Flu Vaccine Formulation & Filling, Seasonal Flu Vaccine Packaging, IPV Vaccine Formulation & Filling, IPV Vaccine Packaging Certification Expiry Date: 24 April 2024

8



Bacteria Vaccine (25 April 2019): Formulation, Filling, Lyophilisation, Packaging. Certification Expiry Date: 24 April 2024

9



Bacteria Vaccine (25 April 2019): DTP Vaccine Formulation & Filling, DTP Vaccine Packaging, TT Vaccine Formulation & Filling, TT Vaccine Packaging, DT Vaccine Formulation & Filling, DT Vaccine Packaging, Td Vaccine Formulation & Filling, Td Vaccine Packaging. Certification Expiry Date: 24 April 2024

10



Combination Vaccine (25 April 2019): DT P-HB Vaccine Formulation & Filling, DT P-HB Vaccine Packaging, DT P-HB-HiB Vaccine Formulation & Filling, DT P-HB-HiB Vaccine Packaging. Certification Expiry Date: 24 April 2024

11



Vaccine Solvent (25 April 2019): Vaccine Solvent Filling, Vaccine Solvent Packaging. Certification Expiry Date: 24 April 2024

12



Polio Vaccine Bulk (25 April 2019): Preparation of monkey kidney, Bulk Production. Certification Expiry Date: 24 April 2024

13



Pertussis Vaccine Bulk (25 April 2019): Preparation, Cultivation, Inactivation, and Pooling. Certification Expiry Date: 24 April 2024

14



Bulk Antisera (14 January 2015): Plasma Separation & Pooling, Bulk Production. Certification Expiry Date: 14 January 2020

15



Antisera (14 January 2015): Antisera Formulation, Antisera Filling, Antisera Packaging. Certification Expiry Date: 14 January 2020

16



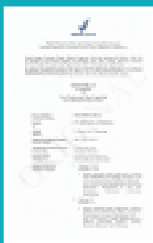
Bulk Bets of Clinical Examination (Upstream) (22 November 2016): Substrate Preparation, Inoculation, and Harvesting, Clarification and Purification, Bulk Filling. Certification Expiry Date: 22 November 2021

17



Bulk Bets of Clinical Examination (Downstream) (22 November 2016): Formulation, Filling, and Dry Solidification. Certification Expiry Date: 22 November 2021

18



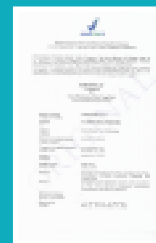
Monovalent Influenza Bulk (22 November 2016): Process of Making BMI that Involved Alive Virus (Preparation of virus germ, Inoculation, Harvest, Purification, Inactivation; Dialysis, Separation, Detergent Removal, and Sterile Filtration. Certification Expiry Date: 22 November 2021

19



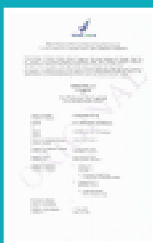
Bulk sIPV (18 May 2017) : Vero cell Preparation and Cultivation, Polio Virus Inoculation, Harvesting, Purification, Inactivation, Neutralization, and Sterile Filtration. Certification Expiry Date: 18 May 2022

20



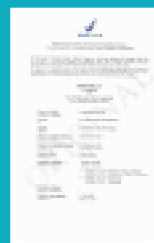
Bacteria Vaccine (17 September 2018): Preparation of Making the Pertussis Bulk, cultivation of making the Pertussis Bulk, pooling of making the Pertussis Bulk. Certification Expiry Date: 16 September 2023

21



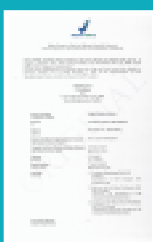
Polio Vaccine Bulk (11 May 2016): Preparation of monkey kidney, Bulk Production. Certification Expiry Date: 11 May 2021

22



Measles & MR Vaccine (11 May 2016): Formulation, Filling, Lyophilisation, Packaging. Certification Expiry Date: 11 May 2021

23



Bacteria Vaccine (23 July 2019): Preparation, Cultivation, purification, conjugation, sterile bulk filtration Hib. Certification Expiry Date: 22 July 2024

24



Bacteria Vaccine (23 July 2019): Preparation, Cultivation, purification, conjugation, sterile bulk filtration Typhoid. Certification Expiry Date: 22 July 2024



III. ISO 9001:2015

From PT. Lloyd's Register Indonesia, for and on behalf of Lloyd's Register Quality Assurance Limited.



V. OHSAS 18001:2007

From PT. Lloyd's Register Indonesia, for and on behalf of Lloyd's Register Quality Assurance Limited.



IV. ISO 14001:2015

From PT. Lloyd's Register Indonesia, for and on behalf of Lloyd's Register Quality Assurance Limited.



VI. CERTIFICATE ISO 17025

Vi. ISO 17025 (examiner laboratory) of PT Bio Farma (Persero). Valid from 17 February 2016 to 16 February 2020.

For the record, we are routinely audited by National Audit Committee and have always passed (update). The last audit (second Surveillance: 10 August 2018) was declared a 'pass' with an adaptation of ISO 17025:2005 version to version ISO 17025:2017.



- Vaccine Development Cycle
- Commitment to Maintain Vaccine Quality
- Company Financial Performance
- Fixed Assets
- The Ability to Pay Debts and the Company's Receivables Collectability
- Capital Structure and Management Policy on Material Bonding Capital Structure for Capital Goods Investment in the Last Financial Year
- Capital Goods Investment Realised in the Last Financial Year
- Comparison between the Target at the Beginning of the Year with the Results Achieved (Realization) and the Target or Projection to be Achieved for the Next Year Regarding Income, Profits and More
- Bio Farma Strategy 2019
- Bio Farma Strategy 2020
- Material Information and Facts Occurring After the Accountant's Report Date
- Company Business Prospects
- Marketing Aspects
- Dividend Policy, Amount of Cash Dividend Per Share and Amount of Dividend Per Year to be Announced or Paid During the Last 5 Financial Years
- Share Ownership Program (ESOP/MSOP) and/or Management Implemented by the Company (which exists until the end of the financial year)
- Realisation of Use of Proceeds from Public Offering (in the event that the company is still required to submit a report on the realisation of the use of funds)
- Information on Material Transactions Containing Conflict of Interest and/or Transactions with Affiliated Parties
- Significant Amendments to the Laws and Regulations for the Company in the Last Financial Year
- Description of Changes in Accounting Policies Implemented by the Company in the Last Financial Year
- Business Continuity Information

GLOBAL ECONOMIC ANALYSIS

As global uncertainty continues, the economic slowdown has become more widespread and is now being experienced by most countries in the world. In developed countries, the economic slowdown has been experienced not only by major countries, such as the US and the UK, but also by other countries such as Canada. In developing countries, in addition to China and India, economic weakness has also occurred in other countries such as Brazil. Accordingly, the world economy grew at a slower pace, down to 3% year-on-year in 2019, from 3.6% year-on-year in 2018.

The economic performance of developed countries has weakened in line with the global economic downturn. The US economy has dwindled due to a decline in non-residential investment activity which was due to a decline in business confidence. Economic growth in the UK and the Euro Area also grew at a low level in line with weakening external demand, uncertainty over Brexit negotiations, and restrained production and investment activities. Developing countries, especially China and India, also experienced economic slowdown. The Chinese economy continued a slowing trend affected by the escalation of the trade war with the US and weakening domestic demand. On the other hand, the Indian economy weakened significantly due to idiosyncratic factors and a decline in external demand.

The world economy is forecast to grow at a better rate in 2020 than in 2019. The IMF predicts the world economy to grow by 3.4% year-on-year in 2020, better than in 2019 which was predicted to reach 3.0% year-on-year. Several positive factors that could support improvements in 2020 are the potential for world trade tensions to ease, the continuation of accommodative monetary policy, the orderly settlement of Brexit, and the stability of emerging economies that are under pressure. World trade tension began to subside in line with the achievement of the phase one agreement between the US and China. If the implementation of phase one runs effectively, and US negotiations with China in the next phase (phase two) can be constructive, this positive development will reduce global uncertainty going forward.

The economic performance of developing countries is predicted to support global economic growth

in 2020, while the economic performance of advanced countries is predicted to be restrained. The economies of several ASEAN-5 countries are predicted to improve in line with the potential for improvement in world demand in line with the easing of trade conflicts. Meanwhile, the economic performance of several developed countries is predicted to improve slightly, especially in the Euro Area, Britain and Japan. Nevertheless, the improved performance of these developed countries has been offset by the potential for moderation in US economic growth.

INDONESIAN ECONOMIC ANALYSIS

The Central Statistics Agency (BPS) stated that Indonesia's economy only increased by 4.97% year-on-year in the fourth quarter of 2019, which is a decrease compared to the fourth quarter of 2018, which reached 5.18%. One of the factors underlying this slowdown was the decline in the performance of the manufacturing sector from 4.25% in the fourth quarter of 2018 to 3.66%. The processing industry has also fallen somewhat in the last year. The reason for this is the decline in imports of raw materials which must have a negative effect as long as imported raw materials cannot be substituted.

Based on BPS' data, the non-oil and gas industry sub-sector experienced both growth and contraction at the end of last year. The industrial subsectors that grew included the food and beverage industry at 7.95% year-on-year, the chemical pharmaceutical industry and traditional medicine at 12.73% year-on-year, the textile and apparel industry at 7.17% year-on-year, and the tobacco processing industry at 1.9% year-on-year.

Meanwhile, the industrial sub-sectors that experienced contraction in the fourth quarter of 2019 included the transportation equipment industry, which fell 2.25% year-on-year and the metal goods industry, as well as computers, electronics, optics and electrical equipment which were at 2.13% year-on-year.

GLOBAL ECONOMY PREDICTED TO GROW 2.5% IN 2020

The World Bank notes that economic recovery in several countries will boost global economic growth in 2020. However, there are still many

obstacles that can thwart these opportunities for global economic growth.

The World Bank has said that trade tensions may easing up with the initial agreement between the United States (US) and China. Peaceful progress in trade will quickly spread beyond these two countries with the largest economies.

In the latest Global Economic Prospects report released by the World Bank, the agency has estimated that global economic growth would be at 2.4% in 2019 and at 2.5% in 2020, in line with gradual recovery from trade and investment. Global trade growth is expected to rise to 1.9% in 2020, up from 1.4% in 2019. Most of the world's major economies are also ready to experience slowing economic growth in 2020, the report said.

PHARMACEUTICAL INDUSTRY

The pharmaceutical market in Indonesia is experiencing high growth due to the implementation of the National Health Insurance (JKN) scheme, and various expansions and investments in health infrastructure. Supporting the government's agenda of improving the quality of life of the Indonesian people, as described in the RPJMN, the Healthy Indonesia Program is currently being promoted as the main program for Health Development. This program aims to provide health services and facilities for all Indonesians and to ensure the availability, affordability, and quality of pharmaceutical products and medical devices through the Healthy Indonesia Card.

The pharmaceutical industry revenue growth rate is predicted to reach nearly 11% (CAGR 2013-2023), and it is predicted that the pharmaceutical industry in Indonesia will enjoy an income of Rp188 trillion in 2023. This rate is very high when compared to population growth in Indonesia which is around 1%. This shows that there will be an increase in demand and consumption of pharmaceutical products in Indonesia.

The Indonesian government, through the national priority agenda in the RPJMN, has formulated a program to improve the quality of life of

Indonesian people. The health sector is one sector that can support this program. In line with this program, the Ministry of State-Owned Enterprises has established the Pharmaceutical Industry roadmap, which is a strategic program for the Health Sector to reduce dependence on imports, increase native Indonesian medicinal products, develop biotechnology research centres, and self-reliance vaccines and Life Science products (source: Joint Study Holding).

BIO FARMA AS A VACCINE MANUFACTURER FOR INDONESIAN AND GLOBAL SOCIETY

Indonesia should be proud to have Bio Farma as a world-class company. Bio Farma has penetrated the markets of more than 140 countries through vaccine products that have passed the WHO Prequalification and has a production capacity of more than 3.2 billion doses per year to meet global vaccine needs through WHO and UNICEF. This is a form of international recognition for Bio Farma as a vaccine manufacturer for the global community.

Bio Farma also exports its vaccines to Islamic countries. It is not easy to penetrate this market because the vaccines must be made with halal ingredients, so that they are suitable for consumption by Muslims. All vaccines for Bio Farma products have been directed to obtain halal certificates from the MUI. Bio Farma also provides vaccines to protect people who are on the pilgrimage. With its large halal market share, Bio Farma has positioned itself well as a vaccine manufacturer for developing countries and Bio Farma will continue to supply quality vaccines at affordable prices according to the needs of developing countries.

Of the Company's total revenue, 65% is derived from export activities, while the rest is generated from the domestic market. Nevertheless, Bio Farma still targets growth in the domestic market as it is a large market that may be able to provide 50% of future revenue. A total of 12 Bio Farma products are recognised by the World Health Organisation (WHO). The newest vaccine, Pentabio Five in One, is a vaccine that has five antigens in one

package, thus it is a breakthrough that reduces the intensity of immunisation injections and biological waste. Bio Farma products that have been exported include: bOPV products to 46 countries, tOPV to 82 countries, Measles to 52 countries, TT to 56 countries, Td to 21 countries, DTP to 10 countries, DT to 3 countries, and Bio TT to 4 countries. Bio Farma also exports intermediate products (bulk) to 24 countries as follows: bulk tetanus to 6 countries, bulk measles to 2 countries, bulk pertussis to 3 countries, bulk diphtheria to 5 countries, bulk polio to 2 countries, and other products to 6 countries.

Bio Farma has now also begun to move towards becoming a Life Science Company and welcomes the latest innovations in the bio technology industry related to Life Science. In an effort to provide the best quality and environmentally friendly products, Bio Farma vaccines are based on long research and experience and comply with the standards of the National Agency of Drug and Food Control (BPOM). Bio Farma has undertaken increased capacity and production capability by expanding the development of new products, one of which is rota virus diphtheria. Vaccine production facilities for Hepatitis B are now also carried out with yeast-based recombinants. In Building 41 will be built a new prefilled syringe packaging facility, such as Uniject. In Building 34 will be

built a pilot scale research or production facility. Bio Farma is also constructing Building 3 for supporting facilities such as QC.

Bio Farma has created superior innovations to synergize with recent technological developments. This effort was made to face export challenges by launching the GS1 or QR Code Monitor innovation to anticipate the risk of counterfeit vaccines. Through the GS1, products can be traced down to the consumer level. At this point, there is Uniject which is the mainstay product, and Pentabio Vaccine which is a five-component vaccine in one injection. Through vaccine development, Bio Farma continues to play an active role in increasing the availability and independence of vaccine production in developing countries and Islamic countries in order to maintain Global Health Security.

STATE-OWNED ENTERPRISES PHARMACEUTICAL HOLDING MAKES AN APPEARANCE

The new State-Owned Enterprises Holding in the pharmaceutical industry is expected to strengthen research & development (R&D) as well as to build distribution channels that are connected to all systems, including hospitals, public health services, and pharmacy networks throughout Indonesia. Aside from that, it will apply digital technology in the era of the industrial revolution 4.0; thus, it will be more effective and efficient.



The new State-Owned Enterprises Pharmaceutical Holding will allow the country to participate in creating a healthy Indonesian nation using the latest biotechnology, and pharmaceutical and world-class healthcare products that are globally competitive. Despite Bio Farma's position at a global level, meeting the public's price expectations for cheap and affordable drugs will be a challenge, for the dependence on imported raw materials is still an obstacle to producing cheap pharmaceutical products.

After being appointed as the holding company for the pharmaceutical SOEs, with members including PT Kimia Farma (Persero) Tbk and PT Indo Farma (Persero) Tbk, PT Bio Farma (Persero) Tbk is well-prepared to carry out its role as a holding company, which among other things, encourages members to be independent, both in terms of research and production of products, and also encourages them to implement production and Quality Management Systems, and to obtain WHO Pre-Qualification (WHO PQ). With WHO-PQ, it is hoped that Kimia Farma and Indo Farma will also be able to penetrate the global market, and help the State-Owned Enterprises Pharmaceutical Holding members to become global players. Bio Farma products are now used in more than 140 countries worldwide, and have penetrated the market in the Organisation of Islamic Cooperation (OIC) countries.

The purpose of having this SOE pharmaceutical holding, in addition to strengthening the independence of the national pharmaceutical industry, is also to increase product availability by creating joint innovations in the provision of pharmaceutical products to support the pharmaceutical ecosystem in the future.

Currently, in Indonesia, the pharmaceutical industry is still faced with several significant challenges such that the country still depends on imports, especially for medicinal raw materials or Active Pharmaceutical Ingredients (API). Another challenge access to pharmaceutical products which tends to be difficult due to the limited distribution channels which make drug prices relatively expensive and the next challenge is having the latest innovations that can produce

pharmaceutical products that are needed by the community.

By joining Bio Farma, Kimia Farma and Indo Farma together within one State-Owned Enterprises Pharmaceutical Holding, it is expected that each of these companies will contribute to national pharmaceutical resilience, so that the price of pharmaceutical products can be cheaper. Due to the decline in API prices, the public will find it easier to access pharmaceutical products from a wide and even distribution network, which even extends to foreign countries. and most importantly, the innovations can launch new products needed by the Indonesian people.

In terms of innovation, Bio Farma, as the holding company, will encourage Kimia Farma and Indo Farma to penetrate a wider market with product standards that have been qualified by the World Health Organization (WHO). After this holding is formed, in addition to being the holding company, Bio Farma will continue to focus on its current main core business, namely as a vaccine and antisera producer, with a separate management team as an operating holding.

The State-Owned Enterprises pharmaceutical holding will support the downstream products of Kimia Farma, Bio Farma, and Indo Farma, considering that Kimia Farma currently has a business chain that extends from upstream to downstream in pharmaceutical retail, distribution, diagnostic laboratories, and health clinics.

Indo Farma is committed to supporting the SOE pharmaceutical holding to jointly achieve independence and increase the competitiveness of the domestic medical device industry.

For this reason, according to the blueprint from the State-Owned Enterprises Pharmaceutical holding, in addition to continuing to develop several pharmaceutical products, Indo Farma will also focus on developing natural extract products and medical equipment. This is in line



with Indo Farma's turnaround strategy which has been established by management as a guideline for determining the direction of the Company's development to sustainably become a Profitable Healthcare Company.

15 YEARS, THE FASTEST PROCESS OF MAKING A VACCINE IN INDONESIA

There is a reason why a new vaccine can be mass produced for decades. This is because the process is not as easy as making medicines. Researching a vaccine to be used on animals alone would take years.

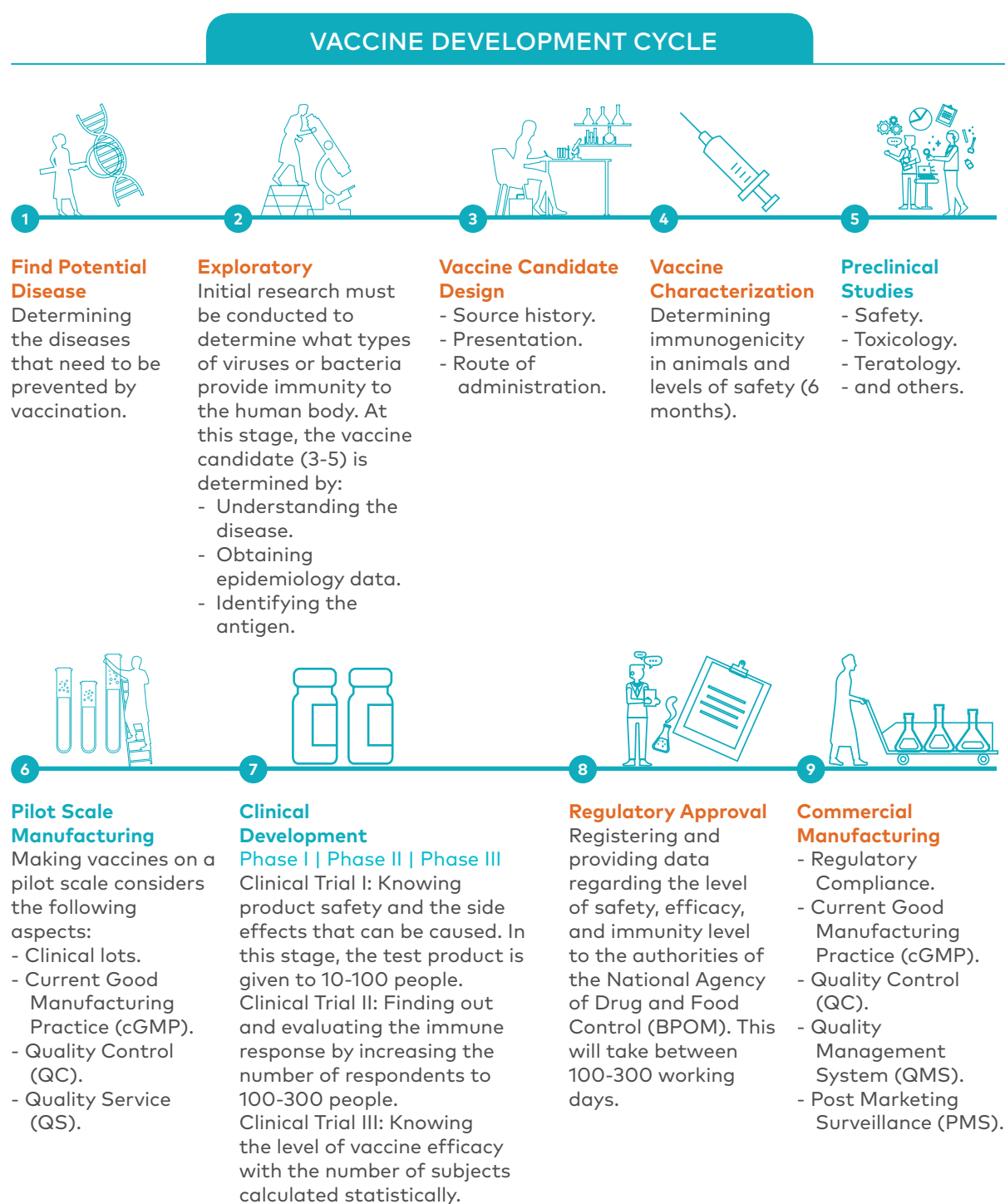
After establishing a candidate virus for a vaccine, it must be examined in the laboratory. Then there is a lab scale, an upscale, and a production

scale to consider. After that, the vaccine must be tested on animals. This process takes about two years to three years. If it is successfully tested on animals, only then can it be tested on humans. This can also take up to three years and consists of various stages.

Stage one is testing for safety and efficacy. The second stage enlarges the sample size. For example, by upscaling from 500 samples to 1,000 or 2,000 samples. After that, the scale is enlarged again in phase three. The time requirement is almost the same at each stage, about two to three years. Thus, one new vaccine can take up to fifteen years at the earliest. If a vaccine does not pass at any one of these stages, the research process must be repeated all over again.

THE VACCINE DEVELOPMENT CYCLE

Research activities are the basis of developing a new product. The research activity begins with an exploratory stage wherein an assessment is carried out of the pattern of the disease which is the target of research and understanding. Identification of the molecules/antigens that will be the potential product candidates, and the methods for producing/finding those antigens are the critical steps in furthering product development, in addition to the need for having brief historical information and documented raw materials. The output of this research activity is the Proof of Concept.



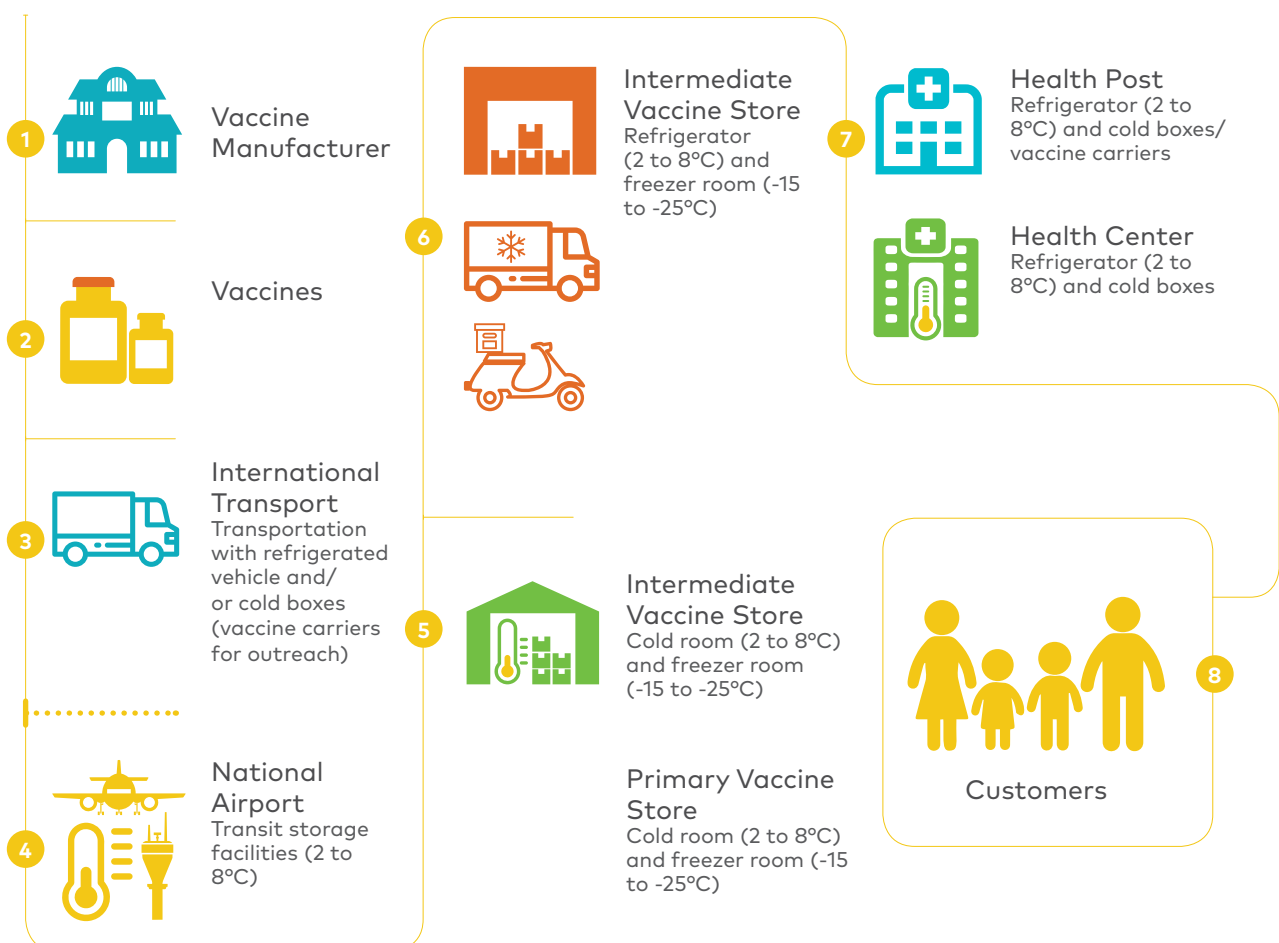
COMMITMENT TO MAINTAINING THE QUALITY OF THE VACCINE

Vaccines are biological products that require special handling in their distribution. A special system is needed for vaccine distribution, namely the Cold Chain System which starts at the factory and then moves through various distribution channels, then on to storage at the destination, and then further storage for as long as the vaccine is not required, and up until the point that the vaccine is delivered to customers.

The temperature of the vaccine must be maintained at a temperature range of 2 to 8 degrees Celsius for BCG, DTP, TT, DT, Td, DTP-HB-Hib, Measles, Hepatitis B, and Influenza vaccines. Meanwhile, the Polio vaccine must be stored at a temperature of -20 (minus 20) degrees Celsius.

The Cold Chain System is a procedure that is carried out to maintain the temperature of the vaccine in a stable state, so that the effectiveness, safety, efficacy and quality of the vaccine can be maintained, so that the recipients will get the benefits of protection and prevention of various infectious diseases.

The time limit for all of the deliveries above should not exceed 48 hours according to WHO guidelines and with due observance of the cold chain system for each type of vaccine.



ACCESS TO HEALTH AND ACCELERATION OF THE DEVELOPMENT OF THE PHARMACEUTICAL INDUSTRY

In accordance with the instructions of the President of the Republic of Indonesia (number 6 of 2016) concerning the acceleration of the development of the pharmaceutical and medical device industry, Bio Farma continues to support this acceleration effort, by ensuring the availability of pharmaceuticals and medical devices in an effort to improve health services within the framework of the National Health Insurance scheme.

Bio Farma is committed to increasing the competitiveness of the domestic and export pharmaceutical and medical device industries. Currently, with 13 products that have received Pre-Qualification recognition from the World Health Organization (WHO), more than 140 countries have used Bio Farma products, and we have become the largest vaccine manufacturer in Southeast Asia with a production capacity of more than 3.2 billion doses per year. However, we always prioritize domestic vaccine needs.

Bio Farma encourages the mastery of technology and further innovation in the field of pharmaceuticals and medical devices, and is accelerating the independence and development of raw material production to meet domestic and export needs, as well as restoring and increasing industrial activities/utilisation of industrial capacity.

We are committed to the development of the pharmaceutical and medical devices industry, especially the further development of

biopharmaceuticals and vaccines, using both natural and chemical active pharmaceutical ingredients (API). Through the national vaccine research forum and Life Science, we encourage the implementation of research and the development of pharmaceutical preparations and medical devices in the context of the independence of the pharmaceutical and medical device industries.

REVIEW OF OPERATIONS PER BUSINESS SEGMENT

As a manufacturer of vaccines and antisera for humans, Bio Farma guarantees that the quality of vaccines distributed for the National Immunization Program, which is given free by the Government, are of international standard since it has passed the PQ of the World Health Organization (WHO). The quality of the vaccines produced by Bio Farma is guaranteed because it has gone through a strict supervision process, from production to storage, which has been audited by BPOM and WHO.

Of the approximately 200 vaccine manufacturers around the world, there are only 30 manufacturers that are officially recognized by the WHO, one of which is our operation here in Indonesia. Even today, Indonesia is still the only country in Southeast Asia whose vaccines have been recognized by WHO.

After fulfilling the obligations of the National Immunization Program, the vaccines produced by Bio Farma are exported to 140 countries. Indonesia is also one of the five countries that predominantly supply vaccines. All Bio Farma products have met international standards, both in terms of quality control and quality assurance. In addition, the production processes and quality control of vaccines

THE DIFFERENCES BETWEEN VACCINES AND SERA

VACCINE		DIFFERENCE		SERA
Preventing		Main Function		Treating
Long-Term		Immunity		Short-Term
Attenuated Microorganisms		Source		Animal or Human Serum
Active Immunisation		Type of Immunisation		Passive Immunisation

are always monitored by the National Control Authority (NCA)/National Agency of Drug and Food Control (BPOM) which is also recognised by WHO.

EXPLANATION OF EACH BUSINESS SEGMENT

Vaccines are antigens (microorganisms) that are inactivated or attenuated (bacteria/virus) which are then introduced into a person's body to create an active immunity. The injection system is either by injecting or by mouth. The main function of vaccines is for the prevention of a disease caused by microbe.

Sera is a liquid from a body that contains an immune system against microbe which, when introduced into a person's body, will result in that person having an immunity to the same microbe. The main function of a serum is to treat a disease caused by microbe.

What we choose to use for the formation of the immune system depends on the existing conditions and circumstances. If we seek prevention against a disease, then we can choose a vaccine. However, if we have been affected by a disease, then we can choose a serum.

However, a serum has only medicinal properties and does not leave us with immunity to the disease it treats. So, it is likely that we will be exposed to the same disease over and over again. Therefore, apart from giving serum, if our body has recovered from the disease, it is better to have the vaccination, immediately.

Vaccines are inactivated or attenuated microorganisms. At a certain concentration, the vaccine is injected into a person's body so that his/her immune system responds to the vaccine. At this time, many vaccines are made only by taking part of germ genes, so it is relatively safe.

Serum is made by inserting a vaccine into the body of an animal (cow, horse, goat, etc.) so that the body's immune system responds to the vaccine. If the test results show that the animal has become immune to the vaccine that was administered, its blood can then be drawn through the neck vein (jugular vein). After being drawn, the blood is then separated between the plasma, the cells, and the blood proteins. The blood plasma is then purified into serum. This serum will provide immunity to someone who is immunizing with serum.

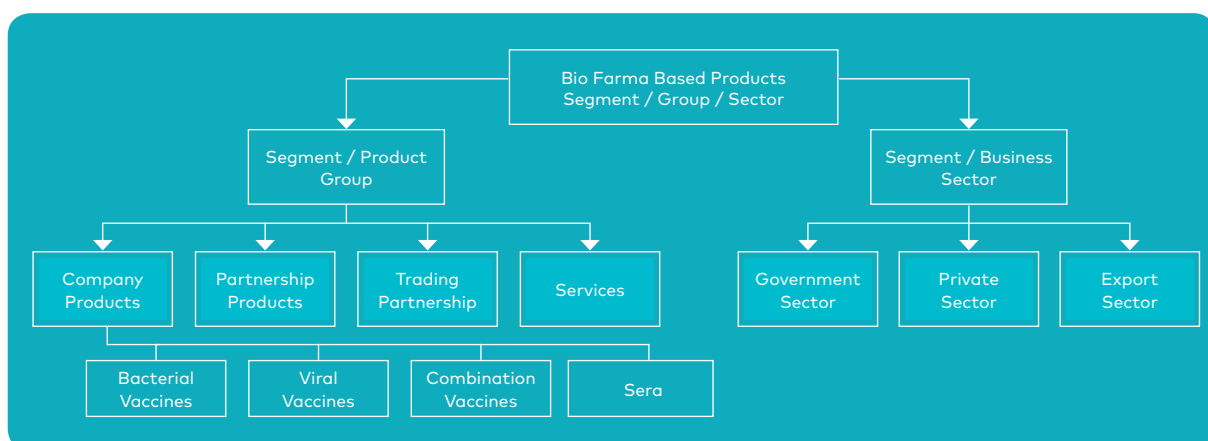
Bio Farma products are grouped based on two segments:

1. Segment/ Product Group:

- a. Company Products
 - Bacterial Vaccines
 - Viral Vaccines
 - Combination Vaccines
 - Sera
- b. Partnership Products
- c. Trading Partnerships
- d. Services

2. Product Sales Per Segment/ Business Sector:

- a. Government Sector
- b. Private Sector
- c. Export Sector



DESCRIPTION OF PRODUCT SEGMENTS / GROUPS

SEGMENTS / GROUPS OF BACTERIAL VACCINE PRODUCTS

Bio Farma products which are included in the bacterial vaccine segment (product group) are as follows:

1. TT Vaccine

- a. Tetanus Toxoid Vaccine (TT) is a vaccine given to prevent tetanus.
- b. TT vaccine is a white homogeneous colloidal suspension in a glass vial, contains purified tetanus toxoid, which is adsorbed onto aluminum
- c. Benefits of the TT Vaccine
The TT injection vaccine in pregnant women is an attempt made to gain immunity in pregnant women against tetanus infection by injecting the tetanus toxoid vaccine.

The purpose of giving TT immunization:

- Provide passive immunity to pregnant women against tetanus, because vaccination during pregnancy also helps the baby to avoid tetanus for a few weeks after birth.
 - Prevent the occurrence of tetanus in mothers during pregnancy, childbirth, and postpartum.
 - Prevention of tetanus and protection of newborns from neonatal tetanus, for example due to umbilical cord infection during childbirth.
- d. When to give TT immunization
TT vaccine immunization program can be carried out for pregnant women by giving 2 doses with a time interval of at least 1 month between the first dose and the second dose. It is recommended that the second dose be given no later than one month before delivery in order to create a steady immunity.
 - e. Amount and Dosage of Tetanus Toxoid Immunization
The TT vaccine for pregnant women is given 2 times, with a dose of 0.5 cc injected intramuscularly or subcutaneously. We recommend that the TT vaccine be given before 8 months of pregnancy.
A TT1 injection can be given from the time

a woman is first known to be pregnant, which is usually given during the first visit of a pregnant woman to a health facility. The interval between TT1 and TT2 immunization is at least 4 weeks.

2. DT vaccine

- a. Diphtheria Tetanus vaccine is a vaccine given to fight *Corynebacterium Diphtheriae*, which is the bacteria that causes diphtheria.
- b. DT vaccine is a white homogeneous colloidal suspension in a glass vial, contains purified tetanus toxoid and diphtheria toxoid which are adsorbed onto aluminum phosphate.
- c. Benefits of the DT Vaccine
The DT vaccine is given to children to ward off the spread of the diphtheria bacteria and the spread of the tetanus bacteria during vulnerable times, when the antibody conditions in the body are reduced due to the growth process. Diphtheria itself will usually attack a person and is able to cause infection of the mucosa either in the respiratory system tract or in the part of the skin that is injured. Active immunization against diphtheria and tetanus infections simultaneously in children.
- d. What to pay attention to before DT immunization
Children who are sick when the immunization schedule arrives are to wait until they recover. However, if the child only has the common cold, flu, or fever, it is okay for them to be immunized right away. In addition, there may be children who will experience allergies to this immunization, so this should be discussed with a paediatrician. If indeed the child is fine, then immunization must still be done because vaccines do not only protect the child from the threat of infection but also protect the people around the child.
- e. When should the child be given the DT immunization
 - Children should get the DT immunization at least five times according to the following schedule:
 - ✓ One dose at 2 months of age
 - ✓ One dose at 4 months of age
 - ✓ One dose at 6 months of age

- ✓ One dose at 15-18 months of age
- ✓ One dose at 4-6 years of age
- In Indonesia, this immunization is carried out in schools, with a schedule as follows:
 - ✓ Grade 1 SD, vaccine immunization: every November.

3. DTP Vaccine

- a. DTP vaccine is a vaccine given to prevent Diphtheria, Tetanus and Pertussis (whooping cough) simultaneously in infants and children.
- b. DTP vaccine is a white homogeneous colloidal suspension in a glass vial, containing purified diphtheria toxoid, purified tetanus toxoid, and inactivated B. pertussis, which are adsorbed onto aluminum phosphate.
- c. Benefits of DTP vaccine immunization
 - DTP vaccine is given to prevent Diphtheria (a bacterial infection with *Corynebacterium diphtheriae*, which causes inflammation of the mucous membrane in the upstream of the esophagus, larynx, and windpipe). The disease forms a thick, gray coating on the throat, which can make it difficult for children to eat and breathe. If the infection is left untreated, the toxins produced by the bacteria can cause nerve, kidney, and heart damage.
 - Pertussis or whooping cough is a bacterial infection that attacks the respiratory system and causes a severe cough (a cough that is hard, contagious, and deadly, especially in children aged 2 - 6 years caused by *Bordetella pertussis* bacterial infection), if a child under one year old is affected by this disease, there is the possibility of experiencing pneumonia, brain damage, seizures, and even death.
 - Tetanus is a disease that can cause severe muscle stiffness, paralysis, and muscle spasms. Disease is due to infection of the wound and is caused by the bacteria *Clostridium tetani* with symptoms in the form of seizures. In contrast to diphtheria and pertussis which are contagious,

tetanus is not transmitted from person to person, but from dirty wounds and exposure to soil.

- d. When to give DTP immunization
DTP immunization for children is given five times, from 2 months to 6 years of age. The first three doses are given at 2 months, 3 months, and 4 months. The fourth one is given at 18 months of age, and the last one is given at 5 years of age. The dose given is one injection per immunization schedule.

4. BCG Vaccine (Freeze Dried)

- a. BCG or *Bacillus Calmette - Guérin* vaccine is a vaccine given to protect against tuberculosis (TB), an infectious disease that primarily affects the lungs.
- b. BCG vaccine is a freeze-dried vaccine containing live attenuated *Mycobacterium bovis* (*Bacillus Calmette Guerin*), a Paris strain.
- c. Benefits of the BCG Vaccine
 - For the prevention of tuberculosis.
 - BCG vaccine is also used as therapy in bladder cancer.
- d. When to give BCG immunization
 - Newborns up to two months of age are the most effective target age group to receive this vaccine. If the baby is more than three months old, the tuberculin test should be done first. BCG can be given if the tuberculin test results are negative.
 - Adults are also allowed to receive the BCG vaccine if it is not given as a child. However, the effectiveness of this vaccine in adults will be lower, so it is rarely recommended except for those who are at high risk, such as medical personnel who treat TB patients.
 - The BCG vaccine only needs to be given once in a lifetime, by injection administered by a doctor or medical officer. This vaccine contains a small amount of weakened TB bacteria and will stimulate the immune system to fight TB bacteria later.

5. Td Vaccine

- a. Td vaccine is a further immunization from DT so that children are increasingly immune to these infectious diseases.
- b. Td vaccine is a white homogeneous colloidal suspension in a glass vial, containing purified tetanus toxoid and purified diphtheria toxoid, with a low-dose of diphtheria component and adsorbed onto aluminium phosphate.
- c. Benefits of Td
 - Td vaccine is given to prevent the growth of viruses that can cause infections, both Tetanus and Diphtheria.
- d. When to give Td
 - Td immunization is given when the child is over 7 years old. Usually, this immunization is given to children aged 11 years. Then given again when they are adults, namely at the age of 19-64 years.
 - Everyone is recommended to get Td immunization every 10 years. The reason is, the body's immunity against these three diseases may decrease over time. Therefore, Td immunization is recommended for adults.
 - In Indonesia, this immunization is administered in schools, with the following schedule:
 - Grade 2-3 SD, given Tetanus diphtheria (Td) immunization in November.

6. Bio-TT Vaccine

- a. Bio-TT vaccine is a white homogeneous colloidal suspension in ampoules, containing purified tetanus toxoid, adsorbed onto aluminum phosphate.
- b. For prevention against tetanus and protection against neonatal tetanus in women of childbearing age.

SEGMENTS / GROUPS OF VIRAL VACCINE PRODUCTS

Bio Farma products included in the viral vaccine segment (product group) are as follows:

1. Oral Polio Vaccine

- a. Oral Polio Vaccine (OPV), is a vaccine containing live, attenuated polio virus thus the body has resistance to polio virus. OPV is administered orally.

- b. Oral Polio Vaccine (OPV) is a trivalent vaccine and is a reddish yellow liquid packaged in a glass vial containing suspensions of type 1,2 and 3 live Polio viruses (Sabin strain) which have been attenuated. Oral Polio Vaccine is a suspension with "drops" to be delivered directly through a dropper (taken orally).
- c. Benefits of Oral Polio Vaccine
 - For the prevention of poliomyelitis type 1, type 2 and type 3.
 - Oral Polio Vaccine is given to prevent polio or poliomyelitis which attacks nerves. The virus that causes polio infection lives in the throat and intestinal tract and can be spread by contact with fluids or faeces. Polio can cause organ paralysis, even death.
- d. When to give OPV Vaccine.
 - To obtain optimal results, the polio vaccine will usually be given during the first visit after birth. Furthermore, this vaccine is to be given 3 times, when the baby is 2, 4, and 6 months old. This vaccination is repeated at the age of 18 months and 5 years.
 - If the polio vaccine is given to an infant or child later on, it can be continued until the dose is complete. Remember, no need to start over.
 - If, after having the polio vaccine, the child experiences pain or fever, consult a doctor about administering pain relievers, such as paracetamol or ibuprofen.
 - Like any medicine, the polio vaccine also has a very small risk of triggering allergies and other risks. It is advisable to postpone the polio vaccine when the child is not in a fit condition or sick.

2. Bivalent Oral Poliomyelitis Vaccine

- a. bOPV is a light yellow to pink liquid in a glass vial containing a suspension of live attenuated type 1 & 3 Polio virus (Sabin strain).
- b. Benefits of the bOPV vaccine: for prevention of poliomyelitis types 1 & 3.

3. Measles Vaccine (Freeze Dried)

- a. Measles vaccine is an attenuated live vaccine, which is a yellowish freeze-dried vaccine in glass vials, which must be reconstituted only with diluent provided separately by PT Bio Farma. The vaccine is prepared for injection.
- b. Benefits of Measles Vaccine
 - To prevent measles infection. Measles is a contagious disease caused by a virus. The virus from measles can spread through the air. People who get measles usually start with symptoms in the form of fever, cough, runny nose, red eyes, then small red spots appear all over the body. Measles has severe consequences because it can cause ear infections, lung infections, brain damage and even death.
- c. When to give the Measles Vaccine
 - Measles vaccine is first given when a child is 9 months old. Measles-2 is given in the first grade SD BIAS program, at 6 years old.

4. Recombinant Hepatitis B Vaccine

- a. Hepatitis B vaccine is a vaccine that prevents from Hepatitis B virus.
- b. Hepatitis B vaccine recombinant contains a non-infectious Hepatitis B viral antigen, HBsAg, which is produced in yeast cell culture using recombinant DNA technology. R Hepatitis B vaccine is a whitish sterile suspension in a prefilled injection device, packaged in an aluminum foil pouch, and vial.
- c. When to give the Hepatitis B vaccine
 - Hepatitis B is given three times. The first one within 12 hours of birth. This immunization is continued when the baby is 1 month old, then again at 3-6 months.
 - This vaccine is also given to those with poor immune function such as HIV/AIDS cases and those who were born prematurely.
 - In healthy people, routine immunization results in more than 95% of people being protected. Blood tests to confirm that the vaccine has been successful are recommended for those at high risk.

Additional doses may be needed in people with poor immune function, but are not needed by most people. In those who have been exposed to the hepatitis B virus but not previously immunized, hepatitis B immunoglobulin should be given in addition to the vaccine. The vaccine is given by injection into a muscle.

- Serious side effects from the hepatitis B vaccine are very rare. Pain may occur at the injection site. This vaccine is safe to use during pregnancy and while breastfeeding.

5. Flubio Vaccine

- a. Influenza vaccine or flu vaccine, is a vaccine that prevents from influenza virus.
- b. Influenza HA vaccine is a clear or slightly turbid suspension, containing hemagglutinin from the influenza virus antigen. Influenza HA vaccine is a suspension for injection.
- c. Benefits of Influenza Vaccine
 - For the prevention of seasonal influenza.
- d. When to give the Influenza Vaccine.
 - Influenza vaccine is given to healthy people aged 12 years and over. Since influenza is naturally seasonal, the vaccine is recommended once a year.

SEGMENTS / GROUPS OF COMBINATION VACCINE PRODUCTS

Bio Farma products included in the combination vaccine segment (product group) are as follows:

1. Pentabio Vaccine (DTP-HB-Hib)

- a. Pentabio vaccine is a Pentavalent combination vaccine consisting of 5 types of vaccines given at once including DTP-HB-Hib in infants and advanced immunization for toddlers according to the standards.
- b. Pentabio vaccine is a DTP-HB-Hib Vaccine (Diphtheria, Tetanus, Pertussis, Recombinant Hepatitis B, Haemophilus influenzae type b vaccine) combination vaccine in the form of a homogeneous suspension containing purified tetanus and diphtheria toxoid, inactive Pertussis (whooping cough) bacteria, non-infectious purified Hepatitis B surface

antigen (HBsAg), and non-infectious Hib component which is a conjugation result between polysaccharide of *Haemophilus influenzae* type B and tetanus toxoid.

- c. Benefits of the Pentabio Vaccine
 - Vaccines are used for the prevention of diphtheria, tetanus, pertussis (whooping cough), hepatitis B, and *Haemophilus influenzae* type b infection simultaneously
- d. When to give the Pentabio Vaccine
 - DPT-HB-Hib immunization is a routine immunization given to targets at the age of 0-11 months. Advanced DPT-HB, Hib and Measles immunization, are given to toddlers (under three years).

SEGMENTS / GROUPS OF SERUM PRODUCTS

Bio Farma products which are included in the serum segment (product group) are as follows:

1. Anti-Tetanus Serum (BioSAT)

- a. Anti-Tetanus Serum (BioSAT) is a purified antisera produced from equine's plasma which is thickened against tetanus, and contains phenol as a preservative, in the form of a yellowish clear liquid.
- b. Benefits of ATS Serum
 - For the treatment of tetanus.
- c. Indication for ATS (Anti Tetanus Serum) injections
 - The wound is quite large (deeper than 1 cm)
 - Star-shaped wound
 - Wounds come from dirty and rusted objects
 - Animal and human bite wounds
 - Gunshot wounds and burns
 - Contaminated wounds, namely: wounds left untreated for more than 6 hours, or wounds left untreated for less than 6 hours but exposed to a lot of contamination, or wounds left untreated for less than 6 hours but arise due to considerable force (eg gunshot wounds or machine pinches).

- d. When to give ATS Serum injections
 - Patients do not have a clear history of tetanus immunization or have not received a booster for 5 years or more

2. Anti Diphtheria Serum (BioADS)

Benefits of BioADS Serum: for the treatment of diphtheria.

3. Anti Snake Venom Serum (BioSAVE)

- a. Anti-snake venom serum (ABU) is a typical serum containing anti venom/anti venom against certain types of snake venom, which is made from animal antibodies.
- b. Polyvalent Anti-Snake Venom Serum (BioSave) is a purified anti-sera produced from equine plasma providing immunity against neurotoxic snake venom (such as the *Naja sputatrix* - Cobra snake, *Bungarus fasciatus* - Striped snake) and hemotoxic snake venom (such as the *Agkistrodon rhodostoma* - ground snake) which is widely found in Indonesia, and contains phenol as a preservative. Polyvalent Anti-SnakeVenom Serum is a yellowish clear liquid.
- c. For the treatment of poisonous snake bites that contain neurotoxic effects (*Naja sputatrix*/cobra and *Bungarus fasciatus*/striped snakes) and hemotoxic effects (*Ankistrodon rhodostoma*/ground snake).
- d. ABU produced by Bio Farma, which has been used in Indonesia, is only used to neutralize poisonous snake venom, and is of only three types.
ABU is used as first-line anti-venom therapy for:
 - The venom of rattlesnakes, which are neurotoxic:
 - ✓ *Naja sputatrix*, or cobra, or spoon snake
 - ✓ *JawaBungarus fasciatus*, or welang snake (rarely bites humans)

- Venomous rattlesnakes, which are hemotoxic:
 - ✓ *Calloselasma rhodostoma*, atau *Agkistrodon rhodostoma*, or ground snake, also known in Malaysia as the Malayan pit viper

The effect of ABU therapy is to neutralize the venom of venomous snakes when it is systemically present in the human body.

SEGMENTS / GROUPS OF DIAGNOSTIC PRODUCT

Bio Farma products which are included in the diagnostic segment (product group) are as follows:

1. PPD RT 23 (Purified Protein Derivative)

- a. Benefits of PPD RT 23: to test a person's sensitivity to tuberculosis infection.
- b. Tuberculin Purified Protein Derivative (PPD) RT 23 is a clear liquid containing PPD from selected strains of *Mycobacterium tuberculosis* bacteria. Tuberculin PPD RT 23

is produced with the strength of 2 tuberculin units (T.U, of which 1 T.U = 0.02 mcg (microgram) Tuberculin PPD RT 23). 1 mL of Tuberculin solution contains 50 mcg of stabilizer, polysorbate 80 (Tween 80) and 100 mcg of preservative, potassium hydroxyquinoline sulphate (Khinisol) in phosphate buffer.

c. Indication

For diagnostic purposes. The Mantoux test with Tuberculin PPD RT 23 is a testing tool in determining whether a person has been infected with *Mycobacterium tuberculosis*.

SEGMENTS / GROUP OF PARTNERSHIP PRODUCTS

Bio Farma products which are included in the partnership segment (product group) are as follows:

Menivax ACYW Vaccine (Meningitis)

For the prevention of meningitis.



BIO FARMA PRODUCTION FACILITIES AND QUALITY

Bio Farma, an Indonesian vaccine manufacturer whose name has become known internationally, has now begun to move towards becoming a Life Science Company. Bio Farma invites the biotechnology industry to go further by creating new innovations related to Life Science. Bio Farma provides high quality products, is innovative in various fields, and is environmentally friendly. Bio Farma vaccines are based on long research and experience, referring to the standards of the National Agency of Drug and Food Control (BPOM), International Standards and the latest Quality Management System.

Since 1997, Bio Farma has been one of only 30 vaccine manufacturers in the world that have received the WHO Prequalification. The company therefore implements various integrated manufacturing systems: GMP (Good Manufacturing Practices) from the BPOM; current Good Manufacturing Practices (cGMP) from the World Health Organization (WHO); Good Laboratory Practices (GLP); Good Clinical Practices (GCP); and Good Distribution Practices (GDP). Furthermore, the company implements an integrated management system under ISO 9001:2015, ISO 14001: 2015, and OHSAS 18001: 2007, as well as world class standard guidelines, including ISO 26000 guidance for CSR, Enterprise Risk Management ISO 31000, International Financial Reporting Standard (IFRS) and Information Technology 27000.

Currently, Bio Farma operates two facilities in two different locations. The first is at Jalan Pasteur No. 28 in Bandung where a land area of 91,058 m² is used for Production, Research and Development, Marketing, and Administration purposes. The second location is in Cisarua, Lembang, in West Bandung Regency where there is a land area of 282,441 m² which is used for the breeding and maintenance of animal laboratory., Bio Farma also has a Representative Office at Pakarti Center Building, Jl. Tanah Abang III No. 23-27, Jakarta.

To increase overall capacity and production capability, Bio Farma has expanded the development of various new products, one of which is the Rotavirus. Vaccine production facilities for Hepatitis B are now also carried out with yeast-based

recombinants. In Building 41 will be built a new prefilled syringe packaging facility, such as Uniject. In Building 34 will be built a pilot scale research or production facility. Bio Farma is also constructing Building 3 for supporting facilities such as QC.

PROCESS OF PRODUCTION AND TESTING OF BIO FARMA VACCINES

Vaccines are antigens (microorganisms) that are inactivated or attenuated. If the vaccine is given to healthy people, they will form an immunity or specific antibodies against these microorganisms. If exposed, these people will be immune and will not get sick. The basic ingredients for making vaccines require microorganisms, in the form of both viruses and bacteria. Growing such microorganisms requires a growing medium that is stored at a certain temperature.

Bio Farma's vaccine production process is carried out through a very strict and high standard process, starting with the supply of raw materials coming from suppliers having certain quality standards. Production facilities must also be validated, both in terms of the tools used and the other support provided, and the finished goods storage facilities and distribution processes are also closely monitored to ensure that they meet consistent quality, safety and effectiveness factors.

The vaccine production process begins with the selection and planting of selected microorganisms/ viruses/bacteria that are grown, harvested, inactivated, purified, formulated, and then packaged. This series of steps in the vaccine manufacturing process is monitored according to the regulations regarding good drug manufacturing methods or the so-called CPOB standard, which is also known as Good Manufacturing Practice (GMP), so that good product quality is maintained. Each batch that is produced must pass quality testing (Quality Control) and quality assurance (Quality Assurance). Each batch of product that is produced is reported to BPOM for inspection and when it has passed the test, BPOM will issue a certificate for each batch of vaccine. In this way the quality of each batch produced is maintained and assured.

The Bio Farma vaccine used by the Government for the national immunization program (Pentabio (DTP-HB-Hib), DT, Td, TT, Hepatitis B, Measles, Polio, and BCG)

are vaccines with very strict manufacturing process performed according to WHO standards and which has received an authorization from the BPOM.

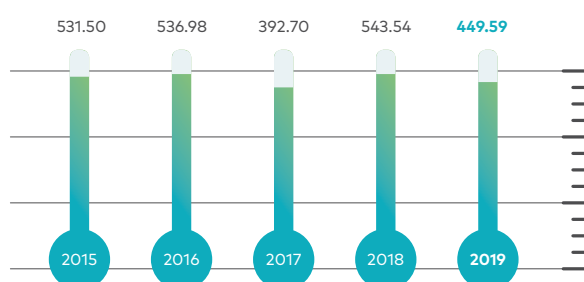
Making a new type of vaccine is not easy. Making vaccines starts with researching the disease burden, and requires finding good sources for microorganisms. The formulation can take 10 to 12 years to develop. Each stage of this development must always be in the right order of the CPOB system, and the documentation must be implemented properly. The research takes a long time because the sources used must be proven to be safe and effective.

"The vaccine production process is very highly regulated and complicated. This basic description of the Vaccine Production Process is only a general illustration and does not describe the specific production processes of the vaccines produced by Bio Farma."

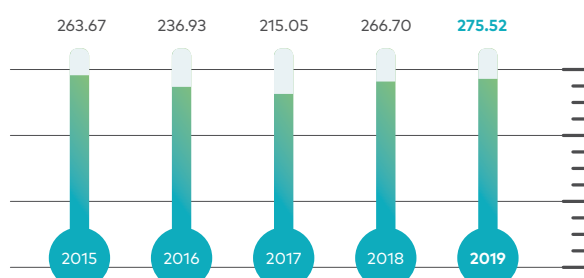
PERFORMANCE PER BUSINESS SEGMENT PRODUCTION

The realization of production costs in 2019 for finished products and in-process products was Rp1.55 trillion, a decreased of Rp284.99 billion or a decrease of 15.54% when compared to the realization of production costs in 2018 which was Rp1.83 trillion.

Bacterial Vaccine Segment Performance Production of Bacterial Vaccines (Million Doses)



Realization of Bacterial Vaccines Production Costs (Rp Billion)



Realization of Bacterial Vaccines Production

The decrease in the production of Bacterial Vaccines was caused by a decrease in sales of the bacterial vaccine products, namely the BCG vaccine, Bio TT 1 ds, Bio Td 1 ds, Td 10 ds and DT 10 ds by 17.33%.

Realization of Bacterial Vaccine Production Costs

In 2019, the realization of bacterial vaccines production costs was Rp275.52 billion, an increase of Rp8.82 billion or 3.31% when compared to the realization of production costs in 2018, which was Rp266.70 billion.

When compared with the realization in 2018, the production costs of Bacterial Vaccines increased by 3.31% or Rp.8.82 billion, this was due to increasing market demand for several types of bacterial vaccines including BCG Vaccines for Babies + Children 20 ds, TT 10 ds, Tetanus Bulk, and Pertussis Bulk, causing the production of Bio Farma's bacterial vaccines to increase in 2019.

The realization of production costs for TT Vaccine 10 ds in 2019 was recorded to have increased by 62.57% when compared to the realization of production costs in 2018.

The realization of production costs for Infant BCG Vaccine 20 ds in 2019 increased by 13.02% when compared to the realization of the production costs in 2018.

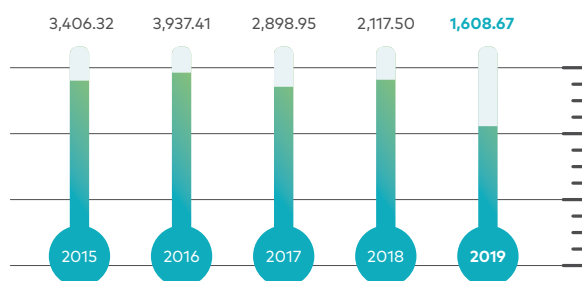
The realization of Pertussis Bulk production costs in 2019 increased by 46.23% when compared to the realization of production costs in 2018.

The total realization of Tetanus Bulk production costs in 2019 increased by 3.72% when compared to the realization of production costs in 2018.

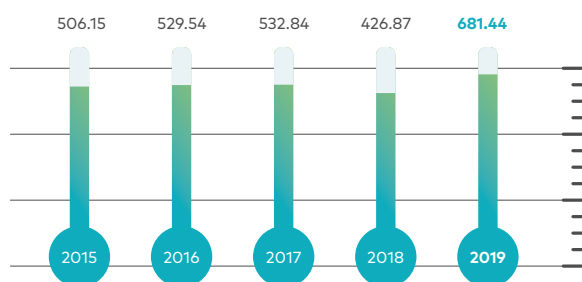
The realisation of production costs in 2019 increased only slightly compared to 2018 production costs due to a decrease in market demand for several types of bacterial vaccines, including the Bio TT 1 ds vaccine decreased by 37.54%, Bio Td 1 ds vaccine decreased by 83.23 %, Td 10 ds vaccine decreased by 48.24%, DT 10 dS vaccine decreased by 60.96%, DTP 10 ds vaccine decreased by 66.67%, Diphtheria Bulk decreased by 19.21% and Hib Bulk decreased by 100%.

Viral Vaccine Segments Performance

Viral Vaccine Production (Million Doses)



Realization of Viral Vaccine Production Costs (Rp Billion)



Realization of Viral Vaccine Production

- In 2019, there were 1,608.67 billion doses.
- The decrease in the amount of viral vaccine produced was caused by decreased sales of viral vaccines, namely the bOPV 20 ds, VHB Adult 1 ds, and mOPV 20 ds vaccines.

Realization of Viral Vaccine Production Costs

In 2019, the realization of production costs for viral vaccines was Rp681.44 billion, an increase of Rp.254.57 billion or 59.64% when compared to the realization of production costs in 2018, which was Rp.426.87 billion.

When compared with the realization in 2018, the costs of Viral Vaccine production increased by 59.64% or Rp254.57 billion. This was due to increasing market demand for several types of viral vaccines including bOPV 10 ds vaccine, Measles 10 ds vaccine, HBV Adult 1 ds, Flu Bio 1 ds, Polio Bulk, Measles Bulk, IPV vaccine (BF) 5 ds, and the realization of the production of mOPV type 2 10 ds vaccine, and Polio Bulk type 2.

It was recorded that the realization of production costs for the bOPV 10 ds Vaccine in 2019 increased by 75.91% when compared to the realization of the production costs in 2018.

The realization of production costs for Measles 10 ds in 2019 increased by 131.55% when compared to the realisation of production costs in 2018.

The realization of production costs for Measles Bulk in 2019 increased by 96.75% when compared to the realization of production costs in 2018.

The realization of production costs for Hepatitis B-RTF Bulk in 2019 increased by 19.57% when compared to the realization of production costs in 2018.

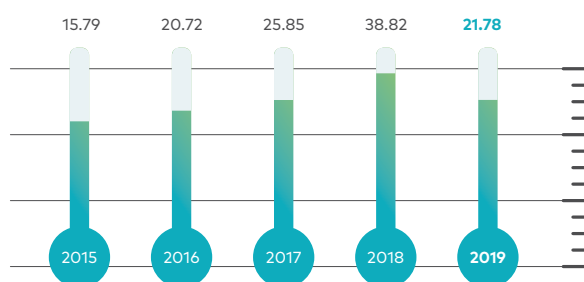
The realization of production costs for the IPV Vaccine (BF) 5 ds in 2019 increased by 275.78% when compared to the realization of production costs in 2018.

The realization of production costs for mOPV type 2 20 ds vaccine in 2019 increased by 100% compared to the production costs in 2018.

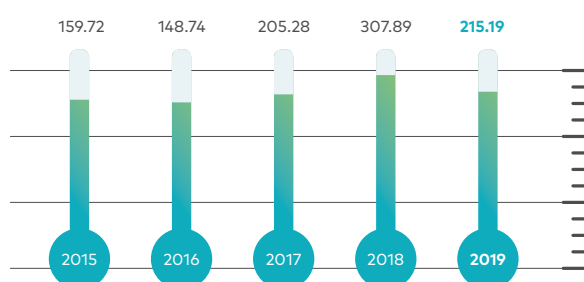
The realization of production costs for Polio Type 2 Bulk in 2019 increased by 100% when compared to the realization of production costs in 2018.

Combination Vaccines Segment Performance

Combination Vaccine Production (Million Doses)



Realization of Combination Vaccine Production Costs (Rp Billion)



Realization of Combination Vaccine Production

- In 2019, there were 21.78 million doses produced.
- The decrease in the amount of combination vaccine produced was caused by decreased production of Pentabio 1 ds and Pentabio 5 ds vaccines.

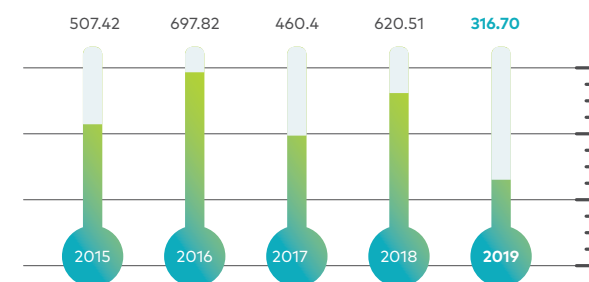
Realization of Combination Vaccine Production Costs

In 2019, the realization of production costs for combination vaccines was Rp215.19 billion, decreased of Rp92.70 billion or 30.11% when compared to the realization of production costs in 2018, which was Rp307.89 billion.

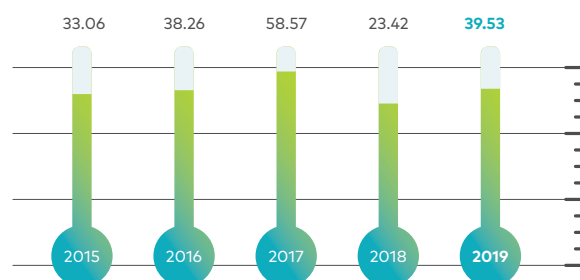
The decrease in the realization of the combination vaccine production costs was due to a decrease in the realization of production costs of Pentabio 5 ds vaccine in 2019, a decrease of 44.06% when compared to the realization of production costs in 2018.

Sera Production Segment Performance

Production of Sera (Million Doses)



Realization of Sera Production Costs (Rp Billion)



Realization of Sera Production

In 2019, the realization of Sera production was recorded at 316.7 million doses.

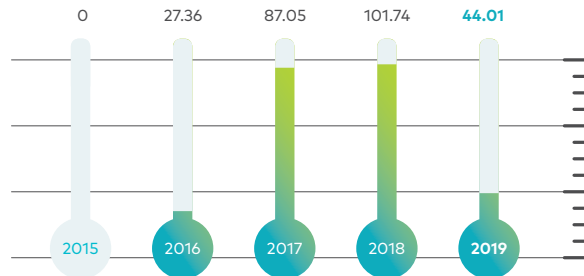
The decrease in the amount of sera production was caused by decreased sales of SERA ABU/BIOSAVE and ATS 1,500 UI/BIOSAT 1.5.

Realization of Sera Production Costs

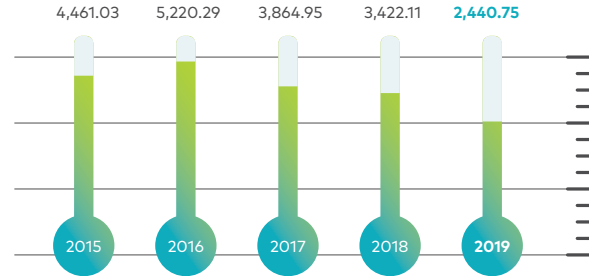
In 2019, the realization of production costs for Sera was Rp39.53 billion, an increase of Rp16.11 billion or an increase of 68.79% when compared to the realization of production costs in 2018, which amounted to Rp23.42 billion.

When compared with the realization in 2018, Sera's production expenses increased by 68.79% or Rp16.11 billion. This was due to increasing market demand from Sera ABU/Biosave, TSM Bulk, ABN Murni Bulk and Bungarus Murni Bulk.

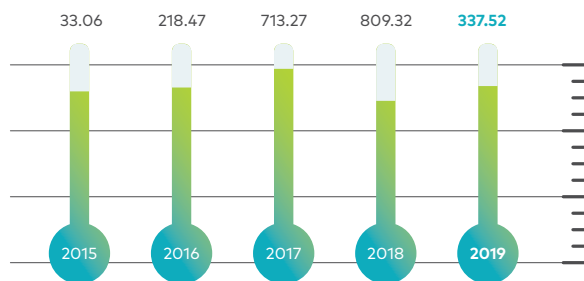
Segment Performance Of Partnership Products Production of Partnership Products (Million Doses)



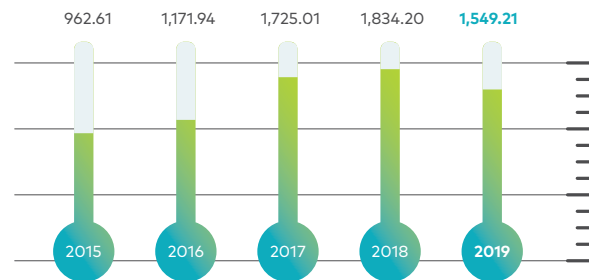
Realization of Production for Vaccines, Sera and Partnership Products (Million Doses)



Realization of Partnership Products Production Costs (Rp Billion)



Realization of Production Costs for Vaccines, Sera and Partnership Products (Rp Billion)



Realization of Partnership Products Production

In 2019, the production of partnership products decreased by 56.74% compared to 2018. The decrease in production of partnership products was due to a decrease in the number of sales of IPV 5 ds., MR 10 ds, and Live Vaccine (JE) 5 ds

Realization of Production Costs for Partnership Products

In 2019, the realization of production costs for Partnership products was Rp337.52 billion, which is a decrease of Rp471.80 billion or 58.30% compared to the realization of production costs in 2018, which was Rp809.32 billion.

When compared to the realization in 2018, the production costs for partnership products decreased by 58.30% or Rp471.80 billion. This was due to the decrease in the production costs of Meningitis, IPV 5 ds, and MR 10 ds.

COST OF GOODS SOLD

Cost of Goods Sold

Cost of Goods Sold for Finished Products in 2019 (Audited) amounted to Rp945.31 billion which was a decrease of 6.49% compared to the 2018 figure of Rp1.01 trillion.

Cost of Goods Sold for Partnership Products

Cost of Goods Sold for Partnership Products in 2019 (Audited) amounted to Rp345.86 billion or a decrease of 54.42% compared to the 2018 figure which amounted to Rp758.73 billion.

Cost of Goods Sold for Trading Partnership

Cost of Goods Sold for Trading Partnership in 2019 (Audited) was Rp 8.50 billion or a decrease of 78.75% from the 2018 figure of Rp 39.98 billion.

Cost of Goods Sold Services

Cost of goods sold for services in 2019 (Audited) amounted to Rp11.56 billion or a decrease of 17.85% from Rp14.07 billion in 2018.

INCREASE/DECREASE IN PRODUCTION CAPACITY

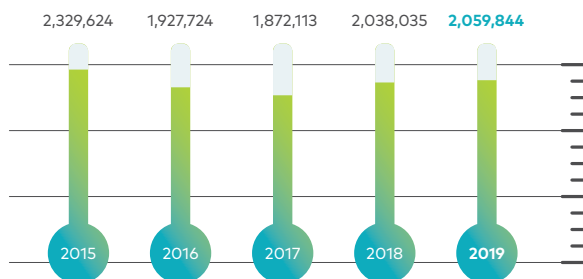
Overall, Bio Farma's production performance in 2019 achieved the Company's targets. The strategy

taken was to optimize production capacity in order to obtain the targeted amount of production in accordance with the marketing projections. Production schedule planning was carried out strictly to meet market needs considering the limited production capacity, especially at fill and finish facilities. To overcome this, the Production Directorate has prepared and planned to increase fill and finish capacity through gradual investment. In addition, several production facilities have been rejuvenated, with added production equipment and machine maintenance so that the Company's targets can be achieved.

SALES/BUSINESS INCOME

The Company's performance in 2019 in terms of sales was recorded at Rp2.54 trillion, a decrease of Rp692.63 billion or 21.41% compared to the realization in 2018 which was Rp3.24 trillion. This decline mainly occurred in sales of bacterial vaccines, combination vaccines and sera although sales of viral vaccines increased.

Sales of Company Products (Rp Million)



The sales performance of the company's products in 2019 was recorded at Rp2.06 trillion, which was an increase of Rp21.81 billion or 1.07% compared to the realization in 2018 which was Rp2.04 trillion.

The realization of bacterial vaccine company products sales in 2019 was recorded at Rp191.05 billion, which was a decrease of Rp39.70 billion or 17.20% compared to the realization in 2018 which was Rp230.75 billion. This was due to the decline in sales of the BCG Vaccine Infant + Child 20 ds by 48.65%, and Bio TT 1 ds vaccine by 31.78%. Sales of Bio Td 1 ds vaccine also decreased by 28.46%, as did Td 10 ds vaccine by 27.85%, DT 10 ds vaccine by 47.99% and Hib Bulk by 100%.

The realization of viral vaccine company products sales in 2019 was recorded at Rp. 1.54 billion, which was an increase of Rp334.52 billion or 27.73% compared to the realization in 2018 of Rp 1.21 trillion. This was due to the increase in sales of vaccines for bOPV 10 ds, Measles 10 ds, mOPV type 2 20 ds, HBV Infants/children 1 ds, Flu Bio 1 ds, Measles Bulk, bHepatitis B-RTF Bulk, IPV 5 ds (BF) and Polio Bulk Type 2. The sales achievement of the Viral Vaccine group increased from the realization in 2018 due to the sales of Polio Bulk Type 2 of Rp137.57 billion.

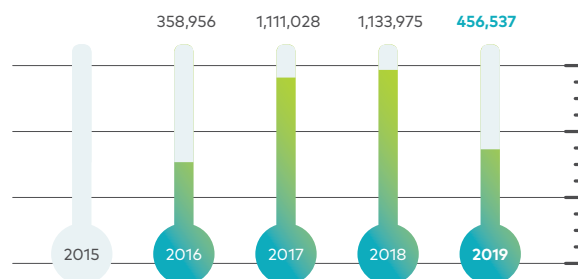
The realization of combination vaccine company products sales in 2019 was recorded as Rp.276.79 billion, which was a decrease of Rp.263.67 billion or 48.79% compared to the realization in 2018 which was Rp. 540.46 billion. This was due to the decline in sales of Pentabio 1 ds vaccine by 19.34%, and Pentabio 5 ds vaccine by 52.75%.

The realization of Sera's product sales in 2019 was recorded as Rp76.83 billion, which decreased by Rp5.61 billion or 6.81% compared to the realisation in 2018 which was Rp82.45 billion, this was due to the decline in sales of Sera ABU/Biosave which was down by 12.78%, and ATS 1500 UI/BIOSAT 1.5 which was down 7.16%.

Sales of Partnership Products

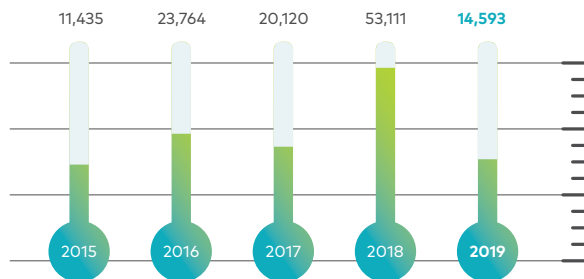
Sales of Partnership Products in 2019 were recorded at Rp 454.54 billion, a decrease of Rp677.44 billion or 59.74% compared to the 2018 figure of Rp1.13 trillion.

Sales of Partnership Products (Rp Million)



Sales of the partnership products in 2019 were recorded at Rp454.54 billion, a decrease of 59.74% or Rp677.44 billion if compared to 2018, mainly due to a decrease in the sales of IPV 5 ds and MR 10 ds vaccines, which were respectively down to 70.03% and 74.58% of the previous figures.

Sales of Trading Partnership Products (Rp Million)

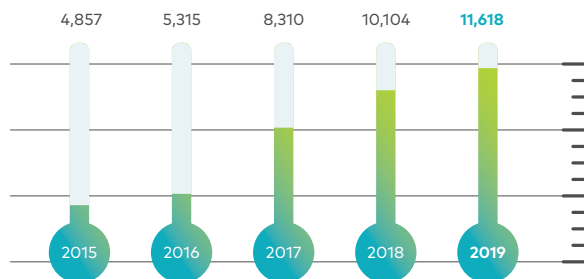


Net sales of the Trading Partnership products in 2019 were recorded at Rp14.59 billion, a decrease of Rp38.52 billion or 72.52% compared to the 2018 figure of Rp 53.11 billion.

Sales of the trading partnerships products in 2019 decreased by 72.52% or Rp38.52 billion compared to 2018. This was mainly due to the decrease in sales of Gardasil and Antitoxin Diphtheria which fell to 99.90% and 94.27% of the 2018 figure, respectively.

SALES OF SERVICES

Service Sales (Rp Million)



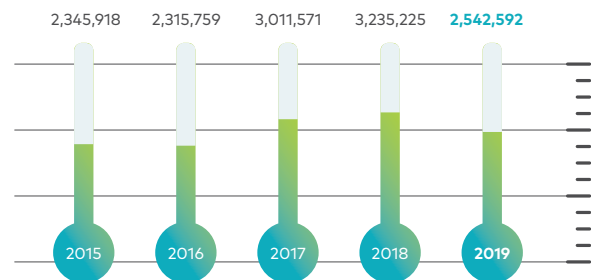
Sales of services in 2019 were recorded at Rp11.62 billion, an increase of Rp1.51 billion or 14.98% compared to the 2018 figure which was Rp10.10 billion.

Sales of services in 2019, if compared to 2018, increased by 14.98% or Rp1.51 billion worth, this was mainly due to an increase in sales of laboratory services of Rp1.39 billion.

The proceeds from immunisation sales are obtained from vaccine and serum immunisations, while the results from laboratory sales are obtained from quality testing and laboratory examination services. As of 6 August 2015, the service unit was changed to a Strategic Business

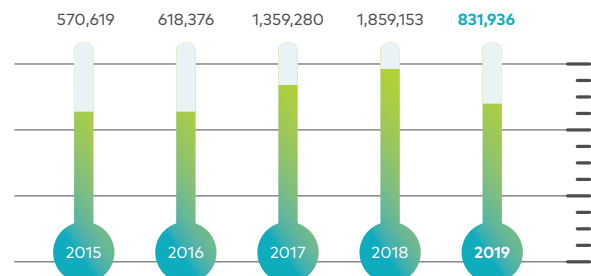
Unit (SBU) which was named the Clinical and Immunization Business Unit. Then later, based on the Decree of the Board of Directors Number 04276/DIR/XII/2017 concerning the Organisational Structure of PT Bio Farma, there was a change of name to the Clinic and Immunisation Unit.

Total Sales Per Year (Rp Million)



NET PRODUCT SALES PER BUSINESS SEGMENT (PER SECTOR)

Government Sector (Rp Million)

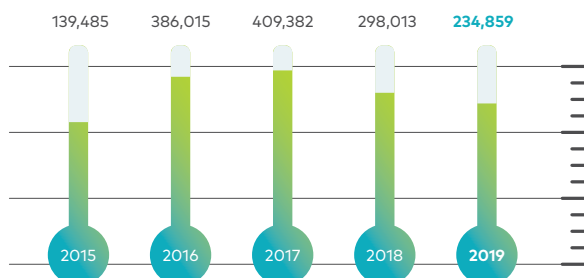


GOVERNMENT SECTOR SALES REALIZATION IN 2019

The Company has signed a sales contract. The total contracts signed were Rp831.94 billion when compared to the same period last year, which was therefore a decrease of 55.25% or Rp1.02 trillion, mainly due to lower sales realization of Pentabio 5 ds and Td 10 ds products due to the completion of sales and fulfilment of needs for the vaccine for Diphtheria ORI in 2018. In addition, the absorption rate of the IPV 5 ds vaccine was low in 2019.

PRIVATE SECTOR SALES REALIZATION IN 2019

Private Sector Sales (Rp Million)



Compared to the realization in 2018, a decrease of 21.19% or Rp.63.15 billion, due to the decrease in sales of the Company's products from the Bacterial vaccine group, especially the BCG vaccines 20 ds for infant and children, TT 10 ds, BioTd 1 ds, and DT 10 ds respectively amounting to 49.40%, 48.71%, 96.64% and 73.81% or in monetary terms, Rp3.01 billion, Rp690 million, Rp16.36 billion and Rp114.91 million respectively.

The average exchange rate of 1 USD against Rupiah during the export sales transaction in 2019 was Rp14,122.79 while the budget figure used was Rp15,000.

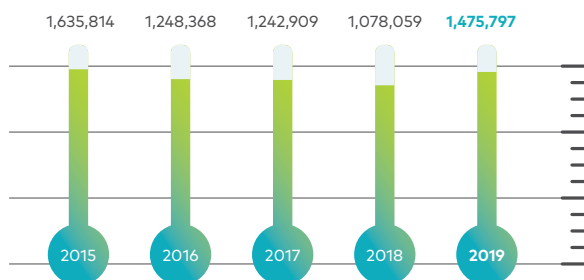
PROFITABILITY

The Profitability Ratio is a ratio or comparison to determine the company's ability to earn profits from earnings related to sales, assets and equity based on certain measurement basis. Types of profitability ratios are used to show how much profit or gain is derived from the performance of a company and that affects the notes on the financial statements that must be in accordance with financial accounting standards.

The profitability ratios required for recording financial transactions are usually assessed by investors and creditors (banks) to assess the return on investment that will be obtained by investors, and the amount of company profit earned, in order to assess the company's ability to pay debts to creditors based on the level of use of assets and other resources and which shows the efficiency level of the Company.

EXPORT SALES REALIZATION IN 2019

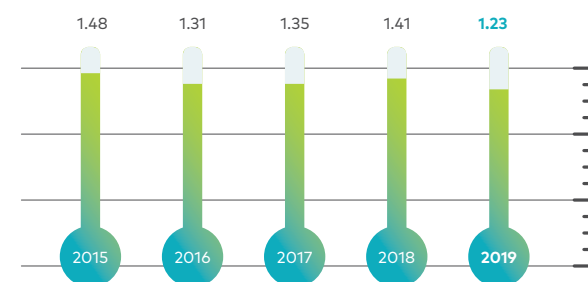
Export Sector Sales (Rp Million)



Compared to the realization in 2018, export sales in IDR currency increased by 36.89% or equivalent to Rp.397.74 billion and in USD currency increased by 36.87% or valued at USD29.79 million. The increase in export sales was mainly due to the sales of vaccines for TT 10 ds, Bio Td 1 ds, Td 10 ds, DT 10 ds, Measles 10 ds, Diphtheria bulk, Tetanus bulk, Pertussis bulk, Polio and Measles Bulk which each respectively amounted to 64%, 81.01%, 4,657.96%, 30,919.56%, 67.10%, 288.32%, 157.80%, 382.18%, 14.41%, and 519.59% of the 2018 figures.

GROSS PROFIT MARGIN

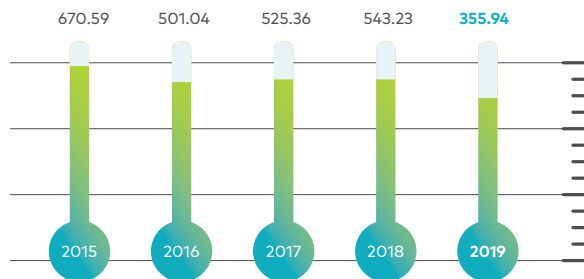
Gross Profit (Loss) (Rp Trillion)



The Company's Gross Profitability can be measured from the difference in gross profit (loss) of Rp180.12 billion which was down from Rp1.41 trillion in 2018 to Rp1.23 trillion in 2019. The Company's Gross Profit Margin (GPM) in 2019 was 48.43%, decreased by 11.00% from 2018 which amounted to 43.63%.

NET PROFIT MARGIN

Net Profit Per Year (Rp Billion)



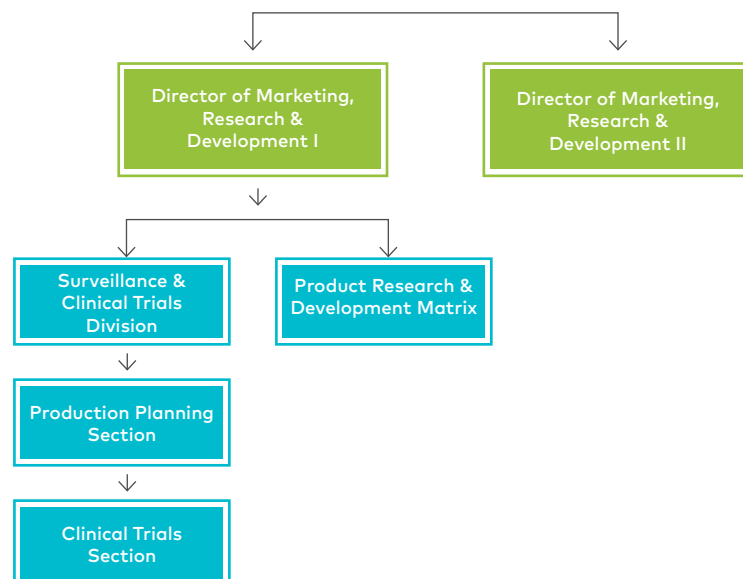
The Company's profitability can be measured from the difference in net profit of Rp187.29 billion from Rp543.23 billion in 2018 to Rp355.94 billion in 2019. The Company's Net Profit Margin (NPM) in 2018 was 14.00%. There was a decrease of 16.62% from the 2018 figure which amounted to 16.79%.

In order to increase productivity at Bio Farma, the following actions were carried out:

1. Increasing work motivation through proper training to maintain and increase employee motivation resulting in high work productivity.
2. Conducive Work Environment
The role of the leader in creating a conducive work environment so that employees feel comfortable and optimistic at work and provide training that can increase a positive mind-set.
3. Time management integration with corporate systems
Time management that is integrated with the Company's systems so that it can contribute to effective and productive employee productivity.
4. Rewards
The Company provides rewards for employees with high achievement, dedication and professionalism.

SEGMENT/RESEARCH AND DEVELOPMENT DIVISION

ORGANIZATIONAL STRUCTURE OF THE DIVISION OF RESEARCH AND DEVELOPMENT AND SURVEILLANCE AND CLINICAL TRIALS



Bio Farma has special attention to Research and Development activities in an effort to improve the Company's core business. In supporting Research and Development activities, Bio Farma collaborates with various competent parties to support company performance.

The Research and Development Program consists of:

**1. Product Research and Development Program
Vaccine Research and Development**

During 2019, there were vaccine research and development activities, including:

- a. Viral Vaccine Development;
- b. Combination Vaccine Development;
- c. Sera Development;
- d. Bio Similar Development;
- e. Stem Cell Development.

2. Product Innovation

Activities product Innovation carried out in 2019:

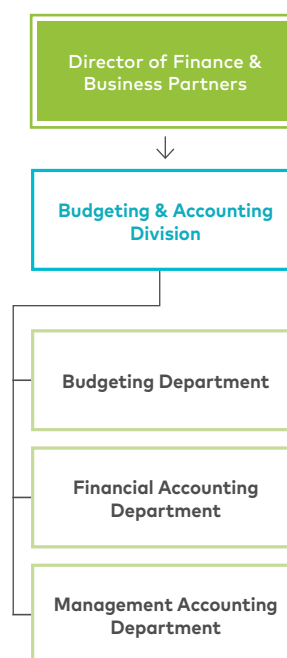
- a. Preliminary study of halal medium of production;
- b. Study of the concentration process of toxoid;
- c. Purification process study;
- d. Toxin concentration;
- e. Making a working seed lot;
- f. Serum production;
- g. Production batch stability;

3. Product Surveillance and Evaluation Surveillance activities and clinical trials conducted in 2019:

- a. AFP (Acute Flaccid Paralysis) surveillance.
- b. Environmental Polio Surveillance.
- c. Measles Surveillance.
- d. Rubella surveillance.
- e. Congenital Rubella Syndrome (CRS) surveillance.
- f. Rotavirus surveillance.
- g. Pharmacovigilance Implementation.
- h. Bridging study of Bio Farma MR vaccine, Bio Farma measles Bulk and Rubella Bulk from SII.
- i. Polio waste sample inspection.
- j. Pursue post-marketing monitoring of the safety of the mOPV2 vaccine.

SEGMENT/BUDGET AND ACCOUNTING DIVISION

ORGANIZATIONAL STRUCTURE BUDGET AND ACCOUNTING DIVISION

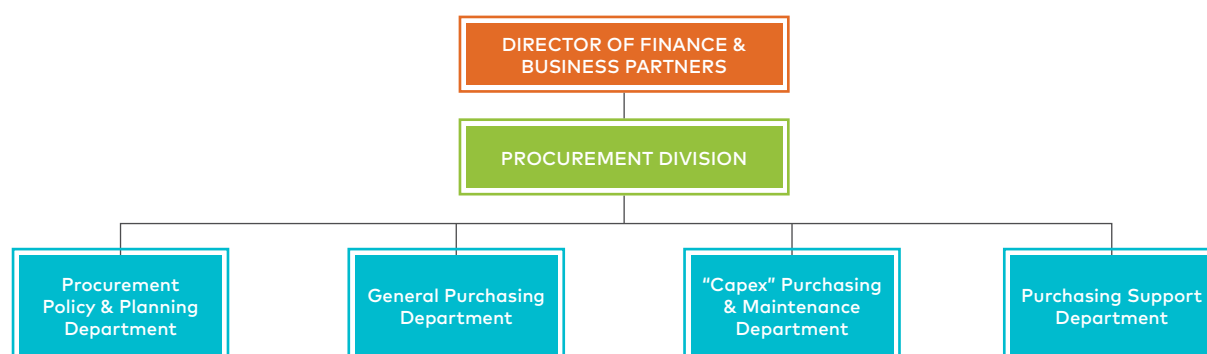


In 2019, the Budget and Accounting segment/ Division has carried out the following activities:

- a. Preparing financial reports and management reports for unaudited and audited companies for the 2018 & 2019 financial years, for the first and third semesters of 2018 and the first semester of 2019.
- b. Data update on unaudited & audited company management reports for the 2018 & 2019 financial years, the 2020 Company's Work Plan and Budget, the first, third and first quarter 2019 in the FIS-BUMN program.
- c. Prepare a 2019 Company Work Plan and Budget Resume Plan of Action.
- d. Calculating the realization of the Company's Key Performance Indicators (KPI) in 2018 & 2019, the Company's Work Plan and Budget for 2020, quarter I, III, and semester I of 2019.
- e. ABC Costing development with IAI consultants.
- f. Improving the Budget and ERP Applications related to financial reporting and management accounting modules.

SEGMENT/PROCUREMENT DIVISION (LOGISTICS)

PROCUREMENT DIVISION ORGANISATIONAL STRUCTURE



Purchasing activities in 2019, for both local and imported goods, amounted to Rp1.96 trillion, which was a decrease of 29.49% when compared to the realization in 2018 (Audited), with the details of purchasing groups as follows:

(Rp Million)

Group	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Chemicals & Other Raw Materials	329,115	453,900	904,711	1,228,280	948,204	(22.80)	(280,076)
Medical Equipment & Laboratory Equipment	186,298	189,787	235,792	150,566	84,609	(43.81)	(65,957)
Packaging & Work Equipment	148,804	116,230	169,185	166,057	134,793	(18.83)	(31,264)
Maintenance & Spare Parts	76,455	136,776	127,736	142,558	215,670	51.29	73,112
Consultant Services	31,155	50,986	56,995	46,730	89,787	92.14	43,057
Investment	544,974	542,671	452,650	677,207	288,041	(57.47)	(389,166)
Trial	7,008	6,357	10,538	8,278	931	(88.75)	(7,347)
General & Rental Goods	57,012	96,502	81,639	97,042	91,502	(5.71)	(5,540)
Animal Fees & Utilities	-	-	62,460	36,425	29,898	(17.92)	(6,527)
Merchandise Inventory	11,331	68,879	609,210	230,433	79,263	(65.60)	(151,170)
Total	1,392,151	1,662,088	2,710,916	2,783,576	1,962,698	(29.49)	(820,878)

The comparison of local and imported purchases in 2019 (Audited) is 39% local and 61% imported, where local goods also contain imported goods purchased through agents in Indonesia.

The realization of goods procurement in 2019 was recorded at Rp1.96 trillion, a decrease of Rp820.88 billion or 29.49% compared to the 2018 figure which amounted to Rp2.78 trillion.

TAX REALIZATION

Total tax payments for 2017 - 2019 are as follows:

(Rupiah)

Tax Description	2017	2018	2019	% +(-)	Naik(Turun)
	1	2	3	3/2	3-2
Income Tax	357,926	235,060	189,516	(19.38)	(45,544)
VAT	175,370	482,063	323,224	(32.95)	(158,839)
Local Tax	1,712	1,759	1,791	1.82	32
Other Taxes	3,052	740	881	19.05	141
Total	538,060	719,622	515,412	(28.38)	(204,210)

KEY COMPANY INDICATORS IN 2019

Calculation of the Company's Main Indicators for 2019 (Rp Billion)

Description	2015	2016	2017	2018	2019	% +(-)	Naik(Turun)
	1	2	3	4	5	5/4	5-4
Growth (%)							
a. Revenue/ Net Sales	114.77	98.71	130.05	107.43	78.59	(26.85)	(29)
b. Operating Profit	115.05	78.91	103.44	107.93	77.35	(28.33)	(31)
c. Profit before tax	115.9	76.17	104.18	101.92	67.45	(33.82)	(34)
Return on Investment (ROI) (%)	15.83	11.57	11.07	9.83	6.18	(37.13)	(4)
Profit Margin (PROMA) (%)	38.33	29.58	23.7	22.48	19.30	(14.15)	(3)
Company Productivity (COPRO) Rp/Person	1,312,570,441	1,119,272,625	1,138,592,914	1,173,975,212	1,065,992,271	(9.20)	(107,982,941)
Employee Productivity (EMPRO) Rp/Person	2,095,356,607	1,997,081,801	2,557,877,862	2,729,513,755	2,131,885,035	(21.90)	(597,628,720)
Asset Productivity (ASPRO) (%)	41.30	39.10	46.70	43.71	32.02	(26.74)	(12)
Inventory Turn Over (ITO) (times)	2.2	1.72	2.33	1.93	1.11	(42.49)	(1)
Receivable Turn Over (RTO) (times)	6.17	5.87	10.08	11.50	6.25	(45.65)	(5)
Base Cost Productivity (BASE PRO) (%)	64.35	71.50	77.33	77.23	77.59	0.47	-
Quality Performance Rate							
a. Product Defect (%)	1.75	0.61	0.42	0.17	213.04	125,217.65	213
b. Material Defect (%)	0.15	0.48	0	-	0.03	#DIV/0!	0

FINANCIAL PERFORMANCE OF THE COMPANY

The following is a discussion of Bio Farma's financial performance for the end of December 31, 2019. Corresponding figures for the period ending December 31 2018 are presented for analysis and/or comparison purposes.

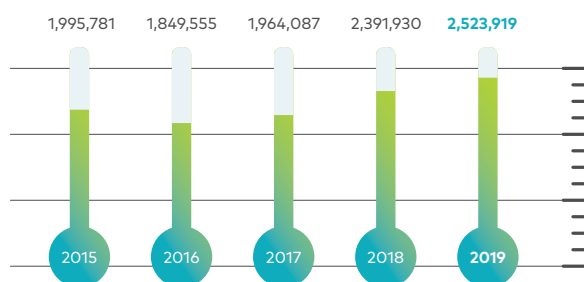
CURRENT ASSETS, NONCURRENT ASSETS AND TOTAL ASSETS

Financial assets are grouped into 4 categories, namely:

1. Financial assets measured at fair value through profit or loss
As of December 31, 2019, none of the Company's financial assets are classified as financial assets at fair value through profit or loss.
2. Loans and receivables
As of December 31, 2019, the Company's financial assets that are classified as loans and receivables consist of cash and cash equivalents, trade receivables and other receivables.
3. Held to maturity investments
As of December 31, 2019, none of the Company's financial assets are classified as held-to-maturity investments.
4. Available-for-sale financial assets This classification depends on the purpose for which the financial assets were acquired at initial recognition.
As of December 31, 2019, none of the Company's financial assets are classified as available-for-sale financial assets.

CURRENT ASSETS

Total Current Assets (Rp Million)



Total Current Assets in 2019 were recorded at Rp2.52 trillion, an increase of Rp131.99 billion or

5.52% compared to the 2018 figure, which was Rp2.39 trillion.

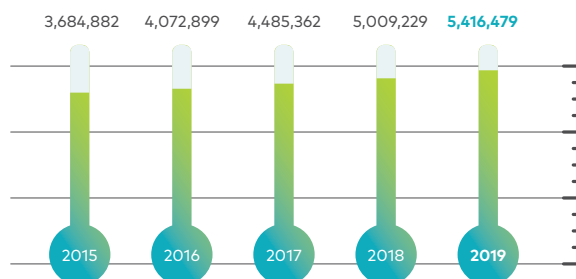
This increase was due to an increase in trade receivables by 124.05% or Rp315.18 billion, including domestic customer receivables which increased by 50.46% or Rp17.00 billion, foreign customer receivables which increased by 135.53% or Rp297.88 billion and an increase in services of 15.19% or Rp151.37 million when compared to the acquisition in 2018.

The increase in other trade receivables in 2019 was Rp15.33 billion or 1,816.01% or an increase of Rp14.52 billion when compared to the acquisition in 2018 of Rp800 million.

The increase in inventory was 1.16% or as much as Rp13.69 billion and with prepaid expenses of 28.32% or Rp3.52 billion.

TOTAL NON-CURRENT ASSETS

Total Non-Current Assets (Rp Million)

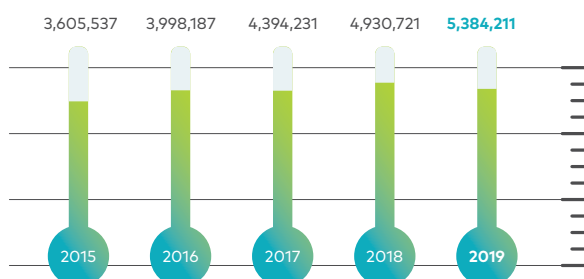


Non-current assets in 2019 were recorded at RP 5.42 trillion, an increase of RP 407.25 billion or 8.13% compared to 2018, namely RP 5.01 trillion. This was due to an increase in:

1. Bio Farma's fixed assets in 2019 were recorded at Rp5.38 trillion, up Rp453.49 billion or 9.2% compared to fixed assets in 2018 which were recorded at Rp4.93 billion.
2. There were no leasing assets in 2018, while in 2019 the leased assets were recorded at Rp1.09 billion.

FIXED ASSETS

Fixed Asset Book Value (Rp Million)



Fixed Assets in 2019 were recorded at Rp5.38 trillion, an increase of Rp453.49 billion or 9.2% compared to 2018, which were recorded at Rp4.93 trillion. This was due to an increase in:

ACQUISITION COST

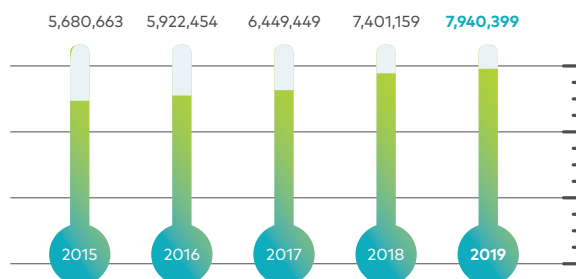
1. Buildings in 2019 were recorded at Rp780.63 billion, increasing by Rp46.92 billion or 6.39% compared to the 2018 figure, which amounted to Rp733.71 billion.
2. Machine & factory equipment was recorded at Rp1.69 trillion in 2019, up Rp229.99 billion or 15.78% compared to the 2018 figure, which was Rp1.46 trillion.
3. Office equipment in 2019 was recorded at Rp174.12 billion, thus increased by Rp20.39 billion or 13.26% compared to the 2018 figure, which was Rp153.73 billion. Office equipment that was not realised in 2019 was shifted to 2020.
4. Utility equipment was recorded at Rp204.62 billion in 2019, up Rp41.55 billion or 25.48% compared to the 2018 figure, which was Rp163.07 billion.

ASSETS UNDER CONSTRUCTION

1. Buildings in 2019 were recorded at Rp796.14 billion, increasing by Rp241.84 billion or 43.63% compared to the 2018 figure, which amounted to Rp554.31 billion.
2. Machinery, Office Factory & Utility was recorded at Rp1.06 trillion in 2019, up Rp30.08 billion or 2.91% compared to the 2018 figure, which was Rp1.03 trillion.

TOTAL ASSETS

Total Assets (Rp Million)



The total assets of Bio Farma in 2019 were recorded at Rp7.94 trillion, which was an increase of Rp539.24 billion or 7.29% compared to the 2018 figure, which was Rp7.40 trillion. This was due to the increase in:

1. Accounts Receivable in 2019 was recorded at Rp569.25 billion, thus increased by Rp.315.18 billion or 124.06% if compared to trade receivables in 2018, which amounted to Rp254.06 trillion.
2. Fixed assets in 2019 were recorded at RP 5.38 trillion, thus increased by Rp453.49 billion or 9.2% compared to total fixed assets in 2018 which were Rp4.93 trillion.

SHORT TERM LIABILITIES, LONG TERM LIABILITIES AND TOTAL LIABILITIES

Financial liabilities are grouped into categories:

1. Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss are financial liabilities designated for trading. A financial liability is classified as trading if it is acquired primarily for the purpose of selling or buying back in the near term and there is evidence of a short-term profit taking pattern. Derivatives are classified as liabilities for trading unless they are designated and effective as hedging instruments.

In 2019, the Company did not have financial liabilities at fair value through profit or loss.

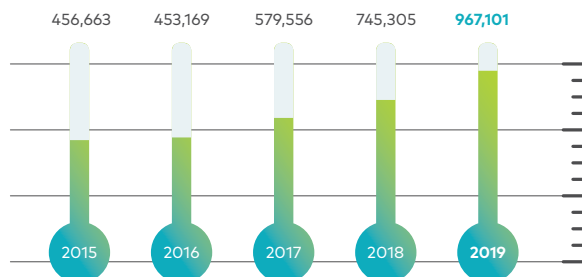
2. Financial liabilities measured at amortized cost

Financial liabilities that are not classified as financial liabilities at fair value through profit or loss are categorized and measured at amortized cost using the effective interest method.

In 2019 and 2018, the Company had trade payables, accrued expenses and other current liabilities which are classified as financial liabilities at amortized cost.

SHORT TERM LIABILITIES

Short Term Liabilities (Rp Million)



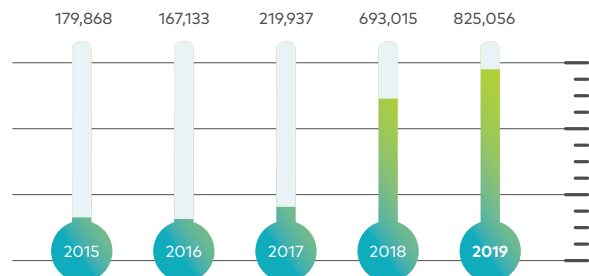
Bio Farma posted short-term liabilities in 2019 of Rp967.10 billion, an increase of Rp221.80 billion or 29.76% compared to the 2018 figure, which was Rp745.30 billion.

The increase in short-term liabilities was caused by:

1. Short-term debt of Rp500 billion which represents a Working Capital Credit for the realisation of the use of the credit facility provided.
2. Costs to be paid in 2019 were recorded at Rp122.77 billion, an increase of Rp11.86 billion or 10.70% compared to the 2018 figure, which amounted to Rp110.91 billion.
3. Other current liabilities to pay in 2019 were recorded at Rp33.33 billion, an increase of Rp10.21 billion or 44.18% compared to the 2018 figure of Rp23.12 billion.

LONG TERM LIABILITIES

Total Long Term Liabilities (Rp Million)

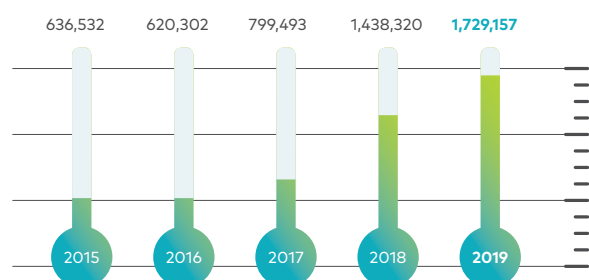


Bio Farma recorded Long Term Liabilities in 2019 of Rp825.06 billion, an increase of Rp132.04 billion or 19.05% compared to the 2018 figure, which was Rp693,015 billion.

The increase in long-term liabilities was due to the increase in the estimated liability for post-employment benefits in 2019, namely Rp275.06 billion, which was an increase of 32.04 billion or 13.18% compared to the 2018 figure of Rp243.01 billion. Plus, there was an increase in long-term debt in 2019, which reached Rp550 billion, an increase of Rp100 billion or 22.22% compared to the 2018 figure, which was Rp450 billion.

TOTAL LIABILITIES

Total Liabilities (Rp Million)



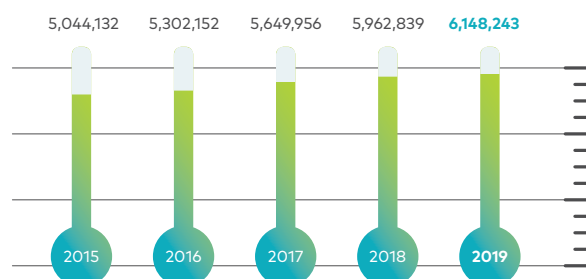
Bio Farma recorded Total Liabilities in 2019 of Rp1.79 trillion, which was an increase of Rp353.84 billion or 24.60% compared to the 2018 figure, which was Rp1.44 trillion.

The increase in Total Liabilities was due to an increase in:

1. Total Short-Term Liabilities in 2019 amounted to Rp967.10 billion, which was an increase of Rp221.80 billion or 29.76% compared to the 2018 figure which was Rp745.30 billion.
2. Total Long-Term Liabilities in 2019 amounted to Rp825.06 billion, which was an increase of Rp 132.04 billion or 19.05% compared to the 2018 figure which was Rp693.01 billion.

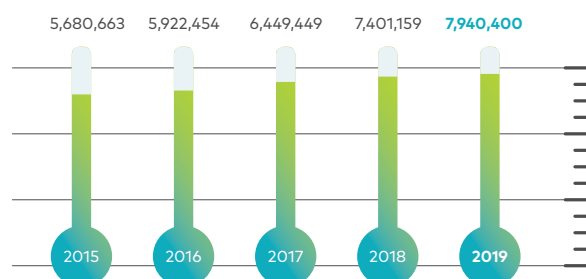
EQUITY

Total Liabilities (Rp Million)



Bio Farma posted Equity in 2019 of Rp6.15 trillion, an increase of Rp185.40 billion or 3.11% compared to the 2018 figure, which was Rp5.96 trillion. The increase in Equity was caused by the increase in the retained Profit (Loss) that was reserved in 2019 which was recorded at Rp1.92 trillion, which was an increase of Rp380.26 billion or 24.70% compared to the 2018 figure of 1.54 trillion.

Total Liabilities and Equity (Rp Million)



Bio Farma posted Total Equity & Liabilities in 2019 of Rp7.94 trillion, which was an increase of Rp539.24 billion or 7.29% compared to the 2018 figure, which was Rp7.40 trillion.

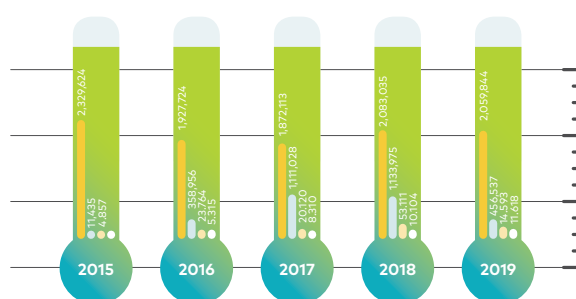
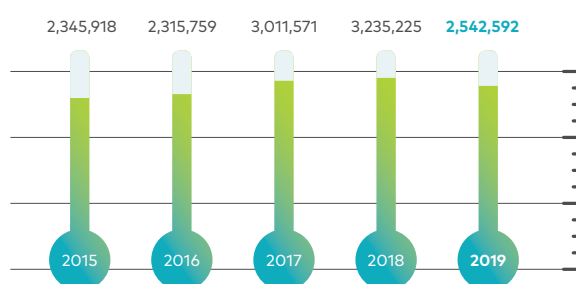
BUSINESS SALES/INCOME, EXPENSES AND INCOME (LOSS), OTHER COMPREHENSIVE INCOME, AND TOTAL INCOME (LOSS)

SALES/ OPERATING REVENUES

Net Sales

Although total net sales decreased, sales of the Company's products increased by 1.07% or by Rp21.81 billion, due to the sales achievement of the Viral Vaccine group, up 27.84% from the realization in 2018 or an increase of Rp332.34 billion that was due to sales of Polio Bulk Type 2 which amounted to Rp137.57 billion and mOPV type 2 20 ds which amounted to Rp112.76 billion.

Total Net Sales (Rp Million)

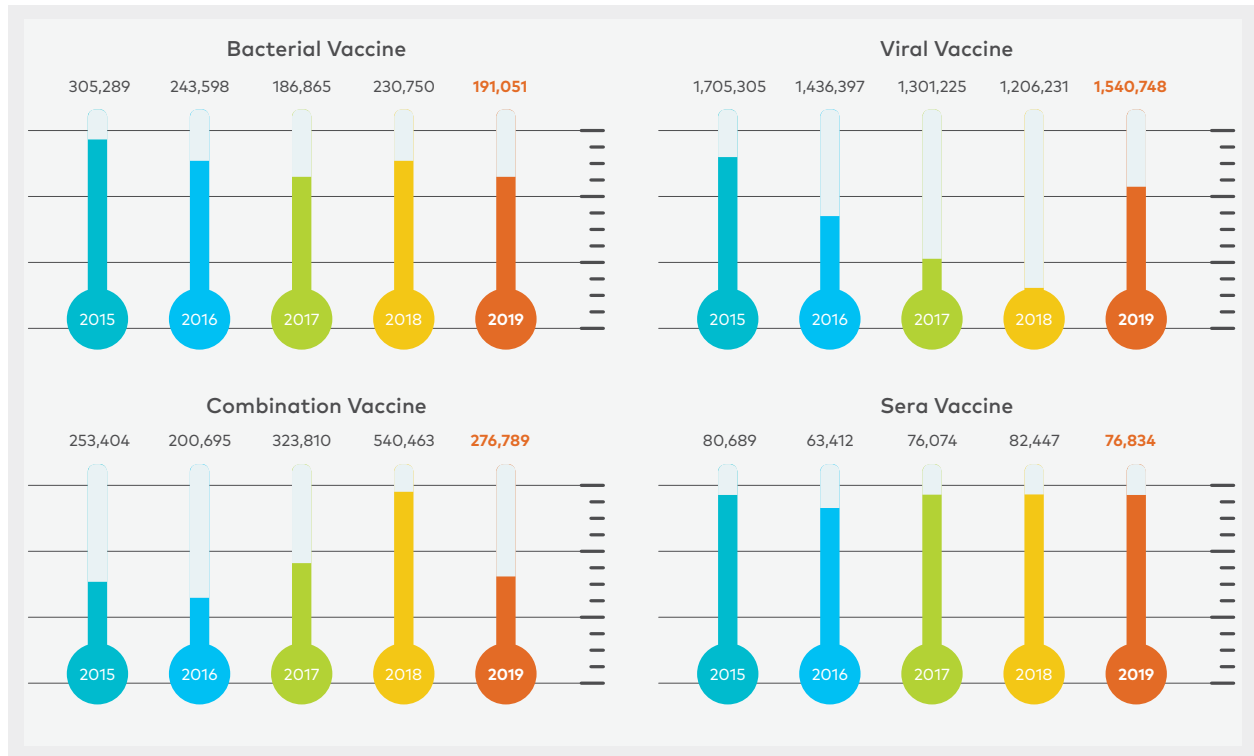


- Company Products (Rp Million)
- Partnership Products (Rp Million)
- Trading Partnership Products (Rp Million)
- Services (Rp Million)

Bio Farma posted net sales in 2019 of Rp2.54 trillion, a decrease of Rp.692.63 billion or 21.41% compared to the 2018 figure, which was Rp3.24 trillion.

RECAPITULATION OF COMPANY PRODUCTS SALES PER SEGMENT/PRODUCT GROUP

Company Products (Rp Million)



Bio Farma Sales of Company Products Bacterial Vaccines in 2019 amounted to Rp191.05 billion, a decrease of Rp39.70 billion or 17.2% compared to the 2018 figure, which was Rp230.75 billion.

Bio Farma Sales of Company Products for Viral Vaccines in 2019 amounted to Rp1.54 trillion, an increase of Rp334.52 billion or 27.73% compared to the 2018 figure, which was Rp1.21 trillion.

Bio Farma Sales of Company Products for Combination Vaccines in 2019 amounted to Rp276.79 billion, a decrease of Rp263.67 billion or 48.79% compared to the 2018 figure, which was Rp540.46 billion.

Bio Farma Sales of Company Products for Sera in 2019 amounted to Rp76.83 billion, a decrease of Rp5.61 billion or 6.81% compared to the 2018 figure, which was Rp82.45 billion.

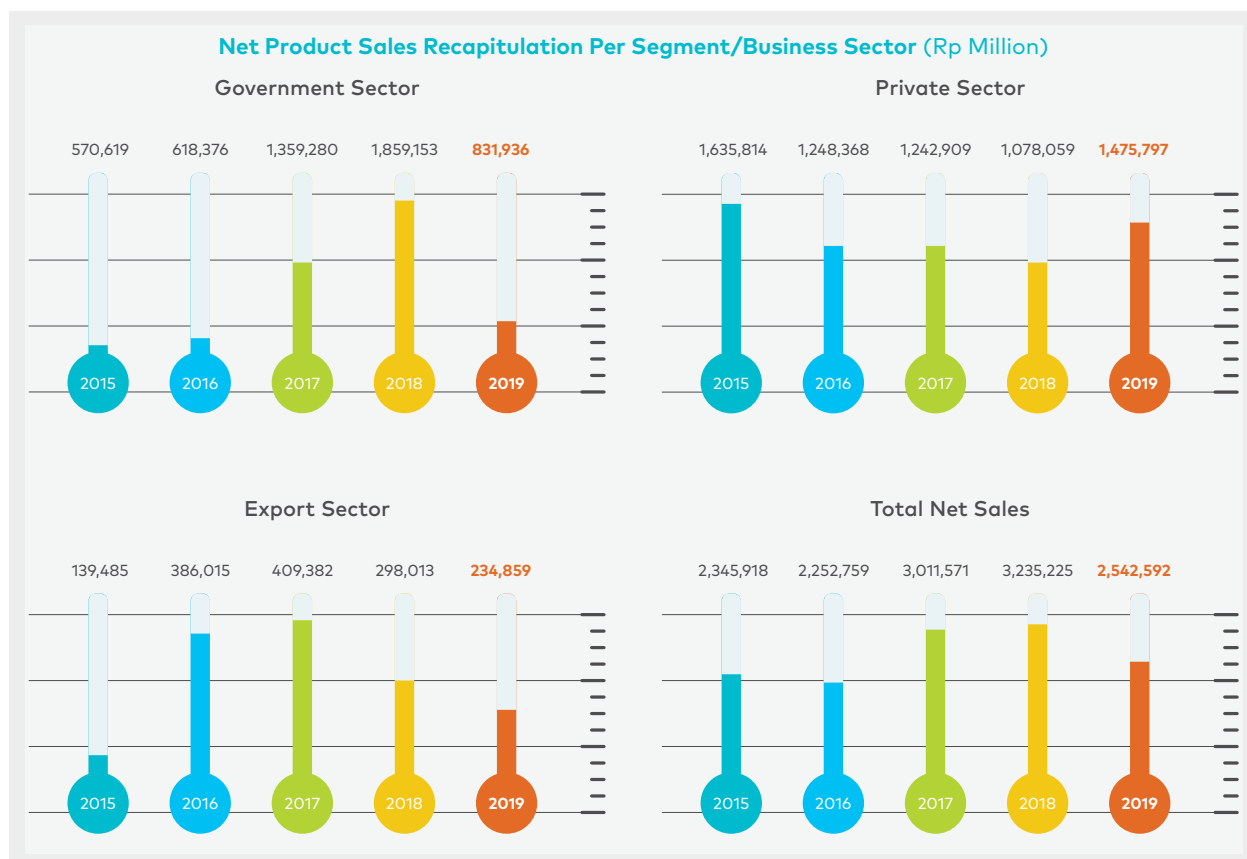


Sales of Partnership Products in 2019 amounted to Rp456.54 billion, a decrease of Rp677.44 billion or 59.74% compared to the 2018 figure, which was Rp1.13 trillion.

Sales of Trading Partnership Products in 2019 amounted to Rp14.59 billion, decreased by Rp38.52 billion or 72.52% compared to the 2018 figure, which was Rp53.11 billion.

Service Sales in 2019 amounted to Rp11.62 billion, an increase of Rp1.51 billion or 14.98% compared to the 2018 figure, which was Rp10.10 billion.





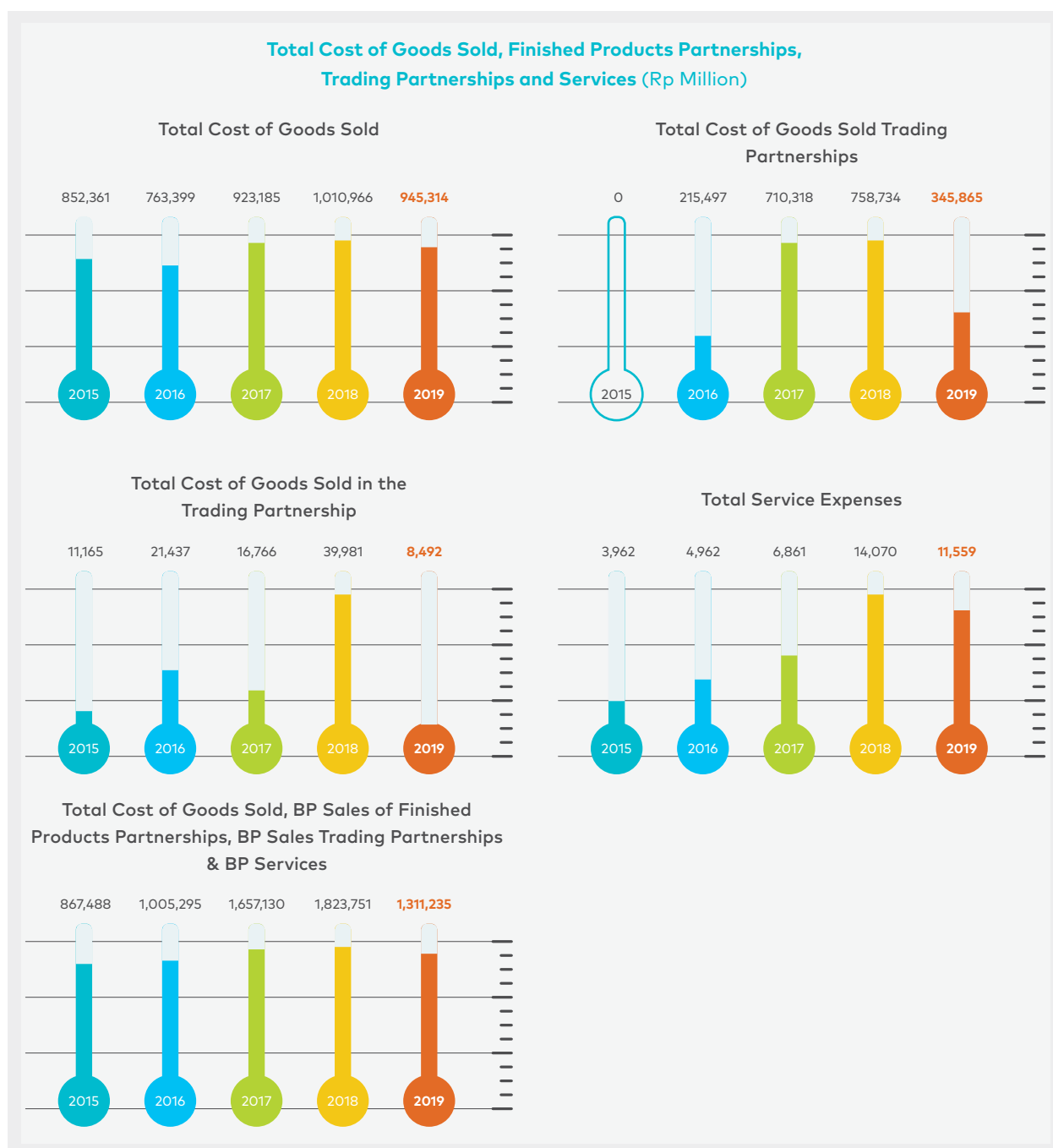
Bio Farma recorded Product Sales in the Government Sector in 2019 amounting to Rp. 831.94 billion, which was a decrease of RP 1.03 trillion or 55.25% compared to the 2018 figure which was Rp. 1.86 trillion.

In 2019, the total contracts signed between the Government & Bio Farma amounted to Rp 831.94 billion. Sales of the Company's products for the Pentabio 5 ds vaccine decreased by 49.60% or Rp 259.74 billion when compared to the total contracts in 2018. Realization of the company's product sales for the Pentabio 5 ds vaccine decreased by Rp259.74 billion and the Td 10 ds vaccine decreased by Rp99.67 billion, this was due to the completion of sales and the fulfilment of the vaccine needs for ORI Diphtheria in 2018. As well as the realization of IPV vaccine sales which decreased by 66.62% or Rp110.81 billion.

Bio Farma recorded Product Sales in the Private Sector in 2019 of Rp 234.86 billion, a decrease of Rp63.15 billion or 21.19% compared to the 2018 figure, which was Rp298.01 billion. When compared with the realization in 2018, there was a decrease in sales of the company's products from the Bacterial vaccine group, especially the BCG vaccine for infant and children 20 ds, TT 10 ds, Bio Td 1 ds, and DT 10 ds, which were respectively down by 49.40%, 48.71%, 96.64% and 73.81% or Rp3.01 billion, Rp690 million, Rp16.36 billion and Rp114.91 million respectively.

Bio Farma recorded Product Sales in the Export Sector in 2019 of Rp1.48 trillion, an increase of Rp397.74 billion or 36.89% compared to the 2018 figure which was Rp1.08 trillion. Compared with the realization in 2018, the increase in export sales was mainly due to the sales of vaccines for TT 10 ds, Bio Td 1 ds, Td 10 ds, DT 10 ds, Measles 10 ds, Diphtheria bulk, Tetanus bulk, Pertussis bulk, Polio and Measles Bulk, which were up by 64%, 81.01%, 4,657.96%, 30,919.56%, 67.10%, 288.32%, 157.80%, 382.18%, 14.41% and 519.59% respectively.

OPERATING EXPENSES



Bio Farma recorded the Company's Product Cost of Goods Sold to be Rp945.13 billion in 2019, which was a decrease of Rp65.65 billion or 6.49% if compared to the 2018 figure of Rp1.01 trillion. This decrease was due to a decrease in installation & QC-FP expenses by Rp152.50 billion or 100%, official travel expenses of Rp1.24 billion or 37.81%, maintenance and repairs expenses of Rp490 million or 0.29%, human resources improvement & development expenses of Rp77 million or 6.45%, and product inventories already in process at the beginning of the year and amounting to IDR9.70 billion or 2.10% when compared to the company's cost of goods sold in 2018.

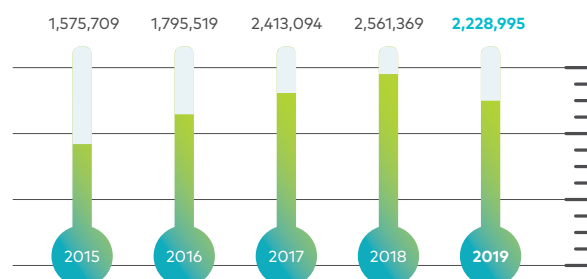
Bio Farma recorded Partnership Products Cost of Goods Sold in 2019 of Rp345.87 billion, a decrease of Rp412.87 billion or 54.42% compared to the 2018 figure of Rp758.73 billion. This decrease was caused by a decrease in raw material cost of Rp510.91 million or 63.50%, raw material usage of Rp188 million or 100%, the use of auxiliary materials of Rp4.57 billion or 100%, inventory of in-process products at the end of the year of Rp33.71 billion or

100%, cost of production Rp404.40 billion or 52.14%, damaged/expired products Rp9 million or 15.48%, the use of the product itself at Rp167 million or 76.17%, and the cost of goods ready for sale at Rp387.69 billion or 49.71% when compared to the cost of sales for partnership products in 2018.

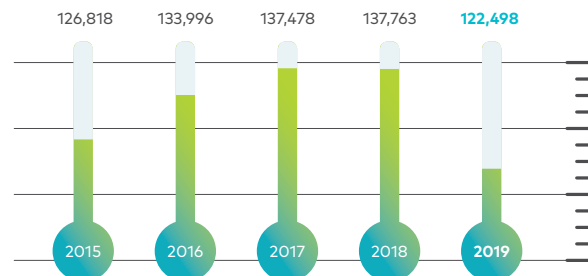
Bio Farma recorded a Trading Partnership Product Cost of Goods Sold in 2019 of Rp8.50 billion, a decrease of Rp31.48 billion or 78.75% compared to 2018, which was Rp39.98 billion. This decrease was caused by a decrease in the cost of goods purchased by Rp41.79 billion or 83.57%, used for promotion, replacement, personal use and a contribution of Rp921 million or 35.79%, and year-end inventory of Rp4.33 billion or 48.89% when compared to the cost of goods sold for the partnership product in 2018.

Bio Farma recorded Services Cost of Sales in 2019 of Rp11.56 billion, a decrease of Rp2.51 billion or 17.85% compared to the 2018 figure, which was Rp14.07 billion. This decrease was due to a decrease in employee expenses of Rp184 million or 2.03%, an increase in development of human resources by Rp92 million or 33.65%, when compared to the cost of goods sold for partnership products in 2018. Other costs of Rp6.40 billion were allocations for the cost of selling drugs from the Clinical and Immunization Business unit to Bio Farma's external and internal parties.

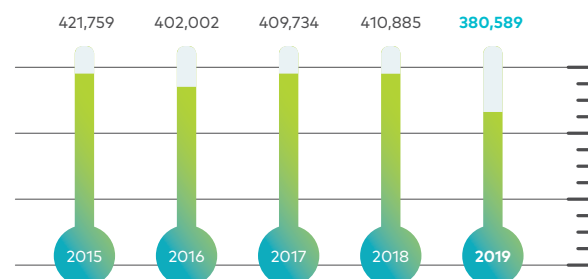
Sales Expenses, Administrative & General Expenses, Research, Development & Surveillance Expenses Total Company Expenses (Rp Million)



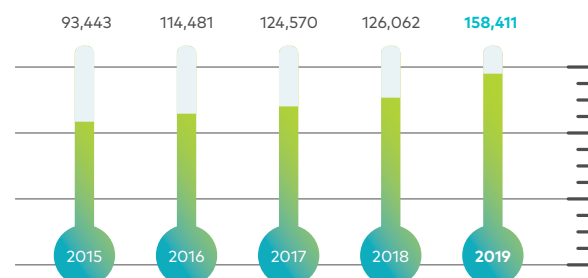
Selling Expenses (Rp Million)



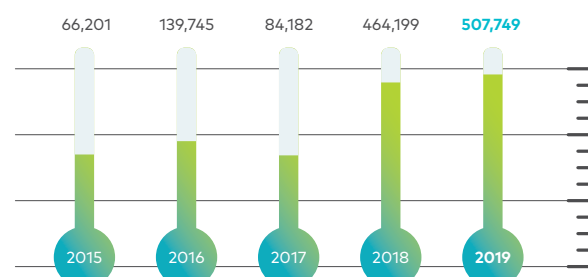
Administration & General Affairs Expenses (Rp Million)



Research, Development & Surveillance Expenses (Rp Million)

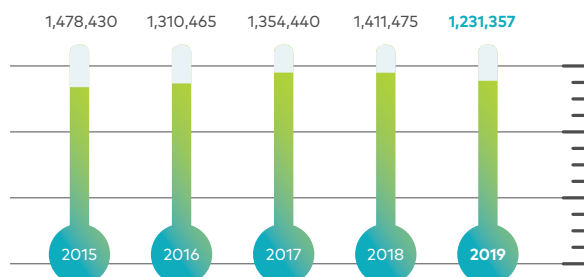


Other Expenses (Rp Million)



PROFIT (LOSS), OTHER COMPREHENSIVE INCOME, AND TOTAL PROFIT (LOSS) AND OTHER COMPREHENSIVE INCOME

Gross Profit (Loss) (Rp Million)



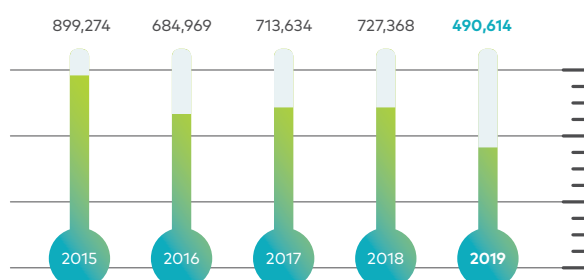
Bio Farma recorded a gross profit in 2019 of Rp1.23 trillion, which was a decrease of Rp180.12 billion or 12.76% compared to the 2018 figure, which was Rp1.41 billion.

This was due to a decrease in:

1. Net sales of partnership products amounting to 59.74%, and trading partnership products of 72.52%, when compared to 2018.
2. Cost of goods sold for the Company's products was 6.49%, partnership products were 54.42%, trading partnership products were 78.75% and services were 17.85%.

PROFIT (LOSS) BEFORE INCOME TAX

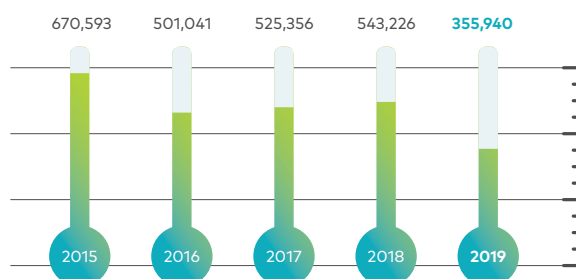
Gross Profit (Loss) Before Income Tax (Rp Million)



Bio Farma recorded a profit (loss) before income tax in 2019 of Rp490.61 billion, which was a decrease of Rp236.75 billion or 32.55% compared to the 2018 figure of Rp727.37 billion. This decrease was due to a decrease in other income by 5.78%, selling expenses by 11.08%, and administrative and general expenses by 7.37%.

NET PROFIT

Net Profit (Rp Million)



Bio Farma recorded a net profit (loss) in 2019 of Rp355.94 billion, which was a decrease of Rp187.29 billion or 34.48% compared to the 2018 figure which was Rp543.23 billion.

PRODUCT SALES IN GOVERNMENT SEGMENTS/ SECTORS

There was a decrease in sales of Rp1.03 trillion or 55.25% compared to the 2018 figure, which was Rp1.86 trillion. This was caused by: A decrease in the total contracts signed between the Government & Bio Farma of Rp831.94 billion. Sales of the Company's products for the Pentabio 5 ds vaccine decreased by 49.60% or Rp259.74 billion when compared to the total contracts in 2018. Realisation of sales of the Company's products for the Pentabio 5 ds vaccine decreased by Rp259.74 billion, and the Td 10 ds vaccine decreased by Rp99.67 billion. This was due to the completion of sales and the fulfilment of the vaccine needs for ORI Diphtheria in 2018. As well as the realisation of IPV vaccine sales which also decreased and amounted to 66.62% or Rp110.81 billion.

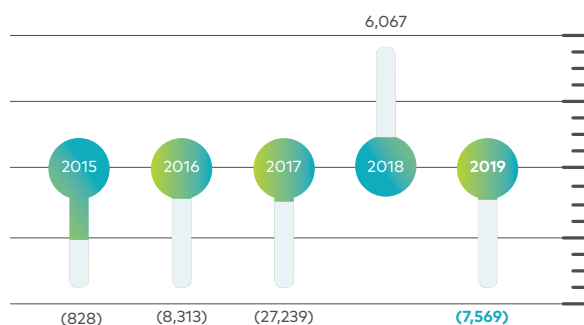
PRODUCT SALES IN THE PRIVATE SEGMENT/ SECTOR

There was a decrease in sales of Rp63.15 billion or 21.19% compared to the 2018 figure, which was 298.01 billion. This was caused by: Unrealised marketing of several new products in 2019 due to product readiness such as JE Inactivated, EPO, Flubio Halal, Anti Rabies Serum, and Yellow Fever. When compared with the realisation in 2018, there was a decrease in sales of the company's products from the Bacterial vaccine group, especially the BCG vaccine for infant and children 20 ds, TT 10 ds, Bio Td 1 ds, and DT 10 ds, which were down respectively 49.40%, 48.71%, 96.64% and 73.81% or amounting to Rp3,01 billion, Rp. 690 million, Rp16.36 billion and Rp114.91 million.

OTHER COMPREHENSIVE INCOME

Items Not Clarified to Profit Loss

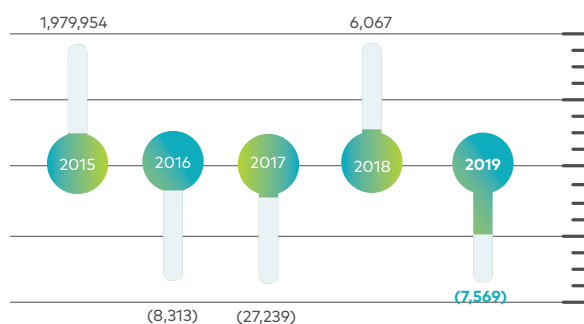
Actuarial Gain (Loss) on Post-Employment Benefits (Rp Million)



Bio Farma recorded an actuarial gain (loss) on net post-employment benefits in 2019 of Rp7.57 billion, which was a decrease of Rp13.64 billion or 224.75% compared to the 2018 figure which was Rp6.07 billion.

Other Comprehensive Income for the Year After Tax

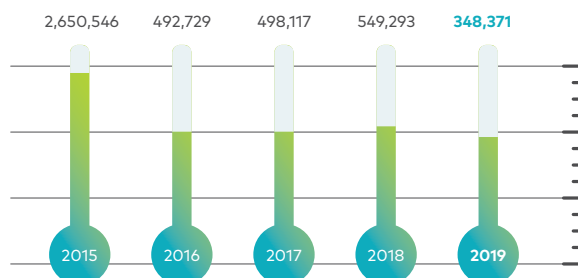
Other Comprehensive Income for the Year After Tax (Rp Million)



Bio Farma recorded other comprehensive income for the current year after tax in 2019 of Rp7.57 billion, which was a decrease of Rp13.64 billion or 224.75% compared to the 2018 figure, which was Rp6.07 billion.

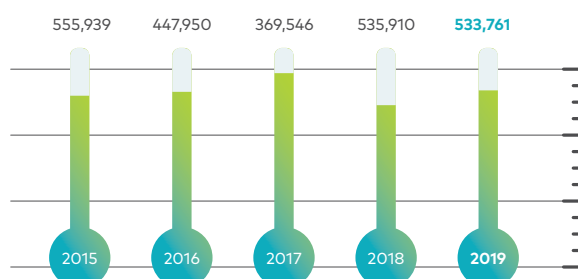
TOTAL COMPREHENSIVE INCOME

Comprehensive Income (Rp Million)

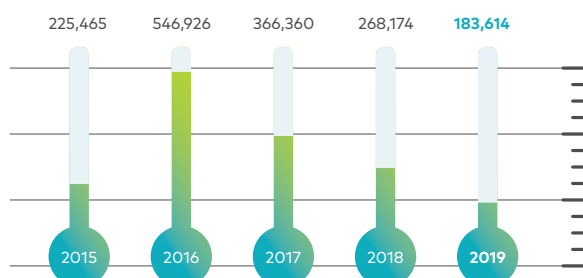


Bio Farma recorded a total comprehensive income in 2019 of Rp348.37 billion, which was a decrease of Rp200.92 billion or 36.58% compared to the 2018 figure of Rp549.29 billion.

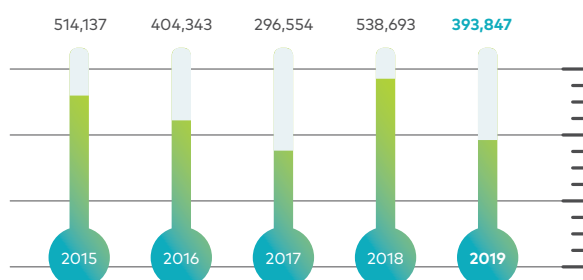
CASH FLOW



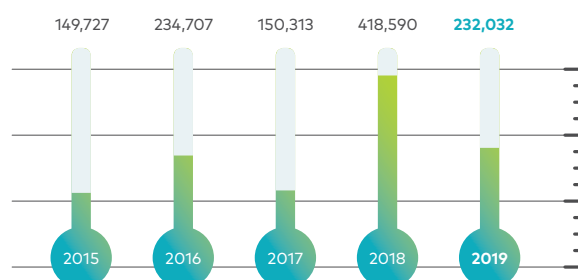
Bio Farma recorded cash flow in 2019 of Rp533.76 billion, which was a decrease of Rp2.15 billion or 0.40% compared to the 2018 figure, which was 535.91 billion. This decrease was caused by a decrease in cash flow from operating activities by 31.53%, a decrease in cash flow in investing activities of 26.89%, and a decrease in cash flow of financing activities of 44.57%.

Cash Flow from Operating Activities (Rp Million)

Bio Farma recorded cash flow from operating activities in 2019 of Rp183.61 billion, a decrease of Rp84.56 billion or 31.53% compared to the 2018 figure, which was Rp268.17 billion. This decrease was due to a decrease in cash receipts from customers of Rp1.04 trillion.

CASH FLOWS FROM INVESTMENT ACTIVITIES**Cash Flow from Operating Activities (Rp Million)**

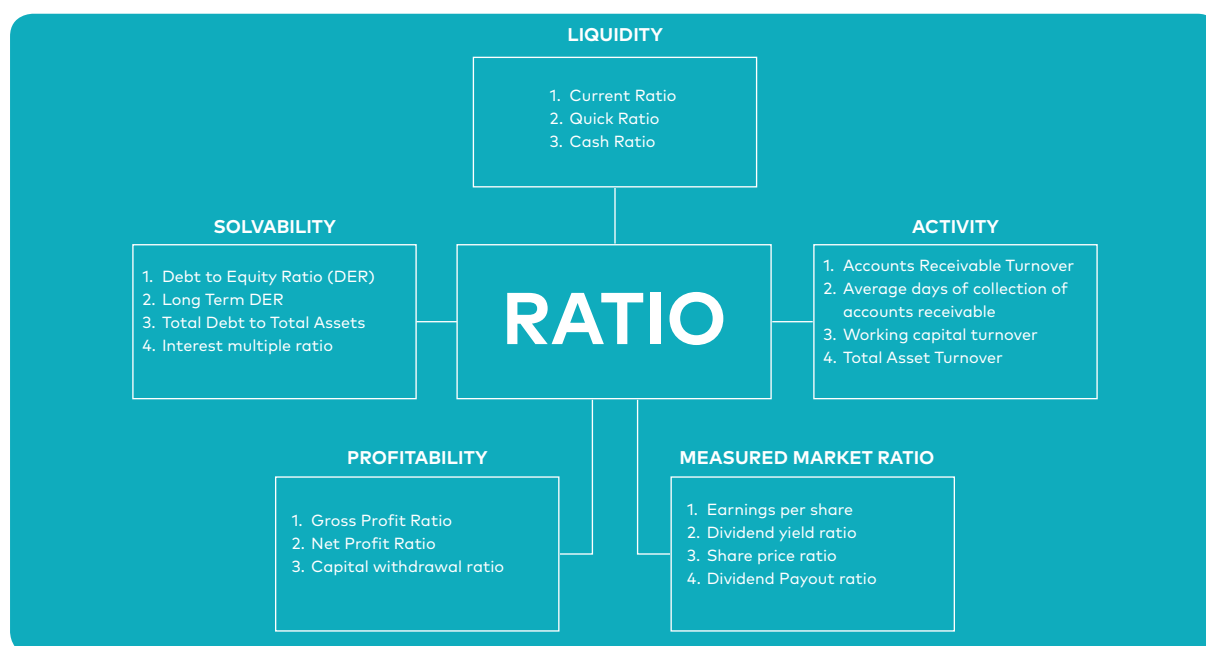
Bio Farma recorded cash flow from investing activities in 2019 of Rp393.85 billion, a decrease of Rp144.85 billion or 26.89% compared to the 2018 figure, which was Rp538.69 billion. This decrease was caused by a decrease in the purchase of fixed assets by Rp144.95 billion when compared to cash flows from operating activities in 2018.

CASH FLOWS FROM FUNDING ACTIVITIES**Cash Flow from Financing Activities (Rp Million)**

Bio Farma recorded cash flow from financing activities in 2019 of Rp232.03 billion, a decrease of Rp186.56 billion or 44.57% compared to the 2018 figure of Rp418.59 billion. This decrease was caused by a decrease in short-term loan payments of Rp245.18 billion, and received long-term loans of Rp350 billion when compared to cash flows from operating activities in 2018.

ABILITY TO PAY DEBT AND CORPORATE DEBT COLLECTIBILITY LEVEL

Financial performance indicators can be measured through Bio Farma's ability to fulfil its obligations both in the short and long term. In addition, the company could also maximize collectability of accounts receivable quickly.



Bio Farma's ability to settle its obligations is measured by its liquidity ratio and solvency ratio. This ratio is an indicator in calculating possible risks that may arise in Bio Farma's operational activities. This has encouraged Bio Farma to continue to control financial performance on an ongoing basis.

Bio Farma manages liquidity risk by monitoring the profile of loan maturities and sources of funding, maintaining adequate cash and securities balances and readiness to maintain market position. Bio Farma also maintains its ability to finance its loans by seeking various sources of binding financing facilities from reliable lenders.

The contractual maturity date of financial liabilities such as trade payables, accrued expenses, other payables, and short-term bank loans is less than one year, except for financial liabilities such as bonds payable and investment loans. The ratio of the ability to repay loans is reflected in the current ratio and the cash ratio. At the end of 2019, the current ratio was recorded at 260.98%, while the cash ratio (cash ratio) was recorded at 55.19%.

Bio Farma's liquidity is reflected in its funding structure, asset liquidity, and liabilities to third parties. Bio Farma recorded Current Assets in 2019 of Rp2.52 trillion, an increase of 5.52% compared to the 2018 figure of Rp2.39 trillion and this amount constituted 31.79% of total assets. This condition indicates that the Company's liquidity is good.

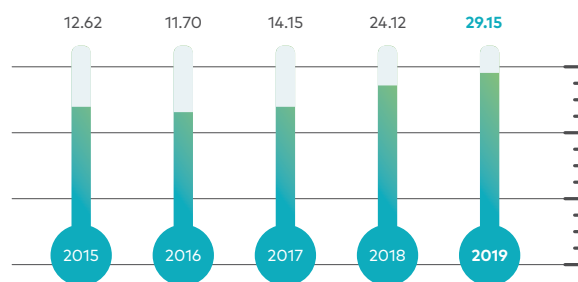
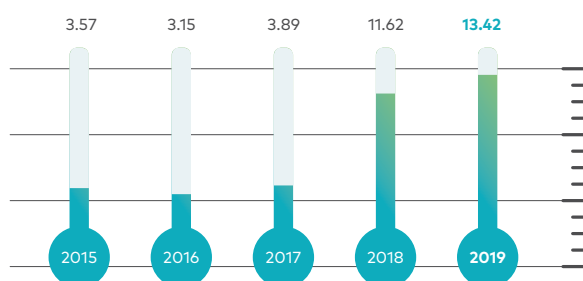
ABILITY TO PAY BOTH SHORT- AND LONG-TERM DEBT

The ability to pay liabilities is reflected in the ratio of short-term liabilities to equity which was recorded at 15.73% in 2019. This ratio increased by 25.85% from the 2018 figure of 12.50%. Meanwhile, the ratio of long-term liabilities to equity increased by 15.49% from 11.62% in 2018 to 13.42% in 2019. Overall, the ratio of total liabilities to equity in 2019 was still in good condition, namely from 24.12% in 2018 to 29.15% in 2019.

SOLVABILITY RATIO (TOTAL DEBT TO EQUITY RATIO)

Solvability is a comparison between debts (liabilities) and equity in the Company's funding and shows the Company's own capital ability to meet all its obligations.

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	(5/4)	(5-4)
Short-Term Liabilities/Equity (%)	9.05	8.55	10.26	12.50	15.73	25.84	3.23
Long-Term Liabilities/Equity (%)	3.57	3.15	3.89	11.62	13.42	15.49	1.80
Total Liabilities/Equity (Debt to Equity) (%)	12.62	11.7	14.15	24.12	29.15	20.85	5.03

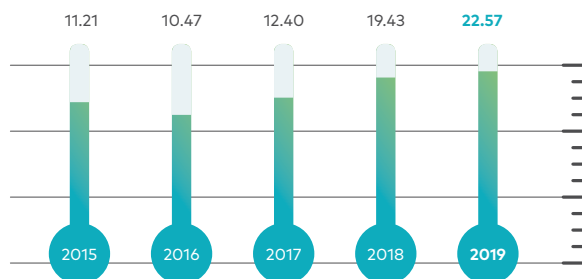
Short-Term Liabilities/Equity (%)**Total Liabilities/Equity (Debt to Equity) (%)****Long-Term Liabilities/Equity (%)****TOTAL DEBT TO ASSET RATIO**

This ratio is the ratio between current and long-term debt and the total known assets. This ratio shows how much of the total assets are spent by debt.

Total Debt To Asset Ratio (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	6 (5/4)	7 (5-4)
Total Liabilities (Rp Million)	636,532	620,302	799,493	1,438,320	1,792,156	24.60	353,836
Total Assets (Rp Million)	5,680,663	5,922,454	6,449,449	7,401,159	7,940,399	7.29	539,240
Total Debt to Asset Ratio (%)	11.21	10.47	12.4	19.43	22.57	16.16	3.14

Total Debt to Asset Ratio (%)

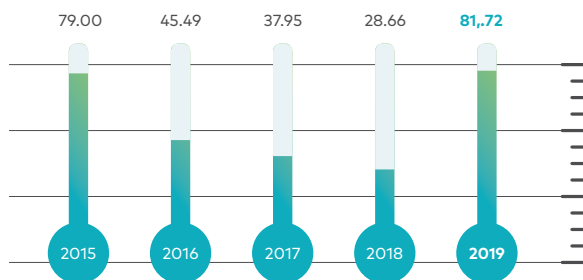
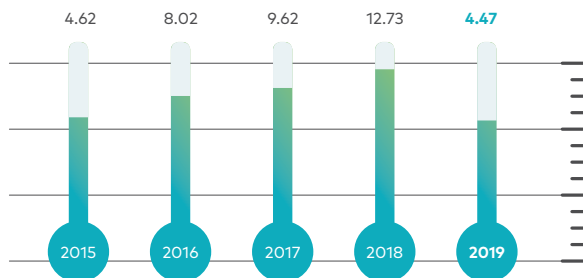


LEVEL OF CORPORATE RECEIVABLE COLLECTABILITY

Collectability is a classification of the status of instalments or loan payments and interest. The collectability of trade and other receivables is reviewed periodically. Receivables that are found to be uncollectible are written off by reducing their carrying value. The allowance account is used when there is objective evidence that Bio Farma is unable to collect the entire amount due in accordance with the initial terms of the receivables. Significant financial difficulties experienced by the debtor, the possibility of the debtor being declared bankrupt or undergoing financial reorganisation and default or delinquency in payments are indicators that are considered to indicate a decrease in the value of the receivables.

Accounts Receivable Collectability Level (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	6 (5/4)	7 (5-4)
Total Net Accounts Receivable	507,746	288,626	313,138	254,065	569,246	124.06	315,181
Net Sales	2,345,918	2,315,759	3,011,571	3,235,225	2,542,592	(21.41)	(692,633)
Collection period	79.00	45.49	37.95	28.66	81.72	185.14	53.06
Average A/R	4.62	8.02	9.62	12.73	4.47	(64.89)	(8.26)

Collection Period**Average A/R**

Accounts receivable collectability is influenced by Bio Farma's ability to collect its receivables. At the end of 2019, the company's Average A/R was getting better, namely to be 4.47 days compared to the 2018 figure which reached 12.73 days.

To reduce the risk of buyers defaulting, Bio Farma implements a distributor policy regarding not making payments or making late payments as follows:

1. A penalty is imposed of 1% of the invoice value for each day of late payment calculated based on calendar days (as stated in article 12 of the distributorship agreement).
2. Goods sent are held in advance until payment is made (SOP and distributorship agreement).
3. A claim is made on the distributor's bank guarantee, the claim is submitted by the Private Sector Sales Division to the Financial Administration Division which will then be continued on to the Bank or Insurance Agency that issued the Bank Guarantee. (Bank Guarantee is stated in Article 12 of the Distributorship Agreement and SOP).
4. The amount of the bank guarantee is determined by Marketing.



CAPITAL STRUCTURE AND CAPITAL STRUCTURE POLICY

An optimal capital structure optimises the balance between risk and return.

The settlement of Bio Farma capital plan is on the basis of an assessment of the required capital provisos and a review of the newest economic headway. A strong capital structure possesses a high carrying capacity for the Company business sustainability.

Capital structure is a comparison between foreign capital and own capital. Foreign capital is a debt, both terms. Meanwhile, capital itself can be divided into retained earnings and it can also be incorporated in the Company ownership.



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BASIS OF MANAGEMENT POLICY SELECTION ON CAPITAL STRUCTURE

Bio Farma's Capital Plan is based on a review and assessment of the required capital adequacy requirements and a review of the latest economic developments. The Capital Plan is prepared by the Board of Directors as part of the Company's Business Plan and approved by the Board of Commissioners. The company continues to link financial objectives and capital adequacy to risk through the capital planning process. Likewise, with businesses that are based on the capital and liquidity requirements of the Company. Capital requirements are planned and discussed regularly, supported by analysis data.

The Company's objective in managing capital is to protect the ability of the company to maintain

business continuity so it can continue to provide returns for Shareholders and benefits for other stakeholders while maintaining an optimal capital structure to reduce the cost of capital.

To maintain or adjust its capital structure, the Company adjusts the number of dividends that are paid to the Shareholders. The Company must monitor capital based on the debt to equity ratio. This ratio is calculated by dividing total debt by total capital. Payable represents total liabilities in the consolidated statement of financial position.

Capital consists of all existing equity components as stated in the consolidated statement of financial position. The capital structure is a balance between users of their own capital and loans/debts consisting of short-term debt and long-term debt.

MANAGEMENT POLICY ON CAPITAL STRUCTURE

The management policy regarding capital is aimed at ensuring that Bio Farma has a strong capital base and creates a strong capital structure to support the current business expansion strategy and maintain the continuity of future development. In addition, the capital policy is set to meet the capital adequacy requirements set by the regulator and ensure that the Company's capital structure is effective and efficient.

The Company determines the amount of capital required in proportion to risk exposure. The company manages the capital structure and make adjustments considering changes in economic conditions and the risk characteristics of the underlying assets. Thereby, Bio Farma establishes an optimal capital structure policy in order to maximize the Company's value.

DETAILS OF CAPITAL STRUCTURE CONSISTING OF DEBT BASED ON INTEREST/SUKUK AND EQUITY

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Cash Ratio	121.74	98.85	63.76	71.90	55.19	(23.24)	(16.71)
Current Ratio	437.04	408.14	338.9	320.93	260.98	(18.68)	(59.95)
Acid Test Ratio	335.75	251.78	117.79	105.99	114.05	7.60	8.06
Gross Profit Margin	63.02	56.59	44.97	43.63	48.43	11.00	4.80
Operating Margin	35.65	28.5	22.67	22.77	22.41	(1.58)	(0.36)
Net Profit Margin	28.59	21.64	17.44	16.79	14.00	(16.62)	(2.79)
Return on Equity (ROE)	17.14	12.47	12.97	14.19	9.05	(36.22)	(5.14)
Return on Investment (ROI)	20.27	16.53	16.93	15.71	12.19	(22.41)	(3.52)
Return on Assets (ROA)	15.37	8.8	15.37	8.24	5.78	(29.85)	(2.46)
Total Liabilities to Equity Ratio (Debt to Equity)	12.62	11.7	14.15	24.12	29.15	20.85	5.03
Inventory Turnover (ITO)	2.2	1.72	2.33	1.93	1.11	(42.49)	(0.82)
Accounts Receivable Turnover (RTO)	6.17	5.87	10.08	11.5	6.25	(45.65)	(5.25)
Sales Growth	114.77	98.71	130.05	107.43	78.59	(26.85)	(28.84)
Growth in Operating Profits	115.05	78.91	103.44	107.93	77.35	(28.33)	(30.58)
Profit Before Tax Growth	115.9	76.17	104.18	101.92	67.45	(33.82)	(34.47)
Net Cash Flow Provided from Operating Activities	225.465	546.926	366.360	268.174	183.614	(31.53)	(84,560)
Exchange Rate (Rp/ US \$)	13,795.00	13,436	13,548	14,481	13,901	(4.01)	(580)
EBITDA	-	-	-	911.010	740.569	(18,71)	(170.441)
Debt to EBITDA	-	-	-	0,72	1,42	97,22	0,70

DEBT TO EQUITY RATIO

Debt to Capital Ratio is a financial ratio that shows the relative proportion between Equity and Debt used to finance company assets. The Debt to Equity ratio is used to measure how well balanced the investment structure is, and to assess the Company's financial position. It is also used as a measure of the Company's ability to pay off its obligations, an important ratio to consider when examining the Company's financial health.

The Company's ability to settle its obligations is measured by the liquidity ratio, and the solvency ratio is an indicator in calculating the possible

risks that may arise in the Company's operational activities. These measures encourage Bio Farma to continue to control financial performance in a sustainable manner.

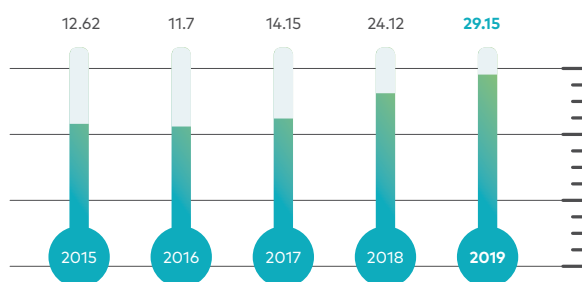
During 2019, Bio Farma continued to implement its strategy of maintaining a maximum debt to equity ratio of 24.12% as liabilities to equity in 2018, and moving to 29.15% in 2019.

Debt to Equity Ratio as of December 31, 2019, and December 31, 2018, as follows:

Debt to Capital Ratio (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Total Liabilities	636,532	620,302	799,493	1,438,320	1,792,156	24.60	353,836
Total Equity	5,044,132	5,302,52	5,649,956	5,962,839	6,148,243	3.11	185,404
Debt to Equity = Debt to Equity Ratio (%)	12.62	11.7	14.15	24.12	29.15	20.85	5.03

Debt to Equity (DER)(%)

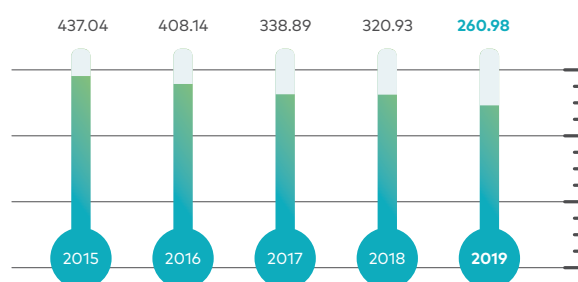


CURRENT RATIO

The Current Ratio is the ratio used to measure the Company's ability to pay its short-term liabilities using current assets owned.

Current Ratio (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	6 (5/4)	7 (5-4)
Total Current Assets (Millions)	1,995,781	1,849,555	1,964,086	2,391,930	2,523,919	5.52	131,989
Total Short-Term Liabilities (Millions)	456,663	453,169	579,556	745,305	967,100	29.76	221,795
Current Ratio (%)	437.04	408.14	338.89	320.93	260.98	(18.68)	(59.95)

Current Ratio (%)**QUICK RATIO**

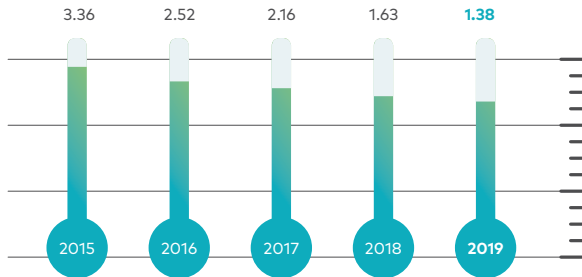
The quick ratio is the ratio used to measure the company's ability to pay its short-term liabilities by using more liquid assets.

The industry average liquid level/quick ratio is 0.5 times, while Bio Farma's is 1.38, so the current condition is very good because the company can pay debts even though the inventory has been reduced.

Quick Ratio (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	6 (5/4)	7 (5-4)
Total Current Assets	1,995,781	1,849,555	1,964,086	2,391,930	2,523,919	5.52	131,989
Inventory	462,557	708,564	712,912	1,177,242	1,190,933	1.16	13,691
Total	1,533,224	1,140,991	1,251,174	1,214,688	1,332,986	9.74	118,298
Total Short-Term Liabilities	456,663	453,169	579,556	745,305	967,100	29.76	221,795
Quick Ratio	3.36	2.52	2.16	1.63	1.38	(15.43)	(0.25)

Quick Ratio



CAPITAL STRUCTURE

Capital structure is a comparison between long-term and short-term debt and equity (retained earnings and also the ownership of the Company) which is used to finance company assets. An effective capital structure is able to create a company with strong and stable finances. Capital structure is an important issue in making decisions regarding Company spending.

Capital Structure (Rp Million)

Description	2015		2016		2017		2018		2019	
	1	2	3	4	5	6	7	8	9	10
	Rp	%	Rp	%	Rp	%	Rp	%	Rp	%
Total Short-Term Liabilities	456,664	8.04	453,169	7.65	579,556	8.99	745,305	10.07	967,101	12.18
Total Long-Term Liabilities	179,868	3.17	167,133	2.82	219,937	3.41	693,015	9.36	825,056	10.39
Total Liabilities	636,532	11.21	620,302	10.47	799,493	12.4	1,438,320	19.43	1,792,157	22.57
Total Equity	5,044,131	88.79	5,302,152	89.53	5,649,956	87.6	5,962,839	80.57	6,148,242	77.43
Total Liabilities and Equity	5,680,663	100	5,922,454	100	6,449,449	100	7,401,159	100	7,940,399	100

Description	% +(-)	% +(-)	Increase (Decrease)	Increase (Decrease)
	11 (9/7)	12 (10/8)	13 (9-7)	14 (10-8)
	(%)	(%)	Rp	(%)
Total Short-Term Liabilities	29.76	20.95	221,794	2.11
Total Long-Term Liabilities	19.05	10.97	132,041	1.03
Total Liabilities	24.6	16.14	353,835	3.14
Total Equity	3.11	(3.89)	185,403	(3.14)
Total Liabilities and Equity	7.29	-	539,238	-



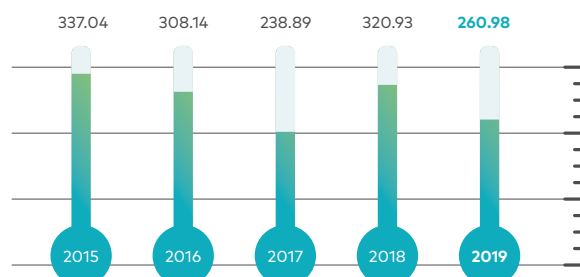
RATIO LIQUIDITY

Ration Liquidity is the ratio used to measure Bio Farma's ability to pay its short-term liabilities using its current assets.

Ratio Liquidity (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	6 (5/4)	7 (5-4)
Total Current Assets	1,995,781	1,849,555	1,964,086	2,391,930	2,523,919	5.52	131,989.00
Total Short-Term Liabilities	456,663	453,169	579,556	745,305	967,100	29.76	221,795.00
RATIO (%)	437.04	408.14	338.89	320.93	260.98	(18.68)	(59.95)

Ratio Liquidity (%)



MATERIAL COMMITMENTS FOR INVESTMENT IN CAPITAL GOODS IN THE LAST FINAL YEAR

Investment in capital goods (Capital Expenditure) requires spending funds to buy fixed assets, or to add value to fixed assets, which are expected to provide future benefits.

NAME OF PARTY CONDUCTING THE COMMITMENTS

During 2019, Bio Farma entered into material commitments with several Bio Farma partners/ related parties for investment in capital goods. The Company's policy provides for the pricing of these transactions to be the same as for transactions made with third parties.

PURPOSE OF A MATERIAL COMMITMENT FOR CAPITAL INVESTMENT IN FISCAL YEAR 2019

During 2019, Bio Farma made material commitments for investment in capital goods with several partners for the purpose of: procurements related to the WHO & GMP Assessment, Replacements, WWTP/OHS/Environment, Capacity Building, Research and Development, and New Products.

The investment realisation in 2019 amounted to Rp632.20 billion (Rp612.06 billion, plus an investment advance of Rp20.14 billion) or 68.60% of the 2019 Company Work Plan and Budget which was a decrease from the 2018 realisation for there were investments for which the settlement date was shifted to 2020, and these were worth Rp254.94 billion.

EXPECTED SOURCE OF FUNDS TO MEET THESE COMMITMENTS

The expected source of funding for capital expenditures comes from the Company's internal funds, namely from the 2019 RKAP.

CURRENCY TO BE DENOMINATED

The currency denomination is Rupiah. Transactions denominated in foreign currencies are translated into Rupiah using the daily exchange rate at the date of the transaction.

On the date of the statement of financial position, financial statements in foreign currencies are translated into Rupiah using the Bank Indonesia middle rate on that date, as follows:

Dominating Currency

Dominating Currency	2015	2016	2017	2018	2019
1 United States Dollar (USD)	13,795.00	13,436.00	13,548.00	14,481.00	13,901.01
1 Euro (EUR)	15,069.67	14,161.55	16,173.62	16,559.75	15,588.60
1 Singapore dollar (SGD)	9,751.19	9,298.92	10,133.53	10,602.97	10,320.74
1 Australian Dollar (AUD)	10,064.16	9,724.31	10,557.29	10,211.29	9,739.06
1 Japanese Yen (JPY)	114.52	115.40	120.22	131.12	127.97
1 British pound (GBP)	20,451.11	16,507.51	18,218.01	18,372.78	18,249.94
1 Danish Krone Denmark (DKK)	2,019.32	1,905.09	2,172.34	2,217.87	2,086.27
1 Frank Swiss (CHF)	13,951.29	13,177.76	13,842.15	14,709.75	14,365.75

Gains or losses arising from the translation of financial assets and liabilities denominated in foreign currencies are recognized in the current year statement of profit or loss and other comprehensive income.

PLANNED STEPS TO PROTECT AGAINST RISK FROM ASSOCIATED FOREIGN CURRENCY POSITION

RISK MANAGEMENT - FINANCIAL RISK

The main financial risks faced by the Company are credit risk, currency risk, interest rate risk and liquidity risk. Through a risk management approach, the Company tries to minimize the potential negative impact of the above risks.

Credit Risk

Credit risk is the risk that one party to a financial instrument will fail to meet its obligations and cause the other party to experience a financial loss. The Company's financial instruments that have the potential for credit risk consist of cash and cash equivalents in banks, trade receivables and other receivables. The maximum credit risk exposures are the same as the carrying amount of these accounts.

For credit selling risk, the Company requires a bank guarantee or LC with a certain limit. For credit risk associated with banks, only banks with good ratings are selected. In addition, the Company's policy is not to limit the exposure to only one particular institution, so that the Company has cash and cash equivalents in various banks.

The table below illustrates the maximum credit risk exposure and risk concentration the Company has:

Credit Risk in Rupiah

Description	2015			2016		
	Credit Risk Concentration		Maximum Exposure	Credit Risk Concentration		Maximum Exposure
	Institution	Others		Institution	Others	
Accounts Receivable	507,746,089,376	-	507,746,089,376	288,626,423,903	-	288,626,423,903
Other Receivables	1,302,637,458	3,194,971,060	4,497,608,518	1,302,637,458	446,140,212	1,748,777,670
TOTAL	509,048,726,834	3,194,971,060	512,243,697,894	289,929,061,361	446,140,212	290,375,201,573

Description	2017			2018		
	Credit Risk Concentration		Maximum Exposure	Credit Risk Concentration		Maximum Exposure
	Institution	Others		Institution	Others	
Accounts Receivable	313,138,277,507	-	313,138,277,507	254,065,476,289	-	254,065,476,289
Other Receivables	1,302,637,458	121,769,028	1,424,406,486	1,302,637,458	799,820,095	2,102,457,553
TOTAL	314,440,914,965	121,769,028	314,562,683,994	255,368,113,747	799,820,095	256,167,933,841

Description	2019		
	Credit Risk Concentration		Maximum Exposure
	Institution	Others	
Accounts Receivable	569,252,482,308,00	-	569,252,482,308,00
Other Receivables	1,302,637,458,00	170,041,636,99	1,472,679,094,99
TOTAL	570,555,119,766,00	170,041,636,99	570,725,161,402,99

Currency Risk

Currency risk is the risk of fluctuations in the value of financial instruments due to changes in foreign currency exchange rates. Companies use foreign currencies in transactions for the procurement of goods/services and export sales with foreign parties as well as in operating costs so there is a risk of fluctuations in the exchange rate of foreign currencies against Rupiah that takes place between the time the transaction occurs until the payment is made or received.

In addition to being exposed to transactions that may cause future cash flow losses when receiving or making payments, the Company may also face economic exposure due to international trade transactions. Furthermore, the company could face the risk of decreasing revenue value or increasing costs due to fluctuations in exchange rates so that the selling price of the product is no longer competitive compared to competitors in the global market or foreign competitors in the domestic market.

The proceeds from export sales, which are dominated by the US dollar (USD) currency, are indirectly a natural hedge against exposure to exchange rate fluctuations. However, because the

position of receipts in foreign currencies is greater than needed (long positions) and there are expenses for the procurement of imported goods in foreign currencies (non-USD), the Company has significant exposure to fluctuations in foreign currencies.

To avoid the risk of exchange rate fluctuations, the Company implements natural hedging by: balancing foreign currency receipts and expenditures; maintaining foreign currency balances as needed; transferring the purchase price of goods/services with overseas vendors from non-USD to USD; and selling remaining USD needs in stages according to projected cash flow requirements and market prices.

Interest Rate Risk

Interest rate risk is the risk of fluctuations in the value of financial instruments due to changes in market interest rates.

The Company monitors the impact of movements in interest rates to minimize the risk of negative financial impacts. The table below describes the details of the maturities of the Company's financial assets and liabilities that are affected by interest rates.

Interest Rate Risk in Rupiah

Description	December 31, 2015				December 31, 2016			
	Interest Rate Expands	Fixed Interest Rate	Not subject to interest	Total	Interest Rate Expands	Fixed Interest Rate	Not subject to interest	Total
	Less than 1 year	Less than 1 year			Less than 1 year	Less than 1 year		
Assets	-	-			-	-	-	-
Cash and cash equivalents	346,754,915,461	209,001,583,500	182,759,333	555,939,258,294	175,710,469,720	272,050,386,800	189,469,748	272,239,856,548
Total Financial Assets	346,754,915,461	209,001,583,500	182,759,333	555,939,258,294	175,710,469,720	272,050,386,800	189,469,748	272,239,856,548
Number of Interest Rate Gap	346,754,915,461	209,001,583,500	182,759,333	555,939,258,294	175,710,469,720	272,050,386,800	189,469,748	272,239,856,548

Description	December 31, 2017				December 31, 2018			
	Interest Rate Expands	Fixed Interest Rate	Not subject to interest	Total	Interest Rate Expands	Fixed Interest Rate	Not subject to interest	Total
	Less than 1 year	Less than 1 year			Less than 1 year	Less than 1 year		
Assets	-	-			-	-	-	-
Cash and cash equivalents	334,477,033,019	334,477,033,019	183,925,904	35,069,098,304	535,724,709,290	16,324,895,300	185,630,168	552,235,234,758
Total Financial Assets	334,477,033,019	334,477,033,019	183,925,904	35,069,098,304	535,724,709,290	16,324,895,300	185,630,168	552,235,234,758
Number of Interest Rate Gap	334,477,033,019	334,477,033,019	183,925,904	35,069,098,304	535,724,709,290	16,324,895,300	185,630,168	552,235,234,758

Description	December 31, 2019			
	Interest Rate Expands	Fixed Interest Rate	Not subject to interest	Total
	Less than 1 year	Less than 1 year		
Assets	-	-	-	-
Cash and cash equivalents	533,574,092,768,77	6,551,546,013	187,294,280	540,312,933,062
Total Financial Assets	533,574,092,768,77	6,551,546,013	187,294,280	540,312,933,062
Number of Interest Rate Gap	533,574,092,768,77	6,551,546,013	187,294,280	540,312,933,062

LIQUIDITY RISK

Liquidity risk is the risk that the Company will experience difficulties in obtaining the necessary funds to fulfil its commitments related to financial instruments.

The Company manages liquidity risk by maintaining sufficient cash and cash equivalents to enable the Company to fulfil its commitments to all parties and to monitor projections and actual cash flows on a continuous basis as well as to monitor the maturity date of financial assets and liabilities.

Following up on the 2013-2018 WHO program related to Global Polio eradication, which was approved by the WHO Executive Board in 2013, one of the decisions that must be implemented is to phase out all Oral Polio Vaccines gradually. The strategy to minimize risk is through gradually stopping the production of tOPV (trivalent Oral Polio Vaccine) by the manufacturers and restriction of tOPV products to bOPV (bivalent Oral Polio Vaccine) was completed in April 2016.

Indonesia's commitment to eradicate National Polio in 2020 has been followed up through a circular

from the Ministry of Health regarding the shift of 95% of tOPV vaccine to bOPV by the deadline of April 4, 2016, through the introduction of IPV replacement products (Inactivated Polio Vaccine) in routine immunization programs, revocation of distribution permits, and the withdrawal and destruction of tOPV from April 4-30, 2016 throughout Indonesia, in both the private and government sectors.

The Company has followed up on this circulation by accelerating the realisation of the 2016 government contract for tOPV products through an immunization program that was carried out throughout Indonesia on March 8-11 2016 and the gradual withdrawal of tOPV products from distributors by March 28, 2016. Also, by carrying out simultaneous replacement with bOPV products starting April 4, 2016.

FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

Fair value is the amount for which an asset can be exchanged, or a liability can be settled in an arm's length transaction. The Company calculates



the fair values of short-term financial assets and liabilities to approximate their carrying values due to insignificant discounting.

The fair value of long-term borrowings is estimated at the present value of future cash flows at the interest rates offered by banks to companies for similar maturities of debt.

Fluctuations in the exchange rate of the Rupiah against foreign currencies can have an impact on the Company's financial condition.

The main step taken by the Company so far has been to protect against the risk of changes in foreign currency exchange rates by implementing a natural hedging policy (Natural Hedge), and the company is still studying the impact of other hedging implementation on changes in financial transactions.

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INVESTMENT OF CAPITAL GOODS IN THE LAST FINANCIAL YEAR

"Investment is a capital investment for the long-term with the hope of getting benefits in the future as a professional compensation for the delay in consumption, the impact of inflation and the risks borne."

INVESTMENT TYPES OF CAPITAL GOODS

In Bio Farma, the two types of investment made in capital goods consist of the following:

Investments based on their use:

1. Routine: for the WHO & GMN assessment, Replacement, WWTP/OHS & the Environment
2. Development: to increase production capacity, R & D/Research & Development & new products

Investments per group basis include:

1. Office Inventory
2. Factory Inventory
3. Other Inventories
4. Building Inventory
5. Motor Vehicle Inventory
6. Intangible assets
7. Land Investment

Bio Farma's financial strategy is focused on managing funds as best as possible by continuing to strive to increase growth.

To increase investment in capital goods and buildings, Bio Farma conducts research, development and surveillance, and has also invested capital into building various facilities for implementation including the Vaccine Production and Packaging Facility Building, BCG Vaccine Downstream Facility, Animal Center, Animal House 2 Laboratory, Piping & Utilities Recombinant Vaccine Facility, Faspord Development, Vaccines & Packaging, and more.

Bio Farma's investment policy focuses on smooth operations and meeting the company's long-term goals. Investment in capital goods is primarily for development projects in the form of machinery and equipment.

INVESTMENT OBJECTIVES OF CAPITAL GOODS

The objective of investing in capital goods for the development of the Company is to increase the value

of the Company by expanding production capacity, increasing production efficiency, and diversifying business lines.

INVESTMENT VALUE OF CAPITAL GOODS ISSUED IN THE LAST FINAL YEAR

Investment realisation in 2019 (Audited) was worth Rp632.20 billion (Rp612.06 billion plus investment advances worth Rp20.14 billion) or 68.60% of the 2019 Company Work Plan and Budget or a decrease of 16% from the realisation in 2018 (Audited). This was due to investments whose settlement dates shifted to 2020 which were valued at Rp254.94 billion. Of the total investments made, there are investments that are still in progress worth Rp499.37 billion, including the Vaccine Production & Packaging Facilities (Building No. 43 phase 2), QC Building, Engineering and Media (Building No.3), and the Continuous Centrifuge and Formulation Equipment.

Investment Realisation Based on Usage (Rp Million)

Investments Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5 (4/3)	6 (4-3)
Routine						
Building	14,122	2,517	56,907	99,148	74.23	42,241
Machinery & Plant Equipment	49,267	50,113	35,078	51,852	47.82	16,774
Office Equipment	10,741	8,224	10,248	6,508	(36.49)	(3,740)
Utility Equipment	1,817	4,866	6,618	1,781	(73.09)	(4,837)
Intangible Assets	4,826	-	-	-	-	-
Investments in Joint Ventures (Vial)	-	-	-	-	-	-
Motor Vehicles	30	-	-	-	-	-
Total	80,803	65,720	108,851	159,289	46.34	50,438

(Rp Million)

Investments Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5 (4/3)	6 (4-3)

Development

Building	100,176	83,321	267,136	189,888	(28.92)	(77,248)
Machinery & Plant Equipment	336,211	373,382	273,011	223,244	(18.23)	(49,767)
Office Equipment	7,583	4,519	8,671	5,610	(35.30)	(3,061)
Utility Equipment	12,535	11,814	25,879	32,258	24.65	6,379
Intangible Assets	5,363	3,182	-	1,767	-	1,767
Investments in Joint Ventures (Vials)	-	-	-	-	-	-
Motor Vehicles	-	-	-	-	-	-
Total	461,867	476,218	574,697	452,767	(21.22)	(121,930)

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Investment Realisation Based on Group (Rp Million)

Investments Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5 (4/3)	6 (4-3)
Building	114,298	51,336	324,043	289,036	(10.80)	(35,007)
Machinery & Plant Equipment	385,478	423,495	308,089	275,096	(10.71)	(32,993)
Office Equipment	18,324	12,742	18,919	12,118	(35.95)	(6,801)
Utility Equipment	14,351	16,680	32,497	34,039	4.75	1,542
Intangible Assets	10,189	3,183	-	1,767	-	1,767
Investments in Joint Ventures (Vials)	-	-	-	-	-	-
Motor Vehicles	30	-	-	-	-	-
Investments Advances	-	-	69,097	20,140	(70.85)	(48,957)
Total	542,671	507,436	752,645	632,196	(16.00)	(120,449)

Total Investment Realisation in 2019 Based on Usage (Rp Million)

Investments Group	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	4/3	4-3
Building	114,298	85,838	324,043	289,036	(10.80)	(35,007)
Machinery & Plant Equipment	385,478	423,495	308,089	275,096	(10.71)	(32,993)
Office Equipment	18,324	12,743	18,919	12,118	(35.95)	(6,801)
Utility Equipment	14,351	16,680	32,497	34,039	4.75	1,542
Intangible Assets	10,189	3,182	-	1,767	-	1,767
Investments in Joint Ventures (Vials)	-	-	-	-	-	-
Motor Vehicles	30	-	-	-	-	-
Total	542,671	541,938	683,548	612,056	(10.46)	(71,492)

Buildings

The realisation of building inventory procurement in 2019 only reached 72.95% of its budget because there are buildings whose construction process has shifted to 2020, including Building 34 (a building for pilot scale product development facilities) and Building 36, 2nd floor (BCG Vaccine Production Upstream Facility).

Machinery and Plant Equipment

The realisation of the procurement of machinery and factory equipment in 2019 only reached 65.78% of the projected budget because there was equipment for Building No. 43 phase 2 (Vaccine Production & Packaging Facility) and Building 34 (a pilot scale product development facility building) whose realisation has shifted to 2020.

Office Equipment

The realisation of office equipment procurement in 2019 only reached 61.04% of the budget because there were several items of office equipment whose realisation shifted to 2020.

Utility Equipment

The realisation of the procurement of utility equipment in 2019 reached 129.37% of the budget. This was mainly due to the accelerated realisation of the ICED Water System and Air Pipe Installation System as well as the follow-up to the WHO assessment in the form of the UPS system installation.

Intangible Assets

The realisation of intangible assets in 2019 reached 180.31% of the budget. Intangible assets include the Laboratory Information Systems (LIS).

Participation in Joint Venture (Vials)

Investment in Joint Ventures (Vials) in 2019 was not realized because it was not considered feasible based on the results of a study from the Joint Venture (Vials) investment consultant.

Investment Advances

Investment down payments were worth Rp20.14 billion in 2019, and will be physically realised in 2020.

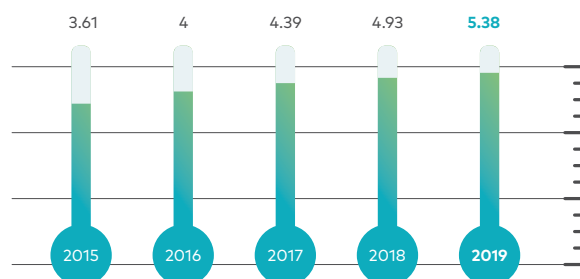
The Company invested in capital goods in the form of fixed assets which are in the form of land, buildings, motorised vehicles, office equipment, and assets that are still under adjustment in the form of buildings. This investment in capital goods aims to support the smooth operation of the Company's operations.

Fixed assets in 2019 were recorded at Rp5.38 trillion, up Rp453.49 billion or 9.20% compared to fixed assets in 2018 which amounted to Rp4.39 trillion.

Investment Advances (Rp Million)

Description	2015	2016	2017	2018	2019	% +(-)	Increase (Decrease)
	1	2	3	4	5	5/4	5-4
Acquisition Performance							
Land	2,059,183	2,059,183	2,099,451	2,099,451	2,099,451	-	-
Building	557,670	631,496	724,634	733,709	780,629	6.39	46,919
Machinery & Plant Equipment	1,186,837	1,277,105	1,374,341	1,457,901	1,687,890	15.78	229,988
Office Equipment	110,848	130,023	143,468	153,731	174,116	13.26	20,385
Utility Equipment	70,319	98,139	106,328	163,073	204,622	25.48	41,548
Motor Vehicles	4,671	4,701	4,701	2,250	2,250	-	-
Assets Under Construction							
Building	241,052	281,524	239,723	554,306	796,143	43.63	241,837
Machine Tools, Office Factory & Utility	219,971	500,840	790,146	1,033,233	1,063,313	2.91	30,080
Aset Tetap Dalam Perjalanan							
Machine Tools, Office Factory & Utility	-	-	44,741	4,138	-	(100.00)	(4,138)
Total Cost	4,450,551	4,983,012	5,527,533	6,201,793	6,808,413	9.78	606,620
Accumulated Depreciation & Impairment							
Building	148,287	178,620	212,551	247,988	283,802	14.44	35,814
Machinery & Plant Equipment	587,907	668,202	756,398	779,753	927,009	18.88	147,256
Office Equipment	70,916	92,180	110,751	185,145	140,658	(24.03)	(44,487)
Utility Equipment	34,202	41,618	49,188	56,106	70,578	25.80	14,473
Motor Vehicles	3,702	4,205	4,414	2,081	2,155	3.55	74
Total	845,014	984,825	1,133,302	1,271,072	1,424,202	12.05	153,130
Book Value	3,605,537	3,998,187	4,394,231	4,930,721	5,384,211	9.20	453,490

Total Fixed Assets (Rp Trillion)



ASSETS UNDER CONSTRUCTION

Assets in Implementation include the building facilities and equipment therein which until December 31, 2019, are still under construction as per the following details:

(Rp Million)

Name of Assets	Value as of December 31, 2019
Buildings under Construction	
a. Building 43	612,449
b. Other Buildings	183,694
Total Building under Construction	796,143
Machinery, Plant, Utilities under Construction	
a. Building 43	850,600
b. Other Buildings	212,713
Machinery, Plant, Utilities under Construction	1,063,313
Total Assets under Construction	1,859,456

Name of Assets	Value as of December 31, 2019
Building under Construction	
a. Building 43	429,033
b. Other Buildings	125,273
Total Buildings under Construction	554,306
Machinery, Plant, Utilities under Construction	
a. Building 43	784,336
b. Other Buildings	248,897
Machinery, Plant, Utilities under Construction	1,033,233
Total Assets under Construction	1,587,539



COMPARISON BETWEEN TARGETS AT THE BEGINNING OF YEAR AGAINST RESULTS ACHIEVED (REALISATION) AND PROJECTIONS OR TARGETS WANTING TO BE ACHIEVED FOR THE FUTURE YEAR BASED ON REVENUE, INCOME, AND OTHERS

In terms of sales, Bio Farma's performance in 2019 reached Rp2.54 trillion, which was a decrease of 21.41% compared to the realisation of sales in 2018. The company only reached 69.05% of its budget, while the cost of goods sold & services amounted to Rp1.31 trillion, down 28.10% compared to the realisation in 2018 and reached 64.22% of its budget, the company's net profit decreased by 34.48% from the realisation in 2018 to Rp355.94 billion or reached 57.42% of its budget.

The assessment of the Company's health level in 2019 (Audited) received a score of 77.10 with the criteria "SEHAT A", whereas in 2018 (Audited) it scored 90.35 with the criteria "SEHAT AA". For the achievement of the Key Performance Indicator (KPI), it scores 92.58 out of a total score of 100.

On January 28, 2019, Bio Farma held a Plan of Action which was attended by the Board of Commissioners, Board of Directors, Division Heads and other invited guests. The objective of the Plan of Action (POA) was to align the realisation of the Company's performance with the production and sales targets for 2019.

Results of the 2019 Bio Farma Plan of Action Meeting

Date	Venue	Subject
January 28, 2019	Mercure City Center, Bandung	Digitisation and an IT Road Map for Bio Farma
January 28, 2019	Mercure City Center, Bandung	Bio Farma HR Readiness 4.0
January 28, 2019	Mercure City Center, Bandung	Application of Bioinformatics in R&D Activities
January 28, 2019	Mercure City Center, Bandung	Corporate Business Strategy & the Company's Long-Term Plan 2019-2022
January 28, 2019	Mercure City Center, Bandung	Overview and Target of 2019 Company Work Plan and Budget
January 29, 2019	Mercure City Center, Bandung	Marketing Strategy to Achieve 2019 Sales Targets
January 29, 2019	Mercure City Center, Bandung	Production Plan and Inventory Management 2019
January 29, 2019	Mercure City Center, Bandung	Project/Investment Acceleration Strategy in 2019
January 29, 2019	Mercure City Center, Bandung	Investment Funding Strategy for 2019
January 29, 2019	Mercure City Center, Bandung	Time to Market Product Acceleration Strategy

On July 30, 2019, Bio Farma held a Plan of Action (POA) Evaluation which was attended by the Board of Commissioners, Directors, Division Heads, and other invited guests. This was a follow-up to the results of the POA on January 28, 2019, namely for the Evaluation of Semester 1 2019 Performance Reports.

Results of the 2019 POA Evaluation

Date	Venue	Subject
July 30, 2019	GSG PT Bio Farma	Company Overview Semester 1 Year 2019 Performance Report
July 30, 2019	GSG PT Bio Farma	Evaluation of the Achievement of the 2019 Company Work Plan and Budget Sales Target (Semester 1 Evaluation and Semester 2 Strategy in achieving the 2018 target)
July 30, 2019	GSG PT Bio Farma	Evaluation of Quick Win Semester in 2019 and New Business Prospective
July 30, 2019	GSG PT Bio Farma	Quick Win 1: Investment Acceleration (Evaluation of Semester 1 and Strategy for Achieving Target)
July 30, 2019	GSG PT Bio Farma	Quick Win 2: Fund Provision and Budget Management (Semester 1 Evaluation and Target Achievement Strategy)
July 30, 2019	GSG PT Bio Farma	Quick Win 3: Cost Efficiency Program: Inventory, OPEX, and CAPEX (Semester 1 Evaluation and Target Achievement Strategy)
July 30, 2019	GSG PT Bio Farma	Quick Win 4: Strategy to Increase Market Share (Evaluation of Semester 1 and Strategy for Achieving Target)
July 30, 2019	GSG PT Bio Farma	Quick Win 5: Human Capital Towards Pharma 4.0 (Evaluation of Semester 1 and Strategy for Achieving Target)
July 30, 2019	GSG PT Bio Farma	Quick Win 6: IT Towards Pharma 4.0 (Evaluation of Semester 1 and Strategy for Achieving Target)

COMPARISON BETWEEN TARGETS AT THE BEGINNING OF 2019 COMPARED TO 2019 REALISATION AND 2020 PERFORMANCE PROJECTIONS

PRODUCTION

Production of Company's Product

The number of bacterial vaccines produced in 2019 was 449.59 million doses, a decrease of 93.95 million doses or 17.28% compared to the 2018 figure of 543.54 million doses and thereby 254.60 million doses, or 36.16% less production. The 2019 target was 704.20 million doses and the projection for realisation of bacterial vaccine production in 2020 is 422.61 million doses, which is a decrease of 281.58 million doses or 39.99% below the 2019 target of 704.20 million doses.

The total production of viral vaccines in 2019 was 1.61 billion doses, which was a decrease of 508.83 million doses or 24.03% compared to the 2018 figure of 2.12 billion doses and 406.49 million doses, or 33.81% above the target. 2019 production amounted to 406.49 million doses and it is projected that the realisation of the total production of viral vaccines in 2020 will be 3.03 billion doses, an increase of 1.82 billion doses or 151.67% below the 2019 target of 1.20 billion doses.

The number of combination vaccines produced in 2019 was 21.78 million doses, which was a decrease

of 17.03 million doses or 43.88% compared to the 2018 figure of 38.82 million doses and 5.91 million doses, or 21.35% below. The 2019 target is 27.69 million doses and the projected realisation of combination vaccine production in 2020 is 23.11 million doses, a decrease of 4.58 million doses or 16.55% below the 2019 target of 27.69 million doses.

The total production of Sera in 2019 was recorded at 316.70 million doses, a decrease of 303.81 million doses or 48.96% compared to sera production in 2018 which reached 620.51 million doses and 337.60 million doses, or 51.60% above the 2019 target of 654.30 million doses. The projected realisation of total sera production in 2020 is 740.42 thousand doses, an increase of 86.12 thousand doses or 13.16% below the 2019 target of 654.30 thousand doses.

Production of Partnership Vaccines

Production of Partnership Vaccines in 2019 was 44.01 million doses, which was a decrease of 57.73 million doses or 56.74% compared to the 2018 figure of 101.74 million doses and 17.75 million doses, or 28.74% below the target. In 2019, production amounted to 61.77 million doses and the projected realisation for Partnership Production Vaccines in 2020 is 42.80 million doses, a decrease of 18.97 million doses or 30.71% below the 2019 target of 61.77 million doses.

ACHIEVEMENTS (REALISATION) OF 2019 TARGETS AND PROJECTIONS FOR BIO FARMA PERFORMANCE IN 2020

The Company's performance achievements in 2019 are as follows:

(Rp Million)

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (De-crease)	Increase (Decrease)	Increase (Decrease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
Net Sales	3,283,680	3,235,225	3,682,448	2,542,592	3,382,487	(21.41)	(30.95)	(8.15)	(692,633)	(1,139,856)	(299,961)
Cost of Goods Sold & Services	1,780,548	1,823,750	2,041,811	1,311,235	1,897,493	(28.10)	(35.78)	(7.07)	(512,515)	(730,576)	(144,318)
Investments	1,181,450	752,645	921,574	632,196	522,475	(16.00)	(31.40)	(43.31)	(120,449)	(289,38)	(399,099)
Profit Before Income Tax	784,947	727,368	840,448	490,614	597,340	(32.55)	(41.62)	(28.93)	(236,754)	(349,834)	(243,108)
Net Profit	581,177	543,226	619,852	355,940	441,133	(34.48)	(42.58)	(28.83)	(187,286)	(63,912)	(178,719)
Total Assets/ Liabilities & Equity	7,792,550	7,401,159	8,188,375	7,940,399	8,608,137	7.29	(3.03)	5.13	539,240	(247,976)	419,762
Number of HR (Person)	1,195	1,195	1,237	1,207	1,269	1.00	(2.43)	2.59	12	(30)	32
Company Performance Level	Healthy (AA)	Healthy (AA)	Healthy (AA)	Healthy (AA)	Healthy (AA)	-	-	-	-	-	-

NET SALES

The realisation of net sales in 2019 amounted to Rp2.54 trillion, which was a decrease of Rp692.63 billion or 21.41% compared to the 2018 figure of Rp3.24 trillion and Rp1.14 trillion, or 30.95% below the 2019 target of Rp3.68 trillion. The realisation of sales in 2020 is projected to be Rp3.38 trillion, which is a decrease of Rp299.96 billion or 8.15% below the 2019 target of Rp3.68 trillion.

COST OF GOODS SOLD & SERVICES

The realisation of cost of goods sold & services in 2019 amounted to Rp1.31 trillion, which was a decrease of Rp512.52 billion or 28.10% compared to the 2018 figure of Rp1.82 trillion and Rp730.58 billion, or 35.78% below the 2019 target amounting to Rp2.04 trillion. The projected realisation of cost of goods sold & services for 2020 is Rp1.90 trillion, which is a decrease of Rp144.32 billion or 7.07% below the 2019 target of Rp2.04 trillion.

INVESTMENT

Investment realisation in 2019 amounted to Rp632.20 billion, which was a decrease of Rp120.44 billion or 16% compared to the 2018 figure of Rp752.64 billion and Rp289.38 billion, or 31.40% below the 2019 target of Rp921.57 billion.

It is projected that investment realisation in 2020 will be Rp52.48 billion, a decrease of Rp399.10 billion or 43.31% below the 2019 target of Rp921.57 billion.

In 2020, investment is expected to amount to Rp522.48 billion, which will be a decrease of Rp399.10 billion or 43.31% below the 2019 target of Rp921.57 billion.

PROFIT BEFORE INCOME TAX

In 2019, the realisation of profit before income tax was Rp490.61 billion, which was a decrease of Rp236.75 billion or 32.55% compared to the 2018 figure of Rp727.37 billion and Rp349.83 billion, or 41.62% below the 2019 target of Rp840.45 billion. It is projected that the realisation of profit before income tax in 2020 will be Rp597.34 billion, a decrease of Rp243.11 billion or 28.93% below the 2019 target of Rp840.45 billion.

NET PROFIT

The realisation of net profit in 2019 was Rp355.94 billion, which was a decrease of Rp187.29 billion or 34.48% compared to the 2018 figure of Rp543.27 billion and Rp263.91 billion, or 42.58% below the 2019 target of Rp619.85 billion. It is projected that the realisation of a net profit in 2020 will be Rp441.13 billion, which will be a decrease of Rp178.72 billion or 28.83% below the 2019 target of Rp619.85 billion.

TOTAL LIABILITIES & EQUITY

The realisation of total liabilities & equity in 2019 amounted to Rp7.94 trillion, an increase of Rp539.24 billion or 7.29% compared to the 2018 figure, which was Rp7.40 trillion and Rp247.98 billion, or 3.03% below the 2019 target of Rp8.18 trillion. It is projected that the realisation of total liabilities & equity in 2020 will be Rp8.61 trillion, an increase of Rp419.76 billion or 5.13% above the 2019 target of Rp8.19 trillion.

NUMBER OF HR

The number of employees in 2019 was 1,207 people, an increase of 12 people or 1% compared to the 2018 figure of 1,195 people and 30 people or 2.43% below the 2019 target of 1,237 people. It is projected that the realisation of additional employees in 2020 will be 1,269 people, an increase of 32 people or 2.59% above the 2019 target of 1,237 people.

COMPANY PERFORMANCE LEVEL

Both the 2019 target, the 2019 realisation and the 2020 target are the same, namely "SEHAT A".

2019 TARGET, 2019 REALISATION, AND 2020 TARGET FOR OF INCOME (LOSS) STATEMENT**Income Statement (Rp Million)**

Income Statement (in millions)											
Description	Target 2018	Realisation 2018	Target 2019	Realisa- tion 2019	Target 2020	% +(-)	Increase (De- crease)	Increase (Decrease)		Increase (Decrease)	
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
NET SALES											
Company Products	2,102,189	2,038,035	2,481,270	2,059,844	2,515,680	1,07	(16.98)	1.39	21,808	(421,426)	34,410
Partnership Products	1,130,590	1,133,975	1,095,830	456,537	590,209	(59.74)	(58.34)	(46.14)	(677,438)	(639,293)	(505,621)
Trading Partnerships	41,894	53,111	91,138	14,593	256,614	(72.52)	(83.99)	181.57	(38,518)	(76,545)	165,476
Services	9,006	10,104	14,210	11,618	19,982	14.98	(18.24)	40.62	1,514	(2,592)	5,772
Total Net Sales	3,283,680	3,235,225	3,682,448	2,542,592	3,382,487	(21.41)	(30.95)	(8.15)	(692,634)	(1,139,856)	(299,961)
COST OF SALES AND SERVICES											
Company Products	(998,443)	(1,010,966)	(1,222,419)	(945,314)	(1,232,887)	(6.49)	(22.67)	0.86	65,652	277,105	(10,468)
Partnership Products	(740,047)	(758,734)	(728,937)	(345,865)	(419,274)	(54.42)	(52.55)	(42.48)	412,868	383,072	309,663
Trading Partnerships	(34,149)	(39,981)	(77,667)	(8,497)	(225,820)	(78.75)	(89.06)	190.75	31,484	69,170	(148,153)
Services	(7,908)	(14,070)	(12,789)	(11,559)	(19,513)	(17.85)	(9.62)	52.58	2,511	1,230	(6,724)
Total Cost of Goods Sold & Services	(1,780,547)	(1,823,750)	(2,041,812)	(1,311,235)	(1,897,494)	(28.10)	(35.78)	(7.07)	512,515	730,577	144,318
GROSS PROFIT (LOSS)	1,503,132	1,411,475	1,640,636	1,231,357	1,484,993	(12.76)	(24.95)	(9.49)	(180,118)	(409,279)	(155,643)
Other Income	3,672	454,802	10,672	428,503	9,792	(5.78)	3915.21	(8.25)	(26,298)	417,831	(880)
Selling expenses	(154,578)	(137,763)	(161,663)	(122,498)	(156,280)	(11.08)	(24.23)	(3.33)	15,265	39,165	5,383
General and Administrative Expenses	(403,595)	(410,885)	(420,807)	(380,589)	(431,277)	(7.37)	(9.56)	2.49	30,297	40,218	(10,470)

Description	Target 2018	Realisation 2018	Target 2019	Realisa- tion 2019	Target 2020	% +(-)	Increase (De- crease)	Increase (Decrease)		Increase (Decrease)	
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
Research, Development and Surveillance Expenses	(150,703)	(126,062)	(153,119)	(158,411)	(164,342)	25.66	3.46	7.33	(32,348)	(5,292)	(11,223)
Other Expenses	(12,980)	(464,199)	(75,271)	(507,749)	(145,545)	9.38	574.56	93.36	(43,551)	(432,478)	(70,274)
Total Operating Expenses	(718,184)	(684,108)	(800,188)	(740,743)	(887,652)	8.28	(7.43)	10.93	(56,636)	59,445	(87,464)
PROFIT (LOSS) BEFORE INCOME TAX	784,947	727,368	840,448	490,614	597,340	(32.55)	(41.62)	(28.93)	(236,754)	(349,834)	(243,108)
INCOME TAX BENEFIT (EXPENSE)											
Current Tax	(208,933)	(178,928)	(228,590)	(124,185)	(165,281)	(30.59)	(45.67)	(27.70)	54,743	104,405	63,309
Deferred Tax	5,163	(5,214)	7,994	(10,489)	9,074	101.16	(231.21)	13.51	(5,275)	(18,483)	1,080
Total Income Tax Expense	(203,770)	(184,142)	(220,596)	(134,674)	(156,207)	(26.86)	(38.95)	(29.19)	49,468	85,922	64,389
NET PROFIT (LOSS)	581,177	543,226	619,852	355,940	441,133	(34.48)	(42.58)	(28.83)	(187,286)	(263,912)	(178,719)
OTHER COMPREHENSIVE INCOME											
Items that will not be reclassified to profit or loss											
Actuarial Gain (Loss) on Post-Employment Benefits	-	6,067	-	(7,569)	-	(224,75)	-	-	(13,636)	(7,569)	-
Fixed Assets Revaluation Surplus	-	-	-	-	-	-	-	-	-	-	-
Total Other Comprehensive Income for the Year After Tax	-	6,067	-	(7,569)	-	(224,75)	-	-	(13,636)	(7,569)	-
TOTAL COMPREHENSIVE INCOME	581,177	549,293	619,852	348,371	441,133	(36.58)	(43.80)	(28.83)	(200,922)	(271,481)	(178,719)

2019 TARGET, 2019 REALISATION, AND 2020 TARGET FOR CORPORATE SALES

Sales of Company's Products, Partnership Products, Trading Partnerships and Services (Rp Million)

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (Decrease)	Increase (Decrease)	Increase (Decrease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
COMPANY PRODUCTS											
Bacterial Vaccine	203,119	230,750	211,114	191,051	229,681	(17.20)	(9.50)	8.79	(39,699)	(20,063)	18,567
Viral Vaccine	1,490,584	1,206,231	1,690,457	1,540,748	1,829,196	27.73	(8.86)	8.21	334,517	(149,709)	138,739
Combination Vaccine	319,273	540,463	489,332	276,789	351,755	(48.79)	(43.44)	(28.12)	(263,674)	(212,543)	(137,577)
Sera & Diagnostics	89,214	82,447	90,367	76,834	105,048	(6.81)	(14.98)	16.25	(5,613)	(13,533)	14,681
Less Sales Discount	-	(21,856,00)	-	(25,579)	-	17.03	-	-	(3,723)	(25,579)	-

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (Decrease)	Increase (Decrease)	Increase (Decrease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
Sales of Company Products	2,102,189	2,038,035	2,481,270	2,059,844	2,515,680	1.07	(16.98)	1.39	21,809	421,426	34,410
Sales of Partnership Products	1,130,590	1,133,975	1,095,830	456,537	590,209	(59.74)	(58.34)	(46.14)	(677,438)	(639,293)	(505,621)
Sales Trading Partnerships	41,894	53,111	91,138	14,593	256,614	(72.52)	(83.99)	181.57	(38,518)	(76,545)	165,476
Services	9,006	10,104	14,210	11,618	19,982	(14.98)	(18.24)	40.62	1,514	(2,592)	5,772
Total	3,283,679	3,235,225	3,682,448	2,542,592	3,382,485	(21.41)	(30.95)	(8.15)	(692,633)	(1,139,856)	(299,963)

NET PRODUCT SALES PER SEGMENT (PER SECTOR)

(Rp Million)

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (Decrease)	Increase (Decrease)	Increase (Decrease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
COMPANY PRODUCTS											
Government Sector	1,549,213	1,859,153	1,873,322	831,936	1,247,298	(55.25)	(55.59)	(33.42)	(1,027,217)	(1,041,386)	(626,024)
Private Sector	375,197	298,013	383,402	234,859	534,699	(21.19)	(38.74)	39.46	(63,154)	(148,543)	151,297
Export Sector	1,359,270	1,078,059	1,425,724	1,475,797	1,600,489	36.89	3.51	12.26	397,738	50,073	174,765
Total Net Sales	3,283,680	3,235,225	3,682,448	2,542,592	3,382,486	(21.41)	(30.95)	(8.15)	(692,633)	(1,139,856)	(299,962)

2019 TARGETS, 2019 REALISATION, AND 2020 TARGETS FOR ASSETS, LIABILITIES & EQUITY

(Rp Million)

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (Decrease)	Increase (Decrease)	Increase (Decrease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
ASSETS											
Current Assets	2,099,337	2,391,930	2,396,071	2,523,919	2,596,469	5.52	5.34	8.36	131,989	127,848	200,398
Non-Current Assets	5,693,213	5,009,229	5,792,304	5,416,479	6,011,667	8.13	(6.49)	3.79	407,250	(375,825)	219,363
Total Assets	7,792,550	7,401,159	8,188,375	7,940,399	8,608,137	7.29	(3.03)	5.13	539,240	(247,976)	419,762
LIABILITIES AND EQUITY											
Current Liabilities	1,359,270	1,078,059	1,425,724	1,475,797	1,600,489	36.89	3.51	12.26	397,738	50,073	174,765

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (De- crease)	Increase (De- crease)	Increase (De- crease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
Non-Current Liabilities	1,267,134	693,015	1,323,398	825,056	532,968	19.05	(37.66)	(59.73)	132,041	(498,342)	(790,430)
Total Liabilities	1,646,280	1,438,320	1,783,983	1,792,156	2,156,714	24.60	0.46	20.89	353,836	8,173	372,731
Equity	6,146,270	5,962,839	6,404,391	6,148,243	6,451,422	3.11	(4.00)	0.73	185,404	(256,148)	47,031
Total Liabilities & Equity	7,792,550	7,401,159	8,188,374	7,940,399	8,608,136	7.29	(3.03)	5.13	539,240	(247,975)	419,762

2019 TARGET, 2019 REALISATION, AND 2020 TARGET FOR CASH FLOWS STATEMENT

Cash Flow Statement (Rp Million)

Description	Target 2018	Realisation 2018	Target 2019	Realisation 2019	Target 2020	% +(-)			Increase (De- crease)	Increase (De- crease)	Increase (De- crease)
	1	2	3	4	5	4/2	4/3	5/3	4-2	4-3	5-3
Cash Flow from Operating Activities	686,273	268,174	929,480	183,614	617,437	(31.53)	(80.25)	(33.57)	(84,560)	(745,866)	(312,043)
Cash Flow from Investing Activities	(1,572,723)	(538,693)	(1,150,419)	(393,847)	(626,691)	(26.89)	(65.76)	(45.52)	144,846	756,572	523,728
Cash Flows from Financing Activities	955,334	418,590	326,106	232,032	261,517	(44.57)	(28.85)	(19.81)	(186,558)	(94,074)	(64,589)
Increase (decrease) in net cash	68,884	148,071	105,167	21,800	252,263	(85.28)	(79.27)	139.87	(126,271)	(83,367)	147,096
Effect of Difference in Cash & Cash Equivalents	-	18,293	-	(23,949)	-	(230.92)	-	-	(42,242)	(23,949)	-
Cash Balance & Cash Equivalents at the Beginning of the Year	151,555	369,546	329,671	535,910	391,183	45.02	62.56	18.66	166,364	206,239	61,512
Cash Equivalent Cash Balance at the End of the Year	220,439	535,910	434,838	533,761	643,446	(0.40)	22.75	47.97	(2,149)	98,923	208,608

EVALUATION OF THE COMPANY'S LONG-TERM PLAN

COMPANY POSITION

The Company's Long-Term Plan for 2018-2022 shows the Company to be in a growth position through "SWOT Analysis". The Company has more internal strengths than weaknesses, and externally, has greater opportunities than threats. Likewise, in the "Analysis of Industry Attractiveness and Business Strength", the Company is shown to be in a growth position when the vaccine industry is classified as medium with average business strength. In a growth position, the Company can implement a strategy of horizontal integration.

In 2019, the company continued the development of a new vaccine in collaboration with the Bill and Melinda Gates Foundation (BMGF) through PATH, namely the development of the nOPV type 2 vaccine to fulfil the stockpile needs.

PRODUCT MAPPING

In 2019, the market share of company's products for the Government Sector was still 100%, while the export needs varied as follows: Measles 10 ds at 7%, Td 10 ds at 3.63%, OPV at 19.82%, and bulk polio was at 53.94% because the company conducted bulk sales of polio type 2 in order to meet the stockpile demand from UNICEF of 350 million doses.

REALISATION COMPARED TO LONG TERM PLANS AND TARGETS

Performance in 2019 was as follows: net sales (audited) achieved 60.05% of the target in the Long-Term Plan, and net profit was 57.42% of the target in the Company's Long-Term Plan.

Realisation Compared to Long-Term Plans and Targets (Rp Million)

Description	2019 Company's Long-Term Plan	2019 Target	2019 Realisation (Audited)	%	%
	1	2	3	3/2	3/1
Net Sales	3,682,448	3,682,448	2,542,592	69.05	69.05
Cost of Goods Sold & Services	2,041,811	2,041,811	1,311,235	64.22	64.22
Company Expenses	2,720,452	2,720,452	2,228,995	81.93	81.93
Investments	921,574	921,574	632,196	68.60	68.60
Profit Before Tax Expense	840,448	840,448	490,614	58.38	58.38
Net Profit	619,852	619,852	355,940	57.42	57.42
Total Assets	8,188,375	8,188,375	7,940,399	96.97	96.97

COMPANY STATISTICS 10 (TEN) YEARS (2010 - 2019)

Over the last 10 (ten) years, the Company's overall performance has increased significantly. This can be seen in the table below, based on the increasing percentages compared with the base year of 2010 (100%).

10 Year of the Company Statistics (2010 - 2019) (%)

Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Net Sales	100	110	119	153	169	194	191	249	267	210
Cost of Goods Sold & Services	100	107	116	144	155	173	200	330	363	261
Company Expenses	100	108	107	133	160	181	207	271	286	249
Investments	100	139	90	127	89	278	277	280	384	323
Profit Before Income Tax	100	120	154	230	229	266	202	211	215	145
Net Profit	100	121	154	228	232	267	200	209	217	142
Total Assets	100	110	130	172	194	362	377	411	471	505

As illustrated in the table above, the company's development has increased significantly. The company's activities have increased following several strategic steps, including increasing the production capacity of the polio vaccine and developing new products in the form of the DTP-HB-Hib (Pentabio) vaccine as well as selling a partnership product to the Government sector, namely the MR vaccine.

Statistical Data on Company Performance 2010 - 2019 Based on Rupiah Value (Rp Million)

Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Net Sales	1,210,263	1,328,729	1,437,665	1,853,682	2,044,080	2,345,918	2,315,759	3,011,571	3,235,225	2,542,592
Cost of Goods Sold & Services	502,038	538,998	583,917	723,596	780,090	867,488	1,005,294	1,657,130	1,823,750	1,311,235
Company Expenses	894,396	969,575	954,329	1,192,575	1,430,742	1,619,052	1,848,145	2,419,507	2,561,368	2,228,995
Investments	195,846	272,887	176,122	248,276	174,623	544,974	542,671	547,704	752,645	632,196
Profit Before Income Tax	338,419	407,772	521,124	778,589	775,902	899,274	684,968	713,634	727,368	490,614
Net Profit	250,815	302,419	385,916	572,468	582,193	670,593	501,041	525,356	543,226	355,940
Total Assets	1,570,969	1,733,504	2,045,688	2,703,070	3,044,608	5,680,663	5,922,454	6,449,449	7,401,159	7,940,399

BIO FARMA 2019 STRATEGY

Now is the time for Bio Farma to move towards biotechnological innovation and global competitiveness by compiling a 2019 Strategy

4 MAIN PILLARS OF BIO FARMA

1 Achievement of sales targets/increase in turnover

2 Timely completion of investment projects (on-time projects)

3 Acceleration of time-to-market for new products

4 Cost Controls

For each of the four pillars, the Company sets various goals, strategies and corporate policies that are translated into work programs for each area.

TARGETS

• Finance

Based on Ministerial Decree No. S-564/MBU/08/2018 (dated August 31, 2018) concerning the aspirations of Shareholders/Capital Owners for the Preparation of the Company's 2019 Work Plan and Budget, the financial targets that must be achieved by the Company are as follows:

- » Absolute Target
- » Main Target
- » Spesifik Target

• Non-Financial

- » Investment realisation
- » GCG score
- » Company's Risk-Based Rating
- » Maintaining the WHO prequalification status for products that have received it
- » Maintaining WHO recognition of laboratory quality standards that have met the WHO prequalification
- » Maintaining accreditation of ISO 9001, ISO 14001 and OHSAS 18001
- » Maintaining ownership of the CPOB certificates and renewal of expired certificates
- » Maintaining PROPER Gold status
- » Distribution of Partnership Program funds (with an effectiveness level of 100% of the disbursement plan)
- » The rate of return (collectability) of Partnership Program funds and coaching to increase the capacity of partnership partners using available funds
- » Partnership Program with a maximum of 20% of available funds

STRATEGY

• *Corporate Plan & Business Development Strategy*

Our business development strategy and our company planning begin with increased R&D activities that are focused on increasing the product portfolio.

• *Human Capital & Innovation Strategy*

We always encourage innovation within the company's processes, products and research so our human capital can develop and bring results that can be felt by external stakeholders.

• *Manufacture & Supply Chain Strategy*

This strategy is to increase production capacity by adding machinery, especially for the fill & finish process. Also, by using information technology and implementing ERP to support the supply chain process, so that the availability of raw materials can ensure the continuity of the production process according to the existing targets, so that vaccine products can meet national and global needs.

• *Investment & Asset Management Strategy*

The investment and asset management strategy are to be carried out both by increasing production capacity and increasing the product portfolio. This can be realized through additional investment in infrastructure and land for production facilities, with due attention to environmentally friendly compliance aspects from the start.

• *Financial Support Strategy*

The financial strategy is supported by an integrated IT system in all corporate functions.

COMPANY STRATEGY

PRODUCT

1. Increasing private and export market share through penetration of new markets to find new customers;
2. Maintaining customer satisfaction according to the business model;
3. Maintaining the Government market;
4. Increasing partnerships to support increased company revenue by accelerating the realisation of new product pipelines that support sales plans.

BUSINESS DEVELOPMENT

1. Accelerating development of production capacity;
2. Adjusting production programs that support marketing;
3. Taking preventative and curative actions on production facilities & infrastructure in order to support production plans;
4. Carrying through continuous quality control;
5. Increasing production & documentation standards;
6. Adhering to the Company's business model;
7. Improving the quality of implementation of the Company's values.

FINANCE

1. Ensuring revenue growth and revenue realisation;
2. Controlling the health level of the Company;
3. Controlling cash availability;
4. Controlling the need for funds for investment;
5. Ensuring the CAPEX is as planned.

COMPANY POLICY

1. Priority for the provision of vaccines to support the government's immunisation program;
2. Provision of partnership products;
3. Research and development;
4. Selective investment;
5. Competency and performance-based Human Capital;
6. Development of information technology;
7. Consistent and integrated application of the quality system;
8. Following WHO & BPOM regulations regarding quality.

WORK PROGRAM

Based on the goals, strategies and policies of the Company, a work program is prepared per field, incorporating:

1. Organisation & Business Processes
 - a. Strategic Planning
 - b. GCG implementation
 - c. Implementation of quality management system, K3 & Environment
 - d. Management information system
 - e. Optimisation of the Company's fixed assets
2. Vaccine Research & Development
3. Antisera Research & Development
4. Diagnostic Research & Development
5. Research & Development on Bio similar products
6. Marketing
7. Production & Production Support
8. Procurement
9. Human Capital
10. Finance & Accounting
11. SPI

BIO FARMA 2020 STRATEGY

|| In 2020, the Company has 4 (four) main pillars that must be implemented ||

4 MAIN PILLARS OF BIO FARMA

1 Achievement of sales targets/ increase in turnover	2 Timely completion of investment projects (on time projects)	3 Acceleration of time to market for new products	4 Cost Control

Of the four pillars, the Company sets goals, strategies and corporate policies that are translated into work programs for each area.

TARGET

- **Finance**
Based on Ministerial Decree No. S-564/MBU/08/2018 dated August 31, 2018, and concerning the aspirations of Shareholders/Capital Owners for the Preparation of the 2019 Company's Work Plan and Budget, the financial targets that must be achieved by the Company are as follows:
 - » Absolute Target
 - » Main Target
 - » Spesific Target
- **Non Finance**
 - » Investment realisation
 - » GCG score
 - » Company's Risk-Based Rating
 - » Maintaining the WHO prequalification for products having received that status
 - » Maintaining WHO recognition of laboratory quality that has met WHO prequalification
 - » Maintaining accreditation of ISO 9001, ISO 14001 and OHSAS 18001
 - » Maintaining the ownership of current CPOB certificates and the renewal of expired certificates
 - » Maintaining proper status at the level of Green Proper at least
 - » Distribution of Partnership Program funds (effectiveness level) of 100% of the disbursement plan
 - » The rate of return (collectability) of Partnership Program funds, and coaching funds to increase the capacity of partnership partners which come from the Partnership Program's available funds at a maximum of 20% of the available funds.

STRATEGY

- **Corporate Plan & Business Development Strategy**
Business development strategy and the Company plan commences with increasing our R&D activities focused on the increasing of the product portfolio.
- **Human Capital & Innovation Strategy**
Innovation strategies and human resources development through the application of innovation are to encourage innovation in disparate lines of the Company innovation from processes, products, and to research to elevate innovation within the Company; thus, the outcomes are on the hands of the external stakeholders.
- **Manufacture & Supply Chain Strategy**
This strategy is to expand production capacity by augmenting production machines, particularly for the fill & finish process. By employing information technology and implementing ERP to support the supply chain process leads to the availability of raw materials that can ensure the continuity of the production process according to the target. Thus, that vaccine products can fulfill the needs in national and in global.
- **Investment & Asset Management Strategy**
The asset management and investment strategy are performed by increasing production capacity and enhancing the product portfolio which is manifested through auxiliary investment in infrastructure and land for production facilities. Selection of land for facilities production has always structinised the environmental compliance aspects from the beginning.
- **Financial Support Strategy**
Financial strategy supported by an integrated IT system in the entire corporate functions.

COMPANY STRATEGY

PRODUCT

1. Increasing private and export market share through penetration of new markets and new customers.
2. Maintaining the level of customer satisfaction according to the business model (DN/LN Distributors, UN Agencies, Manufactures, and Clinical Patients).
3. Maintaining the government market (captive market).
4. Increasing partnerships to support increased company revenue by accelerating the realisation of a pipeline of new products (vaccines, biosimilars and stem cells) that support sales plans.

BUSINESS DEVELOPMENT

1. Accelerating development of production capacity, through the construction of the Vaccine Production and Packaging Facility Building (Building No. 43) and the Pilot Scale Product Development Facility Building (Building No. 34), the BCG vaccine production upstream building and the facility building for the nOPV2 project.
2. Adjusting production programs that support marketing.
 - a. Production according to a set schedule and supports marketing.
 - b. Producing vaccines independently is the focus of government programs according to plan, including IPV and Pentabio vaccines.
 - c. Producing vaccines independently is the focus of the private sales program as planned, including Flubio Prev Trivalent, Serum ABU, BIOSAT and Meningitis.
 - d. Producing products for export sales as planned, including the nOPV2 vaccine.
3. Taking preventative and curative actions on production facilities and infrastructure so that they can function to support the production plan.
4. Carrying through continuous quality control.
5. Increasing production standards & documentation according to the target country

standards.

6. Compliance with the Company's business model.
7. Re-engineering internal human capital management processes.
8. Improving the quality of the implementation of the Company's values.

FINANCE

1. Ensuring revenue growth and revenue realization.
2. Controlling the health level of the company.
3. Controlling Operating Expenditure (OPEX).
4. Controlling cash availability.
5. Controlling the need for funds for investment.
6. Ensuring the effectiveness of Capital Expenditure (CAPEX) as planned.

COMPANY POLICY

1. Priority for the provision of vaccines to support the Government's immunization program.
2. Providing Partnership products to fill market gaps before they can produce their own.
3. Research and development (R&D) priorities that are in line with Government policies in addition to following global trends (WHO and UNICEF).
4. Conducting R&D collaborations with the Academic Business Government and Community (ABCG) pattern.
5. Selective investment according to the time line to support sales targets and company growth.
6. Human Capital based on competency and performance with global benchmarks.
7. Development of information technology applications that are independent and integrated.
8. Implementing a quality system in a consistent and integrated manner.
9. Following WHO and Food and Drug Administration (BPOM) regulations regarding product quality.

REALISATION OF THE 2019 WORK PROGRAM AND THE 2020 WORK PLAN

PURCHASE

To meet the needs for raw materials/auxiliary materials and other goods/services, a purchasing budget for 2020 is prepared as follows:

(Rp Million)

Group	Target 2019	2019	Target 2020	% +(-)		Increase (De-crease)	Increase (De-crease)
	1	2	3	2/1	3/2	2-1	3-2
Chemicals & Other Raw Materials	871,910	948,204	658,536	8.75	(30.55)	76,294	(289,668)
Medical Equipment & Laboratory Equipment	111,943	84,609	113,780	(24.42)	34.48	(27,334)	29,171
Packaging & Emballage & Work Equipment	148,903	134,793	104,788	(9.48)	(22.26)	(14,110)	(30,005)
Maintenance & Spare Parts	214,876	215,670	154,489	0.37	(28.37)	794	(61,181)
Consultant Services	54,282	89,787	77,083	65.41	(14.15)	35,505	(12,704)
Investments	921,574	288,041	522,475	(68.74)	81.39	(633,533)	234,434
Trials	8,443	931	12,605	(88.97)	1,253.92	(7,512)	11,674
General & Rental Goods	75,722	91,502	95,151	20.84	3.99	15,780	3,649
Animal Fees & Utilities	48,986	29,898	41,207	(38.97)	37.83	(19,088)	11,309
Merchandise Inventory	78,689	79,263	228,520	0.73	188.31	574	149,257
Total	2,535,328	1,962,698	2,008,634	(22.59)	2.34	(572,630)	45,936

The purchase budget for 2020 has increased by 2.34% from the 2019 Company's Workplan and Budget in line with the increase in sales.

HR IMPROVEMENT & DEVELOPMENT EXPENSES

The budget for Human Resources Improvement & Development Expenses in 2020 amounts to Rp29.11 billion which is allocated for the following activities:

(Rp Million)

Description	2019 Budget	2020 Budget	% +(-)	Increase (Decrease)
	1	2	2/1	2-1
Training, Seminar & Workshop Expenses	20,358	23,508	15.47	3,150
Formal Education Expenses	2,400	2,400	-	-
Other HR Improvement & Development Expenses	4,000	3,200	(20.00)	(800)
Total	26,758	29,108	8.78	2,350

The budget for Human Resources Improvement & Development Expenses in 2020 is projected to increase compared to the 2019 budget, this will be adjusted to the company's needs for HR development.

COMPANY EXPENSES

The Company's total projected expenses in 2020 amount to Rp2.69 trillion, and will be allocated to the costs of production, service costs, Trading Partnership expenses, selling expenses, general & administrative expenses, and research, development & surveillance expenses as shown in the following table:

2020 COMPANY EXPENSE BUDGET ALLOCATION

(Rp Million)

Type of Investments	Budget		% +(-)	Increase (Decrease)
	2019	2020		
	1	2	2/1	2-1
Company Product Production Expenses	1,164,857	1,329,135	14.10	164,278
Partnership Product Production Expenses	730,042	368,536	(49.52)	(361,506)
Trading Partnership Expenses	78,689	228,520	190.41	149,831
Service Expenses	11,274	15,708	39.33	4,434
Selling Expenses	161,663	156,280	(3.33)	(5,383)
General & Administrative Expenses	420,807	431,277	2.49	10,470
Research, Development & Surveillance Expenses	153,119	164,342	7.33	11,223
Total	2,720,452	2,693,799	(0.98)	(26,653)

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INVESTMENT AND SOURCES OF FINANCING

The investment plan for 2020 is Rp522.47 billion, with details per investment group as shown in the following table:

(Rp Million)

Type of Investments	Budget		% +(-)	Increase (Decrease)
	2019	2020		
	1	2	2/1	2-1
Building	396,227	181,384	(54.22)	(214,843)
Machinery & Plant Equipment	418,202	269,633	(35.53)	(148,569)
Office Equipment	19,854	25,536	28.62	5,682
Utility Equipment	26,311	41,072	56.10	14,761
Intangible Assets	980	4,062	314.49	3,082
Biological Assets	-	788	-	788
Investments in Joint Ventures (Vials)	60,000	-	-	(60,000)
Total	921,574	522,475	(43.31)	(399,099)

BUILDINGS

The building investment plan for 2020 is down by 54.22% when compared to the 2019 budget due to a shift from building investment in 2019, including the construction of the BCG Upstream PV Facility and the Pilot Scale Product Development Facility (Building 34).

MACHINERY & PLANT EQUIPMENT

The plan to procure factory equipment in 2020 decreased by 35.53% when compared to the 2019 budget due to a shift from investment in 2019, including equipment for Vaccine Production and Packaging Facilities, additional equipment for new production facilities and research and development facilities.

OFFICE EQUIPMENT

The office equipment procurement plan in 2020 increased by 28.62% when compared to the 2019 budget, mainly because of the need to replace damaged office equipment and add office equipment for new buildings.

UTILITY EQUIPMENT

The plan to procure utility equipment in 2020 increased by 56.10% when compared to the 2019 budget, including new utility facilities to support the needs of new production facilities.

INTANGIBLE ASSETS

The intangible asset procurement plan in 2020 increased by 314.49% when compared to the 2019 budget, due mainly to including the need for the E-Procurement Application and the ERM Application for the Price Calculation Application.

BIOLOGICAL ASSETS

The plan for the procurement of biological assets in 2020 was worth Rp788.00 million in the form of horses.

MATERIAL INFORMATION AND FACTS THAT OCCURRED AFTER THE ACCOUNTANT'S REPORT DATE

There was no significant incident after the date of the accountant's report for 2019 which ended on December 31, 2019, and there is no material information nor facts to report regarding the impact on performance and future business risks.

Therefore, Bio Farma provides no information here about important events after the date of the accountant's report, including their impact on performance and future business risks.



BUSINESS PROSPECTS

GLOBAL ECONOMIC STATE

Throughout 2019, global economic and geopolitical turmoil continued to overshadow the uncertainty of global economic growth. In 2019, the global economy grew at the lowest rate since the 2008 global financial crisis. In 2020, there is potential for global economic uncertainty to occur due to conflicts between major countries such as the United States - China, Israel - Palestine, Japan - Korea. Nevertheless, global economic growth in 2020 is predicted to improve to a growth rate of 3.4%, up from 3.0% in 2019. (2020 Economic Outlook of the Indonesian Ministry of Finance, 2019).

Economic growth in developed economies is expected to slow down to 1.4% from 1.6%, mainly due to lingering weakness in manufacturing. On the other hand, emerging markets will experience an increase to 4.1% from 3.5% last year.

The World Bank highlighted other trends that occurred amid the issue of the global economic downturn, namely: rising debt worldwide and a prolonged slowdown in productivity growth. One aspect of the outlook for global economic growth is the largest, fastest, and widest wave of debt accumulation among developing countries in the last 50 years. Total debt among these countries rose to around 170% of GDP in 2018, up from 115% of GDP in 2010. Debt also surged among low-income countries after a sharp decline during 2000-2010. Public borrowing can benefit and spur economic development, if it is used to finance growth-enhancing investments, such as infrastructure, health care and education. Loans can also be used to stabilize a country's economic condition. On the other hand, there was a slowdown in productivity growth that was the widest in the last ten years. Productivity growth per worker is essential for raising living standards and achieving development goals. Average output per worker in developing countries is less than one-fifth of workers in developed countries, and in low-income countries it falls to 2%.

The risk of a global economic slowdown can still occur in 2020 due to several reasons: (source IMF, 20 January 2020)

1. Rising geopolitical tensions, particularly between the United States and Iran, could

disrupt global oil supplies, disrupt business sentiment and undermine business investment.

2. The trade war between the United States and its trading partners, particularly China, has damaged business sentiment and exacerbated the structural and cyclical slowdown that has taken place in many countries over the past year. The strife has spilled over to technology, jeopardising global supply chains.
3. Weather-related disasters such as tropical storms, floods, heat waves, droughts and forest fires have incurred severe humanitarian costs and the loss of livelihoods in various regions in recent years.
4. This risk will affect tougher economic policies, such as setting low interest rates and will further limit investment purchases; thus, further slowing global economic growth.

INDONESIA'S ECONOMIC CONDITION

(source: Indonesia Economic Quarterly Report, World Bank, December 2019)

In the midst of global economic uncertainty, the Indonesian economy was still able to grow by 5.1% in 2019 with relatively good macroeconomic indicators. In 2020, it is predicted that Indonesia's economic growth will increase to 5.3%. Indonesia's GDP is projected to grow 5.0% in 2019 and then increase to 5.1% in 2020. This projection is based on easing international trade tensions and easing domestic political uncertainty. The risks to national growth projections are still significant. Prolonged trade tensions could pose risks to global commodity prices and business sentiment. The risk of a further economic slowdown in China also has the potential to affect Indonesia's economic growth projections.

Growth increased to 3.5% following the Government's recently announced policy of removing electricity tariff subsidies for 900VA customers from non-poor households, increasing BPJS health insurance premiums and increasing tobacco excise rates

By 2020, the revenue budget is projected to grow to 12.8% of GDP, with the percentage of tax revenue projected to increase as a result of ongoing tax reforms.

Investment growth has weakened further due to the significant drop in commodity prices and political uncertainty. Total consumption has also slowed down. Weakening domestic demand led to a large drop in imports, which supported Indonesia's economic growth last year.

The World Bank also predicts that as investment and wage levels recover, private consumption growth is projected to be generally stable, albeit slightly lower in 2020 due to higher inflation with the elimination of electricity tariff subsidies for a large number of households next year, and less impact of mid-term elections. Government consumption growth is also expected to be relatively conservative given that revenue realization is not too high given weak commodity prices and poor imports, despite the ongoing tax reform. Amid global policy uncertainty, global economic growth and weak international trade, Indonesia's export growth is expected to be restrained, although there are several new routes for higher exports. Imports are also projected to weaken, with the current contraction gradually easing as investment growth recovers.

Indonesia's current account deficit is expected to narrow to 2.7% and 2.6% of GDP in 2019 and 2020, respectively, due in part to a smaller trade deficit.

Although it is predicted that economic growth will increase, there are a number of risks that need to be anticipated in 2020. These risks, among others, are external risks due to prolonged trade tensions. In this regard, the increase in trade tensions, along with disruption of supply chains, also has an impact on global business confidence and hence on investment. If these constraints on investment growth are prolonged into the medium term, the country's economic growth potential could decline, further jeopardizing the weak prospects for world growth, and for Indonesia. Unfavourable external conditions could trigger a sell-off of financial assets in developing countries.

A faster-than-expected resolution of the US-China trade dispute can carry upward risks to the prospects for Indonesia's economic growth. With the "First Stage" trade agreement between the United States and China seemingly

nearing completion, the faster-than-expected normalization of international trade relations, together with the rapid return of trade tariffs to pre-dispute tariffs, could spur a recovery in global trade and boost global economic activity which can support stronger global commodity prices and flows of world trade and investment. This can then improve Indonesia's revenues, the external sector and domestic investment, as well as increase economic growth.

In the face of increasing global economic risks, Indonesia must increase its global competitiveness to reap opportunities and increase assistance and social security to help build and maintain human resources.

PHARMACEUTICAL INDUSTRY

(source: Joint Study Holding)

The pharmaceutical market in Indonesia is experiencing high growth due to the implementation of the National Health Insurance (JKN) scheme and various expansions and investments in health infrastructure. Supporting the agenda of improving the quality of life of Indonesian people from the RPJMN, has become the main area of Health Development.

This program aims to provide health services and facilities for all Indonesians to ensure availability, affordability, fairness, and quality of pharmaceutical products and medical devices through the Healthy Indonesia Card.

The growth rate of the Pharmaceutical Industry's income is predicted to soon reach almost 11% (CAGR 2013-2023), and it is predicted that the Pharmaceutical Industry in Indonesia will enjoy an income of IDR188 trillion in 2023. This rate is much higher than population growth in Indonesia which is around 1%. This shows that there will be an increase in demand and consumption of pharmaceutical products in Indonesia.

The Indonesian government, through the national priority agenda in the National Medium-Term Development Plan, has formulated a program to improve the quality of life of the Indonesian people. The health sector is one sector that can support this program. In line with this program, the Ministry of State-Owned Enterprises has established a

strategic program for the Health Sector in the Pharmaceutical Industry roadmap, in order to reduce dependence on imports, increase native Indonesian medicinal products, develop biotech research centres, self-reliance vaccines, and life science products.

GLOBAL VACCINE INDUSTRY

(source: WHO, October 2018)

WHO classifies the vaccine market into 3 categories: (1) traditional, (2) innovator (new vaccines), and (3) targeted, epidemic and regional. The WHO has stated that the traditional vaccine market drives the volume of vaccine sales in the global market while the innovator vaccine market drives the value of vaccine sales in the global market. Globally, the highest vaccine market is Pneumococcus (PCV) vaccine products, and vaccines containing D (Diphtheria) and T (Tetanus) occupy the second position with the highest market value and proportion of market volume. Vaccines containing M (Measles) rank second in sales volume in the global market due to the need for campaigns.

Global Market Volume and Value by Vaccine Group (2017)



3-6 dose routine schedules globally drive high volumes for D&T-containing vaccines.

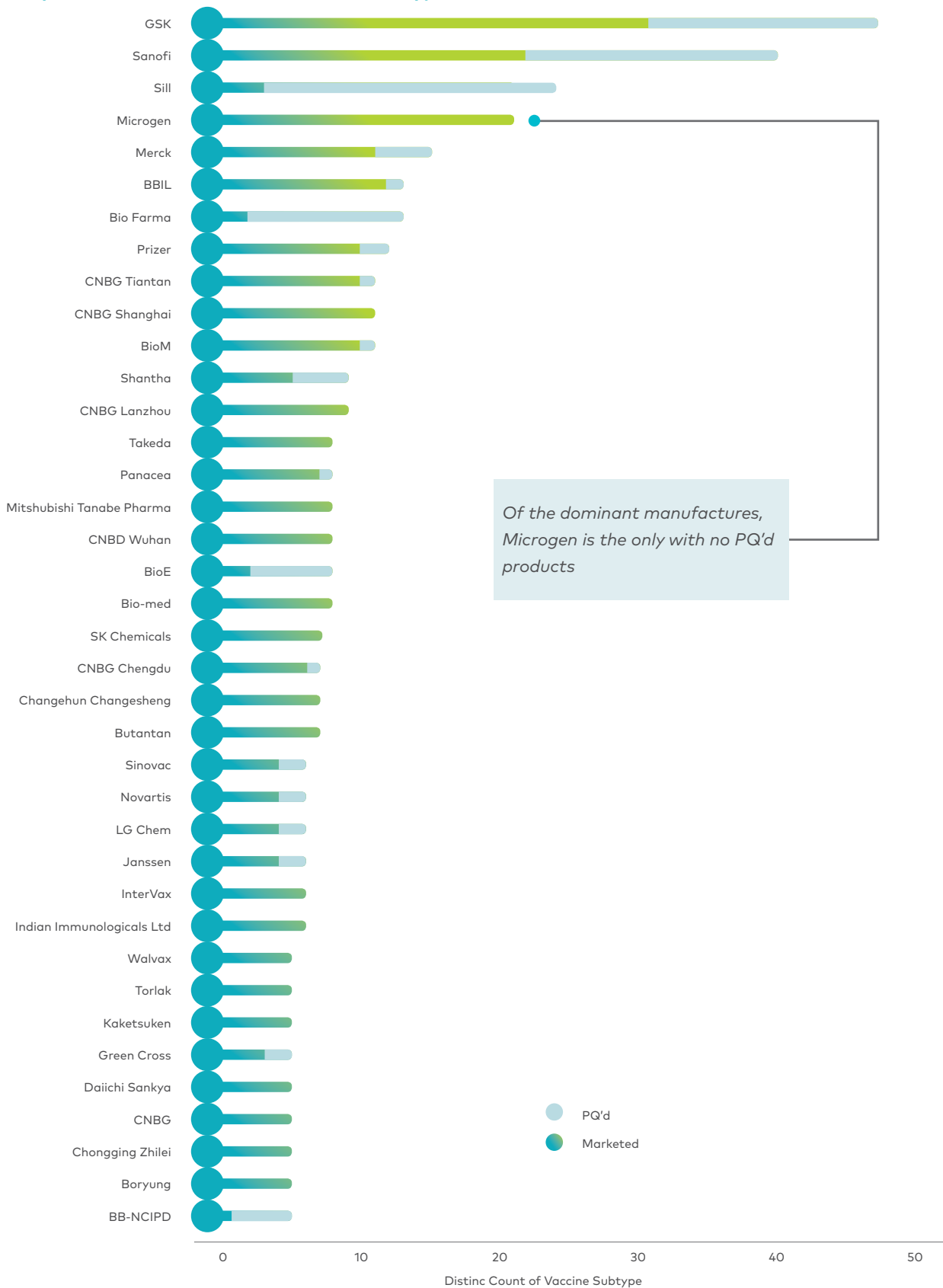
Widespread introduction, 3 dose schedule and high vaccine cost drive top global market value for PCV

HICs procure aP+IPV-containing vaccines, driving up the value of this vaccine group.

Vaccine high-level groups

- Innovator
- Traditional
- Targeted, Regional, Outbreak

Key Manufactures and Number of Vaccine Subtypes Produced



Although there are many manufacturers engaged in the global market for vaccines, a small group of producers dominates the market with many products: GSK, Sanofi, Serum Institute of India (SII), Microgen and Merck. Almost all of these dominant producers serve the UNICEF market with pre-qualified product capacities. Bio Farma ranks 7th in the world, and is mostly a WHO prequalified products serving the UNICEF market.

Market growth is linked to a high prevalence of infectious diseases, increased support for vaccine research and development, investment in vaccine development, and an increased focus on immunization. Increased awareness of the benefits of immunization and vaccination in emerging markets has consistently driven the growth of the global vaccine market. The World Health Organization (WHO) took the initiative to raise awareness about immunization through the Global Vaccine Action Plan (GVAP) and the Global Immunization Vision and Strategy (GIVS). These two organisations aim to promote routine immunization, control morbidity and mortality from vaccine-preventable diseases, and help countries immunise more people with a range of other vaccines.

PROSPECTS FOR BIO FARMA

The Indonesian government is implementing the "Program Indonesia Sehat" which is a program for the provision of health services and facilities for all Indonesians to ensure the availability, affordability, equity and quality of medicines and medical devices through the Kartu Indonesia Sehat (KIS). Bio Farma as a state-owned enterprise plays a strategic role in increasing the competitiveness of the pharmaceutical industry and the affordability of health services for the Indonesian people. To realize this role, Bio Farma has launched a strategic program to support the independence of vaccines and life sciences products. Currently, the vaccine for basic immunization can be fulfilled by Bio Farma, however, new vaccines and biotechnology products cannot be fulfilled, so imports are still needed. This pillar aims to meet the gap from these needs. Bio Farma can contribute to fulfilling this pillar through research synergy and infrastructure investment for research and development.

At present, the level of affordability of pharmaceutical products is still relatively low for the people of Indonesia when compared to other ASEAN countries. This is because there are gaps in the distribution channels between islands in Indonesia due to the very wide coverage of Indonesia's territory and in the form of islands. However, Bio Farma has the opportunity to support the needs of the Indonesian Government's national immunization program for basic vaccines. Bio Farma is the only national vaccine company that is trusted to meet the vaccine needs for this program.

Apart from geographical factors, the price factor is also important in overcoming the issue of affordability of pharmaceutical products in Indonesia. On the other hand, value chain costs in Indonesia are still high. The main factors causing these high costs are Indonesia's high logistics costs and dependence on imported raw materials. This is a challenge for Bio Farma to continue to be efficient on production costs, without affecting product quality, in order to still be able to present the best standard products at prices that are still affordable for the general public.

Bio Farma is also playing a role in the development of a biotechnology research centre with the aim that Indonesia will be able to carry out health biotechnology research activities (with the establishment of a biotechnology research centre and animals laboratory) to produce products needed by the community by studying disease patterns. This is motivated by the existence of various patterns of developing global diseases that must be anticipated quickly in order to safeguard public health, thereby reducing dependency on vaccines and foreign biotechnology products. The State-Owned Enterprises can contribute by synergising for the research aspects and for building research centres.

Bio Farma, as the only state-owned vaccine manufacturer in Indonesia, and the largest in Southeast Asia, has a very big opportunity to thrive and continue to increase its sales growth. Furthermore, Bio Farma's vaccines are used in more than 140 countries.

The factors driving the increased use of vaccines include:

1. Outbreak, Kejadian Luar Biasa (KLB)
 - a. Some outbreaks, either national or partial, encourage people to carry out vaccinations as a form of prevention.
 - b. The National KLB has encouraged the government to give a mandate primarily to supply the national vaccine needs.
2. Changes in the Age of Digitalization
 - a. Increased use of digital platforms (Twitter, Instagram, Youtube) with users of all ages, and especially teenagers and under.
 - b. The influence of various human/influencer digital platforms, can be used as a means of education and provision of services related to vaccination.
3. Lifestyle, Start Up and Individual Awareness
 - a. The number of start-up companies that have emerged with an open mind and insight related to health can be a new target market.
 - b. An unhealthy lifestyle that is difficult to avoid today makes preventive measures necessary.

Bio Farma's position is also getting stronger with the formation of the State-Owned Enterprises Pharmaceutical holding in 2019 which began after President Joko Widodo signed PP No.76/2019 on October 15, 2019. Meanwhile, Bio Farma is leading as the holding, with Kimia Farma and Indofarma as subsidiaries.

Seeing the strengths and opportunities that exist in the pharmaceutical industry, Bio Farma is optimistic that the prospects for Bio Farma's business in the future will be very good. The Bio Farma view is that the prospects for the pharmaceutical business will continue to grow. Bio Farma continues to work together to improve the quality and quantity of business it produces, and it is expected that it will be able to support the Company's plan to grow further in 2020.

FUTURE BIOFARMA STRATEGY

Bio Farma's Corporate Strategy in the Company's Long-Term Plan 2020-2024 is to maintain sustainable income growth through accelerating time to market and diversification of life science products. Bio Farma will consistently carry out a strategy to become a world-class life science company with global competitiveness, in accordance with the Company's vision. The strategies that will be carried out are:

1. Increasing the product portfolio through strategic partnerships in research, production and marketing
2. Accelerating development of production/manufacturing capacity by increasing capacity and improving product quality as well as streamlining asset utilisation
3. Implementing compliance with international and domestic regulations and quality systems according to international standards
4. Maintaining the market by meeting Government demand, increasing private and export markets, and developing domestic and international distribution networks
5. Developing infrastructure and employee development support tools through product-based organizational structuring
6. Maintaining revenue growth
7. Investment growth and operational cost control

To achieve the Company's vision, Bio Farma has also consistently diversified other life science products such as blood products, biosimilar products, stem cells, and diagnostic kits while maintaining and developing the Company's core business in the vaccine and antisera fields. The implementation plan that has been prepared focuses on product and marketing aspects as well as regulation and support functions.

MARKETING ASPECTS

"Maximum operational performance is achieved through integrated marketing. An effective and innovative marketing strategy has established Bio Farma's good position in the face of intense competition and uncertain economic conditions".

BIO FARMA'S MARKETING STRATEGY

To support the achievement of our sales targets, the strategies implemented by Bio Farma are as follows:

1. **Market Penetration** for adult vaccine products such as Influenza vaccines, Hepatitis B and others. In the domestic private sector market, the Marketing Directorate penetrates the market through Geographical Marketing activities, and offers vaccination programs in various domestic government/private agencies.
2. **Market Development** in the international market with market development to OIC (Organisation of Islamic Cooperation) member countries and Latin America through the Pan American Health Organization (PAHO).
3. **Product Development** by developing branded products such as BIO Td, BIOSAT, BIOADS, BIOSAVE to enter the domestic private sector market.
4. **An integrated media strategy** to increase customer awareness of the Company and the products it offers through various media above the line, below the line, and through the line.

MARKET SHARE

BIO FARMA SERVES THE NEEDS OF THE DOMESTIC AND GLOBAL MARKET

Domestic Market

1. **Government Sector**, serving the Government's needs for the basic/regular immunization program in Indonesia, namely the BCG, DT, TT, Polio, Measles, Hepatitis B, Td and DTP-HB-Hib (PentaBio) vaccines.
2. **National Private Market**, distributing Bio Farma's Products to End Users, both to Government and Private such as Hospitals, Doctors, Puskesmas, Clinics, Private Companies, Government, and others. Through Official Distributors (PT Indofarma Global Medika, PT Rajawali Nusindo Indonesia, PT Merapi Utama

Pharma, PT. Kimia Farma Trading & Distribution, PT Sagi Capri) such as Vaccine products: BCG, Bio Td, TT, DT, DTP, Td, bOPV, Measles, MR, HBV 1 ml, HBV 0.5 ml, Flu bio, Pentabio, Varicella, Japanese Encephalitis, HPV. Serum, Diagnostics & Life Science/Biosimilar Products: ADS 10,000 UI, Biosat 1.5 (ATS), Biosave (ABU), ABU II, PPD, Urokinase.

Overseas/International Market

The international market, especially to serve the needs of the UN Agency/International Agencies and other countries through bilateral cooperation. The vaccines used are vaccines that have met the WHO prequalification, both in the form of finished products and bulk.

The International Market Consists of 2 Sectors:

1. **Institutional Export Sector:** Vaccine supply through institutions such as the United Nations Children's Fund (UNICEF), and the Pan American Health Organization (PAHO) to meet vaccine needs for developing countries for immunization programs.
2. **Corporate Export Sector:** Bilateral supply of vaccines to export destination countries on a business-to-business, or business-to-government basis, or in collaboration with designated international or local partners. The vaccines used are vaccines that have met the WHO prequalification, both in the form of finished products and bulk.

SALES REALISATION OF BIO FARMA BY GROUP

The realisation of net sales in 2019 compared to the Company's 2019 Work Plan and Budget reached 69.05% or Rp2.54 trillion when viewed based on product groups as follows:

1. Sales of the company's products reached 83.02% or Rp2.06 trillion.
2. Sales of Partnership Products reached 41.66% or

Rp456.54 billion.

3. Sales of Trading Partnership Products reached 16.01% or Rp14.59 billion.
4. Sales of services reached 81.76% or Rp11.62 billion.

The realisation of net sales decreased by 21.41% or Rp692.63 billion when compared to the realisation in 2018 with the composition per product group as follows:

1. Sales of the company's products increased by 1.07% or Rp21.81 billion.
2. Sales of Partnership Products decreased by 59.74% or Rp677.44 billion.
3. Sales of Trading Partnership Products decreased by 72.52% or Rp38.52 billion.
4. Sales of services increased by 14.98% or Rp1.51 billion.

SALES REALISATION BY SECTOR

The realisation of Sales in 2019 compared to the Company's 2019 Work Plan and Budget when viewed by sector was as follows:

1. Government Sector Sales reached 44.41% or Rp831.94 billion.
2. Private Sector Sales reached 61.26% or Rp234.86 billion.
3. Export Sector Sales reached 103.51% or worth Rp1.48 trillion.

The realisation of net sales decreased by 21.41% or Rp692.63 billion when compared to the realisation in 2018 with the composition per product group as follows:

1. Government Sector Sales decreased by 55.25% or Rp1.03 trillion.
2. Private Sector Sales decreased by 21.19% or Rp63.15 billion.
3. Export Sector Sales increased by 36.89% or Rp397.74 billion.

THE REALISATION OF MARKETING WORK PROGRAMS IN 2019

Domestic Marketing and Sales

The realisation of the Domestic Marketing and Sales Work Program in 2019 was as follows:

1. Participating in the procurement of vaccines and serums via LKPP-LPSE 2019 to meet the demand for the provision of 2019 Hajj vaccine

services by the Indonesian Ministry of Health and an e-purchasing e-catalogue in 2019.

2. Negotiating with LKPP for the procurement of an electronic drug catalogue.
3. The realisation of 2018 Distributorship Contracts for PT Sagi Capri, PT Merapi Utama Pharma, PT Rajawali Nusindo, PT Indofarma Global Medika, PT Perusahaan Perdagangan Indonesia, PT Kimia Farma Trading & Distribution, Indonesian Ministry of Health, and the Jakarta Vascular Centre.
4. Issuing product selling prices (HJP) for Distributors in 2018, the Net Pharmacy Price (HNA) and the Highest Retail Price (HET).
5. Face-to-face meetings with customers, in order to maintain good relations with customers and obtain the latest information regarding vaccine needs and update policy information.
6. Special pricing policies based on market needs and goods approaching short ED.
7. Establishing a consignment policy for Flubio, Menivax, BCG, and Shan IPV vaccines.
8. Increasing customer satisfaction through continuity of product availability and timely delivery according to the schedule for fulfilling vaccine needs issued by the Directorate General of P2P.
9. Selling products other than company products such as ADS 10,000 IU, Urokinase, MR 1 ds and ABU II.
10. Approaching clinics and health facilities that have implemented vaccinology training and have received verification from the local KKP.
11. Holding distributor meetings.
12. Recruitment for vacant areas and potential areas.
13. Conduct regular visits to users at both the government and private levels as well as increased penetration in the corporate and school sectors as well as the ER.
14. Conducting outreach through event marketing to be able to collaborate with potential hospitals or companies, market products other than vaccines and sera, and offering Immunicare proposals to potential partners.
15. Submission of discounts for Menivax, Biosat, BCG, Pentabio and Varicella and Flubio products to the Private Division of the Marketer as a pricing strategy to compete with competitors, carry out RTD, SGP, Clinical Meetings and Regional Meetings efficiently and in accordance with a predetermined ratio.

16. Consignment of certain products such as meningitis and BCG to ensure product continuity in the hands of consumers.
17. Evaluating Cervarix and Dengeu products for market in the private sector.
18. Conducting escort to related agencies in order to accelerate product release so that the needs of the Regional Health Office are always met on time.

INTERNATIONAL MARKETING AND SALES

The realisation of the International Marketing and Sales Work Program in 2019 as follows:

1. Appointment of a local company to register or participate in tender for Bio Farma's products in export destination countries:
 - a. Nepal via Hospitec: Td 10 ds.
 - b. Brazil via Bionet Asia: Td 10 ds.
 - c. Additional Exports to Kuwait, Oman, Bahrain, USA and Russia.
 - d. Tanzania via Bahari Pharma limited.
 - e. Nigeria via Biovaccines: Td 10 ds.
 - f. Pakistan via Unichem Pharmaceuticals Pakistan Private Ltd.
 - g. Ethiopia via Ethiopian Public Health Institute.
 - h. India via Nirlac, Bio Vaccinne: Bulk Tetanus.
 - i. Dubai and the United Arab Emirates: Director of the International Trade Promotion Center of Dubai, Ministry of Trade of the Republic of Indonesia.
 - j. UAE via Arabio: TT vaccine 10 ds and bOPV 20 ds.
 - k. South Africa through BioNet-Asia Co., Ltd: TT Vaccine 10 ds.
 2. Adding new export countries, namely: Dominica and DR Congo.
 3. Supplying/selling vaccines and bulk to customers according to customer requirements and meeting quality requirements.
 4. Awards letters mOPV2 (20 ds) and mOPV1 (20 ds) for supply in 2019.
 5. Increasing the synergy of Marketing Diplomacy between the Ministry of Health, Ministry of Foreign Affairs, Indonesian Embassy, Consulate General of the Republic of Indonesia, Ministry of Trade, BPOM, KADIN and other institutions as well as with international organizations in order to seek new market opportunities.
 6. Providing price quotes for vaccines, including:
 - a. DTP 10 ds, Td 10 ds, TT 10 ds, Bio TT 1 ds, and DT 10 ds via Arabio with destinations to GCC countries (Arabian Gulf countries), MedSupply Singapore, Biotech Limited and Xianmen Runcheng China.
 - b. Hep B Paediatric 0.5 ml and Hep B adult 1 ml via Medilatina destined for Senegal.
 - c. Td 10 ds and bOPV 10 ds via Hospitec to Nepal.
 - d. Diphtheria and Tetanus Bulk via Universal Exim to India and Bangladesh.
 - e. Diphtheria Bulk for new buyers namely iSERA through Universal Exim to India as destination country.
 - f. mOPV2 Bulk Stockpile via UNICEF.
 - g. Bio SAT 1500 IU, Hepatitis B Paediatric 0.5 ml and Hepatitis B Adult 1.0 ml vaccines to Medilatina.
 - h. Tetanus High Purity Bulk to Inventprise USA.
 - i. Measles Bulk to Lahore Pakistan International Trust.
 - j. Td 1 ds and Td 10 to Hospitec for tenders in Nepal.
 - k. Measles 10 ds, TT 10 ds and Pentabio 5 ds to Bionet for tender in Pakistan.
 - l. Hepatitis B 0.5 ml to the MRC Unit for Gambia.
 - m. Hib Bulk to the University of Kansas.
7. Submitting a price quote for vaccines, including:
 - a. DT 10 ds for supply in 2020-2022 through PAHO tender.
 - b. Pentabio 5 ds for supply in 2020-2022 through PAHO tender.
 - c. Td 10 ds and DTP 10 ds for the tender in Iraq through Arabio.
 - d. Bio TT 1 ds, for Chad and England through Medsupply.
 8. Conducting intensive communication with UNICEF (via email, teleconference and face-to-face meetings) to fulfil requests from the GPEI (The Global Polio Eradication Initiative) WHO for mOPV 20 ds stockpile, supply of viral and bacterial vaccines.
 9. Conducting a visit to India (Haffkine and Bibcol) to discuss services with the replacement of the UE Agent.
 10. Signing a Contract/Agreement with UNICEF for mOPV2 (finished product).
 11. Exploring local partners, namely:
 - a. Arikeh Tijarat Vista for non-cooperation products in Iran and the CIS region (Eastern Europe).
 - b. GC Chemi Pharmie Ltd. (GCCPL) from India for a proposal to initiate a collaboration in registration of Bio Farma's Rotavirus vaccine.

- c. Uganda for Td-10 ds Vaccine registration.
- 12. Exploring to find a local partner to support export activities including Iran: Darou Arang Darman Pharmaceutical Co., Biosun Pharmed Co., Persis Gen Par Co. & Nano Darou Pajuhan Pardis Co., Arikeh Tejarat Vista Co.
- 13. Conducting discussions/face-to-face meeting with UNICEF (while attending Vaccine Industry Consultation, at the UNICEF Supply Division Office, Copenhagen) for a bulk stockpile price agreement for polio type 2 Bulk (mOPV2 bulk), according to the UNICEF tender for the 2020-2023 period.
- 14. Obtaining an extension of LTA from UNICEF to supply DT 10 ds Vaccine in 2020.
- 15. Conducting intensive communication with PAHO for the smooth supply of viral and bacterial vaccines, including Bio Farma's participation in the DT 10 ds vaccine tender for the 2020-2022 supply period and the Pentabio vaccine tender through PAHO for the 2020-2022 supply period.
- 16. Conducting intensive communication with the agent (via email, teleconference and face-to -face meetings).

MARKETING COMMUNICATION AND DISTRIBUTION

The realisation of the Marketing Communication and Distribution Work Program in 2019 was as follows:

- 1. Implementing 4,706 shipments of vaccines, sera and bulk for domestic and overseas consumers.
- 2. Finalising the installation and implementation of track and trace system facilities to support the distribution process.
- 3. Delivering DT, Td and Pentabio vaccines to the Provincial Health Office in Indonesia.
- 4. Implementing the procedure for packing the mOPV 2 vaccine in accordance with the regulations and provisions for bio safety and bio security set by the company.
- 5. Carrying out 42 activities related to Immunicare & Corporate.
- 6. Installing the Bio Farma logo (brand) at 71 events/events.
- 7. Distributing promotional materials in 892 events/events.
- 8. Participating in various exhibitions/open tables 41 times.
- 9. Cara Distribusi Obat yang Baik (CDOB) Training from BPOM.
- 10. Carrying out a temperature study of vaccine

delivery to P2M using Styrofoam boxes as an effort to distribute efficiency.

- 11. Revising the Official Note regarding the policy for determining the Product Selling Price (HJP).
- 12. Carrying out export registrations consisting of 80 (eighty) new registrations and 76 (seventy-six) variations of registration.
- 13. Registering with BPOM for imported products 120 (one hundred and twenty) times and for local products 28 (twenty-eight) times.

CLINIC AND IMMUNIZATION

The realisation of Clinical and Immunization Programs in 2019 was as follows:

- 1. Optimising services for clinical laboratories, general check-ups, radiology, pharmacies, clinics and administrative services.
- 2. Implementing ISO 17025 and have received accreditation from KAN.
- 3. Developing standard procedures and have carried out ISO 15189 self-assessment regarding Medical Laboratories.
- 4. Optimising vaccination/Immunicare service partnerships at several points, including Bali, Medan, Al Masoem and Jaya Abadi Clinic, Depok.
- 5. Collaborating with external expert marketing teams to market clinical laboratories and microbiology laboratories.
- 6. Developing sales activities using internal portals, online/websites, email marketing/marketing blasts.
- 7. Implementing the Laboratory Information System (LIS) program, and the Code of Conduct.
- 8. Optimising partnerships with State-Owned Enterprises and private partners.
- 9. Branding immunisation services and registration of the "immunicare" brand to the Ministry of Law and Human Rights.

MARKETING WORK PROGRAM IN 2020

DOMESTIC SALES

- 1. Submitting product items in the 2020-2021 e-Catalog listing.
- 2. Conducting procurement escort to fulfil the national immunization program and pilot project.
- 3. Optimising distributor performance, monitoring and evaluating the achievement of distributor targets.

4. Looking for opportunities to participate in tenders outside the needs of the national immunization program.
5. Coordinating with other related units in providing product stock.
6. Optimising marketing strategies, increasing the number of marketers for vacant areas, potential, and dedicated products.
7. Implementing a consignment mechanism and applying special discounts.
8. Increasing standardisation/formulary cooperation with Potential Hospitals.
9. Setting a special pricing strategy for certain product promos.
10. Looking for opportunities for market needs for new products.
11. Coordinating with other related units to explore partnerships with new product provider partners, sub-distributor cooperation, co-marketing.
12. Coordinating with other related units for the product entry permit application process.
13. Coordinating with other related units for new product partnerships: Enoxapharin, EPO, Yellow Fever, Cervics rapid test.
14. Coordinating with other related units to escort the registration process.
15. Optimising network, event marketing, and optimizing the effectiveness of marketing team visits.
16. Conducting competitive pricing.
17. Evaluating COGS and selling price increases for several products.
18. Controlling marketing costs such as event marketing, product monitoring, and monitoring of other products.
19. Optimising the number of deliveries and Optimising CRM and ERP applications.
20. Coordinating with other related units in the supply and distribution of products according to customer needs.

INTERNATIONAL SALES

1. Additional sales of Bulk Polio Type 2
2. Increasing the sales volume of Measles Bulk.
3. Vaccine sales for the bilateral market and the UN Agencies according to the contract.
4. Direct meetings (face-to-face meetings) with bilateral customers and the UN Agencies.
5. Intensive communication with customers via email and teleconference.
6. Customer Satisfaction Survey once a year.
7. Increasing more intensive and focused relations/communication with several government agencies such as the Ministry of Foreign Affairs, the Bureau of Foreign Cooperation and other Bureaus at the Ministry of Trade, Ministry of Health, BPOM, KADIN, to support the increase of export and seek other marketing cooperation opportunities.
8. Increasing more intensive and focused relations/communication with international organizations, potential partners, and foreign embassies in Indonesia, to support the increase of export and seek other marketing cooperation opportunities.
9. Opening up potential or new export market opportunities related to Self-Reliance on Vaccine Production, including: finding potential partners, offering cooperation in the field of registration, the supply and marketing of Bio Farma Products, and technology transfer.

BIO FARMA PRIMARY EXPORT OF NEW PRODUCT MONOVALENT ORAL POLIO VACCINE TYPE 2 (mOPV2) TO ANGOLA

On July 16, 2019, at the Bio Farma Office Jln Pasteur No. 28 Bandung, Bio Farma exported its newest product, Monovalent Oral Polio Vaccine type 2 (mOPV2) to Angola amounting to 3.4 million doses, used to prevent the spread of wild polio virus type 2. The mOPV2 is Bio Farma's newest product which received WHO Prequalification (PQ) in June 2019 and its production process requires special handling, related to containment, biosafety and biosecurity requirements for polio virus type 2.

The provision of the mOPV2 vaccine has been entrusted to Bio Farma by the United Nations

Children's Fund (UNICEF). This is a continuation of requests from The Global Polio Eradication Initiative (GPEI) and WHO in August 2018, to stockpile mOPV2 in anticipation of the Global Outbreak of Type 2 Wild Polio Virus.

The total contract for the supply of the mOPV2 vaccine with UNICEF is 60 million doses. The technical delivery to the destination country will be arranged by UNICEF. Of these 60 million doses, the first 3.4 million doses were sent to Angola in the form of finished products.

Apart from Angola, the next shipment plan is for Somalia with a total of 633 thousand doses and Ethiopia with 1.14 million doses. Bio Farma is currently communicating intensively with UNICEF regarding the delivery schedule.

In addition to 60 million doses of finished products, Bio Farma has also been asked to provide 350 million doses of mOPV2 in the form of bulk (mOPV2 vaccine concentrate). This is also part of the Global Bulk Stockpile as requested by the GPEI-WHO through UNICEF as the WHO procurement agency.

Choosing Bio Farma as the sole provider of bulk mOPV2 reflects the world's trust in Bio Farma, as the company can always maintain the quality of its products, which are in accordance with the standards of the World Health Organization (WHO) and BPOM, especially the safety, quality, and efficacy aspects of each product produced by Bio Farma.

This is a continuation of the world's trust in Bio Farma to support the WHO program, namely the global polio eradication program, and this trust from UNICEF is in line with the WHO program "Polio Eradication and Endgame Strategic Plan 2019-2023". The success of Bio Farma's mOPV2 products in obtaining PQ-WHO is inseparable from BPOM's support to Bio Farma, as a Government institution that carries out supervisory functions and also guidance to business actors, in this case drug manufacturers, BPOM always provides concrete support for the development of the pharmaceutical industry.

An equally important role related to Bio Farma's achievements in producing mOPV2 with international standards is that of the Indonesian National Authority for Containment (I-NAC) which has given a positive response to the results of the

assessment carried out in early 2019, and gave its approval to produce this mOPV2 in a letter dated February 28, 2019.

BIO FARMA STRENGTHENS COOPERATION TO EXPAND MARKET SHARE IN AFRICA

Bio Farma signed a Memorandum of Understanding (MoU) with two pharmaceutical companies from the African continent, namely Bahari Pharma Ltd from Tanzania and Bio vaccines from Nigeria. This cooperation includes product registration, distribution of vaccines in the form of finished products and pre-formulated bulk (intermediate products) and technology transfer for self-reliance on vaccine production in African countries. The signing of this MoU was carried out by Acting President Director of Bio Farma, Juliman, CEO of Bahari Pharma Ltd, Tanzania, Churchill Katzawa, and CEO of Bio vaccines Nigeria Ltd, Nigeria, Oyewali Tomori, and witnessed by the President of the Republic of Indonesia Joko Widodo and high officials from each country, and took place during the Indonesia Africa Infrastructure Dialogue event held in Nusa Dua Bali from 21-22 August 2019.

Bio Farma's market share is expanding in the African continent as the result of collaboration with the Indonesian Ministry of Foreign Affairs and vaccine producers from Tanzania and Nigeria through B2B cooperation with a total value of 7.5 million USD. The background of Bio Farma's collaboration with vaccine producers from Africa was motivated by a direction from President Joko Widodo in a state speech at the House of Representatives/ People's Consultative Assembly Building on August 16, 2019, which stated that State-Owned Enterprises and local entrepreneurs must be able to expand into the global arena to fly the red and white flag in Africa. In addition to this, several countries in Africa are still trying to improve the standard of living of their people and/or still have health problems, especially for the prevention of infectious diseases, whereas Indonesia has a vaccine manufacturer, Bio Farma, which is already qualified by WHO. The African continent has indeed become one of Bio Farma's largest consumer bases, as there are around 54 countries in the African continent which have used Bio Farma products, through purchases from UNICEF, with products that are widely absorbed, including polio, measles, and diphtheria, tetanus and pertussis vaccines

(DTP). Through the MoU with pharmaceutical companies from Tanzania and Nigeria, it is hoped that Bio Farma's market share can increase further, because the collaboration will lead to market expansion, starting from bilateral cooperation for the distribution of finished products, up until the initiation of cooperation towards self-reliance on vaccine production, as a step towards increasing export value and sustainable turnover.

EXPANDING MARKET SHARE, AS BIO FARMA PLAYS INTO THE RETAIL MARKET

Starting in early 2019, Bio Farma introduced the newest immunization service, Immunicare, to the people of Bandung, starting with "Petualangan Imunisasi dengan Immunicare".

Immunicare is an effort from Bio Farma to participate in assisting the Indonesian people through immunization. Immunicare is a service from the Bio Farma immunization clinic which aims to bring services closer to the community, so that people get access and solutions to increase immunity at affordable prices, and with the availability of complete types of vaccines, and with guaranteed quality and authenticity of the products.

Through Immunicare's integrated vaccination service, Bio Farma is ready to enter the retail market in Indonesia. This service is designed to expand Bio Farma's market share, which has been divided into domestic sector sales, private sector sales, and export sector sales. The Immunicare service from Bio Farma immunization clinic aims to bring people closer to access to vaccines. Bio Farma's foray into the retail market is in line with the expansion of the pharmaceutical business trend towards the pharmaceutical industry in 2030.

In the future, the Indonesian pharmaceutical industry will not only be engaged in research and development, production and distribution, but will begin to enter into other functions such as prevention through vaccination, diagnosis, treatment, treatment and services. In terms of research and development, Bio Farma already has a link to collaborate on research, and from the production and distribution side, Bio Farma is in accordance with the standards of the World Health Organization (WHO). For services, Bio Farma will strengthen this through vaccination services. This integration means that the Indonesian pharmaceutical industry will enter an end-to-end phase, starting from the independence of raw materials, and with greater strength in research, production, distribution and services.

DIVIDEND POLICIES, NUMBER OF CASH DIVIDENDS PER SHARE, AND NUMBER OF DIVIDENDS PER YEAR TO BE ANNOUNCED OR PAID FOR THE LAST 5 FINANCIAL YEARS

A dividend is a distribution of profit to shareholders based on the number of shares owned. This division will reduce retained earnings and cash available to the company, yet the distribution of profits to the owners is the main objective of a business. Dividends are generally distributed at a specified time, although under certain conditions dividends can be distributed at any time. Dividends can be given to shareholders if the company earns a profit that is to be distributed as dividends. The number of dividends to distribute is determined by the Board of Directors and approved by the GMS (General Meeting of Shareholders). Although dividends are the right of shareholders, the determination of dividend distribution is based on many considerations, as well as whether the profit is worth dividing into dividends or if it is more appropriate to return the company's operating costs.

FACTORS THAT AFFECT DIVIDEND POLICY

1. Dividend Payout Ratio: it is important to observe the standard practices of the industry in which the company operates, that is, the company must not ignore the dividend policies of other companies.
2. Investment opportunities: the company's dividend policy should not sacrifice projects that can increase shareholder value in the future.
3. Profitability and Liquidity: the company's dividend policy must take the company's profitability and liquidity into account.
4. Access to financial markets: if the company has access to good financial markets, the company can pay higher dividends. Good access can help companies meet their liquidity needs.
5. Growth in company revenue: if the company's revenue is growing, the amount of dividend payments can be increased.
6. Income stability: if the company's earnings are relatively stable, future cash flows can be estimated more accurately.
7. Shareholder preferences, and discretion to deviate from the maximization of prosperity.
8. Availability and cost of alternative sources of funds, if the cost of capital is high, the use of retained earnings will be more attractive.
9. Restrictions imposed by creditors.
10. Expectations regarding business conditions in general: at times of inflation, earnings tend to rise, so that management can increase dividend payments.

DIVIDEND DISTRIBUTION POLICY

Bio Farma has a policy to pay dividends in cash to shareholders at least once a year. Payment of dividends is made no later than 1 (one) month after dividends are determined by Shareholders while still paying attention to the financial position or soundness of the Company and without prejudice to the rights of the Company's General Meeting of Shareholders. Dividend policy is a minimum of 30% of net profit after tax unless determined otherwise by the GMS.

TOTAL DIVIDENDS DISTRIBUTED AND ANNOUNCEMENT DATE AND PAYMENT OF CASH DIVIDENDS FOR EACH YEAR

The distribution of net profits for 2018 and 2017 was stipulated in the GMS regarding the Ratification of the Financial Statements and Partnership and Community Development Activity Report (PKBL) of PT Bio Farma (Persero) for the 2018 Fiscal Year on 10 May 2019 as follows:

Description	December 31, 2019	December 31, 2018
Retained Profit at the Beginning of the Year for Profit Distribution	543,226	525,356
Profit Sharing		
Dividends	162,968	236,410
Reserves	380,258	288,946
Income for the year	355,940	543,226
Unreserved Profit at the end of the year	-	-

Description	December 31, 2017	Percentage	December 31, 2018	Percentage	December 31, 2019	Percentage
Dividends	236,410	45%	162,968	30%	106,782	30.00%
Reserves	288,946	55%	380,258	70%	249,158	70.00%
Total	525,356	100%	543,226	100%	355,940	100%

Based on the results of the 2019 net profit of Rp355.94 billion, management proposes distribution of dividends of Rp106.78 billion and reserves of Rp249.16 billion to fund the 2019 investment plan which is quite large, amounting to Rp632.20 billion, and to strengthen working capital. In connection with the increased burden of Research, Development, and Surveillance to produce new products and sustainable growth.

TOTAL CASH DIVIDENDS PER SHARE

As of December 31, 2019, Bio Farma is a non-listed SOEs with the composition of share ownership being 100% owned by the Government of the Republic of Indonesia; thus, there is no information provided here regarding the amount of cash dividend per share.

DIVIDEND PAYOUT RATIO (DPR) AND DATE OF ANNOUNCEMENT AND PAYMENT OF CASH DIVIDEND

The distribution of net profits for 2018 and 2017 was stipulated in the GMS regarding the approval of the annual financial statements, ratification of the calculation and distribution of net profit for the 2018 financial year on May 10, 2019.

(Rp Million)

Group	2015	2016	2017	2018	2019	Increase (Decrease) (%)
	1	2	3	4	5	5/4
Dividends	234,707.00	150,313.00	236,410.00	162,968	106,782.00	(34.48)
Reserves	435,885.89	350,727.99	288,945.61	380,258	249,157.78	(34.48)
Net Profit After Tax	670,592.89	501,041.00	525,356.00	543,226.02	355,939.78	(34.48)
Dividend Payout Ratio (DPR)	35.00%	30.00%	45.00%	42.86%	30.00%	(30.00)
Cash Dividend Per Share	-	-	-	-	-	-
Announcement Date	June 10, 2016	May 10, 2017	April 15, 2018	May 10, 2019	-	-
Payment date	June 29, 2016	May 30, 2017	June 25, 2018		-	-

Based on the decision of the General Meeting of Shareholders on May 10, 2019, the payment of dividends amounting to Rp. 162.97 billion was determined on the basis of the company's financial performance during the 2018 financial year. The payment of dividends for the 2018 financial year will be made on May 28, 2019.

SHARE OWNERSHIP PROGRAM BY AND/OR MANAGEMENT IMPLEMENTED BY THE COMPANY (ESOP/MSOP) THAT STILL EXISTED UNTIL THE FINANCIAL YEAR

As of December 31, 2019, and in accordance with the characteristics of Bio Farma as a non-listed non-financial state-owned enterprise, Bio Farma has not implemented any share ownership program for employees or management. Bio Farma shares are 100% (fully) owned by the Republic of Indonesia which is represented by the Minister of State-Owned Enterprises (BUMN). Therefore, we do not

present any information here regarding employee and/or management share ownership programs implemented by the company (ESOP/MSOP) such as the number of ESOP/MSOP shares and their realisation, time period, eligible employee and/or management requirements and exercise prices.

REALISATION OF THE USE OF FUNDS/PROCEEDS FROM THE PUBLIC OFFERING (IN THE EVENT THAT THE COMPANY IS REQUIRED TO DELIVER A REALIZATION OF USE OF FUNDS)

As of December 31, 2019, Bio Farma is a state-owned enterprise whose shares are 100% (fully) owned by the Republic of Indonesia, as represented by the Minister of State-Owned Enterprises (BUMN) of the Republic of Indonesia. Bio Farma does not offer shares and bonds on the stock exchange. The realisation of the use of proceeds

from the public offering is in equity. Therefore, Bio Farma does not present any information here on the realisation of the use of proceeds from the public offering, such as the total proceeds, plans for the use of funds, details on the use of funds, the balance of funds and the date of approval of the GMS/RUPO for changes in the use of funds.

INFORMATION ON MATERIAL TRANSACTIONS INVOLVING CONFLICT OF INTEREST AND OR TRANSACTIONS WITH AFFILIATED PARTIES

As of December 31, 2019, Bio Farma has had no material transactions involving conflicts of interest and/or transactions with affiliated parties. Therefore, Bio Farma does not present any such information here.

THE NAME OF THE TRANSACTIONING PARTIES AND THE NATURE OF THE AFFILIATED RELATIONSHIPS

NAMA PIHAK YANG BERTRANSAKSI

The Company has transactions with related parties. The definition of related parties is a person or entity that is related to the entity that prepares its financial statements, in accordance with PSAK No. 7 (2015 adjustment).

In normal business activities, the Company conducts transactions with related parties. The Company's policy provides that the pricing for these transactions is the same as for transactions made with third parties.

THE NATURE OF RELATIONSHIPS WITH RELATED PARTIES

1. The Government of the Republic of Indonesia, as represented by the Minister of BUMN, is the shareholder of a Company or other BUMN that has an affiliated relationship through Government Equity Participation.
2. The Company places funds with or has a loan at a bank owned by the Government or SOEs/ROEs with the terms and normal interest rates as applicable to third party customers.
3. Having the same members and management as the Subsidiary, namely the Company's Directors as Commissioners of the Subsidiary.
4. The Company enters into business agreements with other SOEs and its subsidiaries and government agencies/institutions.

NATURE OF RELATIONSHIPS

Below are the names of related parties to Bio Farma and the nature of their relationships.

(Rp Million)

The Contracting Party	Relationship with the Company	Objectives	Fund Source
Bank Milik Negara/Daerah	Under Common Control Entities	Cash and Cash Equivalents	2019 Company's Work Plan and Budget
PT. Kimia Farma (Persero) Tbk.	Under Common Control Entities	Products Sale	2019 Company's Work Plan and Budget
PT Indofarma Global Medika (Persero) Tbk.	Under Common Control Entities	Products Sale	2019 Company's Work Plan and Budget
PT Rajawali Nusantara Indonesia (Persero)	Under Common Control Entities	Products Sale	2019 Company's Work Plan and Budget
PT Iglas (Persero)	Under Common Control Entities	Other Receivables	-
PT Pertamina (Persero)	Under Common Control Entities	Purchase of Goods	2019 Company's Work Plan and Budget
PT. Pembangunan Perumahan (Persero) Tbk	Under Common Control Entities	Investments Purchase	2019 Company's Work Plan and Budget
PT Adhi Karya (Persero) Tbk.	Under Common Control Entities	Investments Purchase	2019 Company's Work Plan and Budget
K2BF	Transfer Pricing	Goods and Investments Purchase	2019 Company's Work Plan and Budget
CV KCA	Transfer Pricing	Goods and Investments Purchase	2019 Company's Work Plan and Budget
PT Wijaya Karya (Persero) Tbk	Under Common Control Entities	Investments Purchase	2019 Company's Work Plan and Budget
PT Sucofindo	Under Common Control Entities	Investments Purchase	2019 Company's Work Plan and Budget
Pihak Berelasi Lainnya	Under Common Control Entities	Others with a value below Rp1 billion	2019 Company's Work Plan and Budget

FAIRNESS AND REASON FOR CONDUCTING THE TRANSACTION

All transactions carried out in 2019 were carried out fairly (Arm's Length) and in accordance with normal commercial terms. Transactions with related parties have been carried out fairly in accordance with the laws and regulations. Transactions are carried out based on the Company's needs and are free from conflicts of interest.

The Company has transactions with related parties. The definition of related parties is a person or entity that is related to the entity that prepares its financial statements, in accordance with PSAK No.7 (2015 Improvement).

REALIZATION OF TRANSACTIONS IN THE PERIOD OF THE LAST FINANCIAL YEAR

In its business activities, the Company carries out transactions with related parties. It is the Company's policy that the pricing for these transactions is the same as for transactions made with third parties.

The following is a breakdown of account balances with related parties as of December 31, 2019 and 2018 which are described in the following table:

Realization Of Transactions In The Period Of The Last Financial Year in Rupiah

Account	31-Jan-15		31-Jan-16		31-Jan-17		31-Jan-18		31-Jan-19	
	Total	%	Total	%	Total	%	Total	%	Total	%
Cash and Cash Equivalents	555,939,258,294	9.79%	440,760,856,520	7.52%	369,362,205,419	5.73%	535,724,709,290	7.24%	533,574,092,769	6.72%
Account Receivables	17,298,055,107	0.30%	12,281,476,667	0.21%	9,214,473,247	0.14%	14,560,313,460	0.20%	32,444,534,358	0.41%
Other Receivables	1,302,637,458	0.02%	1,302,637,458	0.02%	1,302,637,458	0.02%	1,830,359,268	0.02%	1,302,637,458	0.02%
Local Purchase Advances	16,044,202,629	0.28%	834,000,000	0.01%	-	0.00%	49,584,348,779	0.67%	7,560,824,867	0.10%
Income that will still be received	1,591,887,435	0.03%	221,375,000	0.004%	13,994,095	0.00%	23,923,288	0.00%	224,380	0.00%
Accounts payable	-	-	-	-	-	-	-	-	-	-
Bio Farma Employee Cooperative	8,174,576,205	0.14%	14,869,209,176	0.25%	10,179,747,608	0.16%	7,378,350,976	0.10%	13,686,082,300	0.17%
CV Karya Cahya Abadi	1,180,481,303	0.02%	1,652,232,908	0.03%	2,420,885,452	0.04%	4,243,620,741	0.06%	596,934,193	0.01%
PT Pembangunan Perumahan (Persero), Tbk	4,392,144,317	0.08%	8,351,209,045	0.14%	-	0.00%	11,743,603,858	0.16%	49,586,022,615	0.62%
PT Pertamina (Persero)	-	-	-	0.00%	3,405,240,000	0.05%	3,680,640,000	0.05%	2,392,200,000	0.03%
PT Sucofindo	-	0.00%	-	0.00%	-	0.00%	-	0.00%	19,850,000	0.00%
PT Kimia Farma, Tbk	419,689,563	0.01%	160,990,986	0.00%	194,204,873	0.00%	175,990,231	0.00%	-	0.00%
PT Telekomunikasi Indonesia (Persero) Tbk	-	0.00%	-	0.00%	1,350,000,000	0.02%	3,867,914,240	0.05%	2,165,670,720	0.03%
PT INTI	-	0.00%	71,221,650	0.00%	-	0.00%	-	0.00%	-	0.00%
PT Wijaya Karya (Persero)	769,068,182	0.01%	-	0.00%	-	0.00%	-	0.00%	11,567,721,418	0.15%
Total	14,935,959,570	0.26%	25,104,863,765	0.42%	17,550,077,933	0.27%	31,090,120,046	0.42%	80,014,481,246	1.01%

Investment in the form of capital goods (Capital Expenditure) involves spending funds that are used to buy a number of fixed assets or to add value to fixed assets which are expected to provide future benefits. Throughout 2019, Bio Farma entered into material engagements regarding investment in capital goods with various parties which are described as follows:

COMPANY POLICY RELATED TO THE REVIEW MECHANISM FOR TRANSACTIONS AND COMPLIANCE WITH RELATED RULES AND CONDITIONS

The Company has a policy regarding the terms and conditions of transactions with related parties. In general, the terms and conditions of transactions with related parties are carried out in the same way as those made with third parties. During 2019, there were no violations of the laws and regulations

related to transactions with related parties and there were no transactions that contained a conflict of interest.

The review mechanism for transactions with related parties is carried out through an audit process conducted by both internal and external auditors. In an effort to ensure the fairness of transactions and conformity with generally accepted accounting standards in Indonesia, the affiliated transaction reports above have been audited by the Auditor. One of the objectives of disclosure of related party transactions is an effort to comply with PSAK No.7 (2015 Improvement).

PURPOSE OF RELATED PARTY TRANSACTIONS

The main objective of conducting transactions with related parties in general is for the interests and sustainability of the Company's business.

SIGNIFICANT AMENDMENTS TO THE COMPANY'S LEGISLATION IN THE LAST FINANCIAL YEAR

"One of the Company's commitments to implementing compliance is to always comply with applicable regulations from regulators which are relevant to the Company's business and operations. The form of implementation of this commitment is to review new regulations and amendments to regulations so that the Company always complies with them."

In 2019, the Ministry of State-Owned Enterprises (BUMN) issued several Government Regulations and Ministerial Regulations for SOEs, as follows:

1. Regulation of the Minister of SOE No. PER-01/MBU/05/2019 concerning the Fourth Amendment to the Regulation of the Minister of SOE No. PER-04/MBU/2014 on Guidelines for Determining the Remuneration of the Directors, Board of Commissioners and Supervisory Board of SOE, on May 31, 2019.
2. Regulation of the Minister of SOE No. PER-08/MBU/12/2019 regarding General Guidelines for the Procurement of Goods and Services for SOEs, on October 1, 2019.
3. Government Regulation of the Republic of Indonesia No. 63 of 2019 concerning Government Investment, dated September 17, 2019.
4. Government Regulation (PP) No. 76 of 2019 concerning the Addition of the State Capital Participation of the Republic of Indonesia to the Share Capital of the Company (Persero) PT Bio Farma, on October 15, 2019.
5. Decree of the Minister of Finance of the Republic of Indonesia Number 862/KMK.06/2019 concerning the Determination of the Value Added of the State Capital Participation of the Republic of Indonesia in the Share Capital of a Limited Liability Company (Persero) PT Bio Farma.
6. Presidential Regulation of the Republic of Indonesia Number 63 of 2019 concerning Use of the Indonesian Language, on September 30, 2019.
7. Regulation of the Minister of Health of the Republic of Indonesia Number 15 of 2019 concerning Implementation of Plasma Fractionation, July 18 2019.

8. Regulation of the Food and Drug Supervisory Agency of the Republic of Indonesia Number 35 of 2019 concerning Reporting on Pharmaceutical Industry Activities, December 12, 2019.
9. Regulation of the Business Competition Supervisory Commission (KPPU) No. 3 of 2019 concerning Assessment of Merger or Consolidation of Business Entities or Acquisition of company shares which may result in Monopolistic Practices and/or Unfair Business Competition, October 3, 2019.

REGULATION OF THE MINISTER OF SOE/ MBU/05/2019 CONCERNING THE FOURTH AMENDMENT TO THE REGULATION OF THE MINISTER OF SOE NO. PER-04/ MBU/2014 CONCERNING GUIDELINES FOR DETERMINING THE REMUNERATION OF THE DIRECTORS, BOARD OF COMMISSIONERS AND SUPERVISORY BOARD OF SOE, ON MAY 31, 2019

Regarding the SOE Ministerial Regulation concerning changes in the income of the Board of Directors, the Board of Commissioners finds that this regulation does not have a significant impact on Bio Farma. Changes in the income of the Board of Directors and the Board of Commissioners are a natural thing and this is a form of the Company's appreciation for the performance achievements of the Board of Directors and the Board of Commissioners for the company. This can be seen in the 2018 report in which Bio Farma posted a net profit of Rp533.23 billion and in 2019 Rp355.94. billion.

Determination of income in the form of salaries/ honoraria, allowances and facilities that are permanent in nature has been carried out by

considering the factors of income, assets, the financial condition and capacity of the Company, inflation rate and other relevant factors, and may not conflict with laws and regulations.

Determination of income in the form of allowances and bonuses that are variable in nature, is carried out by considering the target achievement factors, health level and financial capacity as well as other relevant factors. Remuneration is given to the Board of Commissioners by considering the realization of the achievement of the Key Performance Indicators (KPI) of the Board of Commissioners for the achievement of the Company's performance.

CHANGE IN PERCENTAGE OF INCOME FOR THE BOARD OF COMMISSIONERS AND DIRECTORS

CHANGE IN THE INCOME OF THE BOARD OF COMMISSIONERS

1. Honorarium
 - a. The President Commissioner's honorarium is determined by a factor of 45% of the President Director's salary
 - b. Honorarium for Commissioners is determined by a factor of 90% of the Honorarium for the main Commissioner
2. Allowance
 - a. Holiday allowance of 1 (one) time honorarium per month
 - b. Transportation allowance of 20% of the honorarium
 - c. Post-Employment Insurance: a premium of 25% of the honorarium in one year.

CHANGE IN BOARD OF DIRECTORS' INCOME

1. Change in the percentage of Directors' Salaries:
 - a. Human Resources Director salary: 90% of the President Director's salary.
 - b. Other Directors' Salaries: 85% of the President Director's Salary.
2. Change in the percentage of the BOD bonus:
 - a. Tantiem for the Director in charge of Human Resources: 90% of the Tantiem for the President Director.
 - b. Tantiem for other members of the Board of Directors: 85% of the bonus for the President Director.

REGULATION OF MINISTER OF SOE OF RI NO. PER-08/MBU/12/2019 REGARDING GENERAL GUIDELINES FOR THE PROCUREMENT OF GOODS AND SERVICES FOR SOE, OCTOBER 1, 2019

Procurement of goods and services plays an important role in Bio Farma's business activities to achieve company goals. The process of implementing goods and services procurement at Bio Farma is increasingly competitive, transparent, and accountable for all providers of goods and services, in order to foster a healthy business climate in Bio Farma.

With the existence of the Regulation of the Minister of BUMN regarding General Guidelines for the Implementation of the Procurement of Goods and Services, Bio Farma applies the following guidelines:

1. Bio Farma must adjust the internal regulations no later than 3 (three) months from the promulgation of this SOE Ministerial Regulation, which is not later than March 16, 2020.
2. Changes to Bio Farma's internal regulations, including among other things:
 - a. Definition of SOEs Subsidiary and SOEs Affiliated Company definition.
 - b. Regulations related to the use of domestic products.
 - c. Change in nomenclature from Auction to Tender.
 - d. Increased SOEs synergy.
 - e. Abolition of rebuttal guarantees.

REPUBLIC OF INDONESIA GOVERNMENT REGULATION NO. 63 OF 2019 CONCERNING GOVERNMENT INVESTMENT, 17 SEPTEMBER 2019

In 2018, Bio Farma formed a Project Management Division. Regarding the infrastructure development investment program for capacity development and new products, especially investment in building 43, the Board of Commissioners appreciates the formation of the Project Management Division which has been able to have a significant impact on the realization of investment programs in 2018 and 2019. Implementing investment programs takes

the form of routine investments, development investment or other forms of investment. The Board of Commissioners provides directions for the Board of Directors to continue to improve the GCG element in its implementation process and to be equipped with a comprehensive risk management review along with the design of mitigation measures for these risks.

GOVERNMENT REGULATION (PP) CONCERNING ADDITION OF THE STATE CAPITAL PARTICIPATION OF THE REPUBLIC OF INDONESIA TO THE SHARE CAPITAL OF THE LIMITED LIABILITY COMPANY (PERSERO) PT BIO FARMA, OCTOBER 15, 2019

The government has officially appointed Bio Farma to become a pharmaceutical holding company that oversees PT Kimia Farma Tbk (KAEF) and PT Indofarma Tbk (INAF) through Government Regulation (PP) Number 76 of 2019 concerning Addition of Capital Participation of the Republic of Indonesia to Bio Farma, dated 15 October 2019.

The additional state equity participation referred to comes from the transfer of all series B shares belonging to the Republic of Indonesia to Kimia Farma and Indofarma. The additional state capital participation referred to is Rp4.99 billion series B shares in Kimia Farma and Rp2.49 billion series B shares in Indofarma which have been issued and fully paid-up by the state.

The formation of the SOE pharmaceutical holding is meant to strengthen the independence of the national pharmaceutical industry, and to increase product availability through joint innovation to support the pharmaceutical ecosystem in the future. Currently, the Indonesian pharmaceutical industry is faced with various significant challenges in which Indonesia still depends on imports, especially for medicinal raw materials. The merger of pharmaceutical companies into one holding company is a step that has been taken to strengthen the core business of each company. Besides that, this holding was also formed to prevent any redundancy between companies from marketing or producing the same drugs.

DECREE OF THE MINISTER OF FINANCE OF THE REPUBLIC OF INDONESIA NUMBER 862/KMK.06/2019 CONCERNING DETERMINATION OF THE VALUE ADDED OF THE STATE CAPITAL PARTICIPATION OF THE REPUBLIC OF INDONESIA INTO THE SHARE CAPITAL OF THE LIMITED LIABILITY COMPANY (PERSERO) PT BIO FARMA

The state-owned pharmaceutical issuer, PT Indofarma Tbk (INAF), transferred Rp2.49 billion of series B shares belonging to the Republic of Indonesia. The shares were transferred for additional state equity participation in PT Bio Farma. With the transfer of shares, 80.664% of series B shares are now owned by PT Bio Farma. Meanwhile 19.336% are owned by the public.

The transfer of shares is based on PP 76 of 2019 concerning the Addition of the State Capital Participation of the Republic of Indonesia to the Share Capital of PT Bio Farma. As well as the Decree of the Minister of Finance of the Republic of Indonesia Number 862/KMK.06/2019 concerning the determination of the Value Added of the Capital Participation of the Republic of Indonesia in the Share Capital of PT Bio Farma. The Deed of Participation in Share Transfer Agreement Number 37 dated January 31, 2020 has been signed.

PRESIDENTIAL REGULATION OF THE REPUBLIC OF INDONESIA NUMBER 63 YEAR 2019 CONCERNING USE OF THE INDONESIAN LANGUAGE, SEPTEMBER 30, 2019

Presidential Regulation of the Republic of Indonesia Number 63 of 2019 concerning the Use of Indonesian Language was enacted on September 30, 2019. The impact for Bio Farma is that the Company is required to use Indonesian in the preparation of memorandums of understanding and agreements, in the event that a memorandum of understanding or agreement involves a foreign party, the language of the other party will also be written. The foreign language and/or English will be written in the form of a translation from Indonesian, and Indonesian will be the agreed language in the event of a difference in interpretation.

REGULATION OF THE MINISTER OF HEALTH OF THE REPUBLIC OF INDONESIA NUMBER 15 OF 2019 CONCERNING IMPLEMENTATION OF PLASMA FRACTIONATION, JULY 18 2019

Bio Farma is ready to invest Rp500 billion to build a blood plasma factory in Indonesia. Bio Farma is just waiting for the regulation from the Ministry of Health to guarantee the operation of the plasma factory. Even now, Bio Farma has received the latest guidelines from WHO regarding blood plasma factories. The guide will be submitted to BPOM and the Ministry of Health to be included in the regulation. The Republic of Indonesia Minister of Health Regulation Number 15 of 2019 concerning Plasma Fractionation, dated July 18 2019 is to be used as a guideline in relation to plans to organize plasma fractionation facilities.

REGULATION OF THE NATIONAL AGENCY FOR DRUG AND FOOD CONTROL OF THE REPUBLIC OF INDONESIA NUMBER 35 OF 2019 CONCERNING REPORTING ON PHARMACEUTICAL INDUSTRY ACTIVITIES, DECEMBER 12, 2019

At the end of 2019, BPOM published New Regulation Number 35 of 2019 concerning Reporting of Pharmaceutical Industry Activities, replacing the existing regulation, namely Number HK.00.05.23.3874 of 2003 concerning Implementation of Pharmaceutical Industry Reporting. As a follow-up to this regulation, Bio Farma will submit a periodic report to the Head of BPOM every 3 (three) months.

THE BUSINESS COMPETITION SUPERVISORY COMMISSION (KPPU) REGULATION NO. 3 OF 2019 CONCERNING ASSESSMENT OF MERGER OR CONSOLIDATION OF BUSINESS ENTITIES OR ACQUISITION OF COMPANY SHARES WHICH MAY RESULT IN MONOPOLISTIC PRACTICES AND/OR UNFAIR BUSINESS COMPETITION, OCTOBER 3, 2019

As a follow-up to this regulation, Bio Farma will notify the SOE Pharmacy Holding of the KPPU regarding the presence or absence of unfair business competition which needs to be assessed by the KPPU.



DESCRIPTION OF CHANGES IN ACCOUNTING POLICY IMPLEMENTED BY THE COMPANY IN THE LAST FINANCIAL YEAR

"One of the indicators of a good and accountable financial report is that it is in accordance with all accounting policies relevant to the company's business. Therefore, the Company is committed to comply with all financial accounting standards, especially with new or amended policies".

CHANGES IN ACCOUNTING POLICY

PT Bio Farma (Persero) 's financial reports for the years ended December 31, 2019 and 2018 have been prepared in accordance with Indonesian Financial Accounting Standards and have met all of the requirements.

The measurement basis for the preparation of financial statements is the historical cost method, except for certain accounts using other measurement bases as described in the accounting policy for each account.

The financial statements are prepared using the accrual method (accrual basis), except for statements of cash flows. Statements of cash flows are prepared using the direct method by classifying cash flows into operating, investing, and financing activities.

CHANGES IN STATEMENT OF FINANCIAL ACCOUNTING STANDARDS (PSAK) AND INTERPRETATION OF FINANCIAL ACCOUNTING STANDARDS (ISAK)

The new standards, revisions and interpretations which have been issued and which are effective for the financial year starting on or after January 1, 2018 but which do not have a material impact on the Company's consolidated financial statements are as follows.

1. PSAK 24 (Adjustment 2016): Employee Benefits, clarifies that the high-quality corporate bond market is valued based on the currency denomination of the bonds and not by the country in which the bonds are located.
2. PSAK 58 (Improvement 2016): Non-current Assets Held for Sale and Discontinued Operations, clarifies that a change from one

disposal method to another disposal method is considered to be an initial plan that is ongoing and not as a new disposal plan. In addition, this change in the method of disposal does not change the date of classification as an asset or disposal group.

3. PSAK 60 (Improvement 2016): Regarding Financial Instruments and Disclosures, this clarifies that an entity must assess the nature of the service contract fee as stated in paragraphs B30 and 42C to determine whether the entity has a continuing involvement in financial assets and whether the disclosure requirements regarding the continuing involvement are met.

The implementation of these standards did not result in a change in the Company's accounting policies and had no impact on the amounts reported in the current year or the previous year.

As of the issuance date of these consolidated financial statements, management is currently studying the impact that may arise from the adoption of the following new standards and revisions that have been issued, but have only become effective for the financial year beginning January 1, 2018 on the Company's consolidated financial statements:

1. ISAK 33: Foreign Exchange Transactions and Prepaid Benefits, ISAK 33 clarifies the use of the transaction date to determine the exchange rate used in the initial recognition of the related asset, expense or income when the entity has received or paid the prepayment in foreign currency. Effective January 1, 2019, with the option of early implementation permitted.
2. PSAK 55: Regarding Financial Instruments and their Recognition and Measurement, this deals with any contract that adds value to an entity's

financial assets and financial liabilities or other entity's equity instruments.

3. PSAK 69: Regarding Agriculture, this stipulates that biological assets or agricultural products are recognized when they meet some of the same criteria as the criteria for recognition of assets. Effective for the financial year period beginning on or after January 1, 2018, earlier application is permitted.
4. PSAK 71: Regarding Financial Instruments, this regulates changes in requirements related to financial instruments such as: classification and measurement; impairment; and hedge accounting. Effective January 1, 2020 with the option of early implementation permitted.
5. PSAK 72: Revenue from contracts with customers establishes the principles that entities should apply when reporting useful information to users of financial statements about the nature, amount, timing, and uncertainties of revenues and cash flows arising from contracts with customers. Effective January 1, 2020 with the option of early implementation permitted.
6. PSAK 73: Regarding Leases, this establishes the principles for recognizing, measuring, presenting, and disclosing leases. Effective January 1, 2020 with an option for early adoption permitted for entities that also apply PSAK 72: Revenue from contracts with customers.

The company is currently evaluating the application of accounting standards PSAK 71, PSAK 72, and PSAK 73, which will all be effective January 1, 2020 and have not yet determined the impact on the financial statements.

The Company is currently evaluating the application of these accounting standards and has not yet determined their impact on the financial statements.

REASONS FOR CHANGES IN ACCOUNTING POLICIES

Changes in standard accounting and disclosure policies were made to comply with the PSAK in effect in the current year. Bio Farma has implemented a number of amendments and new PSAK interpretations that are relevant to its operations and are effective for accounting periods beginning on or after January 1, 2019.

THE IMPACT OF CHANGES IN QUANTITATIVE ACCOUNTING POLICIES ON THE FINANCIAL STATEMENTS

1. The adoption of the standards starting on or after January 1, 2019 will not have a material effect on the amounts and disclosures in the Company's financial statements.
2. Impact of the Amendment, Interpretation and Adjustment of standards, as well as the effective PSAK for the period beginning on or after January 1, 2019: The company is currently evaluating the application of these accounting standards and has not yet determined their impact on the financial statements.
3. Gains or losses arising from the translation of financial assets and liabilities in foreign currencies are recognised in the current year's statement of profit or loss and other comprehensive income.

DETERMINATION OF THE MATERIALITY LEVEL OF A POST

Based on SM-S15 Financial Accounting Guidelines as an objective measure, an account is declared material and therefore must be presented separately in the financial statements if it consists of:

- **5%** of total assets for asset accounts;
- **5%** of total equity for equity accounts;
- **10%** of profit before tax for the effect of events or transactions such as changes in accounting estimates.
- **5%** of total liabilities for liability accounts;
- **10 %** of revenue for profit and loss accounts; and

IMPLEMENTATION OF THE STATEMENT OF THE EFFECTIVE FINANCIAL ACCOUNTING STANDARDS APPLICABLE 01 JANUARY 2020

Bio Farma will apply the Statement of Financial Accounting Standards (PSAK) that became effective on January 1, 2020, namely:

1. PSAK 71: Recognition and Measurement of Financial Instruments
2. PSAK 72: Recognition of Revenue from Contracts with Customers
3. PSAK 73: Leases

BUSINESS CONTINUITY INFORMATION

MATTERS THAT HAVE THE POTENTIAL TO HAVE A SIGNIFICANT IMPACT ON THE CONTINUITY OF THE COMPANY'S BUSINESS IN THE LAST FINANCIAL YEAR

Business continuity is a company condition that is expected to continue for an indefinite period in the future. This statement was issued by the auditor after auditing Bio Farma's financial statements, which consist of a statement of financial position as of December 31, 2019, as well as statements of profit or loss and other comprehensive income, statements of changes in equity and cash flow statements for the year ended on that date, and a summary of policies plus significant accounting and explanatory information.

The statement of business continuity as measured by the public accounting firm includes statements of business continuity issued in the previous year, the company's financial condition, company growth, and company size. The company's financial condition is the basis for determining the 'going concern' statement. The company's financial condition describes the company's financial performance.

Factors that affect business continuity:

1. The Effect of the Size of the Public Accounting Firm
The size of the Public Accounting Firm does not affect the statement of the continuity of Bio Farma's business because this statement is not solely given by the Auditor to Bio Farma. Thus, Bio Farma received it because the company met certain criteria and classifications proving that Bio Farma was in good shape.
2. Auditor's reputation
Auditors are responsible for providing high quality information that is useful for decision making.

3. Auditor Client Tenure

Auditor client tenure is the number of years in which the Public Accounting Firm performs an audit engagement with the same company. If the relationship between the auditor and the client is long term, it is feared that this will lower the likelihood of disclosure of the Company's inability to maintain its business continuity. Thus, as the basis for the appointment of an Auditor (KAP), Bio Farma refers to the Minister of Finance Regulation No.17/PMK.01/2008 dated 5 February 2008 wherein article 3 paragraph 1 states that the provision of general audit services on the financial statements of an entity is to be carried out by KAP only for a maximum of 6 (six) consecutive financial years and by a Public Accountant only for a maximum of 3 (three) consecutive financial years.

4. The Influence of the Previous Year's Audit Opinion

The previous year's audit opinion affects the continuity of Bio Farma's business. This can presently be seen in the fact that Bio Farma has obtained syndicated investment credit facilities from seven national banks and the fact that Bio Farma is now the holding company for the SOE Pharmacy Holding.

5. The Influence of Company Financial Conditions
The Company's financial condition affects the continuity of Bio Farma's business.

6. The Influence of Company Growth
The Company's growth affects the sustainability of Bio Farma's business.

7. The Influence of Company Size
The Company's size has no effect on the continuity of Bio Farma's business. This is because whether the size of a company is large or small depends on how the management chooses to manage the company. If the company

is well managed, the company will progress and develop, and vice versa, if the company is not managed properly, it will threaten its business continuity.

8. The Company's ability to pay its obligations at maturity in the short term.
Until now, Bio Farma has paid its obligations very well.
9. Maintaining Good Relationships with Customers.
Bio Farma maintains good relations with customers in order to ensure the continuity of Bio Farma's business.

When measuring business continuity, the Company uses the Decree of the Minister of SOEs No. KEP-100/MBU/2002 dated 4 June 2002 concerning the Assessment of SOE Health Levels with the assessment indicators based on the Decree of the Minister of Finance No.826/KMK.013/1992, as well

as the targets budgeted for in the 2019 Company's Work Plan and Budget.

In this regulation, the assessment of the health level of the SOE is determined based on an assessment of the performance for the current financial year which includes:

1. Assessment of Financial Aspects.
2. Assessment of Operational Aspects.
3. Assessment of Administrative Aspects.

Through the measurement and assessment of the risk-based rating, management can obtain recommendations regarding potential matters that may affect the Company's business continuity in the fiscal year being measured. The results of the evaluation on the health level of the Company show that the performance in 2019 is classified as "HEALTHY" category "A" with a score of "77.10". The following is the Company Health Level for the 2019 financial year.

Corporate Risk-Based Rating Assessment in 2019

No.	Indicator	Value	2019 COMPANY WORK PLAN AND BUDGET	Score	2019 (Audited)	Score
I. FINANCIAL ASPECTS						
1	Rewards to Shareholders (ROE)	20	15.85%	18.00	9.05%	14.00
2	Return on Investment (ROI)	15	17.55%	13.50	9.32%	7.50
3	Cash Ratio	5	94.41%	5.00	55.19%	5.00
4	Current Ratio	5	520.22%	5.00	260.98%	5.00
5	Collection Periods	5	47.92 days	5.00	81.72 days	4.50
6	Inventory Turnover	5	76.32 days	4.00	170.96 days	3.00
7	Total Asset Turnover	5	58.49%	2.50	48.91%	2.50
8	Ratio of Own Capital to Total Assets	10	68.67%	7.50	68.70%	8.00
		70		60.50		49.50
II. OPERATIONAL ASPECTS						
1	Labour Productivity (EMPRO)	4	Rp2,976,918,167	4.00	Rp2,131,885,035	2.86
2	Production Continuity Maintenance	5	17.92%	5.00	19.63%	4.00
3	Government Assignment	3	100.00%	3.00	100.00%	3.00
4	Research & Development	3	100.00%	3.00	91.25%	2.74
		15		15.00		12.60
III. ADMINISTRATION ASPECTS						
1	Annual Calculation Report	3	100.00%	3.00	100.00%	3.00
2	Company Work Plan and Budget Draft	3	100.00%	3.00	100.00%	3.00
3	Periodic Reports	3	100.00%	3.00	100.00%	3.00

No.	Indicator	Value	2019 COMPANY WORK PLAN AND BUDGET	Score	2019 (Audited)	Score
4	Partnerships and Community Development Program Performance					
	Effectiveness of Fund Distribution	3	100.00 %	3.00	99.81 %	3.00
	Loan Repayment Collectability Rate	3	81.96 %	3.00	82.05 %	3.00
		15		15.00		15.00
	TOTAL SCORE	100		90.50		77.10
	CRITERIA	HEALTHY AA			A	
Description: Healthy criteria consist of: AAA = if the total score (TS) > 99 AA = if 80 < TS <= 95 A = if 65 < TS <= 80		BBB = if 50 < TS <= 65 BB = if 40 < TS <= 50 B = if 30 < TS <= 40		= if 50 < TS <= 65 = if 40 < TS <= 50 = if 30 < TS <= 40		
Not healthy, consists of CCC = if 20 < TS <= 30 CC = if 10 < TS <= 20 C = if TS <= 10						

KEY PERFORMANCE INDICATORS (KPI)

Overall, the 2019 KPI, which was compiled based on the Superior Performance Assessment Criteria (KPKU), received a score of 92.58 out of 100.

Key Performance Indicators (KPI) in 2019

Perspective	Value (%)	Denomination	2019 Target	Real 2019 (Audited)	
Finance and Market					
a. Operating revenues	6	Rp Million	3,682,488	2,542,592	4.14
b. EBITDA Margin	6	Percentage	30.09	29.13	5.81
c. Debt to Equity Ratio	5	Percentage	27.86	29.15	4.78
d. Return on Equity	5	Percentage	15.85	9.05	2.86
	22				17.59
Customer and Market Focus					
a. Increase in exported product	10	Rp Million	1,425,724	1,475,797	10.35
b. Customer satisfaction	10	Score	85.00	85.70	10.08
	20				20.43
Product and Process Effectiveness					
a. PQ WHO	5	Total Products	9	10	5.56
b. Proper KLH	5	Category	Gold	Green	4.00
c. CAPEX Absorption Realization	4	Percentage	100	68.60	2.74
d. Inventory Turnover	4	Day	76.32	170.96	1.79
	18				14.09

Perspective	Value (%)	Denomination	2019 Target	Real 2019 (Audited)	
Manpower Focus					
a. Competency Development	5	Percentage	100	119.25	5.96
b. Labour Productivity / Empro	5	Rp/employee	2,976,918,167	2,131,885,035	3.58
c. Talent Pool of Candidates for Board of Directors	5	person	18	23	6.00
	15				15.54
Leadership, Governance, and Community Social Responsibility					
a. GCG Score	6	Score	90.60	90.94	6.02
b. SOE Portal Data Entry	6	item	5.00	5.00	6.00
c. PKBL and SR	3	percentage	100	96.39	2.89
	15				14.91
Agent of Development					
a. SOE Synergy	5	percentage	30	30.09	5.02
b. Financial Independence and Creation	5	percentage	100	100	5.00
	10				10.02
Total Value	100				92.58

The Company Performance Evaluation Report for the 2019 financial year has been audited by the Roebiandini Public Accounting Firm and its Audit Partners regarding the Continuity of Business of the Company including:

1. The Company's Work Plan and Budget (RKAP) and its comparison with the realization in 2019, including financial performance and capital expenditure.
2. Level of Solvency and Risk Based Capital (RBC).
3. The development of the Company's business.
4. Key Performance Indicators (KPI).

As shown in the table above, these 4 things all have the potential to significantly affect the Company's business continuity. Thus, management refers to various strategic policies that have been formulated in the Company's 2019 Work Plan and Budget in order to anticipate any significant effects these things may have on the Company's business continuity.

MANAGEMENT ASSESSMENT FOR THINGS THAT MAY SIGNIFICANTLY INFLUENCE THE BUSINESS CONTINUITY OF THE COMPANY

The management of the Company has assessed the Company's ability to continue its business and believes that the Company has the resources to continue its business into the future. In addition, the Company's management does not see any material uncertainty that could raise significant doubts about the Company's ability to continue its business.

Management Assessment of Matters with Potential Significant Impact on the Company's Business Continuity Management assessments or assessments of various matters that have the potential to significantly affect the Company's business continuity have been stated in the Performance Evaluation Report and Company's Risk-Based Rating which refers to the Decree of the Minister of SOEs No. KEP- 100/MBU/2002 dated June 4, 2002 concerning the Assessment of the Health Level of SOEs which has been audited by the

Roebinandini and Partner Public Accountants Firm. In general, the assessment includes financial aspects, operational aspects, and administrative aspects.

ASSUMPTIONS USED BY MANAGEMENT IN ASSESSMENT

In assessing various matters that have the potential to significantly affect the Company's business continuity, management uses assumptions and a comparative approach between the targets set out in the Company's Work Plan and Budget and their realization throughout 2019. These comparative assumptions are to be used as the basis of reference for both shareholders and management when viewing, considering and measuring the Company's business continuity in 2019, including making projections for the following year.

There are several other factors that are considered by management in conducting a business continuity assessment, namely:

BASIC ASSUMPTIONS

The basic assumptions used in preparing the financial statements consist of:

1. Accrual Basis

By using the accrual basis assumption, assets, liabilities, equity (capital), income, and expenses are recognized when the incident occurs, not when cash or cash equivalents are received or disbursed. And then it is recorded and presented in the financial statements for the period concerned.

Based on this assumption, revenue is reported as incurred, and expenses are reported when the costs are incurred. For example, even though the company has not received money from consumers who buy on credit, the company has recorded it as income. Likewise, if a company buys business equipment on credit, the expense is considered an expense, even though the company has not spent the money.

The opposite of the accrual basis, namely the cash basis, is the effect of transactions and other events that are recognized when cash or

cash equivalents are received or paid. And these are recorded in accounting and reported in the financial statements for the period concerned.

With this approach, revenue is reported when the money is received, and expenses are reported when the money is spent. For example, sales are recorded only when the company receives money from consumers, and rental costs are recorded only when the company has paid rent to the lessee.

2. Going Concern Concept

- a. With the assumption of going concern, the financial statements are prepared on the basis that the company will continue its business in the future, therefore the company is assumed to have no intention of dissolving or materially reducing its business scale.
- b. Management considers that the going concern assumption is still appropriate for use in preparing financial statements. As a matter of judgment, management has considered all relevant future information for at least twelve months from the balance sheet date. The level of consideration depends on the events that occur within the company. If the company has made a profit so far and has access to sources of financing, the assumption of business continuity can be used without going through a detailed analysis.
- c. The assumption of business continuity allows for the recording of fixed assets owned by the company.

BIO FARMA CORPORATE RISK

In evaluating aspects that affect business continuity, Bio Farma has a Compliance & Risk Management Division, an Internal Audit Unit (SPI) and a Quality Assurance Division (QA).

DUTIES AND RESPONSIBILITIES OF THE COMPLIANCE & RISK MANAGEMENT DIVISION

1. Coordinating aspects of GCG compliance, regulations, and corporate activity risks
2. Monitoring aspects of GCG, Risk, and Regulation/Law
3. Evaluating aspects of GCG, Risk, and Regulation/Law

DUTIES AND RESPONSIBILITIES OF THE INTERNAL AUDIT UNIT (SPI)

1. Testing and evaluating the implementation of internal controls, risk management and GCG in accordance with Company policy.
2. Examining and assessing the efficiency and effectiveness of operations, finance, human resources, information technology, and other activities in the company.
3. Developing and implementing an Annual Audit Work Program (PKPT).
4. Provide recommendations for improvements and objective information about the activities examined to Management.
5. Preparing an audit report and submitting it to the President Director and the Board of Commissioners.
6. Monitoring the implementation of the recommended follow-up improvements.
7. Performing consulting duties to improve the internal control system.
8. Working together with the audit committee to discuss the audit results report and asking for the necessary input.
9. Conducting a special inspection if needed.

DUTIES AND RESPONSIBILITIES OF THE QUALITY ASSURANCE DIVISION

1. Conducting a Quality Management System Audit
2. Conducting an Environmental Management System Audit
3. Conduct an Audit of Occupational Health & Safety Management Systems
4. Conducting a Good Production Practice (GMP) Audit
5. Conducting a Vendor Audit
6. Conducting an Audit of Customer Complaints

EVALUATION CONDUCTED ON THE EFFECTIVENESS OF THE RISK MANAGEMENT SYSTEM

Evaluation is carried out on the effectiveness of the risk management system by measuring 8 (eight)

Key Risk Indicator elements, namely:

1. Awareness, namely measuring the level of awareness of internal stakeholders, both on risks in general and on the ongoing implementation of risk management.
2. Reputation, namely measuring the views and acceptance of internal stakeholders on the implementation of Risk Management.
3. Culture, which measures the extent to which a risk awareness culture has taken root and is the background for the implementation of Risk Management practices.
4. Expertise, namely measuring the level of competence of internal stakeholders in the field of Risk Management to support risk management implementation.
5. Trust, which measures the level of trust of internal stakeholders in the results of the application of Risk Management.
6. Resources, namely measuring the available resources, particularly the company's human resources, to support the implementation of risk management.
7. Application, which measures the extent to which Risk Management practices and the maintenance of company risk management data / information have been supported by an automation process that is based on information technology.
8. Process, which is to measure the extent to which Risk Management practices have been implemented based on a methodology that is referred to in the best practices guidelines for implementing Risk Management.

Based on the measurement results above, the Risk Management System at Bio Farma is running quite effectively, and is continuously being developed further in accordance with the Bio Farma Risk Management roadmap.

This can be proven as follows:

1. Awareness of risk owners to carry out risk self-assessments.
2. A risk awareness culture is quite inherent in the risk owner, this is indicated by the effort to

conduct risk assessments in the company's operational activities.

3. Stakeholders in the field of Risk Management are deemed capable of carrying out risk assessments effectively such as the use of semi-quantitative risk analysis.
4. Available resources are sufficient.

There are 1,126 identified risks from all work units which have been evaluated and measured based on their likelihood and impact values, in order to obtain the priority risks that must be controlled.

RISKS FACING THE COMPANY

In 2019, 10 (ten) corporate risks were identified, which were divided into 8 (eight) risks from routine activities and 2 (two) project risks.

The corporate risks faced by Bio Farma for business continuity are as follows

Registration Number	Corporate Risk	Mitigation	PIC
01-ERM-2019	Changes in National and International Policy/Regulation	• Taking an active role in providing input, suggestions and ideas in order to direct changes in national and international regulatory policies to ensure that corporate interests and national interests will get positive points and the changes will be proposed. Implementation of QMS, cGMP; including document control, implementation of qualifications, validation, calibration, self-inspection • Active in national and international QMS & cGMP forums; including forum meetings, outreach, training, workshops, conferences • Ensuring product development in accordance with regulatory demands; including product development design, implementation of qualifications & validation • Collaborating with Bio Farma internally in maintaining the QMS • Ensuring the sale of products that meet the QMS • Always updating with requirements/ regulations and market conditions • Looking for prospective customer information either through an agent or not • Coordinating with internal and external parties of the company	• Quality Regulation • Quality Regulation Guarantor • Corporate Export Sales • Institutional Export Sales
02-ERM-2019	Inability to Pay Long-Term Obligations (Credit)	• The Company planning function related to investment needs, including when preparing a timeline for investment realisation and payment methods • Regular and effective communication and coordination amongst lines within the Company, so that the investment project timeline and realisation can be executed according to plan	• Treasury

Registration Number	Corporate Risk	Mitigation	PIC
03-ERM-2019	Inability to Fulfill Short-Term Obligations (Liquidity)	- Monitoring and coordinating with the Marketing Directorate to ensure that the cash receipt plan for the Company's sales can be received by a predetermined date - Maintaining working capital financing facilities from external parties that are owned by the Company, so that they can be used to finance the Company's operations if necessary. - Monitoring the implementation of the timeline stages of investment realization, in order to calculate the fulfillment of financing needs	Treasury
04-ERM-2019	Exit/Transfer of High Talent and Potential Employees	- Socialization and implementation of the integration of the Human Capital Management system based on competence and performance - Socialization and implementation of a comprehensive retention program to engage these employees in the company - Socialization and implementation of development programs that can provide opportunities for employees to develop themselves	Performance Management
05-ERM-2019	The HR Division's failure to create talent for Employees	- Designing, socializing and structuring a company work culture that leads to a transformative, adaptive work culture in the digital era and contributes to the company's business performance - Designing and implementing development programs that can provide opportunities for employees to develop themselves - Designing and implementing performance and competency target systems that challenge and contribute to a conducive climate	Performance Management
06-ERM-2019	Employee Performance Does Not Reach KPI Target	- Dissemination and implementation of the Performance Management System - Perform intensive monitoring and assistance for each cycle of the Performance Management System starting from planning, monitoring and evaluating - Ensuring the availability of the company's strategic and business plans that can be communicated to all work units	Performance Management
07-ERM-2019	Counterfeit Bio Farma Products	- The packing system uses the Track and Trace system - Packing system with a single type of vaccine in the packing area - Barcoding Track and Trace on polyurethane boxes - Delivery using registered forwarders, trained, including sub-forwarders	Distribution & PBF
08-ERM-2019	Not Absorbing Product Inventory	- Adding new bulk buyers, especially for measles and Hib bulk - Informing internally regarding regulatory changes in the buyer's country	Corporate Export Sales

Registration Number	Corporate Risk	Mitigation	PIC
09-ERM-2019	MRP Implementation Not On Target	• Improving the Cost Accounting System • Aligning business processes with accounting systems • Developing user requirements and risk assessments • Development • Validation and documentation • Soft Live • Go Live • Conducting coordination meetings with the Production Department, General Procurement Section, Marketing Division, and other departments • Updating production plans and sales plans • Coaching the user • Reminding related sections • Coordination with relevant sections regarding the appropriate calculation method • Calculating manually with excel according to the applicable method	• System Development • Production Management • Management Accounting
10-ERM-2019	Delays in Building Project Implementation	Coordinating with users and the Procurement Department regarding the 2019 procurement plan	• User (Related section) • Project Management Division • CAPEX Procurement Section

The three highest risks have been determined to be (1) increased global competition, (2) delays in vaccine supply, and (3) changes in national and international policies/regulations.

After determining the risks associated with corporate and strategic steps to be taken in dealing with these risks, the Corporate and Risk Management (CRM) Division (as the body in charge of corporate risk) will evaluate and monitor the risk management activities carried out by each unit. Each Head of the risk unit is responsible for every risk and its handling activities, which when taken as a whole serves as the measure of the effectiveness of risk management implementation at Bio Farma.

RISK MANAGEMENT

Bio Farma is committed to always complying with laws and regulations and other applicable regulations in carrying out its activities and continues in its efforts to always implement a culture of compliance and ensure the implementation of the compliance function, which includes taking the following actions:

1. Realising the implementation of a culture of compliance at all levels of the organisation and in the Company's business activities.
2. Managing the compliance risks faced by the Company.
3. Ensuring that the policies, regulations, procedures, and business activities carried out are in accordance with the prevailing laws and regulations, government regulations and business ethics.

Risk management at Bio Farma includes risk management policies, implementation of accountability, integrated risk management planning, provision of adequate resources, communication mechanisms, and reporting on risk management implementation both internally and externally, as well as language commonality.

PT Bio Farma (Persero)

- Achievements on Assessment of GCG Application for The Last 5 Years
- Overview of GCG Activities in 2019
- Governance Structure of Bio Farma
- Dissemination of Corporate Governance Policy
- GCG Roadmap of Bio Farma
- Prevention of Conflicts of Interest
- Gratification Control
- Dissemination of Gratification Control
- Gratifications that Need Reporting
- Gratifications that Does Not Need Reporting
- Gratification Related to Services
- General Meeting of Shareholders (GMS)
- Elucidation of The Board of Commissioners
- Board of Commissioners Independence
- Elucidation of The Board of Directors
- Description of Authorities and Responsibilities of The Board of Directors
- Audit Committee
- Performance Assessment (KPI) of Risk, Development and GCG Committee
- Secretary of the Board of Commissioners
- Corporate Secretary
- Internal Audit Unit (SPI)/Internal Audit Unit
- Quality Assurance and Regulation Division (Quality Assurance and Regulatory Affairs Division / QA-RA)
- Public Accountant
- Elucidation of the Company's Risk Management
- Internal Control System
- Access to Company Information and Data
- Code of Conducts
- Policies Regarding Diversity in the Composition of the Board of Commissioners and Board of Directors
- Comparative Study

Bio Farma considers the implementation of good corporate governance (GCG) to be an imperative as this is one of the central processes that will uphold the sustainability of the Company's business in the long term. Furthermore, this process will prioritise the interests of both shareholders and stakeholders alike.

Bio Farma continually endeavours to implement and develop GCG, supported by integrity and high commitment and the active role of assorted media in Bio Farma; thus, it is expected not only that GCG will become an obligation that must be implemented by Bio Farma, but it will also be part of the Company's culture in terms of accomplishing the sustainability and fortitude of Bio Farma's business in the long run, improving the performance of Bio Farma, and ultimately, creating added value for Bio Farma for the benefit of shareholders and stakeholders, including Bio Farma's customers.

Bio Farma has several supporting tools to guide the implementation of GCG, incorporating philosophy, vision, mission, corporate culture, Company Regulations, Guidelines Regarding the Code of Conduct and Professional Responsibility, as well as various Standard Operating Procedures that have long been established. In addition to completing the supporting tools for implementing GCG, it consistently develops the existing supporting tools, adjusted to the development of Bio Farma's

business and the competitive conditions of the domestic and global markets.

Bio Farma's implementation of GCG is enthusiastically supported by Bio Farma's Board of Commissioners and Board of Directors. The clarity in the implementation of the duties of each Board of Commissioners and Board of Directors, the determination of the Bio Farma strategic plan adapted to the Work Plan and Budget (RKAP), the implementation of compliance and risk management functions, and the establishment of committees and work units that oversee and control internally are manifestations of the commitment of the Board of Commissioners and Board of Directors in implementing GCG. To make sure the implementation of GCG is not done merely to fulfil the requirements on the basis of the relevant regulations, numerous independent parties have been appointed by Bio Farma holding positions within the Board of Commissioners and Board of Directors.

Demonstrating that Bio Farma has implemented Good Corporate Governance, Bio Farma has been able to optimise the value of the Company, increased the Company's contribution to the national and global economy, and further enhanced the conducive climate that exists in the environment surrounding the Company.

ACHIEVEMENTS ON ASSESSMENT OF GCG APPLICATION FOR THE LAST 5 YEARS

Description	2015	2016	2017	2018	2019
Score for Excellent Performance Assessment Criteria (KPKU)	467	510,25	537	There was no KPKU assessment this year, with consideration that KBUMN is conducting an evaluation of this assessment.	563,25
Self-Assessment of GCG implementation	87,0028 "Very Good"	90,494 "Very Good"	90,53 "Very Good"	90,938 "Very Good"	It has been conducted in 2020
Assessment of Risk-Based Rating	88,5 "Healthy (AA)"	81,6 "Healthy (AA)"	86 "Healthy (AA)"	90,35 "Healthy (AA)"	77,10 "Healthy (A)"

OVERVIEW OF GCG ACTIVITIES IN 2019

1. Preparation of PT Bio Farma's (Persero) gratuity control report for 2018.
2. Compilation of a review report and refinement of the supporting tools for the gratification control system of PT Bio Farma (Persero) in 2018.
3. Compilation of the 2018 whistleblowing system (WBS) evaluation report.
4. Installation of WBS drop box and gratification control system at Pasteur and Cisarua locations.
5. Distributing the Code of Conduct effectiveness questionnaire.
6. Dissemination of GCG and signing of the integrity pact.
7. Collection of documents for GCG assessment in the 2018 assessment period.
8. QSHE Meeting and Agenda Preparation for PT Bio

1. Compiling Doc. #: SM-S20.2 Rev.1 Guidelines for Good Corporate Governance.
2. Compiling Doc. #: 235K-GCG-PPG Rev.0 Standard Procedure for Reporting Gratification Control.
3. Compiling Doc. #: 235K-GCG-ECOC Rev.1 Standard Procedure for Measuring the Effectiveness of Code of Conduct Implementation (Code of Conduct).
4. Compiling Doc. #: 235K-GCG-ASS Rev.1 Standard Procedure for Self-Assessment of Good Corporate Governance (GCG).
5. Compiling Doc. #: 235K-GCG-COMP Rev.0 Standard Procedure for Compliance Function Implementation.

1. Dissemination of GCG Guidelines, Codes of Conduct (Work Ethics, Business Ethics, Conflict of Interest, Gratification Control and WBS), Guidelines for the Board of Commissioners and Directors (Board Manual), and Corporate Risk Management.
2. Updating of GCG content on the Company's website.
3. Making TOR and URPA GCG Dissemination Videos, Codes of Conduct, and Gratification Control System.
4. Drafting the concept of GCG dissemination video, Codes of Conduct, and Gratification Control System.
5. Discussion on the concept of GCG socialization video, Codes of Conduct, and Gratification Control System with a consultant.
6. Training in the Standard Procedures 235K-GCG-COMP Rev.0 for the Implementation of Compliance Functions, provided to all Section Heads and Representatives of Section Heads and Equivalent Positions.

1. Dissemination of Compliance Function in Batch 3 Induction Training.
2. Socialization on the Prohibition of Gratification on Christmas Day 2019 via e-mail to all employees.

January
March 2019

April
June 2019

July
September 2019

October
December 2019

- Farma (Persero) GCG Implementation Assessment Period 2018 by External Assessors.
9. PT Bio Farma (Persero) GCG Implementation Entry Meeting Assessment Period 2018.
10. Distribution and collection of GCG assessment questionnaires for Board of Directors, Board of Commissioners, Committee of Board of Commissioners, all Head of Division, Head of Department, Section Heads, Staff, and Executives.
11. Interview assistance for Internal Control Division, HR Division, Treasury & Tax Division, Procurement Division, Project Management Division, Budget & Accounting Division, Corporate Secretary Division, Shareholders, Board of Commissioners, and Board of Directors in a series of GCG assessment activities by West Java BPKP.
12. Discussion of GCG scoring with West Java BPKP Team.

6. Socialisation regarding the ban on gratifications on the Eid al-Fitr 1440 H holiday to the staff of Bio Farma and Stakeholders.
7. Exit Meeting Assessment of PT Bio Farma (Persero) GCG Implementation Period of 2018 by BPKP West Java Province Representative.
8. Consultation with BPKP West Java related to the Contractor Amendment Plan and Changes to the Building Construction at PT Bio Farma (Persero).
9. Assistance on the Compilation of KPKU PT Bio Farma (Persero) Report in 2019.

7. Workshop on Preparation of PT Bio Farma KPKU Report in 2019.
8. Data/documents collection and preparation of the PT Bio Farma (Persero) KPKU Implementation Report 2019.
9. Facilitating the Implementation of the KPKU PT Bio Farma Assessment (Per by the SOE's Ekselen Forum (FEB)).
10. Submission of Follow-up Report on Feedback of the 2019 KPKU SOE Implementation Assessment to the relevant unit via email.
11. Submission of Follow Up Recommendations on the Results of GCG Assessment by PT Bio Farma (Persero) by BPKP West Java Representative to related units via email.
12. Comparative Study of PT SUCOFINDO (Persero) Governance, Risk, and Compliance Implementation.

3. Finalization of GCG Dissemination Video, Codes of Conduct, and Gratification Control System
4. Preparation of the Follow-Up Report on the Recommendations on the Results of the Implementation of Good Corporate Governance.

THE SIGNIFICANCE OF GCG FOR BIO FARMA

For Bio Farma, the application of GCG is to augment and amplify the value of the Company in order to gain an advantage in global competition, and to eschew fraudulence as well as Corruption, Collusion and Nepotism, and to propel the creation of an efficient, transparent, and consistent market with legislation on the basis of the basic principles of Good Corporate Governance, namely: Transparency, Accountability, Responsibility, Independence, and Fairness.

BIO FARMA'S COMMITMENT IN IMPLEMENTING GCG

The Board of Commissioners, the Supporting Organs of the Board of Commissioners, the Board of Directors, and all of Bio Farma's personnel uphold their commitments in implementing Good Corporate Governance. GCG is the basic philosophy inherent in the attitudes, behaviour, mindset, and workings of every Bio Farma representative. With GCG, Bio Farma is capable of building its image and reputation as an entity that is prominent and dignified, having the corporate culture of Professionalism, Integrity, Team Work, Innovation, and Customer Orientation.

OBJECTIVES OF GCG IMPLEMENTATION IN BIO FARMA

1. Optimising the value of the Company enabling it to possess resilient competitiveness, both nationally and internationally; to enable it to maintain its existence, operate sustainably and extend the goals and objectives of the Company.
2. Propelling the management of the Company to operate in a professional, efficient, and effective manner, empowering functions, and enhancing the independence of the Company's Organs.
3. Encouraging that Company Organs in making decisions and carrying through actions based on the foremost moral values and in full compliance with existing laws and regulations, as well as full awareness of the Company's social responsibility towards stakeholders and environmental preservation obligations surrounding the Company.
4. Increasing the contribution of Bio Farma to the environment surrounding Bio Farma and in the national economy.
5. Improving the conducive climate in the environment surrounding Bio Farma.
6. Supporting the achievement of the Company's goals both in terms of business growth, profitability, and long-term business sustainability through the implementation of GCG through all levels of Bio Farma. Accordingly, Bio Farma can manifest added value for shareholders, improve the welfare of the Bio Farma extended family, and make optimal contributions to the country.
7. Achieving maximum growth and returns for all Company Stakeholders.
8. Supporting internal controls and corporate development activities.
9. Controlling and directing good relations amongst the Board Directors, the Board of Commissioners, and all Stakeholders of the Company.
10. Increasing accountability to stakeholders.
11. Managing resources more reliably.
12. Improving the work culture of the Company.

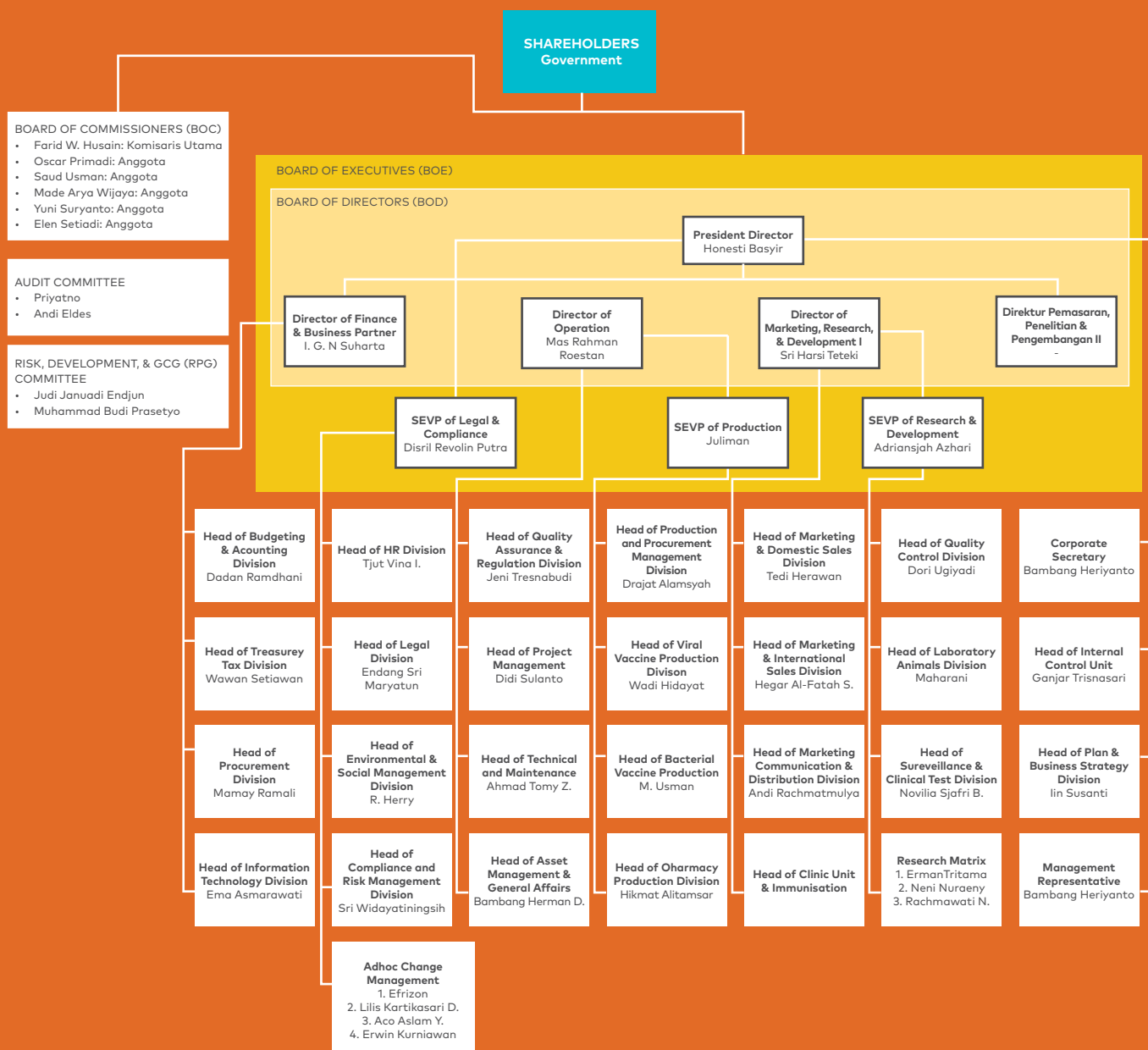
BENEFITS OF GCG IMPLEMENTATION FOR BIO FARMA

- 1 Reducing agency costs.
- 2 Reducing the cost of capital.
- 3 Increasing the value of the Company's shares while enhancing Bio Farma's image in the community for the long term.
- 4 Creating support for stakeholders in the Bio Farma environment regarding the existence of Bio Farma and various strategies and policies adopted by Bio Farma.
- 5 Producing Human Resources who have competence regarding Good Corporate Governance.
- 6 The Company can optimise profitability and high growth value.



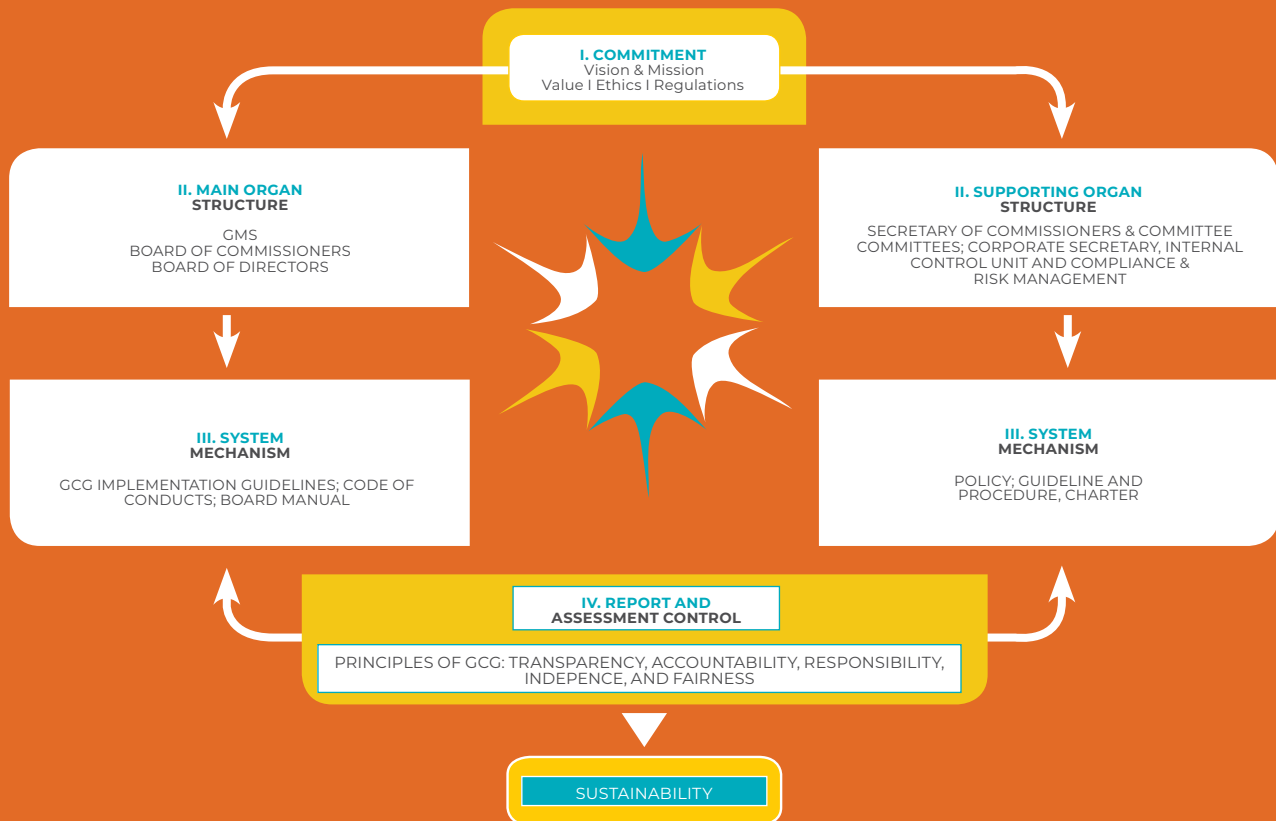
MANAGEMENT STRUCTURE OF BIO FARMA

As a business entity in the form of a limited liability company established and regulated under Law No. 40 of 2007 concerning Limited Liability Companies, the structure of Bio Farma's governance is composed of three focal organs: the Shareholders acting through the General Meeting of Shareholders (GMS) are the highest decision-making forum for Shareholders; the Board of Commissioners which acts as the supervisory body of the management of the Company; and the Board of Directors as the active management body of the Company.



BIO FARMA GCG FRAMEWORK

Bio Farma has a GCG framework that is formed based on the Governance system in Bio Farma, which is as follows:



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OBJECTIVES AND GOALS OF GCG GUIDELINES IN BIO FARMA

1. To encourage the achievement of the Company's sustainability objectives through management based on the principles of transparency, accountability, responsibility, independence, and fairness and equality.
2. To motivate the empowerment of the functions and independence of each of the Company's Organs, namely the General Meeting of Shareholders, the Board of Commissioners, and the Board of Directors.
3. To support Shareholders, members of the Board of Commissioners, and members of the Board of Directors to make decisions and perform their actions based on high moral values and in full compliance with existing laws and regulations
4. To build the emergence of greater awareness and corporate social responsibility towards the community and environmental sustainability, especially surrounding the Company.

5. To optimize the value of the Company for shareholders while also considering the other stakeholders.
6. To intensify the competitiveness of the Company both nationally and internationally, thereby increasing market confidence which can encourage investment flows and sustainable national economic growth.

GUIDELINES FOR GCG IMPLEMENTATION IN BIO FARMA

1. In the context of implementing GCG, Bio Farma has arranged the GCG guidelines as follows:
 - a. Philosophy, vision, mission, and corporate values.
 - b. Position and functions of GMS, Board of Commissioners, Board of Directors, Audit Committee, Risk, Development & GCG Committee, Internal Oversight Unit, and Compliance & Risk Management Division.

- c. Policies to ensure the effective functioning of every company organ.
 - d. Policies to ensure accountability, effective internal control, and proper financial reporting.
 - e. Codes of conduct based on the Company's values and business ethics.
 - f. Means of disclosure of information for shareholders and other stakeholders.
 - g. A policy to improve assorted regulations of the Company in order to comply with GCG principles.
2. In order to implement GCG effectively, all levels in the Company get involved in the following stages:
- a. Building understanding, care, and commitment towards implementing GCG by all members of the Board of Directors and the Board of Commissioners, as well as the Ultimate Shareholders and all employees.
 - b. Examining the Company's circumstances relating to the implementation of GCG and necessary corrective actions.
 - c. Developing programs and guidelines for the implementation of corporate GCG.
 - d. Performing the internalization of GCG implementation so as to form a sense of ownership from all parties in the Company, as well as an understanding of the implementation of GCG guidelines in daily activities.
 - e. Conducting self-assessment, or using the services of independent external parties, to ensure the sustainable implementation of GCG. The results of the assessment are disclosed in the annual report and reported at the Annual GMS.

GCG IMPLEMENTATION POLICIES IN BIO FARMA

1. Joint Regulation of the Board of Commissioners and Board of Directors of PT Bio Farma (Persero) Number: PER-06/DK/BF/12/2018; PER-06963/DIR/XII/2018 on December 31, 2018, concerning Guidelines for the Implementation of Good Corporate Governance at PT Bio Farma (Persero).
2. Joint Regulation of the Board of Commissioners and Board of Directors of PT Bio Farma (Persero) Number: PER-07/DK/BF/12/2018;

PER-06964/DIR/XII/2018 on December 31, 2018, regarding the Guidelines for the Board of Commissioners and Board of Directors (Board Manual) PT Bio Farma (Persero). The Board Manual is a reference for the Board of Commissioners and Directors in carrying out their duties and functions.

3. Joint Regulation of the Board of Commissioners and Board of Directors of PT Bio Farma (Persero) Number: PER-08/DK/BF/12/2018; PER-06965/DIR/XII/2018 on December 31, 2018. The Code of Conduct refers to the behaviour that needs to be undertaken by all Bio Farma's Individuals in implementing the Company values and in carrying out daily activities. The Code of Conduct is an imperative element to avoid violations/unethical behaviour.
4. Decree of the Board of Directors of PT Bio Farma (Persero) Number: 03991/DIR/X/2017 on October 23, 2017, concerning Submission of State Organisers' (LHKPN) Report in the Environment of PT Bio Farma (Persero).

LEGAL BASIS OF GCG IMPLEMENTATION

1. Law Number 19 of 2003 on June 19, 2003, concerning State-Owned Enterprises.
2. Law Number 40 of 2007 concerning Limited Liability Companies.
3. SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012 Regarding Amendments to SOE Ministerial Regulation Number: PER-01/MBU/2011 Regarding the Implementation of Good Corporate Governance in SOEs.
4. Secretary of the Ministry of State Owned Enterprises No. S-168/MBU/2008 on June 27, 2008, concerning Evaluation and Indicators of the Implementation of Good Corporate Governance updated with the Decree of the Secretary of the Ministry of SOE Number: SK-16 / S.MBU / 2012.
5. General Guidelines for Good Corporate Governance issued by the National Committee on Governance Policy.

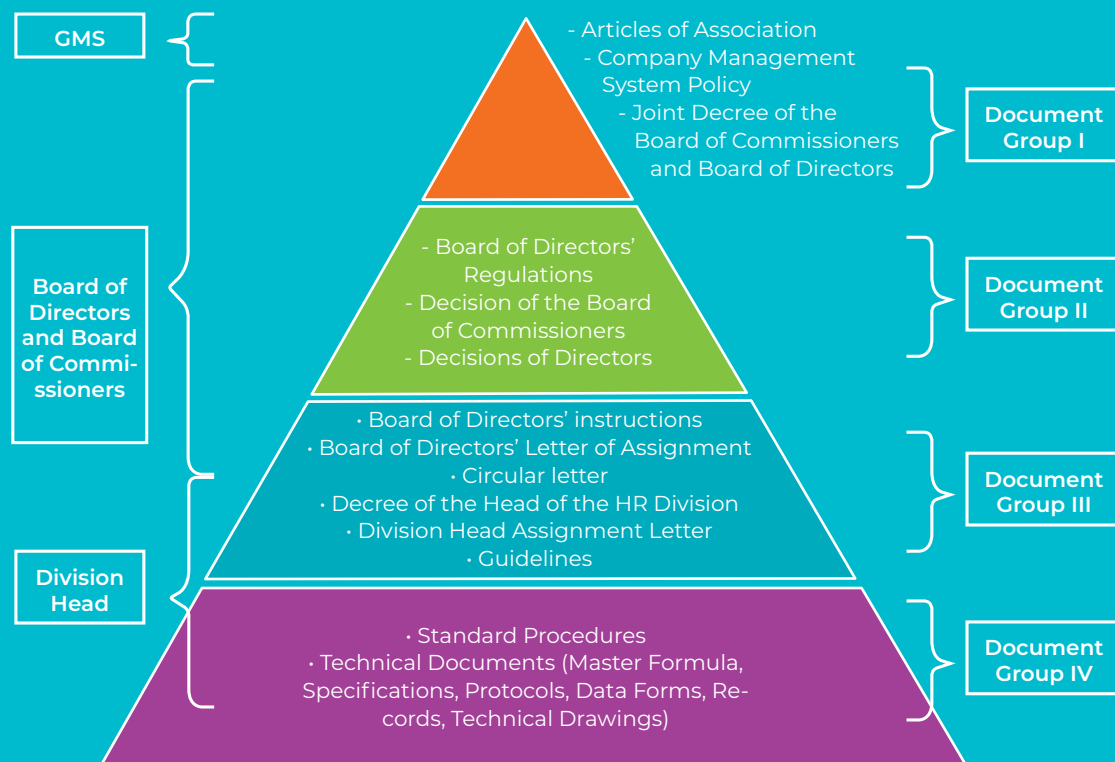
Into the bargain, Bio Farma further possesses the following Policies/Guidelines:

1. Work Guidelines (Board Manual) of the Audit Committee, Risk Committee, Development & GCG, Internal Oversight Unit (SPI).

2. Management of Information Submission through Mass Media, Website Content Update Policy, Internal Information Distribution Policy, Information Classification Determination Policy, and Public Information Transparency Policy.
3. Risk Management Policy.
4. Information Technology Policy.
5. Human Resources Policy.
6. Standard Guidelines and Procedures for Each Work Unit.

On the basis of PT Bio Farma (Persero) 's Company Management System Policy Number: MBF-02571/DIR/VI/2018 on June 25, 2018, Bio Farma has established company documents into 4 (four) document groups, they are:

1. Document Group I, consisting of Articles of Association, Company Management System Policies, and Joint Regulations of the Board of Commissioners and Board of Directors.
2. Document Group II, consisting of Board of Directors' Regulations, Board of Commissioners' Decrees, and Directors' Decrees.
3. Document Group III, consisting of Directors' Instruction, Board of Directors' Task Letters, Circular Letters, Decisions of the Head of Human Resources Division, Division Head's Duties, Guidelines.
4. Group IV, consisting of Standard Procedures, Technical Documents, namely Parent Formula, Specifications, Protocols, Data Forms, Records, Technical Drawings the Pyramid of Documents is elucidated in the following attachment:



IMPLEMENTATION OF 5 GOOD CORPORATE GOVERNANCE PRINCIPLES IN BIO FARMA

Bio Farma advances structures and governance that closely considers GCG principles in accordance with applicable rules and regulations and praxis for the Company. In a consistent manner, the Company implements TARIF principles in GCG, those are: transparency, accountability, responsibility, independence, and fairness which can be further expounded in detail as follows:

TRANSPARENCY

This concerns transparency when carrying through the decision-making process, disclosing material and relevant information about the Company. The Company provides factual, accurate, and timely information to all stakeholders. The Company has convincingly implemented the principle of transparency, properly and correctly, in eschewing conflicts of interest with disparate parties. This is attested by the publication of financial information about the Company's performance.

RESPONSIBILITY

This concerns compliance in business management with the laws and regulations and sound corporate principles. The form of corporate responsibility is evidenced by compliance with applicable regulations, such as paying taxes, conducting industrial relations, protecting all employees by implementing occupational health and safety, and protecting the environment through a sustainable corporate social responsibility program.

ACCOUNTABILITY

This concerns the clarity of functions, implementation, and responsibility of the organs so that the Company's management is performed effectively. All corporate governance organs have a principle of accountability with clarity of functions, structures, systems, and systematic accountability. This can be seen through the management of the Company which separates duties and responsibilities and clearly outlines the functions, rights, obligations, and authorities of each governance organ.

INDEPENDENCE

This shows that the Company's management is being carried out professionally, without any conflicting interests or influence from any party that is not in accordance with the laws and regulations as well as by applying sound corporate principles.

FAIRNESS

This concerns fairness and equality by fulfilling the rights of all shareholders on the basis of sound corporate principles.



DISSEMINATION OF CORPORATE GOVERNANCE POLICY

As a concrete step showing the commitment of Bio Farma towards the implementation of GCG, on February 8, 2019, there was an internalization and dissemination of the Guidelines for the Implementation of Good Corporate Governance, the Code of Conduct, the Policy for Implementing the Whistleblowing System, and the Guidelines for Controlling the Gratification of the Board of Commissioners, Supporting Organs of the Board of Commissioners, Board of Directors. Furthermore, all Bio Farma representatives signed the Integrity Pact. The inculcation of GCG values is also carried out through the Company's internal portal, by dissemination via e-mail to all Bio Farma employees, as well as through publications on the Company's website that can be easily viewed and downloaded by Bio Farma's people or Stakeholders. The information disseminated is valued as it provides a comprehensive view of our good corporate governance implementation.

From February 8th 2019 until April 9th 2019, an assessment of our implementation of GCG was performed by the BPKP Representative of West Java Province. The results were used as a basis for improving good governance practices in Bio Farma in accordance with GCG principles.

In 2019, Bio Farma perfected and completed its GCG soft structure policy, embracing:

1. The preparation of a GCG manual showing management's commitment to the implementation of GCG principles, and including:
 - a. Board of Commissioners and Board of Directors Guidelines (Board Manual).
 - b. Human Resources Policy.
 - c. Corporate Risk Management Guidelines.
 - d. Policy regarding Submission of LHKPN.
 - e. Corporate Social Responsibility Program Policies.
 - f. Partnership Program Policy and Community Development Program.
 - g. Accounting Policy.
 - h. ITMP (Information Technology Master Plan).

- i. Guidelines for the Implementation of Good Corporate Governance (Good Corporate Governance).
 - j. Code of Conduct.
 - k. Audit Committee Charter.
 - l. Charter of the Internal Audit Unit (Internal Audit Charter).
 - m. Charter of the Risk, Development and GCG Committee.
2. Completion of the Company's Standard Operating Procedures (SOP) that refers to the structure, work processes, and needs of the Company's organisation.
3. Submission of the latest Company information to stakeholders through internal websites and newsletters.
4. Performing the roles and functions of the Board of Directors, the Board of Commissioners, and with Shareholders as the focal organs of GCG in accordance with the law and the articles of association of the Company.
5. Enhancing the role and function of the Board of Commissioners' Secretary, Audit Committee, Risk Committee, Development and GCG, Corporate Secretary, Internal Control Unit (SPI) & Compliance & Risk Management Division as GCG supporting organs.
6. Conducting periodic evaluations of the application of good corporate governance through assessment activities carried out by internal parties (Self-Assessment) as part of continuous improvement attempts.

GCG ROADMAP OF BIO FARMA

To expand the quality of GCG implementation in order to improve it further. Bio Farma management has established a GCG Roadmap for 2017-2021 which is divided into 4 phases, which are aligned with the Company's 5-year Long Term Plan (RJPP). The final goal to be achieved is that of a global company that sets its own strategy through the Global CSR approach towards Good Sustainability Citizenship. To strengthen its commitment and improve its performance, Bio Farma coordinates with qualified consultants to enhance the GCG roadmap as follows:

ROADMAP GCG PT BIOFARMA (PERSERO)



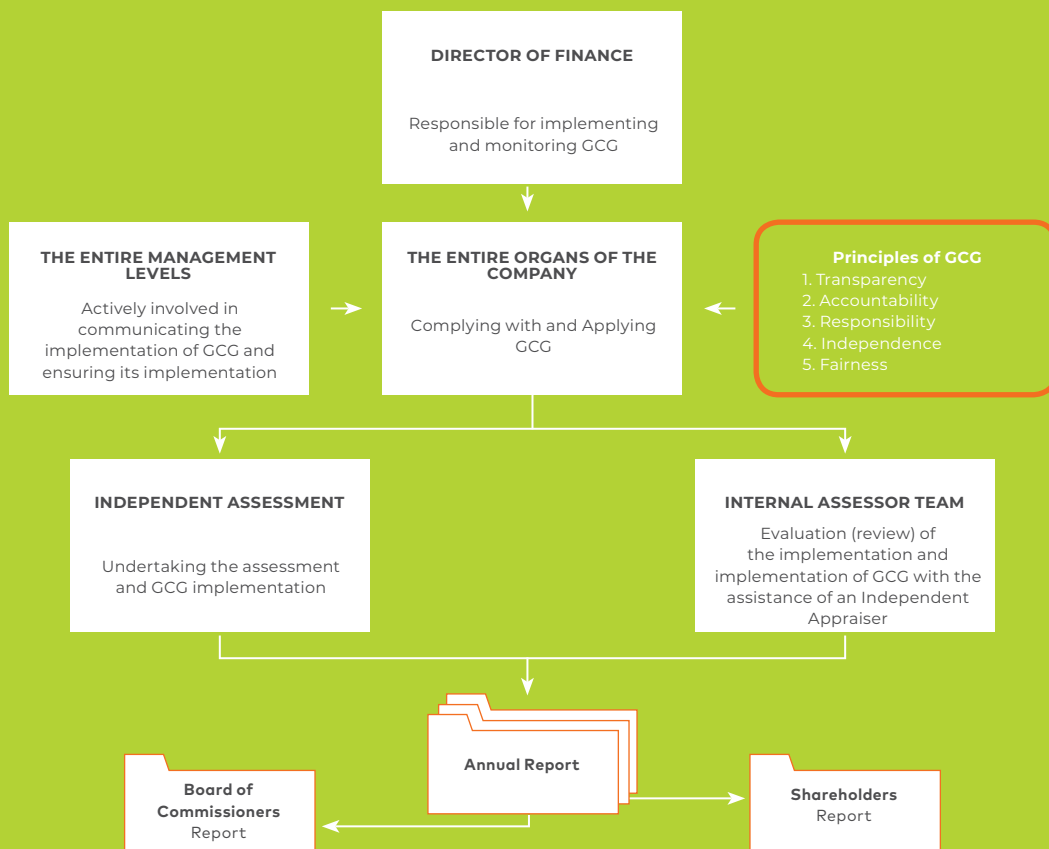
STRATEGY AND PLAN OF GCG IMPLEMENTATION IN BIO FARMA

Strategy	Policy	Work Program
- Building a commitment from the Board of Directors and all Division/Section leaders to afford full support for the implementation of good corporate governance and corporate risk management. - Collaboration amongst units in the Company and other agencies related to the activities of good corporate governance (GCG) and risk management and harnessing available network facilities (intranet, internet, email, etc.) to acquire and to submit information related to laws and regulations, rules, and corporate governance. - Managing Corporate Risk compiled on the basis of the identification of all potential events/risks that exist in all Risk Units (Sections). - Implementing integrated GCG with compliance management and risk management. - Improving HR competencies in the fields of risk management, law and good corporate governance. Disseminating good corporate governance (GCG) policies and instilling it in the work culture of the Company. Implementing - Disseminating good corporate governance (GCG) policies and instilling it in the work culture of the Company. - Implementing integrated GCG with compliance management and risk management by building IT GRC. - Providing competent human resources to develop the GRC concept with the help of information and communication technology (ICT) - Single GRC Platform.	- Guided by the laws and regulations relating to the Company's activities, the Company's Articles of Association, international regulations, and various standards relating to the activities and products produced by the Company. - The implementation of corporate governance is based on five principles: transparency, accountability, responsibility, independence, and fairness, as well as the company's values of professionalism, integrity, teamwork, innovation, and customer orientation. - Embed policies regarding the implementation of GCG in the company, the Code of Ethics for the Company, the Corporate Governance Guide for Directors, and the GCG Internal Assessment Guidelines. - Implementing Company Risk Management with ISO 31000 references. - Multi-regulatory demands and broad scope of coverage. - Implement ISO 22301 Business Continuity Management System.	- Scrutinising, updating, and disseminating the policies/guidelines and SOP's of corporate governance, and risk management in conformity with applicable regulations. - Accompanying the assessment of GCG implementation, the KPKU and making improvements to its recommendations. - Creating a Corporate Risk Management Report (ERM), and Monitoring the Implementation of Corporate Risk Management (ERM). - Consultation on the implementation of GCG, ERM, IT GRC applications, and KPKU. - Developing training needs in the fields of good corporate governance and risk management in the CRM Division. - Developing GRC infrastructure and soft structures. - Measurement of GRC Maturity Level. - Accompanying and guiding the Company's projects in order to mitigate the risks that arise. Obtaining awards in the field of GCG.

IMPLEMENTATION OF GCG IN A SUSTAINABLE MANNER

The implementation of GCG in Bio Farma has run very well as undertaken by the Board of Commissioners, the Supporting Organs of the Board of Commissioners, the Board of Directors, and all workers; with the aim of shielding the interests of the Company, shareholders, and stakeholders. The Company continues to evaluate the implementation of GCG on an ongoing basis, thus increasing the correct implementation of GCG.

The mechanisms for implementing GCG can be seen in the following implementation cycle.



PREVENTION OF CONFLICTS OF INTEREST

Throughout 2019, there have been no events related to any conflicts of interest by any member(s) of the Board of Commissioners or Board of Directors. Related to these provisions, all members of the Bio Farma Board of Directors have signed a Statement of Non Conflict of Interest with the following contents:



PERNYATAAN TIDAK MEMILIKI BENTURAN KEPENTINGAN

Dalam rangka menegakkan Tata Kelola Perusahaan Yang Baik (Good Corporate Governance) di PT Bio Farma (Persero), maka dengan ini saya menyatakan bahwa :

1. Tidak pernah melakukan tindakan tercela di bidang pekerjaan, keuangan dan usaha lainnya, tidak pernah dihukum karena terbukti melakukan tindak pidana kejahatan dan tidak sedang dalam proses pengajuan surat untuk dilarang menjadi pengurus perusahaan sebagaimana diatur dalam ketentuan dan perundangan yang berlaku.
2. Mampu melaksanakan peraturan hukum dan tidak pernah diputuskan salah atau menjadi anggota Direksi/Dewan Komisaris yang dinyatakan bersalah menyebabkan suatu perusahaan diputuskan salah berdasarkan ketetapan pengadilan dalam waktu 5 tahun sebelum tanggal pengangkatan.
3. Bersedia untuk tidak memegang jabatan rangkap sebagai:
 - a. Anggota Direksi pada BUMN lain, Badan Usaha Milik Daerah, Badan Usaha Milik Swasta dan jabatan lain yang dapat menimbulkan benturan kepentingan;
 - b. jabatan lainnya sesuai dengan ketentuan peraturan perundang-undangan.
4. Melaksanakan dengan sepenuhnya prinsip-prinsip Good Corporate Governance yang menekankan pada prinsip transparansi, akuntabilitas, tanggungjawab, independensi, dan fairness di dalam pengelolaan perusahaan.
5. Tidak memiliki keterkaitan dalam kepemimpinan, kepemilikan dan/atau hubungan istimewa dengan seluruh kelompok usaha Pemegang Saham perusahaan sejenis.
6. Tidak akan melakukan transaksi dalam bentuk apapun baik langsung maupun tidak langsung melalui pihak lain yang terkait dengan jabatan saya di Bio Farma dimana saya atau keluarga saya mempunyai kepentingan atau memperoleh manfaat ekonomis.
7. Tidak menjabat sebagai pengurus partai politik dan/atau calon/anggota legislatif dan/atau merupakan calon atau menjabat sebagai Kepala/Wakil Kepala Pemerintahan Daerah.
8. Tidak mempunyai hubungan keluarga sedarah sampai derajat ke-3 (ke-3) baik menurut garis lurus maupun garis ke samping ataupun hubungan yang timbul karena perkawinan dengan Anggota Direksi lainnya atau dengan Dewan Komisaris.
9. Akan dengan sepenuh hati menghindari benturan kepentingan yang dapat berpengaruh pada proses pengambilan keputusan operasional di Perusahaan.

Apabila di kemudian hari ditemukan ketidakjujuran atau pelanggaran yang telah dibuat, maka bersedia dikenakan sanksi berdasarkan ketentuan perundangan yang berlaku.

Bandung, 8 Februari 2019

DIREKSI
PT BIO FARMA (PERSERO)



MAS RUMAN ROESTAN
DIREKTUR UTAMA

PT. BIO FARMA (Persero)
Jl. Pasteur No. 28, Bandung 40131, Indonesia, P.O. Box 7136, Telp. 022-5033766, Fax. 022-2541308
email : info@biofarma.co.id / <http://www.biofarma.co.id>

GRATIFICATION CONTROL

Bio Farma is committed to not giving and or receiving gifts or gratuities with the issuance of Joint Regulation from the Board of Commissioners and Board of Directors of PT Bio Farma (Persero) Number: PER-08/DK/BF/12/2018, and Number: PER-06965/DIR/XII/2018 concerning the Code of Conduct of PT Bio Farma (Persero). It is known that inside the Code of Conduct, there is a Gratification Control Policy. This policy regulates the granting and receiving of gratuities carried out by Bio Farma individuals as well as efforts to prevent and control gratuities within the Bio Farma environment. This policy refers to the Corruption and Eradication Commission's Regulation No. 6 of 2015 concerning any Amendments to the Corruption and Eradication Commission Regulation No. 2 of 2014, concerning Guidelines for Reporting and Establishing Gratification Status. The Gratification Control Policy has been published on the internal portal and the Company's website.

DISSEMINATION OF GRATIFICATION CONTROL

The socialisation of gratification control was carried out through face-to-face media conducted on February 8, 2019, additionally, through e-mails, banners, posters, intranets, websites, animated videos, bulletins and annual reports. Regarding religious holidays, we have conducted socialisation that prohibits receiving gratification in any form, including parcels, gifts, money, or other forms.

GRATIFICATIONS THAT NEED REPORTING

1. Gratuities in this category represent receipts in any form found by the ASN/State Operator from parties suspected of having links to the position of recipient.
2. Bio Farma's employees must reject all gratuities known from the beginning to be related to their position that contradicts their obligations or duties. The classified gratuities are related to
 - a. Providing services to the community outside of legal acceptance.
 - b. The task in the process of preparing a budget outside of legal acceptance.
 - c. Duties in the process of inspection, audit, monitoring and evaluation outside of legal acceptance.
 - d. The implementation of official travel outside the legal/official receipt from the Company.
 - e. The process of acceptance/promotion/transfer of employees.
 - f. The process of communication, negotiation and implementation of activities with other parties relating to the implementation of their duties and authorities.
 - g. As a result of cooperation agreements/contracts/agreements with other parties.
 - h. Any expression of gratitude before, during, or after the process of procuring goods and/or services.
 - i. Any gift(s) or souvenir(s) for employees/supervisors/guests during official visits.
 - j. Any entertainment facility, tourism facility, voucher by Bio Farma Personnel provided during activities related to carrying out their duties and obligations with gratuities that are not relevant to the assignment received.
 - k. In order to influence the policies/decisions/treatment of authority holders.
 - l. In the implementation of work related to any position and contrary to the obligations/duties of Bio Farma Personnel.
3. The following cases of receiving gratification, can under all circumstances be seen to be related to the position of the ASN/State Organiser who received it; and must therefore be reported:
 - a. Giving to any family relations, namely grandparents, father/mother/in-laws, husband/wife, children/son-in-law, grandchildren, in-laws, uncle/aunt, brother/sister/brother-in-law, cousins, and nieces who have conflicts of interest.
 - b. Receiving money/goods by officials/employees for any activity, such as a wedding, birth, aqiqah, baptism, circumcision, tooth cutting, or any other religious/customary/ traditional ceremony that exceeds Rp1,000,000 (one million rupiah) per gift per person.

- c. Giving related to any disaster experienced by the recipient, father/mother/father-in-law, husband/wife, or child recipient of any gratuities that exceeds Rp1,000,000 (one million rupiah) per gift per person.
- d. Giving employees, for the purpose of greetings, pensions, promotions, and or birthdays, either money or cash equivalents (checks, current accounts, deposits, vouchers, credits, etc.) with value exceeding Rp300,000 (three hundred thousand rupiah) per gift per person or any gift with value exceeding Rp1,000,000 (one million rupiah) in 1 (one) year from the same giver
- e. Giving colleagues money or cash equivalents (checks, demand deposits, shares, deposits, vouchers, credits, and others) in excess of Rp200,000 (two hundred thousand rupiah) per gift per person with a maximum of Rp1,000,000 (one million rupiah) in 1 (one) year from the same giver.

GRATIFICATION THAT DOES NOT NEED REPORTING

Forms of gratuity that are not required to be reported, including:

1. Giving due to family relationships, namely grandfather/grandmother, father/mother/in-laws, husband/wife, children/son-in-law, grandchildren, in-laws, uncles/aunts, brother/sister/brother-in-law, cousins and nieces, as long as there is no conflict of interest.
2. Gifts in the form of money or goods that have a face value in the holding of weddings, births, aqiqah, baptism, circumcision, and tooth cutting, or other traditional/religious ceremonies with a limit on the value per giver in each event at most Rp1,000,000 (one million rupiah).
3. Gifts for a disaster experienced by the recipient (father/mother/father-in-law, husband/wife, or child) of gratuities at most Rp1,000,000 (one million rupiah).
4. Giving to fellow employees for greetings, pensions, promotions, and birthdays not in any monetary form or not in the form of cash equivalents, up to a maximum of Rp300,000 (three hundred thousand rupiah) per gift per person with a total gift of Rp1,000,000 (one million rupiah) in 1 (one) year from the same giver.
5. Giving fellow co-workers money or cash equivalents (checks, current accounts, shares, deposits, vouchers, credits, etc.) up to a maximum of Rp200,000 (two hundred thousand rupiah) per gift per person and totalling a maximum of Rp1,000,000 (one million rupiah) in 1 (one) year from the same giver.
6. Commonly accepted dishes.
7. Academic or non-academic achievements at their own costs such as championships or competitions not related to service.
8. Gain or interest from a generally accepted fund, investment or share ownership.
9. Benefits for employees who participate in cooperatives, based on generally accepted employee cooperative membership.
10. Seminar kits in the form of a set of modules and or stationery, as well as certificates obtained from officials' activities such as; meetings, seminars, workshops, conferences, training, or other similar activities that are generally accepted.
11. Acceptance of any gifts or benefits in the form of money or goods related to the improvement of work performance provided by the Government or the Company in accordance with applicable laws and regulations.
12. Funds obtained from compensation for professions outside the ministry, not related to the duties and functions of officials/employees, that do not have any conflict of interest and do not violate the regulations in force in the Company.

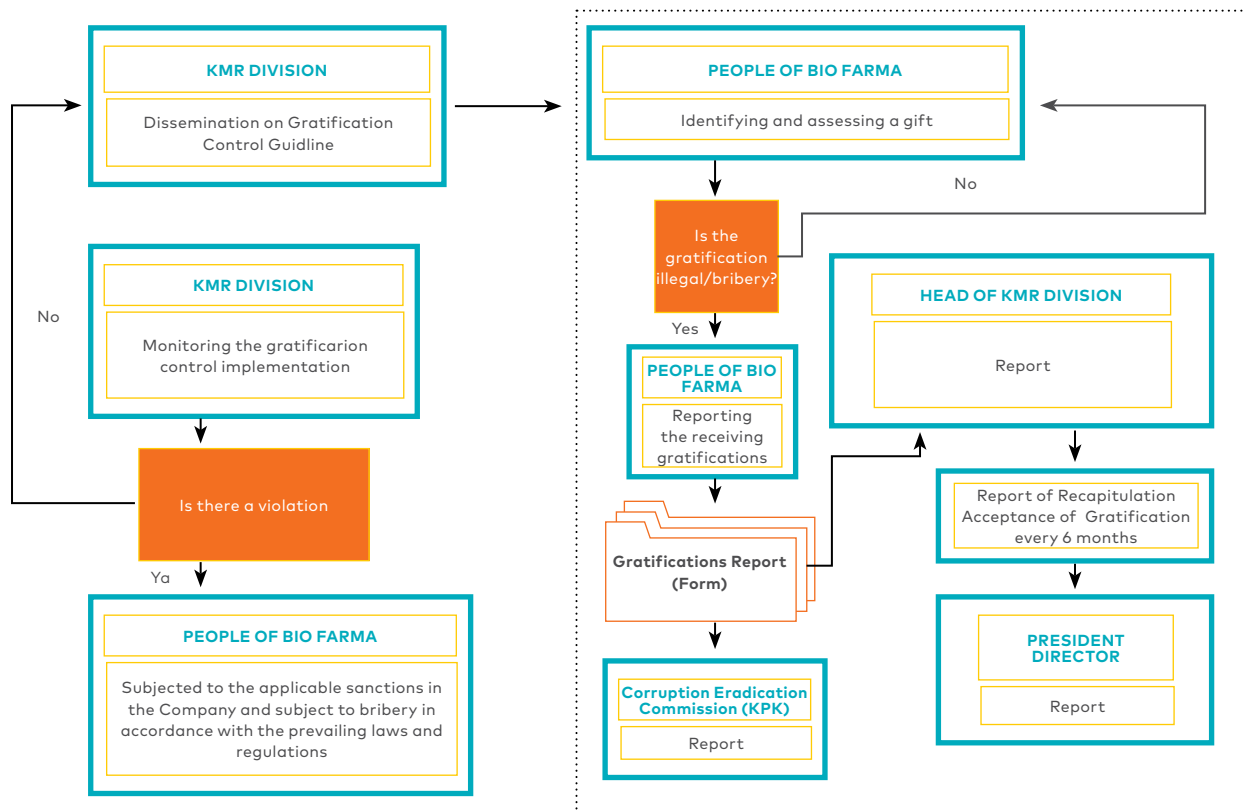
In 2019, there were no reports of any receipts of Gratification submitted by the reporter to the UPG (Gratification Control Unit), and the report was subsequently forwarded to the Corruption Eradication Commission. For those who directly reported the receipt of gratuities to the Corruption Eradication Commission there was 1 (one) report related to marriage. Provisions related to the Gratification receipt report were submitted by the reporter to UPG and forwarded to the Corruption Eradication Commission in less than 30 (thirty) working days.

GRATIFICATION RELATED TO SERVICES

1. Receipts that can be categorised as Gratuities are related to service or any receipts that have the following general characteristics:
 - a. Obtained legally in the performance of official duties;
 - b. Given plially in a series of official events, meaning that it can be interpreted as an open way of giving which is witnessed or given in front of other participants, or if there is a receipt for the gift given;
 - c. Generally accepted, which is a condition of granting that is the same in terms of type, form, requirements or value (referring to the general fee standard), for all participants and fulfils the principle of fairness or propriety; and
 - d. Other than forms that are not required to be reported in a series of official activities.

2. Examples of receipts in service include:
 - a. Transportation facilities, accommodation, pocket money, meals, souvenirs received by Bio Farma Personnel from other agencies or institutions based on official appointments and assignments;
 - b. Goody bags/gifts from the seminar committee, workshops, training received by Bio Farma Personnel from other agencies or institutions based on official appointment or assignment;
 - c. Prizes during open competition or competition events organized by other agencies or institutions based on official appointments or assignments;
 - d. Receiving honorariums, incentives in the form of money or money equivalents, as compensation for carrying out duties as keynote speakers, resource persons, consultants and other similar functions received by Bio Farma Personnel from other agencies or institutions based on official appointments or assignments.

FLOWCHART GRATIFICATION CONTROL IN BIO FARMA



MANAGEMENT OF STATE WEALTH PROPERTY REPORTS (LHKPN)

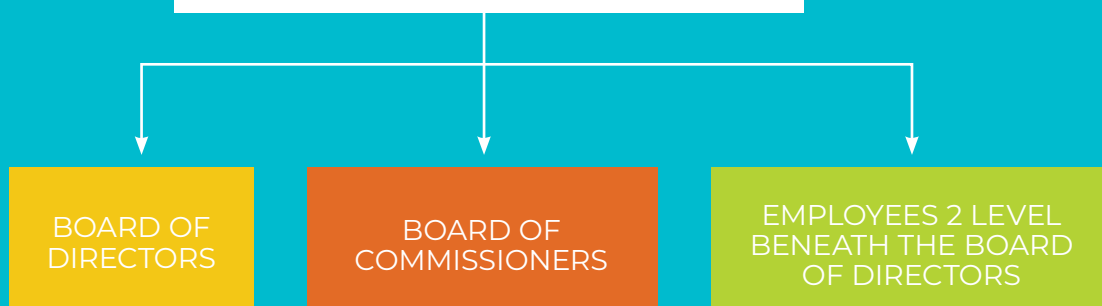
In order to uphold the principles of Good Corporate Governance (GCG), Bio Farma has a Policy regarding the Report of State Assets (LHKPN) as stipulated in the Decree of the Board of Directors of PT Bio Farma (Persero) Number: 03991/DIR/X/2017 October 23, 2017, Concerning the Submission of State Organizer Assets (LHKPN) in the PT Bio Farma (Persero) Environment. This policy refers to the Corruption Eradication Commission's Regulation No. 7 of 2016, concerning Procedures for Registration, Announcement, and Examination of State Officials Assets. The obligation to report on state organisers' assets is based on the policy for submitting and managing the Reports of State Organizers' Assets. The obligation to report the State Organisers' Assets in the Bio Farma environment is as follows:

The Board of Commissioners regulates the Reports of State Organisers' Assets for the Board of Commissioners in the Decree of the Board of Commissioners of PT Bio Farma (Persero) on March 18, 2016, Number: SK-04/DK/BF/03/2016 Regarding the Guidelines for the Obligation of Submitting the Reports of State Organisers' Assets of PT Bio Farma (Persero).

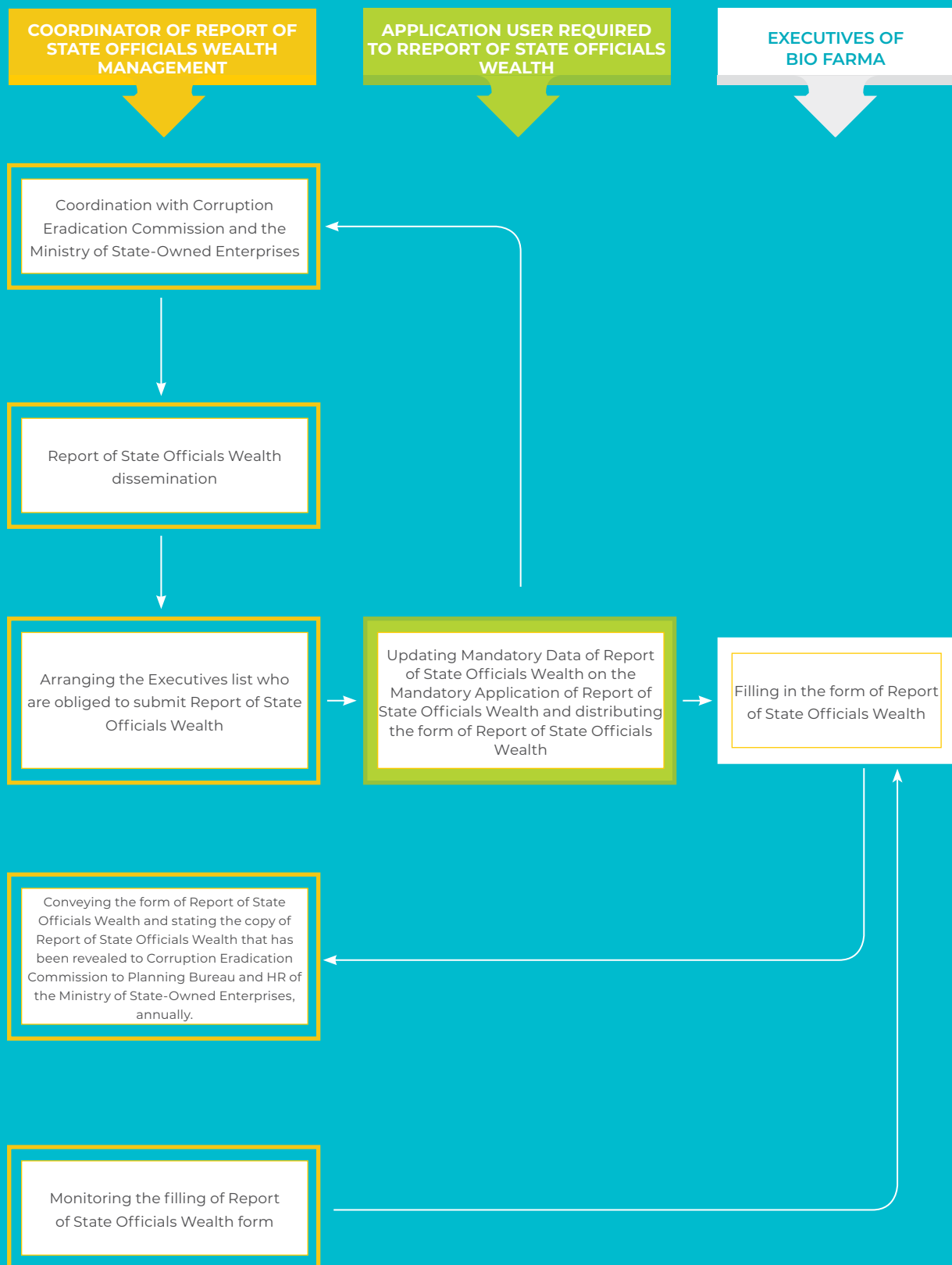
THE REPORTS OF STATE ORGANISERS' ASSETS IN 2019

In conformity with the KPK / Corruption Eradication Commission's leadership circular No. 08 of 2016, concerning technical instructions for submission and management of the reports of state organisers' assets after the enactment of the Corruption Eradication Commission's Regulation No. 07 of 2016 concerning procedures for registration, announcement and examination of state assets, the Reports of State Organisers' Assets are to be submitted annually, no later than March 31 after the current year, and carried through electronically using the e-LHKPN application. In its implementation, in 2019, all officials at Bio Farma have provided their Reports of State Organisers' Assets under the relevant laws and regulations.

REPORT OF STATE OFFICIALS WEALTH POLICIES



REPORT OF STATE OFFICIALS WEALTH DELIVERY MECHANISM IN BIO FARMA



GENERAL MEETING OF SHAREHOLDERS (GMS)

The GMS, as a Company Organ, is a place for Shareholders to make vital decisions related to capital invested in the Company as deemed in the provisions of the Articles of Association and Legislation. Decisions taken at the GMS are necessarily based on the Company's long-term business interests. The GMS and or the Shareholders cannot intervene in the duties, functions, and authorities of the Board of Commissioners and Board of Directors without reducing the authorities of the GMS to exercise their rights in accordance with the articles of association and legislation, including to replace or dismiss members of the Board of Commissioners or Board of Directors.

THE ENFORCEMENT OF THE 2019 AGM

In 2019, the Annual General Meeting of Shareholders was held on May 10, 2019 regarding the Ratification of the Annual Company Management Report and the Partnership and Community Development Program Activity Report for Fiscal Year 2018. While the General Meeting of Shareholders regarding the approval of the Corporate Budget Work Plan (RKAP) and Work Plan & Budget of the Partnership and Community Development Program Environment Year 2019 was implemented on December 28, 2018.

The Annual GMS is chaired by the President Commissioner. The rules for implementing the GMS are under the general applicable rules. The Chairperson of the meeting provides an opportunity for shareholders or representatives to submit questions or responses or proposals at each agenda item. Directors are given the opportunity to answer or to respond towards shareholders' questions.

STAGES OF THE GMS IN 2019

The GMS Approval of the Company's Annual Financial Statements for Fiscal Year 2018 & Reports on Partnership and Community Development Program Activities	
April 25, 2019	Notification to Shareholders Regarding the GMS
Bio Farma sends an invitation letter to shareholders, Letter No. SD-02731/DIR/IV/2019	
May 10, 2019	Implementation of the GMS
Implementation of the GMS at the Office of the Ministry of BSOEUMN Jl. Medan Merdeka Selatan No. 13 Central Jakarta	
Submitting Minutes of GMS No. 01 directly to the Ministry of SOE	Submission of Minutes

ENFORCEMENT OF THE AGM REGARDING FINANCIAL STATEMENTS & PARTNERSHIPS AND COMMUNITY DEVELOPMENT PROGRAM ACTIVITIES IN 2018

ENFORCEMENT OF THE AGM REGARDING FINANCIAL STATEMENTS & PARTNERSHIPS AND COMMUNITY DEVELOPMENT PROGRAM ACTIVITIES IN 2018

TIME, PLACE, AND AGENDA OF AGM

In accordance with an invitation letter from the Board of Directors of PT Bio Farma No. 02731/DIR/IV/2019 on April 25, 2019, the General Meeting of Shareholders of PT Bio Farma (Persero) was held on:

Day, date : Friday, May 10, 2019
Time : 08.00 WIB until end
Venue : 6th Floor, Ministry of SOE's Office,
Jln Medan Merdeka Selatan No. 13
Jakarta Pusat – 10110

BASIS OF THE 2018 AGM REGARDING FINANCIAL STATEMENTS, PARTNERSHIPS AND COMMUNITY DEVELOPMENT PROGRAM ACTIVITIES

1. Regulation No. 40 of 2007 concerning Limited Liability Companies as per the Official Gazette of the Republic of Indonesia dated 08-14-2009, No. 65 Additional No. 21702
2. Official Gazette of the Republic of Indonesia dated 05-28-2013 No. 43, additional No. 54987
3. Deed dated June 6, 2014, No. 26, made before Fathiah Helmi, Bachelor of Law, Notary Based in Jakarta, whose Declaration of Amendment to the Articles of Association was received by the Indonesian Ministry of Law and Human Rights, on June 6, 2014, No. AHU-04104.40.20.2014.
4. Deed dated 19-01-2016 No. 16, made before Fathiah Helmi, Law Scholar, Notary Based in Jakarta, whose Declaration of Amendment to the Articles of Association has been received by the Indonesian Ministry of Law and Human Rights dated 25-01-2016 No. AHU-AH.01.03-0006021.
5. The latest amendments to the Articles of Association as per deed No. 34 December 14, 2016 made by Fathiah Helmi, S.H., Notary in Jakarta and which received approval based on Decree of the Minister of Law and Human Rights No. AHU-

0024481.AH.01.02.Tahun 2016 on December 21, 2016. The Letter of Acceptance and Notification of Amendments to the Articles of Association was received by the Ministry of Law and Human Rights No. AHU-AH.01.03-0109923 both of which were dated 12-21-2016.

6. The latest amendment to the composition of the Board of Directors and Board of Commissioners of the Company is currently contained in the Deed dated 19-19-2017 No. 43 which was prepared by Fathiah Helmi, S.H., a Notary in Jakarta, whose Notification of Data Change was received by the Indonesian Ministry of Law and Human Rights dated 19-19-2017 No. AHU-AH.01.03-0154194.
7. Deed dated 01-31-2018 No. 39, prepared by Fathiah Helmi, S.H., a Notary in Jakarta, whose Notification of Data Change was received by the Indonesian Ministry of Law and Human Rights dated 01-01-2018 No. AHU-AH.01.03-0048955.
8. Deed dated 04-24-2018 No. 88, prepared by Fathiah Helmi, S.H., a Notary in Jakarta, whose Notification of Data Change was received by the Indonesian Ministry of Law and Human Rights, dated 04-25-2018 No. AHU-AH.01.03-0162781
9. Deed dated 01-14-2019 No. 88, prepared by Fathiah Helmi, S.H., a Notary in Jakarta, whose Notification of Data Change was received by the Indonesian Ministry of Law and Human Rights dated 17-17-2019 No. AHU-AH.01.03-030933.
10. Article 23 paragraph (4) and Article 23 paragraph (15), paragraph (16) and paragraph (17) of the Company's Articles of Association for holding meetings.
11. SOE Minister's Power of Attorney No. SKU-96/MBU/05/2019. On May 7, 2019, the Minister of SOE as the Shareholder of the Company has given Power of Attorney to Wahyu Kuncoro, the Deputy of the Agro and Pharmaceutical Industry Business the Ministry of SOE represented the Company's RUPS.

PARTICIPANTS OF THE GMS ON FINANCIAL STATEMENTS, PARTNERSHIPS AND COMMUNITY DEVELOPMENT PROGRAM ACTIVITIES IN 2018

The Annual General Meeting of Financial Statements Ratification and the 2018 Partnership and Community Development Program Activities Activity Report were attended by the President Commissioner and members of the Board of Commissioners, the President Director and all Board of Directors, Shareholders, and Invitations.

Name of Board of Commissioners	Position	Membership on the Committee	Attendance	
			Present	Absent
Shareholders' Attorney				
Wahyu Kuncoro	Deputy of Agro and Pharmaceutical Industry Business Ministry of SOE		√	
Agus Suharyono	Assistant Deputy for Agro and Pharmaceutical Industry Business II Ministry of SoE		√	
Board of Commissioners				
Farid Wajdi Husain	President Commissioner	-	√	
Yuni Suryanto	Commissioner	Deputy Head of Audit Committee	√	
Made Arya Wijaya	Commissioner	Head of Audit Committee	√	
Saud Usman	Commissioner	Head of Risk, Development, and GCG Committee	√	
Elen Setiadi	Commissioner	Deputy Head II of Risk, Development, and GCG Committee	√	
Mohamad Subuh	Commissioner	Deputy Head I of Risk, Development, and GCG Committee	√	
Board of Directors				
M. Rahman Roestan	President Director		√	
Disril Revolin Putra	Director of HR		√	
Pardiman	Director of Finance		√	
Sri Harsi Teteki	Director of Marketing		√	
Juliman	Director of Production		√	
Adriansjah Azhari	Director of Procurement & Development		√	
Supporting Institutions & Professionals				
Nanda Fauz Iwan	Nanda Fauz Iwan, SH, M.Kn Notary Acting Officer for Land Deed		√	
Roebiandini & Partners Public Accounting Firm			√	
Officials and Staff of the Ministry of SOE and PT Bio Farma (Persero)			√	

AGENDA OF DISCUSSION AND DECISIONS OF THE AGM ON FINANCE, PARTNERSHIPS AND COMMUNITY DEVELOPMENT PROGRAM ACTIVITIES IN 2018

Details of the discussion agenda and resolutions of the 2018 GMS are as follows:

1. Approval of the Annual Report and Ratification of the Company's Financial Statements for Fiscal Year 2018 and the Board of Commissioners' Supervisory Report for Fiscal Year 2018.
2. Approval and Ratification of the 2018 Partnership and Community Development Program Report.
3. Determination of the Use of the Company's Net Profit for Fiscal Year 2018.
4. Determination of Salary/Honorarium, along with other facilities and benefits for the Board of Directors and Board of Commissioners of

the Company for Fiscal Year 2019 and Tantiem for Directors and Commissioners for Book Performance 2018.

5. Determination of the Public Accounting Firm (KAP) to audit the Company's Financial Statements and the Financial Statements of the Partnership and Community Development Program for Fiscal Year 2019.

DECISION OF THE GMS OF FINANCIAL STATEMENTS, PARTNERSHIPS, AND COMMUNITY DEVELOPMENT PROGRAM ACTIVITIES OF 2018

Based on the Minutes at the Annual General Meeting of Shareholders of PT Bio Farma (Persero) regarding the ratification of the Annual Report and Activity Report of the 2018 Partnership and Community Development Program Activities No. 01, on May 10, 2019, concerning the results of deliberations and consensus decided to approve:

AGENDA I

Approval of the Annual Report and Ratification of the Company's Financial Statements in 2018 and the Board of Commissioners' Supervisory Report for the 2018 Fiscal Year.

DECISION

Approving the Annual Report for the 2018 Fiscal Year including the Report of the Board of Commissioners' Duties and ratified the Company's Financial Statements for the 2018 Fiscal Year as audited by the Public Accounting Firm of Roebiandini and Partners according to the report No. 00010/2.0756/AU.1/04/1055-1/1/II/019 02-14-2019 with an opinion. Reasonable in all material respects ", as well as providing full redemption and release of responsibility (volledig acquit-et de charge) to the Directors and Board of Commissioners of the Company for the management and supervision actions that have been conducted in the Fiscal Year ending on 31-12-2018 as long as these actions are not criminal and are reflected in the Company's report books.

AGENDA II

Approval and Ratification of the 2018 Partnership and Community Development Program Report.

DECISION

Approving and ratifying the Financial Statements of the Partnership and Community Development Program for the 2018 Financial Year, including Financial Statements of the Partnership and Community Development Program which has been audited by Roebiandini and the Associate Firm according to the report No. 00010/2.0756/AU.1-PKBL/04/1055-1/1/II/2019 dated on 14-02-2019 with the opinion "Fair in Material Matters" and provide repayment and release of responsibility (volledig acquit-et de charge) to the Board of Directors and Board of Commissioners of the Company for the management and supervision of Partnership and Community Development Program for Fiscal Year 2018, as long as these actions are not criminal and are reflected in the report.

AGENDA III

Determination of the Use of the Company's Net Profit for Fiscal Year 2018.

DECISION

Determining the use of Net Profit that can be distributed to the owners of the parent company for the 2018 Fiscal Year in the amount of Rp543,226,015,844 (Five Hundred Forty-Three Billion Two Hundred Twenty-Six Million Fifteen Thousand Eight-Hundred Forty-Four Rupiah) with the following allocations:

1. Dividend of 30% or amounting to Rp162,967,804,753 (one hundred sixty-two billion Nine hundred sixty-seven million eight hundred four thousand seven hundred fifty-three rupiahs).
2. Retained Earnings Balance (Reserves) of 70% (Seventy percent) or in the amount of Rp380,258,211.09 (three hundred eighty billion two hundred fifty-eight million two hundred eleven thousand point zero nine rupiahs).

AGENDA IV

Determination of Salary/Honorarium, along with other facilities and benefits for the Directors and Board of Commissioners of the Company for Fiscal Year 2019 and Tantiem for Directors and Board of Commissioners for the 2018 Book Performance.

DECISION

Determination of Salary/Honorarium along with other facilities and allowances for the Directors and Board of Commissioners of the Company for Fiscal Year 2019 and Tantiem for Directors and Board of Commissioners for the performance of Fiscal Year 2018 will be decided separately.

AGENDA V

Determination of the Public Accounting Firm (KAP) to audit the Company's Financial Statements and the Financial Statements of the Partnership and Community Development Program for Fiscal Year 2019.

DECISION

1. Reappointing the Public Accounting Firm of Roebiandini and Partners as auditors, who will audit the Company's Financial Statements and the Financial Reports of the Company's Partnership and Community Development Program for Fiscal Year 2019.
2. Delegation of authority to the Board of Commissioners of the Company to determine the amount of audit fees and other appropriate appointment requirements for the Public Accounting Firm.

REALISATION/FOLLOW-UP OF THE GMS OF FINANCIAL STATEMENTS AND ACTIVITIES REPORT ON PARTNERSHIPS & DEVELOPMENT PROGRAM (PKBL) OF PT BIO FARMA (PERSERO) 2018 YEAR BOOK

In order to improve the implementation of good corporate governance, the Board of Directors and Board of Commissioners have done the follow-up to the Resolution/Direction of the General Meeting of Shareholders on the Ratification of the Financial Statements and PT Bio Farma (Persero) Partnership & Community Development Program Activity Reports in Fiscal Year 2018.

No	Shareholders' Directions	Status		The Follow-Up of the Shareholders' Directions	Completion Time Limit
		Effective	Ineffective		
1	Following up and completing thoroughly the findings, notes and recommendations from the Audit Board of the Republic of Indonesia, the Public Accounting Firm and other external auditors as well as the company's internal auditors which have not yet been declared to be followed up. The progress to follow up on the findings is to be discussed comprehensively with the Board of Commissioners and submitted periodically in writing to the Shareholders.	√			-
2	Accelerating the realization of investment in the Company's strategic projects and submit periodic (quarterly) progress reports to the Ministry of SOEs	√			-
3	Mapping and securing all assets owned in the form of legal ownership documentation to avoid the demands of other parties, as well as optimising their use for company business activities.	√			-
4	Depositing dividends in accordance with Regulation of the Minister of Finance of the Republic of Indonesia No. 190/PMK.02/2017 concerning Procedures for Paying Non-Tax State Revenues from the results of the management of separated State Assets.	√			-
5	Ensuring that GCG principles are applied consistently and internalized in all the company's business processes.	√			-
6	Increasing the proportion of sales in the export and private sectors.	√			-
7	Improving the quality of revenue and profit growth achieved by the Company, especially in the aspect of increasing the company's cash flow from operating activities.				

No	Shareholders' Directions	Status		The Follow-Up of the Shareholders' Directions	Completion Time Limit
		Effective	Ineffective		
8	Realising investments in order to maintain the business continuity of the company including the possibility to take business opportunities of non-core companies while still contributing profits to the company.	√			-
9	Increasing research collaboration through collaboration schemes of academics (research institutions and domestic and foreign universities), business and government (BPOM RI, Ministry of Health, Republic of Indonesia, Ministry of Research and Technology) to develop products that support company business, and implement the results of the research in a pilot project.	√			-
10	Making a plan to form an SOE Holding as a trigger for the company to be able to develop the Company, inorganically.	√			-
11	Submitting the 2019 annual report including the Auditor's Report on Financial Statements, Partnership & Community Development Program Activity Financial Reports, Performance Evaluation Reports (Risk-Based Rating and KPIs), Compliance Reports on Legislation and Internal Control and Management Letters at the latest at the end of February 2020.				
12	Improving the completion and updating of the SOE's data, reports, and documentation on 5 SOE portals, namely the SiLaba Portal, Asset Portal, Integrated Talent Management System (ITMS) Portal, Partnership & Community Development Program Activity Portal, and Public Portal.				
13	Annual Report, Board of Commissioners' Monitoring Report, Independent Auditor's Report, Board of Directors' Presentations and Board of Commissioners' Responses and Suggestions at the GMS, Minutes of Partnership & Community Development Program Activity Annual Report Discussion No. 2018 RIS-14/D7.MBU.3/3/2019 is an inseparable part of the minutes of this Meeting.				

ELUCIDATION OF THE BOARD OF COMMISSIONERS

The Board of Commissioners, as an Organ of the Company, are tasked with and are collectively responsible for conducting supervision in conformity with the Company's Articles of Association. Besides, by providing an advice to the Board of Directors and ensuring that the Company implements GCG effectively, efficiently, and sustainably. The Board of Commissioners may not participate in making operational decisions. The position of each member of the Board of Commissioners, including the President Commissioner is equal. The duty of the President Commissioner as *primus inter pares* is to coordinate the activities of the Board of Commissioners.

THE APPOINTMENT OF THE BOARD OF COMMISSIONERS

The process of appointing candidates for the Board of Commissioners follows the fit and proper test of the Board of Commissioners based on SOE Ministerial Regulation Number PER-02/MBU/02/2015 on February 17, 2015. Regarding the Requirements and Procedures for Appointment and Dismissal of Members of the Board of Commissioners and the SOE Supervisory Board.

ASSESSMENT OF THE FIT AND PROPER TEST OF THE BOARD OF COMMISSIONERS

All members of the Bio Farma Board of Commissioners have fulfilled the criteria and requirements specified in the fit and proper test based on the Limited Liability Company Law, the Company's Articles of Association, regulations related to good corporate governance, and other rules and regulations. All members of the Bio Farma Board of Commissioners have integrity, competence, and a fine reputation. This has been proven by passing the fit and proper test.

Name of Board of Commissioners	Position	Terms of Office	Organiser	Representation	Pass the Fit & Proper Test
Farid Wajdi Husain	President Commissioner Concurrently as an Independent Commissioner	April 20, 2018 to April 19, 2023	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Saud Usman Nasution	Independent Commissioner	April 20, 2018 to April 19, 2023	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Made Arya Wijaya	Commissioner	April 20, 2018 to April 19, 2023	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Yuni Suryanto	Commissioner	April 20, 2018 to April 19, 2023	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Elen Setiadi	Commissioner	January 8, 2019 to January 7, 2024	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Oscar Primadi	Commissioner	July 16, 2019 to July 15, 2024	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed

APPOINTMENT AND TERMINATION OF THE BOARD OF COMMISSIONERS

The appointment and dismissal of members of the Board of Commissioners is based on the principles of professionalism and good corporate governance. The appointment of the Board of Commissioners is carried out through the fit & proper test phase. The Board of Commissioners is appointed and dismissed by the Shareholders through a GMS in a transparent process, and fulfils the general and specific requirements stipulated in the Company's Articles of Association, Board Manual and applicable provisions. All members of the Board of Commissioners are appointed and dismissed with consideration of the aspects of integrity, competence, and adequate reputation in accordance with Bio Farma's business needs.

COMPOSITION OF BOARD OF COMMISSIONERS OF BIO FARMA

In 2019, there was a change in the composition of the Board of Commissioners based on the Decree of the Minister of SOE/MBU/07/2019 on July 16, 2019 Regarding the Dismissal and Appointment of Members of the Board of Commissioners of the Company (Persero) PT Bio Farma. M. Subuh has been respectfully dismissed as Bio Farma Commissioner due to the expiration of his term of office and was replaced by Oscar Primadi from July 16, 2019, until the closing of the 5th Annual GMS after his appointment, without prejudice to the GMS' rights to dismiss members of the Board of Commissioners anytime.

The composition of the Bio Farma Board of Commissioners consists of 6 (six) people consisting of 1 (one) President Commissioner, and 5 (five) Commissioners.

Name of Board of Commissioners	Position	Domicile	Terms of Office	Basis Appointment
Farid Wajdi Husain	President Commissioner Concurrently as an Independent Commissioner	Indonesia	April 20, 2018 to April 19, 2023	Minister of SOE Decree Number: SK - 102/MBU/04/2018 on April 20, 2018, Concerning Appointment of Board of Commissioners and Concurrently Independent Commissioner
Saud Usman Nasution	Independent Commissioner	Indonesia	April 20, 2018 to April 19, 2023	Minister of SOE Decree Number: SK - 102/MBU/04/2018 on April 20, 2018, Concerning Appointment of Independent Commissioner
Made Arya Wijaya	Commissioner	Indonesia	April 20, 2018 to April 19, 2023	Minister of SOE Decree Number: SK - 102/MBU/04/2018 on April 20, 2018, Concerning Appointment of Board of Commissioners
Yuni Suryanto	Commissioner	Indonesia	April 20, 2018 to April 19, 2023	Minister of SOE Decree Number: SK - 102/MBU/04/2018 on April 20, 2018, Concerning the Appointment of Board of Commissioners
Elen Setiadi	Commissioner	Indonesia	January 8, 2019 to January 7, 2024	Minister of SOE Decree Number: SK-13/MBU/01/2019 on January 8, 2019, concerning the Appointment to Board of Commissioners
Oscar Primadi	Commissioner	Indonesia	July 16, 2019 to July 15, 2024	Minister of SOE Decree Number: SK-150/MBU/07/2019 on July 16, 2019, concerning the Appointment to Board of Commissioners

A brief history of each member of the Board of Commissioners can be seen in the Company Profile Chapter in this Annual Report.

THE BOARD OF COMMISSIONERS' TERM

Members of the Board of Commissioners are appointed for a period which starts from the date of appointment and ends at the close of the 5th (fifth) Annual GMS after the date of their appointment, with the condition that they do not exceed 5 (five) years by deeming closely the applicable laws and regulations. However, without prejudice to the right of the GMS from time to time, the members of the Board of Commissioners may terminate before their term of office ends. After the term of office expires, members of the Board of Commissioners may be reappointed by the GMS for one term.

ELUCIDATION OF THE BOARD OF COMMISSIONERS' RESPONSIBILITIES

DIVISION OF DUTIES AND RESPONSIBILITIES OF THE BOARD OF COMMISSIONERS

The division of duties of the Bio Farma Board of Commissioners for the period of January 8, 2019 - July 16, 2019, in accordance with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No: KEP-01/DK/BF/04/2018 on April 26, 2018, as follows:

Name	Field of Duties	Duties Elucidation
Farid Wajdi Husain	President Commissioner	Coordinating the duties of members of the Board of Commissioners. Supervising and providing direction and advice to the Directors in carrying out their duties as a whole, including adherence to the provisions of the articles of association, applicable regulations and legislation.
Saud Usman Nasution	Serving the HR	Supervising and providing advice on all aspects related to the system and procedures for preparing HR, starting from the recruitment system, enforcement of discipline, payroll and incentive systems, and employee training and organization. As a Deputy I Chairman of the Risk, Development and GCG Committee with the duties as stipulated in the Risk, Development and GCG Committee Charter.
Made Arya Wijaya	Serving the Finance	Supervising and providing advice on all aspects relating to the procedures and processes for preparing work plans, budgets, long-term plans, financial accountability and preparing reports that include quarterly management reports and annual financial reports with due regard to applicable reporting standards. As a Chairman of the Audit Committee with the duties as stipulated in the Audit Committee Charter.
Yuni Suryanto	Serving the Marketing and IT	Supervising and providing advice on all aspects relating to and marketing in the country and abroad, as well as supervision of the preparation and implementation of the IT Master Plan. As a Deputy Chair of the Audit Committee with the duties as stipulated in the Audit Committee Charter.
HM. Subuh*	Serving the Production	Supervising and providing advice on all aspects related to production activities including the production process, including investment plans to increase production capacity, availability of finished goods, processed goods, raw materials and control of expired inventory. As a Deputy Chairman II of the Risk, Development and GCG Committee with duties as stipulated in the Risk, Development and GCG Committee Charter.
Elen Setiadi	Serving the Research and Development	Supervising and providing advice on all aspects relating to research, vaccine and antisera product development. As a Chairman of the Risk, Development and GCG Committee with duties as stipulated in the Risk, Development, and GCG Committee Charter.

* End of term of office: July 16, 2019

The division of duties of the Bio Farma Board of Commissioners for the period of July 16 2019 - Present, according to the Decree of the Board of Commissioners of PT Bio Farma (Persero) Number: KEP-10/DK/BF/07/2019 on July 30, 2019 concerning the Second Amendment to the Decree of the Board of Commissioners Number: KEP-10/DK/BF/04/2018 Regarding the Division of Work of the Members of the Board of Commissioners of PT Bio Farma (Persero) as follows:

Name	Field of Duties	Duties Elucidation
Farid W. Husain	President Commissioner	- Coordinating the duties of the members of the Board of Commissioners - Supervise and provide direction and advice to the Directors in carrying out their duties as a whole, including adherence to the provisions of the Articles of Association, applicable laws and regulations
Saud Usman	Serving the HR	- In charge of HR with the task of supervising and providing advice on all aspects related to HR preparation systems and procedures, ranging from recruitment systems, discipline enforcement, payroll and incentive systems, employee training, and company organizations. - As a Chairman of the Risk, Development and GCG Committee with duties as stipulated in the Risk, Development and GCG Committee Charter.
Oscar Primadi	Serving the Research and Development	- In charge of Research and Development with the task of supervising and providing advice on all aspects relating to research and development of vaccine and antisera products. - As a Deputy I Chairman of the Risk, Development and GCG Committee with the duties as stipulated in the Committee Charter

Name	Field of Duties	Duties Elucidation
Elen Setiadi	Serving the Production	- In charge of Production with the task of supervising and giving advice on all aspects related to production activities including the production process including investment plans to increase production capacity, availability of finished goods, goods in the process of raw materials and control of expired inventory. - As a Deputy Chairman II of the Risk, Development and GCG Committee with duties as stipulated in the Risk, Development and GCG Committee Charter.
Made Arya Wijaya	Serving the Finance	- In charge of Finance with the task of supervising and providing advice on all aspects relating to the procedures for the preparation of work plans and budgets, long-term plans, financial accountability and preparation of reports that include quarterly management reports and annual financial reports with due regard to applicable reporting standards. - As a Chairman of the Audit Committee with the duties as stipulated in the Audit Committee Charter.
Yuni Suryanto	Serving the Marketing and IT	- In charge of Marketing and Information Technology with the task of supervising and providing advice on all aspects relating to domestic and foreign marketing as well as overseeing the preparation and implementation of the IT Master Plan. - As a Deputy Chair of the Audit Committee with the duties as stipulated in the Audit Committee Charter.

* Starting to Serve: July 16, 2019

The Board of Commissioners' Work Programs in 2019 are as follows:

- Internal Routine Meeting
 - Regular internal meetings of the Board of Commissioners are held at least 1 (one) time in 1 (one) month. Regular meetings discuss the company's performance per month, if needed, or in order to explore the company's problems and can include members of the Audit Committee or members of the Risk Committee formed by the Board of Commissioners.
 - Internal meetings of the Board of Commissioners may involve the Head of the Division related to written notice to the Directors.
 - Internal meetings of the Board of Commissioners with External Auditors (Public Accountant Firm).
- Coordination Meeting of the Board of Commissioners with the Board of Directors.
- Meeting with the Ministry of SOEs/ Shareholders.
- Development Program.
- Field Trip/Monitoring Program.

REALISATION OF THE IMPLEMENTATION OF THE DUTIES, AUTHORITIES, AND OBLIGATIONS OF THE BOARD OF COMMISSIONERS IN 2019

Throughout 2019, the Bio Farma Board of Commissioners has carried out its duties, functions and responsibilities in conformity with applicable rules and regulations, the Company's Articles of

Association and the principles of Good Corporate Governance as follows:

- Monitoring and providing advice on:
 - Implementation of the 2019 Work Plan and Budget and the Company's Long-Term Plan
 - Strategic issues for companies such as WHO PQ, vaccine development projects and so on.
 - Compliance with applicable laws and regulations.
 - Application of GCG, ISO, cGMP principles and others.
 - Implementation of Enterprise Risk Management (ERM).
- Making a decision/giving approval/response:
 - Expressing opinions/responses/input to Shareholders on periodic Management Reports, Annual Reports and Proposed Work Plan and Budget and the Company's Long-Term Plan.
 - The Company's Work Plan and Budget and the Report of Work Plan and Budget of Partnership & Community Development Program Activity.
 - Appointment of Public Accounting Firm (KAP).
 - Permanent Asset Bookkeeping Agreement.
 - Board of Directors' Remuneration.
- Reviewing or analysing the Company's performance in the monthly, quarterly, semester and annual periods.
- Reviewing or analysing the investment plan.
- Reviewing or analysing the performance of other plans to be carried out by the Company.

6. Reviewing the Company's monthly performance analysis and discussing developments in the company's conditions through regular internal meetings of the Board of Commissioners.
7. Reviewing the Company's monthly performance analysis and discussing the development of the Company's conditions through joint meetings with the Board of Directors including providing advice/suggestions to the Directors.
8. Developing and submitting an Annual Work Program along with the Board of Commissioners' Budget Plan.
9. Preparing and submitting a Supervisory Report.
10. Monitoring of follow-up to decisions/directions of shareholders and the results/findings of internal and external audits.
11. Conducting work visits and monitoring to the field.
12. Carrying out activities to increase competence and knowledge.
13. Carrying out other activities that are sudden and urgent.

BOARD OF COMMISSIONERS' WORK PROGRAMS FOR 2020

1. Internal Routine Meetings.
2. Coordination Meeting of the Board of Commissioners with the Board of Directors.
3. Meeting with the Ministry of SOEs/Shareholders.
4. Development Program.
5. Field Trip/Monitoring Program.

ASSESSMENT OF THE PERFORMANCE OF EACH COMMITTEE UNDER THE BOARD OF COMMISSIONERS

AUDIT COMMITTEE PERFORMANCE ASSESSMENT (KPI)

The performance evaluation of the Audit Committee is based on the Decision of the Board of Commissioners regarding the Procedures for Performance Evaluation of the Supporting Committee of the Board of Commissioners. The Audit Committee's evaluation process is performed through a self-Assessment mechanism using an evaluation method in a system that is applied by the Decision of the Board of Commissioners. The results of the Audit Committee's KPI achievements in 2019 are as follows:

No	Activites	Target	Realisation	% Achievement
1.	Internal Meeting			
	Evaluating policies, management reports, financial reports, the Company's Long-Term Plan, the Company's Work Plan and Budget, and special issues	12	12	100
2.	Meeting with External Auditor			
	Discussion on Audit Report with the Public Accounting Firm (external auditor)	4	3	75
3.	Meeting with Directorate of Finance			
	Discussion on the Company's Work Plan and Budget and the Company's Long-Term Plan	2	2	100
	Discussion on Management Reports and Financial Statements (quarterly, semester, annual)	4	12	300
	Discussion of financial statements (audited)	1	1	100
	Policy discussion and special issues	2	3	150

No	Activites	Target	Realisation	% Achievement
4.	Meeting with Internal Supervisory Unit			
	LHP discussion (quarterly)	5	3	60
	Discussion on Internal Control Assessment	1	1	100
	Discussion on Building Investment Evaluation	1	-	-
5.	Meeting with the Directorate of Marketing			
	Discussion on Marketing Issues	1	-	-
6.	Meeting with the IT Division			
	Discussion on the issues of IT	1	-	-
7.	Meeting with the Board of Commissioners			
	Discussion in the context of the ratification of the annual report and annual calculation (audited)	2	2	100
	Discussion of the Company's Work Plan and Budget and the Company's Long-Term Plan	2	2	100
	Management Report Discussion (quarterly, semester, yearly)	4	4	100
	Policy discussion and special issues	2	2	100
8.	Work Visit and Capacity Building			
	In order to understand the company's business, domestic or foreign business travel is conducted if deemed necessary	2	-	-
	To improve competence, official travel at home or abroad such as to attend seminars/workshops or comparative studies in the vaccine/pharmaceutical industry	2	1	50
	TOTAL	48	48	100

NOMINATION AND/OR REMUNERATION COMMITTEE

As of December 31, 2019, Bio Farma did not have a Nomination and Remuneration Committee because it had been renamed the Risk, Development and GCG Committee. The duties, authorities & responsibilities of the Nomination & Remuneration Committee at Bio Farma are carried out by the Risk, Development, and GCG Committee. Therefore, Bio Farma does not present information regarding the evaluation of performance nor the basis of evaluation from the Remuneration and/or Nomination Committee.

DISCLOSURES ABOUT BOARD CHARTER/ MANUAL (GUIDELINES AND WORK OF BOARD OF COMMISSIONERS)

Based on a joint agreement between the Directors and the Board of Commissioners, Decree No. PER-07/DK/BF/2018, No. PER-06964/DIR/XII/2018 on December 31, 2018, Regarding the Guidelines of the Board of Commissioners and Directors of PT Bio Farma (Persero).

BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS (BOARD MANUAL) PT BIO FARMA (PERSERO)

I	GENERAL PROVISIONS	
1.1	Terminology	
1.2	Purpose	
1.3	Scope of the Guidelines	
II	BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS TRAINING PROGRAM	
III	THE WORKING RELATIONSHIP OF THE BOARD OF COMMISSIONERS AND THE BOARD OF DIRECTORS	
IV.	BOARD OF DIRECTORS	
4.1	Appointment Dismissal	
4.2	Objectives and Position in the Organisation	
4.3	Term of Office	
4.4	Multiple Positions	
4.5	Provisions for the Implementation of the Board of Directors' vacant duties	
4.6	Duties, Authorities and Obligations of Board of Directors	
4.7	Distribution of Duties of the Board of Directors	
4.8	Actions of Board of Directors that Do Not Require Approval from the GMS	
4.9	Board of Directors' Authority in Acting to Represent the Company	
4.10	Board of Directors' Obligations Relating to the Compilation of Company Management Reports	
4.11	Quarterly Management Reports	
4.12	Annual Company Management Report	
4.13	Annual Report	
4.14	Partnership and Community Development Program Report (PKBL)	
4.15	Organisation of Lists and Documents by the Board of Directors	
4.16	Integrity Pact	
4.17	Conflict of Interest	
4.18	Implementation of Board of Directors Leave	
V	BOARD OF COMMISSIONERS	
5.1	Appointment and Termination	
5.2	Objectives and Position in the Organisation	
5.3	Term of Office	
5.4	Multiple Positions	
5.5	Prohibition of Family Relations	
5.6	Duties, Authorities, and Obligations of the Board of Commissioners	
5.7	Distribution of Duties of the Board of Commissioners	
5.8	Provisions for Implementing the Board of Commissioners' vacant duties	
5.9	Oversight and Advice on Risk Management Policies and their Implementation	
5.10	Supervision and Advice on the Design of the Internal Control System and its Implementation	
5.11	Information that the Board of Directors Must Provide to the Board of Commissioners and Information Transparency and Confidentiality	
5.12	Responding to Suggestions, Expectations, Problems, and Complaints from Stakeholders and Delivering Suggestions for Settlement to the Directors	
5.13	Supervision and Advice on Company Information Technology System Policy and Its Implementation	
5.14	Supervision and Advice on Human Resource Management Policies	
5.15	Supervision and Advice on Accounting Policies and Preparation of Financial Statements	
5.16	Supervision and Advice on Goods and Services Procurement Policies and their Implementation	
5.17	Oversight and Advice on Quality and Service Policy and Implementation	
5.18	Oversight and Advice on Company Compliance in Implementing Legislation and Agreements with Third Parties	
5.19	Monitoring the Compliance of the Board of Directors in Carrying Out Company Management of the Company's Work Plan and Budget and/or the Company's Long-Term Plan	
5.20	Process for Appointing Public Accountants	
5.21	Assessment of the Effectiveness of the External Audit and Internal Audit Implementation, and the Review of Complaints relating to the Company Received by the Board of Commissioners	
5.22	Reporting to Shareholders, should there be a symptom of a decline in company performance	
5.23	Oversight and Advice on Management Policies of Subsidiaries and Their Implementation	
5.24	Appointment of Board of Directors and Board of Commissioners of Subsidiaries	
5.25	Selection and Proposal of Prospective Directors to Shareholders	
5.26	Directors' Performance Appraisal and Reporting to Shareholders	
5.27	Proposing Directors' Remuneration	
5.28	Conflicts of Interest that Can Interfere with the Duties of the Board of Commissioners	
5.29	Monitoring the Implementation of the Principles of Good Corporate Governance	
5.30	Measurement and Performance Evaluation of the Board of Commissioners	

VI BOARD OF COMMISSIONERS SUPPORTING ORGANS

- 6.1 Supporting Organs of the Board of Commissioners
- 6.2 Secretariat of the Board of Commissioners
- 6.3 Audit Committee
- 6.4 Other Committees
- 6.5 Committee Work Procedures
- 6.6 Work Plan and Budgeting
- 6.7 Committee Meetings
- 6.8 Reporting
- 6.9 Access to and confidentiality of information
- 6.10 Evaluation of Committee Performance

VII BOARD OF DIRECTORS' MEETING

- 7.1 Time and Organisation of the Meeting
- 7.2 Participants in the Board of Directors' Meeting
- 7.4 Invitation to the Board of Directors' Meeting
- 7.5 Quorum of Board of Directors' Meetings
- 7.6 Chair of Board of Directors' Meeting
- 7.7 Decision Making in Board of Directors' Meetings
- 7.8 Procedures for Running Directors' Meetings
- 7.9 Minutes of Board of Directors' Meetings
- 7.10 Principles for Decision Making of Board of Directors
- 7.11 Note-taking/Notepad of the Board of Directors' Meeting

VIII BOARD OF COMMISSIONERS MEETING

- 8.1 Time and Organisation of the Meeting
- 8.2 Participants in the Board of Commissioners' Meeting
- 8.3 Board of Commissioners Meeting Agenda
- 8.4 Invitation to the Board of Commissioners Meeting
- 8.5 Board of Commissioners Meeting Quorum
- 8.6 Chair of the Board of Commissioners' Meeting
- 8.7 Decision Making in Board of Commissioners Meetings
- 8.8 Procedures for Running Board of Commissioners Meetings
- 8.9 Minutes of Board of Commissioners' Meetings
- 8.10 Note-taking/Notepad of the Board of Commissioners Meeting

IX JOINT MEETING OF BOARD OF DIRECTORS AND BOARD OF COMMISSIONERS

- 9.1 Time and Organisation of the Meeting
- 9.2 Participants in the Joint Meeting of Directors and Board of Commissioners
- 9.3 Agenda of the Joint Meeting of the Directors and Board of Commissioners
- 9.4 Invitation to a Joint Meeting of the Board of Directors and the Board of Commissioners
- 9.5 Quorum of Joint Meeting of Board of Directors and Board of Commissioners

- 9.6 Chair of the Joint Meeting of Board of Directors and Board of Commissioners
- 9.7 Decision Making in Joint Meetings of the Directors and Board of Commissioners
- 9.8 Procedures for Running Joint Board of Directors and Board of Commissioners Meetings
- 9.9 Minutes of Joint Meeting of Directors and Board of Commissioners
- 9.10 Note-taker/Notepad of the Joint Meeting of the Board of Directors and the Board of Commissioners

X. MEETING BETWEEN THE COMMITTEES OF THE BOARD OF COMMISSIONERS AND THE COUNTERPART OF THE BOARD OF COMMISSIONERS' COMMITTEES

- 10.1 Committees of the Board of Commissioners and Counterparts of the Committees of the Board of Commissioners
- 10.2 Time and Organization of the Meeting
- 10.3 Participants in the Meeting between the Committees of the Board of Commissioners and the Counterpart of the Board of Commissioners
- 10.4 Agenda; Meeting of the Committees of the Board of Commissioners with the Counterpart of the Board of Commissioners
- 10.5 Invitation to the Board of Commissioners' Committee Meeting with the Counterpart of the Board of Commissioners
- 10.6 Quorum Meeting of the Committees of the Board of Commissioners with the Counterpart of the Board of Commissioners
- 10.7 Chair of the Board of Commissioners' Committee Meeting with the Counterpart of the Board of Commissioners
- 10.8 Decision Making in Board of Commissioners' Committees and Counterparties of the Board of Commissioners
- 10.9 Procedures for Running Committee Meetings with the Counterpart of the Board of Commissioners
- 10.10 Minutes of Meetings of the Committees of the Board of Commissioners with the Counterpart of the Board of Commissioners
- 10.11 Record-taker / Notepad of the Board of Commissioners 'Committee Meeting with the Board of Commissioners' Counterpart

XI PREPARATION OF THE COMPANY'S LONG-TERM PLAN AND COMPANY'S WORK PLAN AND BUDGET

- 11.1 Compilation of the Company's Long-Term Plan
- 11.2 Preparation of the Company's Work Plan and Budget
- 11.3 Compilation of the Annual Work Plan and Budget of the Company's Board of Commissioners

XII CLOSING

DISCLOSURES ABOUT BOARD CHARTER/ MANUAL (GUIDELINES AND WORK OF THE BOARD OF COMMISSIONERS)

Based on a joint agreement between the Directors and the Board of Commissioners, Decree No. PER-07/DK/BF/2018, No. PER-06964/DIR/XII/2018 on December 31, 2018, concerning the Guidelines of the Board of Commissioners and Directors of PT Bio Farma (Persero).

The Board Charter/Manual is a compilation of the principles of corporate law, the applicable laws and regulations, the directives of the Shareholders and the Articles of Association which govern the work procedures of the Board of Commissioners and Board of Directors. The Board Charter/Manual is the result of codification of various regulations that apply to the Company and best practices of the principles of Good Corporate Governance.

PURPOSE OF BOARD CHARTER/BOARD OF COMMISSIONER AND BOARD OF DIRECTORS

1. Becoming a reference and/or guideline for the Board of Commissioners and Directors in carrying out their focal duties and functions as the Company's organs.
2. Improving the quality and effectiveness and working relationships between the Board of Commissioners and the Board of Directors.
3. Applying the principles of GCG (transparency, accountability, responsibility, independence, fairness).

THE COMPANY'S POLICIES CONCERNING THE IMPLEMENTATION OF THE BOARD MANUAL OF THE BOARD OF COMMISSIONERS

The Company's Articles of Association

The Board Manual of the Board of Directors and the Board of Commissioners of Bio Farma are determined by mutual agreement between the Board of Directors and the Board of Commissioners, based on Decree No. PER-07/DK/BF/2018, No. PER-06964/DIR/XII/2018 on December 31, 2018, concerning the Guidelines of the Board of Commissioners and Directors of PT Bio Farma (Persero).

The Board of Commissioners Work Guidelines and Rules Regulated in the Board Manual and Charter of the Board of Commissioners Regulates the Following Aspects

1. An introduction program for members of the New Board of Commissioners.
2. Training programs for members of the Board of Commissioners.
3. Decision Making of the Board of Commissioners.
4. Follow up of the Board of Commissioners Meeting Results.
5. Working relationships of the Board of Commissioners and Directors.
6. Duties, authorities, obligations, and the division of duties of the Board of Commissioners.
7. Provisions for the implementation of the vacant duties of the Board of Commissioners.
8. Obligations of the Board of Commissioners relating to the preparation of long-term plans.
9. Obligations of the Board of Commissioners relating to the preparation of the Company's Work Plan and Budget.
10. Obligations of the Board of Commissioners relating to the preparation of the Annual Report (Annual Report).
11. Management of Risk Management.
12. Internal Control System.
13. Information Disclosure and Confidentiality.
14. Business ethics and anti-corruption.
15. Prohibition of taking personal advantage.
16. Organs supporting the Board of Commissioners.
17. Board of Commissioners Meeting.
18. Meetings between the Board of Directors and the Board of Commissioners.
19. Meetings between the Committees of the Board of Commissioners and the Counterpart of the Board of Commissioners.
20. Policy on the Compilation of the Work Plan and Annual Budget of the Board of Commissioners.
21. Information policy that must be provided by the Board of Directors to the Board of Commissioners.
22. Information Policy on Changing Business Environment.

23. Policy in Responding to Suggestions, Expectations, Problems and Complaints from Stakeholders and Delivering Suggestions for Settlement to the Board of Directors.
24. Board of Commissioners' Policy and Advice on Company Information Technology System Policy and Implementation.
25. Board of Commissioners' Policy and Advice on Human Resources Management Policies.
26. Board of Commissioners' Policy and Advice on Accounting Policies and Report Preparation.
27. Board of Commissioners' Policy and Advice on the Policy for Procurement of Goods and Services and Their Implementation.
28. Board of Commissioners' Policy and Advice on Quality and Service Policy and Implementation.
29. Board of Commissioners' Policy and Advice on Company Compliance in carrying out the Statutory Regulations of Agreement with Third Parties.
30. Policies on Monitoring the Compliance of Directors in Carrying Out Company Management of the Company's Work Plan and Budget and the Company's Long-Term Plan.
31. Policy on Approval/Recommendation on the Actions of the Board of Directors Requiring Approval/Recommendation of the Board of Commissioners.
32. Policy on the Process of Appointing an External Auditor Candidate and/or Reappointment of External Auditor and Submission of a Proposed External Auditor Candidate to the GMS.
33. Board of Commissioners' Policy on the Effectiveness of the Implementation of External Audit and Internal Audit, as well as the Review of Complaints Relating to SOEs Received by the Board of Commissioners.
34. Reporting Policy to Shareholders if Symptoms of the Company Performance Decrease.

35. Board of Commissioners' Policy and providing advice on the Subsidiary Management Policy and its Implementation.
36. Policies on the Appointment of Directors and Board of Commissioners of Subsidiaries.
37. Policy on the Selection and Proposal of Prospective Directors to Shareholders.
38. Policy on Performance Appraisal and Reporting to Shareholders.
39. Board of Directors Remuneration Policy and Management.
40. Monitoring Policy on the Implementation of Good Corporate Governance (GCG) Principles.
41. Board of Commissioners Performance Measurement and Evaluation Policy.

Board of Commissioners Competency Training and Development Program

The competency and self-knowledge development program for the new Board of Commissioners is intended to improve professionalism and performance, and to develop personal potential, as well as to support the implementation of the Board of Commissioners' duties in line with the Board of Commissioners' development program. The Board of Commissioners must always add and update their knowledge through training activities, workshops, seminars, conferences, or in the form of work visits and benchmarking. In 2019, the realisation of the Training and Development Program conducted by the Board of Commissioners was as follows:

Board of Commissioners' Competency Trainings and Development Programs

Name	Position	Date	Topic	Place of Training	Organiser	Types of Trainings
Farid Wadjdi Husain	President Commisisoner	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
Mohamad Subuh	Commisisoner					
Saud Usman Nasution	Commisisoner					
Made Arya Wijaya	Commisisoner					
Elen Setiadi	Commisisoner					
Yuni Suryanto	Commisisoner	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
		August 23, 2019	Measuring the responsibilities and risks of corporate management accountants & public accountants in financial operations	Bandung	IAI Jabar	Skill

BOARD OF COMMISSIONERS INDEPENDENCE**AFFILIATE RELATIONSHIPS BETWEEN THE BOARD OF COMMISSIONERS AND OTHER MEMBERS OF THE BOARD OF COMMISSIONERS, THE BOARD OF COMMISSIONERS AND MEMBERS OF THE BOARD OF DIRECTORS, AND THE BOARD OF COMMISSIONERS WITH ULTIMATE SHAREHOLDERS (CONTROLLERS)**

Each member of the Board of Commissioners makes a statement of independence at the beginning of each year to state their independent status and at the end of each year to state whether or not there were situations that presented a conflict of interest by the Board of Commissioners over the actions taken during the previous year.

Throughout 2019, there were no situations with potential conflicts of interest faced by members of the Board of Commissioners in making their decisions as stated in the Statement of Independent Action in Supervision of the Company's Operations that had been published on the Company's website.

INDEPENDENT COMMISSIONERS

In order to empower the supervisory functions of the Board of Commissioners, the existence of an Independent Commissioner may be deemed necessary. The existence of an Independent Commissioner may become important, because in practice it is often found that transactions may contain conflicts of interest that ignore the interests of public shareholders (minority shareholders) as well as other stakeholders, especially in companies

in Indonesia that use public funds in financing their business.

The Independent Commissioner is a member of the Board of Commissioners/Supervisory Board that has no financial, management, share ownership and/or family relationship with other members of the Board of Commissioners/Supervisory Board, members of the Board of Directors and/or ultimate shareholders or relationship with Bio Farma, which can affect its ability to act independently.

According to the Company Law, all commissioners in essence must be independent and are expected to be able to carry out their duties independently, solely for the benefit of the company, regardless of the influence of various parties who have interests that can conflict with the interests of other parties. Thus, without having to argue, the definition of an Independent Commissioner in the Company Law is the same as a member of the Board of Commissioners.

CRITERIA FOR DETERMINING INDEPENDENT COMMISSIONERS

Performed in accordance with SOE Ministerial Regulation Number: PER-01/MBU/2011 August 1, 2011, regarding the Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012, Regarding Amendments to SOE Ministerial Regulation Number: PER-01/MBU/2011 and Regarding the Implementation of Good Corporate Governance in SOEs, Independent Bio Farma Commissioners have fulfilled the specified criteria, namely:

DETERMINATION CRITERIA FOR INDEPENDENT COMMISSIONERS



1

S/he does not have a financial relationship, management, share ownership and/or family relations with other members of the Board of Commissioners, members of the Board of Directors and/or Ultimate Shareholders or relationships with the SOE concerned, which can affect his/her ability to act, independently.



2

S/he does not serve as a Director in a company affiliated with the Company.



3

S/he has not worked for the government including departments, institutions, and military during the last 3 (three) years.



4

S/he has not worked for the government including departments, institutions, and military during the last 3 (three) years.



5

S/he has no financial links, either directly or indirectly, with the Company or companies that provide services and products to the Company and its affiliates.



6

Free from business interests or activities or other relationships that can hinder or interfere with the ability of the Board of Commissioners to act or think freely within the scope of the Company.



COMPOSITION OF INDEPENDENT BOARD OF COMMISSIONERS

The members of the Bio Farma Board of Commissioners fulfil the number, composition, criteria, and independent status requirements in accordance with SOE Ministerial Regulation Number: PER-01/MBU/2011 on August 1, 2011. Regarding the Implementation of Good Corporate Governance in SOE's as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012. Regarding Amendments to SOE Ministerial Regulation Number: PER-01/MBU/2011 Regarding the Implementation of Good Corporate Governance at SOEs, a minimum of 20% (twenty percent) of the members of the Board of Commissioners must be Independent Commissioners. The current number of members of the Bio Farma Board of Commissioners is 6 (six) people, and 2 (two) of them (being equal to 33% of the members of the Board of Commissioners) are Independent Commissioners. Accordingly, the composition is also in accordance with the regulations established by the Ministry of SOEs regarding Independent Commissioners.

of Commissioners so that they can carry out supervisory duties and provide advice to the Directors effectively and provide added value to the Company.

In an effort to carry out their responsibilities properly, the Independent Commissioners must proactively strive for the Board of Commissioners to supervise and provide advice to the Board of Directors relating to, but not limited to, the following matters:

1. Ensuring that the company has an effective business strategy, including monitoring the schedule, budget and effectiveness of the strategy.
2. Ensuring that the company appoints executives and professional managers.
3. Ensuring that the company has a working information, control system and audit system.
4. Ensuring that the company complies with applicable laws and regulations as well as the values set by the company in carrying out its operations.
5. Ensuring that risks and potential risks are always properly identified and managed.
6. Ensuring the principles and practices of Good Corporate Governance are adhered to and implemented properly.

INDEPENDENT BOARD OF COMMISSIONERS FOR THE PERIOD OF JANUARY 01 2019 - PRESENT

The following is the composition of the Independent Board of Commissioners and the basis for their appointment for the period of January 1, 2019 up to the present time:

Name	Position	Domicile	Terms of Office	Basis Appointment
Farid Wadjdi Husain	President Commissioner Concurrently as an Independent Commissioner	Indonesia	April 20, 2015 – April 20, 2023	Minister of SOE's Decree Number: SK-102/MBU04/2018 on April 20, 2018, Concerning Appointment of Board of President Commissioners Concurrently Independent Board of Commissioners
Saud Usman	Independent Commissioner	Indonesia	April 20, 2015 – April 20, 2023	Minister of SOE's Decree Number: SK-102/MBU04/2018 on April 20, 2018, Regarding Appointment of Independent Board of Commissioners

RESPONSIBILITIES OF THE BOARD OF INDEPENDENT COMMISSIONERS

Independent Commissioners have the main responsibility to encourage the application of the principles of good corporate governance in the Company through empowering the Board

DUTIES OF THE BOARD OF INDEPENDENT COMMISSIONERS

1. Ensuring transparency and openness of the Company's financial statements.
2. Fair treatment of minority shareholders and other stakeholders.
3. Disclosure of transactions that contain conflicts of interest, fairly and equitably.

4. Compliance with applicable laws and regulations.
5. Assuring accountability of the company's organs.

AUTHORITIES OF THE BOARD OF INDEPENDENT COMMISSIONERS

1. An independent commissioner chairs the audit committee and/or risk, development and GCG committee.
2. Independent commissioners, based on rational and prudent considerations, have the right to express opinions that differ from other members of the Board of Commissioners which must be recorded in the Minutes of the Board of Commissioners' Meeting and any different opinions that are material must be included in the annual report.

BOARD OF COMMISSIONERS' INDEPENDENCE

INDEPENDENCE STATEMENTS AND POTENTIAL CONFLICTS OF INTEREST

On February 8, 2019, all members of the Board of Commissioners made an independence statement declaring their independent status and stated that during the year there were no situations that had a conflict of interest with the Board of Commissioners over the actions taken. Members of the Board of Commissioners are also obliged to report if there is a change in status that affects their independence, including if there is a change in ownership of shares, either personal or family, in Bio Farma and/or in other companies.

During 2019, there were no situations with potential conflicts of interest faced by members of the Board of Commissioners and Directors in making decisions. In its position, the Board of Commissioners has no affiliation with the Major Shareholders and/or Controlling Shareholders (Ministry of BUMN).

AFFILIATES OF THE BOARD OF COMMISSIONERS

Criteria for affiliation between members of the Board of Commissioners, Directors and Controlling Shareholders include:

1. Affiliation between members of the Board of Commissioners and other Commissioners;
2. Affiliation between members of the Board of Commissioners and Directors;
3. Affiliation between members of the Board of Commissioners and Ultimate Shareholders and/or controllers.

The affiliation relationship between the Board of Commissioners, Board of Directors, and Shareholders can be seen in the table below:

Affiliation between the Board of Commissioners, Board of Directors, and Shareholders

Name of Board of Commissioners	Position	Terms of Office	Family Relation With						Financial Relation With					
			Board of Commissioners		Board of Directors		Shareholders		Board of Commissioners		Board of Directors		Shareholders	
			Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Farid Wadjdi Husain	President Commissioner Concurrently as an Independent Commissioner	April 20, 2018 - present		√		√		√		√		√		√
Saud Usman Nasution	Independent Commissioner	April 20, 2018 - present		√		√		√		√		√		√

Name of Board of Commissioners	Position	Terms of Office	Family Relation With						Financial Relation With					
			Board of Commissioners		Board of Directors		Shareholders		Board of Commissioners		Board of Directors		Shareholders	
			Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Made Arya Wijaya	Commissioner	April 20, 2018 - present		√		√		√		√		√		√
Yuni Suryanto	Commissioner	April 20, 2018 - present		√		√		√		√		√		√
H.M. Subuh*	Commissioner	Jun 2, 2015 – July 16, 2019		√		√		√		√		√		√
Oscar Primadi**	Commissioner	July 16, 2019 - present		√		√		√		√		√		√
Elen Setiadi	Commissioner	January 8, 2019 - present		√		√		√		√		√		√

* End of term of office: July 16, 2019

** Starting office: July 16, 2019

SHARE OWNERSHIP OF BOARD OF COMMISSIONERS

Name of Commissioners	Position	Terms of Office	Shares Ownership (Share)					
			PT Bio Farma (Persero)		Other SOEs		Other Companies	
			Yes	No	Yes	No	Yes	No
Farid Wadjdi Husain	President Commissioner	April 20, 2018 - present		√		√		√
Saud Usman Nasution	Independent Commissioner	April 20, 2018 - present		√		√		√
Made Arya Wijaya	Commissioner	April 20, 2018 - present		√		√		√
Yuni Suryanto	Commissioner	April 20, 2018 - present		√		√		√
H.M. Subuh*	Commissioner	June 22, 2015 – July 16, 2019		√		√		√
Oscar Primadi**	Commissioner	July 16, 2019 - present		√		√		√
Elen Setiadi	Commissioner	January 8, 2019 – present		√		√		√

* End of term of office: July 16, 2019

** Starting office: July 16, 2019

ELUCIDATION OF THE BOARD OF DIRECTORS

The Board of Directors as a Company organ has collegial duties and responsibilities in managing the Company for the interests and objectives of the Company, as well as the duty of representing the Company both inside and outside the court in conformity with the Company's Articles of Association.

Each member of the Board of Directors is able to perform his/her duties and make decisions under the division of duties and authorities. Conversely, the performance of duties by each member of the Board of Directors remains a joint responsibility. The position of each member of the Board of Directors including the President Director is equal. The duty of the President Director as *primus inter pares* is to coordinate the activities of the Board of Directors.

ASSESSMENT OF THE BOARD OF DIRECTOR'S CAPABILITY AND COMPLIANCE

All members of the Bio Farma Board of Directors have fulfilled the criteria and requirements specified in the fit and proper test based on the Limited Liability Company Law, the Company's Articles of Association, regulations related to good corporate governance, and other rules and regulations. All members of the Bio Farma Board of Directors have integrity, competence, and a fine reputation. This was attested by passing the fit and proper test.

Period of January 1, 2019 – September 13, 2019

Name	Position	Date of Appointment	Organiser	Representation	Passing the Fit & Proper Test
M. Rahman Roestan*	President Director	January 23, 2018	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Sri Harsi Teteki*	Director of Marketing	January 23, 2018	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Juliman**	Director Production	April 12, 2013 and was reappointed on April 20, 2018	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Disril Revolin Putra**	Director of HR & General Affairs	July 14, 2017	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Pardiman **	Director of Finance	April 20, 2018	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
Adriansjah Azhari **	Director of Planning and Development	April 20, 2018	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed

* Transfer of Assignments: September 13, 2019

** End of term of office: September 13, 2019

Period of September 13, 2019 – Present

Name	Position	Date of Appointment	Organiser	Representation	Passing the Fit & Proper Test
Honesti Basyir**	President Director	September 13, 2019	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
M. Rahman Roestan*	Director of Operations	September 13, 2019	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed

Sri Harsi Teteki*	Director of Marketing, Research & Development	September 13, 2019	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed
I.G.N. Suharta Wijaya**	Director of Finance & Business Partner	September 13, 2019	Ministry of State-Owned Enterprises	State of the Republic of Indonesia	Passed

*Transfer of Assignments: September 13, 2019

**Starting from: September 13, 2019

APPOINTMENT AND DISMISSAL OF THE BOARD OF DIRECTORS

The appointment and dismissal of members of the Board of Directors of State-Owned Enterprises is done on the basis of the principles of professionalism and good corporate governance. The Board of Directors are appointed and dismissed by the Shareholders through the General Meeting of Shareholders (GMS). The appointment of the Board of Directors is performed through the fit & proper test phase.

CRITERIA/REQUIREMENTS FOR BOARD OF DIRECTORS

Bio Farma possesses the following criteria for prospective members of the Board of Directors as stated in the Company's Articles of Association as follows:

1. She/He is considered to have good morality and integrity.
2. She/he is considered competent to carry out legal actions.
3. Within 5 (five) years before appointment and during his tenure:
 - a. She/he has never been declared bankrupt.
 - b. She/he has never been a member of the Board of Directors and/or a Board of Commissioners who was found guilty of causing a company to go bankrupt.
 - c. She/he has never been convicted of a criminal offense that is detrimental to the country's finances and/or related to the financial sector; and
 - d. She/he has never been a member of the Board of Directors and/or member of the Board of Commissioners who during his/her tenure:
 - Has never held an annual GMS.
 - Has had responsibilities as a member of the Board of Directors and/or member of the Board of Commissioners which have never been accepted by the GMS, or has never given a statement of accountability as a member of the Board of Directors

and/or a member of the Board of Commissioners to the GMS.

- S/he has not been committed to obeying the laws and regulations.
- 4 S/he has knowledge and/or expertise in the fields required by the Company.
 - 5 S/he meets other provisos as specified in the Limited Liability Company Law and other applicable laws and regulations.

STRUCTURE AND COMPOSITION OF THE BOARD OF DIRECTORS OF BIO FARMA

The composition and number of members of the Board of Directors are determined by the GMS, with consideration for Bio Farma's vision and mission to enable effective, precise, and rapid decision-making, and to carry out the Company's full operational strategy.

On the basis of the Decree of the State Minister of State-Owned Enterprises Number: SK-221/MBU/2013 April 12, 2013 and the Decree of the Minister of State-Owned Enterprises Number: SK-69/MBU/2013 on February 4, 2013, concerning the Dismissal and Appointment of the Members of the Board of Directors of the Company (Persero) of PT Bio Farma, the composition of the Board of Directors is determined by the Shareholders. The Shareholders are therefore engaged in the management of the Company such that it may reach the targets that are in accordance with the vision and mission of the Company.

STRUCTURE AND COMPOSITION OF THE BOARD OF DIRECTORS OF BIO FARMA FOR THE PERIOD OF JANUARY 1, 2019 – SEPTEMBER 13, 2019

The Composition of Bio Farma's Board of Directors for the period of January 1, 2019 to September 13, 2019 amounted to 6 (six) people, consisting of 1 (one) President Director and 5 (five) Directors with the following composition and basis for appointment:

Structure and Composition of Board of Directors of Bio Farma for the Period of January 1, 2019 – September 13, 2019

Name of Board of Directors	Position	Domicile	Terms of Office	Basis of Appointment
M. Rahman Roestan	President Director	Indonesia	July 10, 2017 – January 23, 2018 January 23, 2018 – July 10, 2022	- Minister of SOE's Decree Number: SK-127/MBU/07/2017 on July 10, 2017 Regarding Appointment as a Director of Marketing - Minister of SOE's Decree Number: SK-27/MBU/01/2018 on January 23, 2018 Regarding Appointment as a President Director
Juliman	Director of Production	Indonesia	April 12, 2013 – April 20, 2018 July 10, 2017 – January 23, 2018	- Minister of SOE's Decree Number: SK-21/MBU/04/2013 on April 12, 2013 Regarding Appointment as a Director of Production - Minister of SOE's Decree Number: SK-127/MBU/07/2017 on July 10, 2017 Regarding Appointment as Acting President Director and concurrent Director of Production
Sri Harsi Teteki	Director of Marketing	Indonesia	January 23, 2018 – January 23, 2023	Minister of SOE's Decree Number: SK-27/MBU/01/2018 Regarding Appointment as a Director of Marketing
Disril Revolin Putra	Director of HR & General Affairs	Indonesia	July 14, 2017 – July 14, 2022	Minister of SOE's Decree Number: SK-131/MBU/07/2017 July 14, 2017 Regarding Appointment as a Director of HR & General Affairs
Pardiman	Director of Finance	Indonesia	April 20, 2018 – April 20, 2023	Minister of SOE's Decree Number: SK - 101/MBU/04/2018 Regarding Appointment as a Director of Finance
Adriansjah Azhari	Director of Planning & Development	Indonesia	April 20, 2018 – April 20, 2023	Minister of SOE's Decree Number: SK - 101/MBU/04/2018 Regarding Appointment as a Director of Planning and Development.

STRUCTURE AND COMPOSITION OF BOARD OF DIRECTORS OF BIO FARMA FOR THE PERIOD OF SEPTEMBER 13, 2019 – PRESENT

On the basis of the Decree of the Minister of SOEs at the General Meeting of Shareholders of the Company (Persero) PT Bio Farma No. SK-203/MBU/09/2019 on September 13, 2019 regarding Dismissal, Changes to Position Titles, Duty Transfer, and Appointment of Members of the Board of Directors of the Company (Persero) PT Bio Farma. Bio Farma respectfully dismissed the following members of the Board of Directors: Juliman as the Director of Production; Disril Revolin Putra

as the Director of Human Resources & General Affairs; Pardiman as the Director of Finance; and Adriansjah Azhari as the Director of Planning and Development; as their terms had ended. There were changes to the titles of a number of positions: The Position of Director of Planning and Development was changed to Director of Marketing, Director of Research and Development II; Director of Production was changed to Director of Operations; Director of Finance to Director of Finance and Business Partners; Director of Marketing to Director of Marketing, Research and Development I; and Director of HR & General to none. Regarding the Transfer of Assignment of Members of the Board of

Directors: M. Rahman Roestan, originally the Managing Director, became the Director of Operations; Sri Harsi Teteki, originally the Director of Marketing, became the Director of Marketing, Research and Development I and with a term of office continuing the term of service in accordance with the Ministerial Decree of SOE No. SK-127/MBU/07/2017 on July 10, 2017 and SK-27/MBU/01/2018. With regard to the appointment of members to the Board of Directors: Honesti Basyir was appointed as a President Director and I.G.N. Suharta Wijaya became Director of Finance and Business Partnerships.

Regarding the composition of the Bio Farma Board of Directors for the period from September 13, 2019 to the present, the Bio Farma's Board of Directors currently consists of 4 (four) people consisting of 1 (one) President Director and 3 (three) Directors with the composition and basis for appointment as follows:

Structure and Composition of Board of Directors for the Period of September 13, 2019 – Present

Name of Board of Directors	Position	Domicile	Terms of Office	Basis of Appointment
Honesti Basyir	President Director	Indonesia	September 13, 2019 – September 12, 2024	Minister of SOE's Decree Number. SK-203/MBU/09/2019 on September 13, 2019 Concerning Appointment of President Director.
Mas Rahman Roestan	Director of Operations	Indonesia	July 10, 2017 – January 23, 2018 January 23, 2018 – September 13, 2019 September 13, 2019 – July 9, 2022	Minister of SOE's Decree Number: SK-127/MBU/07/2017 on July 10, 2017 Regarding Appointment as a Director of Marketing. Minister of SOE's Decree Number: SK-27/MBU/01/2018 on January 23, 2018 Regarding Appointment as a President Director. Minister of SOE's Decree Number. SK-203/MBU/09/2019 on September 13, 2019 Regarding the Transfer of Assignment from the President Director to Director of Operations.
Sri Harsi Teteki	Director of Marketing, Planning & Development I	Indonesia	23 Januari 2018 – 23 Januari 2023	Minister of SOE's Decree Number: SK-27/MBU/01/2018 Regarding Appointment as a Director of Marketing. Minister of SOE's Decree Number. SK-203/MBU/09/2019 on September 13, 2019 Regarding the Transfer of Assignment from the President Director to Director of Operations.
.G.N. Suharta Wijaya	Director of Finance and Business Partners	Indonesia	September 13, 2019 – September 12, 2024	Minister of SOE's Decree Number. SK-203/MBU/09/2019 on September 13, 2019 concerning Appointment as a Director of Finance and Business Partners

A brief history of each member of the Board of Directors can be seen in the Company Profile Chapter within this Annual Report.

TERMS OF OFFICE OF THE BOARD OF DIRECTORS

Members of the Board of Directors are appointed for a period that starts from the date of appointment and ends at the close of the 5th (fifth) Annual GMS after the date of their appointment with the condition that they do not exceed 5 (five) years by deeming the applicable laws and regulations; however, without prejudice to the right of the GMS from time to time who may dismiss Members of the Board of Directors before their term of office ends. After the term of office expires, the Board of Directors may be reappointed by the GMS for 1 (one) further term of office.

BOARD OF DIRECTORS' POLICY RELATED TO RESIGNATION SHOULD S/HE GET INVOLVED IN FINANCIAL FRAUDULENCE

Should the Board of Directors get involved in financial crimes in performing their duties, the follow-up conducted by the Company will be based on the provisions in the Company's Articles of Association and applicable laws and regulations.

DESCRIPTION OF AUTHORITIES AND RESPONSIBILITIES OF THE BOARD OF DIRECTORS

The Board of Directors is part of the Company that has full authority and responsibility for the implementation of the Company's operations. The Board of Directors has the responsibility for achieving the short-term work plans listed in the Company's Work Plan and Budget (RKAP) and Long-Term Plan (RJPP). The Board of Directors must be able to make decisions effectively, precisely and quickly, acting independently while also being responsible for implementing good corporate governance and risk management systems in a consistent and sustainable manner.

GUIDELINES AND POLICIES ON THE DETERMINATION OF DUTIES, AUTHORITIES, AND OBLIGATIONS OF THE BOARD OF DIRECTORS

As a well-performing SOE that is implementing sustainable GCG, in determining the duties, authority and obligations of the Bio Farma's Board of Directors, we refer to the following guidelines and policies:

1. SOE Minister of State Regulation Number: PER-01/MBU/2011 on August 1, 2011, concerning the Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012, concerning Amendment to SOE Ministerial Regulation Number: PER-01/MBU / 2011 concerning Implementation of Good Corporate Governance in the SOEs.
2. The Company's articles of association.
3. Joint Decree of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-06/DK/BF/II/2013, Number: 01025/DIR/II/2013 on February 22, 2013, and has been updated with Decree No. PER-07/DK/BF/2018, No. PER-06964/DIR/XII/2018 on December 31, 2018, concerning the Guidelines (Board Manual) of the Board of Commissioners and Board of Directors of PT Bio Farma (Persero).

DUTIES, AUTHORITIES, AND OBLIGATIONS OF THE BOARD OF DIRECTORS OF BIO FARMA

The Board of Directors has collegial duties and responsibilities in managing the Company. The duties and responsibilities of the Board of Directors are set out in the Company's Articles of Association and the Board Manual of the Board of Directors which appears on the Company's website.

The duties, authorities, and obligations of the Board of Directors are regulated in the Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: PER-07/DK/BF/12/2018 Number: PER-06964/DIR/XII/2018 on December 31, 2018, concerning Board of Commissioners and Board of Directors Guidelines (Board Manual).

DIVISION OF DUTIES AND RESPONSIBILITIES OF THE BOARD OF DIRECTORS OF BIO FARMA

Each member of the Board of Directors carries through his/her duties and makes decisions in conformity with the respective division of duties and authority. Conversely, the performance of duties by each member of the Board of Directors remains a joint responsibility. For the smooth running of its duties, the Directors are assisted by a Corporate Secretary who is appointed and dismissed by the President Director with the approval of the Board of Commissioners.

In obedience to the Decree of the Directors of PT Bio Farma (Persero) Number: KEP-05769/DIR/IX/2019 on September 16, 2019, concerning Organisational Structure of PT Bio Farma (Persero), the duties and responsibilities of each Board of Directors are as follows:

Duties and Authorities of Board of Directors

Name of Board of Directors	Position	Working Field
Honesti Basyir	President Director	Ensuring that the direction and achievement of business performance is in accordance with the vision, mission, values, and culture of the Company and ensuring the strategy, planning, implementation and evaluation of corporate governance in the Main Directorate and all Directors are carried out based on the application of the principles of Good Corporate Governance (GCG) and compliance with laws and regulations in accordance with the direction and achievement of the Company's business performance as stipulated in the Company's Long Term Plan (RJPP), the Company's Work Plan and Budget (RKAP), and Performance Indicators determined by the General Meeting of Shareholders (GMS), in accordance with the provisions of the Company's Articles of Association and legislation and coordinating with other Directors in achieving the Company's business performance.
M. Rahman Roestan	Director of Operations	Ensuring the direction and achievement of the Company's business performance in accordance with the vision, mission, values, and culture of the Company as well as ensuring the strategy, planning, implementation and evaluation of corporate governance in the Directorate of Production are implemented based on the application of the principles of Good Corporate Governance (GCG) and compliance with the laws and regulations in accordance with the direction and achievement of the Company's business performance as set out in the Company's Long Term Plan (RJPP), the Company's Work Plan and Budget (RKAP), and Performance Indicators established by the General Meeting of Shareholders (GMS) in conformity with the provisions of the Company's Articles of Association and the statutory regulations.
Sri Harsi Teteki	Director of Marketing, Research & Development I	Ensuring the direction and achievement of the Company's business performance in accordance with the vision, mission, values and culture of the Company as well as ensuring the strategy, planning, implementation, and evaluation of corporate governance in the Directorate of Marketing, Research & Development I including the management of strategic business units carried out based on the application of principles GCG principles and compliance with laws and regulations in accordance with the direction and achievement of the Company's business performance as stipulated in the Company's Long-Term Plan, the Company's Work Plan and Budget, and performance indicators determined by the GMS, in obedience to the provisions of the Company's Articles of Association and laws and regulations.
I.G.N. Suharta Wijaya	Director of Finance & Business Partners	Ensuring the direction and achievement of the Company's business performance in accordance with the vision, mission, values and culture of the Company as well as ensuring the strategy, planning, implementation, and evaluation of corporate governance at the Directorate of Finance and Business Partners is performed on the basis of the implementation of GCG principles and in compliance with regulations and legislation in accordance with the direction and achievement of the Company's business performance as set out in the Company's Long-Term Plan, the Company's Work Plan and Budget, and performance indicators stipulated by the GMS, in accordance with the provisions of the Company's Articles of Association and laws and regulations.

WORK PLAN OF THE BOARD OF DIRECTORS IN 2019

Referring to the relevant rules and regulations, the Company's Articles of Association and the principles of Good Corporate Governance, the duties, functions, and responsibilities of the Board of Directors are to serve as managers of the Company for the best interests and objectives of the Company.

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 - 1.1 Overview
 - 1.1.1 Legal Foundation
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 - 1.1.4 Business Activities
 - 1.1.5 Nature of Business of the Company
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 - 2.5 Expenses of Improvement & HR Development
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 - 2.8.1 Expenses of Company's Product Sales
 - 2.8.2 Expenses of Partnership's Product Sales
 - 2.8.3 Cost of Goods Sold Services
 - 2.8.4 Selling Expenses
 - 2.8.5 Administrative & General Expenses
 - 2.8.6 Expenses of Research, Development, and Surveillance
 - 2.9 Investment and Sources of Funding
 - 2.10 Financial Position Report (Balance Sheet)

REALISATION OF TASKS, DUTIES, AUTHORITIES, AND OBLIGATIONS OF THE BOARD OF DIRECTORS IN 2019

Throughout 2019, the Bio Farma's Board of Directors have carried out their duties and responsibilities in accordance with the Company's Articles of Association as follows:

1. Business Planning, Finance and Accounting
2. Risk Management/Good Implementation
3. Good Corporate Governance (GCG)
4. Internal Control
5. Communication
6. Social Responsibility

WORK PLAN OF THE BOARD OF DIRECTORS IN 2020

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- 2.17 Key Performance Indicators (KPI)
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 - 3.3 Company's Risk Analysis
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 - 3.3.2 Risk of Bad Credit
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 - 3.3.4 Risk of Production Machine Damage
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 - 3.3.6 Risk of Sanctions for Not Meeting Regulatory Requirements
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 - 3.3.8 Risk of Environmental Pollution
 - 3.3.9 Risk of Employee Skills Impacts on Production Failure
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 - 6.5 2020 Work Program
 - 6.6 Key Performance Indicators of the Board of Commissioner for 2020
 - 6.7 Board of Commissioners' Budget and Board of Commissioners' Organs Costs for 2020

7. Closing
 - 7.1 Conclusions
 - 7.1.1 Profit Projections for 2020
 - 7.1.2 Increased Operational Capability
 - 7.1.3 Market Development
 - 7.2 Matters Requiring the AGM's Decisions

PERFORMANCE ASSESSMENT OF EACH COMMITTEE UNDER THE BOARD OF DIRECTORS AND THE BASIS OF THE ASSESSMENT

As of December 31, 2018, Bio Farma did not have a Committee under the Board of Directors. The implementation of the duties and responsibilities of the Board of Directors is supported by work units led by the Head of Divisions, Key Experts, Division Heads, Associate Experts, Section Heads, and Intermediate Experts.

Thus, Bio Farma does not present information about evaluating the performance of each committee under the Board of Directors and the basis of its assessment.

DISCLOSURES ABOUT THE BOARD MANUAL (GUIDELINES AND WORK RULES FOR THE BOARD OF DIRECTORS)

In order to carry out the roles and functions of the Company's management and manage relations with the Board of Commissioners, the Board of Directors is guided by the Board of Directors Guidelines contained in the Board Manual of the Board of Commissioners and Directors. The Board Manual is a living document; thus, it requires regular updating and development according to the needs of the Company and the applicable laws and regulations.

Based on a joint decision between the Board of Directors and the Board of Commissioners Number: KEP-06/DK/BF/II/2013 and Number: 01025/DIR/II/2013 on February 22, 2013 and as updated in Decree No. PER-07/DK/BF/2018, No. PER-06964/DIR/XII/2018 on December 31, 2018, concerning the Guidelines of the Board of Commissioners and Board of Directors of PT Bio Farma (Persero).

The Board Manual of the Board of Commissioners and Board of Directors is always evaluated periodically to be in line with changes in applicable laws and regulations and adapted to the needs of the Company and has been uploaded to the Company's website.

PURPOSES OF THE BOARD MANUAL

1. As a guide for the Board of Commissioners and Directors in performing the duties, professionally and responsibly.
2. Improving the quality and effectiveness of work relationships between the Board of Commissioners and the Board of Directors.
3. Expounding the working relationship of the Board of Commissioners and Directors in carrying out their duties in order to create professional company management and in accordance with the principles of good corporate governance.

COMPANY POLICIES CONCERNING THE IMPLEMENTATION OF THE BOARD MANUAL FOR THE BOARD OF DIRECTORS

1. The Company's Articles of Association.
2. Board of Directors and Board of Commissioners of Bio Farma are determined based on mutual agreement between the Board of Directors and the Board of Commissioners Number: KEP-06/DK/BF/II/2013 and Number: 01025/DIR/II/2013 on February 22, 2013 and has been updated with Decree No. PER-07/DK/BF/2018, No. PER-06964/DIR/XII/2018 on December 31, 2018, Regarding the Guidelines for the Board of Commissioners and Board of Directors (Board Manual) of PT Bio Farma (Persero).

AFFILIATION OF THE BOARD OF COMMISSIONERS AND THE BOARD OF DIRECTORS

The Board of Commissioners and the Board of Directors have duties and authorities in accordance with their respective functions as stated in the Company's Articles of Association and applicable laws and regulations. Both of them together have the responsibility to maintain the company's long-term business sustainability.

OTHER REGULATION ASPECTS IN THE BOARD MANUAL

1. Introduction program for New Directors.
2. Training program for members of the Board of Directors.
3. The working relationship of the Board of Commissioners and Board of Directors.
4. Duties, authorities, and obligations as well as the division of duties of the Board of Directors.
5. Provisions for the implementation of the vacant duties of the Board of Directors
6. Conflict of interest.
7. The obligations of the Board of Directors relating to the preparation of long-term plans.

8. Directors' obligations related to the preparation of the Company's Work Plan and Budget.
9. The Board of Directors' obligations related to the preparation of the Annual Report.
10. Risk Management.
11. Internal Control System.
12. Openness and Confidentiality of Information.
13. Business ethics and anti-corruption.
14. Prohibition of taking personal advantage.
15. Board of Directors' Meetings.
16. Meetings between the Board of Directors and the Board of Commissioners.

TRAINING PROGRAMS IN ORDER TO INCREASE COMPETENCY OF BOARD OF DIRECTORS AND ORIENTATION PROGRAMS FOR THE NEW MEMBERS

TRAINING AND DEVELOPMENT PROGRAM FOR THE BOARD OF DIRECTORS

Training and personal development programs for members of the Board of Directors needs undertaking on an ongoing basis to increase knowledge and competence and to support the implementation of the Board of Directors' duties. Throughout 2019, the Board of Directors have participated in the following training programs:

Training and Competency Development Program of Board of Directors

Name of Board of Commissioners	Position	Date	Topic	Place of the Training	Organiser	Types of Trainings
M. Rahman Roestan	President Director	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
Sri Harsi Teteki	Director of Marketing, Research & Development I	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
Juliman**	Production SEVP	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
Disril Revolin Putra **	Legal & Compliance SEVP	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
Adriansjah Azhari **	Research & Development SEVP	May 3, 2019	Vaccine global trends, potential and threats	Makassar	Bio Farma	Knowledge
I.G.N. Suharta Wijaya *	Director of Finance & Business Partner	October 16 – 17, 2019	Profesional recognition program ujian certified professional management accountant (PRP-CPMA)	Bali	Indonesian Institute of Management Accountants	Skill

ORIENTATION PROGRAM FOR THE NEW BOARD OF DIRECTORS

BIO FARMA'S NEW BOARD OF DIRECTORS' ORIENTATION PROGRAM

The Company has an introduction program for new members of the Board of Directors that aims to help the Board of Directors in implementing GCG, improving performance, understanding the vision, mission, and business strategy of the Company. The responsibility for this introduction program rests with the President Director. However, if the President Director is unable to carry out this program, it could be represented by other members of the Board of Directors. Implementation of the Program is carried out through presentations, meetings and work visits to Company facilities.

On September 13, 2019, the composition and number of Bio Farma's Board of Directors have changed, as follows: Firstly, Honesti Basyir has been appointed as President Director. Meanwhile, M. Rahman Roestan changed the position from President Director to Director of Operations. Secondly, Sri Harsi Teteki changed her title from Director of Marketing to Director of Marketing, Research & Development. Thirdly, I. Pardiman transferred his duties from the Bio Farma's Director of Finance to the Director of Finance of PT Kimia Farma

(Persero) Tbk., and has been substituted by I.G.N. Suharta Wijaya, who has appointed as Director of Finance & Business Partnerships. Fourthly, Juliman was honorably dismissed as Director of Production and appointed as Production SEVP. Fifthly, Disril Revolin Putra was honorably dismissed as Director of HR & General Affairs and appointed as Legal & Compliance SEVP. Lastly, Adriasjah Azhari was honorably dismissed as Director of Planning & Development and was appointed SEVP of Research & Development. In accordance with the existing rules, the Company introduction orientation program was implemented on September 16, 2019 at the Board of Directors' Meeting.

The introductory material was given in accordance with the Annual GMS Decree of fiscal year 2019. In addition to presenting the Company, the Company introduction program also delivers supporting documents, including the Annual Report, the Company's Work Plan and Budget (RKAP), the Company's Long Term Plan (RJPP), the Articles of Association, the Company's Corporate Governance Policy (CGP), the Corporate Ethics Standards, the Director's Work Programs, the Director's Charter, and the regulations related to the implementation of Directors' duties. In order to understand first hand the Company's business processes, the Company's introduction program also includes direct visits to various company work units. Other orientation programs are as follows:

Name	Orientation Program Subjects
Honesti Basyir	1. Company Profile 2. Implementation of GCG at PT Bio Farma (Persero)
I.G.N. Suharta Wijaya	3. PT Bio Farma's Occupational Safety and Health Management System 4. HR Division - HC Data and Compensation & Benefits 5. Career Management of PT Bio Farma (Persero) 6. Learning Management 7. Occupational Safety and Health (K3) 8. Industrial Relations 9. Labor Social Security by BPJS Employment 10. Health Insurance by Health BPJS 11. Bio Farma Work Life Balance 12. Independence of Fulfillment of Plasma Products in Indonesia Through Domestic Plasma Fractionation 13. Product Knowledge General Orientation 14. Quality Management - Basic Principles of GMP

ASSESSMENT OF THE PERFORMANCE OF THE BOARD OF COMMISSIONERS AND THE BOARD OF DIRECTORS

Provisions relating to the Board of Commissioners' obligations to measure and to evaluate the performance of the Board of Commissioners are listed in the Board Manual of the Board of Commissioners.

GUIDELINES ON THE PERFORMANCE ASSESSMENT OF GCG APPLICATION BY THE BOARD OF COMMISSIONERS AND THE BOARD OF DIRECTORS

For performance evaluation of the implementation of GCG by the Board of Commissioners and Board of Directors, we refer to:

1. SOE Ministerial Regulation Number: PER-01/MBU/2011 on August 1, 2011, as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012, noting that the GMS has established Indicators for Achieving the Performance of the Board of Commissioners based on the proposals of the Board of Commissioners.

2. The Ministry of SOEs (through the Secretary of the Ministry of SOEs) Decree Number: SK-16/S. MBU/2012 issued on June 6, 2012 concerning Evaluation Indicators for the Implementation of Good Corporate Governance in SOEs. The Decree states that in an effort to improve the quality of GCG implementation, SOEs are required to measure GCG implementation, so that if there are still shortcomings in its implementation, SOEs can immediately determine the necessary action plans.
3. The Board of Commissioners of Bio Farma has also issued Decree Number: SK-06/DK/BF/XII/2011 on December 19, 2011, concerning the Determination and Assessment of the Board of Commissioners' Key Performance Indicator (KPI) in 2012.

CRITERIA FOR PERFORMANCE ASSESSMENT OF THE BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS AND FOR OTHER PARTIES CONDUCTING THE ASSESSMENT

1. The criteria used in carrying out the assessment on the performance of the Directors are based on guidelines issued by the Minister of SOEs through the Decree of the Minister of State-Owned Enterprises number KEP-100/MBU/2002 on June 4, 2002 concerning the assessment of the soundness of the State-Owned Enterprises.
2. The criteria used in carrying out the assessment of the performance of the Board of Commissioners are based on the Board of Commissioners' proposal in obedience to SOE Ministerial Regulation Number: PER-01/MBU/2011.
3. At the beginning of each year, the implementation of the Board of Directors' duties is planned in a work program that is listed in the Company's Work Plan and Budget. At the end of the year, the Board of Directors prepares a Company Management Report which is submitted to the Board of Commissioners and Shareholders at the GMS for evaluation and approval.
4. The performance evaluation of the Board of Commissioners is done collegially and is part of the Board of Commissioners Supervisory Duties Report. The implementation of the tasks is planned at the beginning of each year in a work program listed in the Company's Work Plan and Budget. At the end of the year, the Board of Commissioners prepares a Supervisory Report that is submitted to the Shareholders at the GMS for evaluation and approval.

PERFORMANCE ASSESSMENT OF THE BOARD OF COMMISSIONERS OF BIO FARMA

Performance Assessment is carried out through a number of procedures:

Performance Evaluation of the Board of Commissioners through the General Meeting of Shareholders (GMS) by KPI

The performance evaluation of the Board of Commissioners is based on the Decree of the Board of Commissioners Number: SK-06/DK/BF/XII/2011 on December 19, 2011, concerning the Determination and Evaluation of Key Performance Indicators (KPI) of the Board of Commissioners in 2012. Evaluation of the performance of the Board of Commissioners is undertaken annually and the results are presented at the GMS.

Performance evaluation of the Bio Farma Board of Commissioners uses Key Performance Indicators (KPI). In 2019, this has been approved by the General Meeting of Shareholders (GMS) through the Management Contract. Based on the results of the 2019 GMS, it approved the Board of Commissioners' Supervisory Report and gave full responsibility (Volledig Acquit at de charge) to the Board of Commissioners for the management and supervision actions that have been carried out up until December 31, 2019.

PROCEDURES FOR PERFORMANCE ASSESSMENT OF THE BOARD OF COMMISSIONERS

The performance of the Board of Commissioners is evaluated by the Shareholders in the GMS based on the Company's performance as outlined in the ratification of the Company's Financial Statements by the GMS. The performance evaluation of the Board of Commissioners in the GMS is reflected in the resolution of the GMS which gave approval and ratification of the Financial Statements, including the Report of the Board of Commissioners regarding the Company's supervisory duties for the past financial year.

Referring to SOE Ministerial Regulation Number: PER-1/MBU/2011, it is the GMS that establishes the Achievement Indicators for the Performance of the Board of Commissioners based on the Board of Commissioners' proposal. The Bio Farma Board of Commissioners has issued the Charter of the Board of Commissioners of PT Bio Farma (Persero) for 2019.



EVALUATION CRITERIA OF THE BOARD OF COMMISSIONER PERFORMANCE

KPI Assessment of the Board of Commissioners in 2019

No.	Aspects and Parameter	Period	Output Unit	Value (%)	2016		
					Target	Realisation	Value
1	2	3	4	5			
I.	Planning Aspect						
1	Arranging Work Plan and Budget as well as the Board of Commissioners' KPI	Annual	Document	10	1	1	10
	Sub Total			10			10
II	Supervision and Advice Aspect						
1	Providing responses/recommendations to Shareholders on:						
	a. The Company's Work Plan and Budget	Annual	Letter	4	1	1	4
	b. Annual Report	Annual	Letter	4	1	1	4
	c. Quarterly Performance Analysis	Quarterly	Letter	4	4	2	2.67
	d. Evaluation of the Company's Long-Term Plan	A Year	Letter	4	4	-	-
2	Giving advice and direction to the Board of Directors in accordance with the duties of the Board of Commissioners						
	a. Total Meetings	Monthly	Times	4	12	12	4
	b. Attendance at Meetings	Monthly	%	4	100	73.33	2.93
	c. Completion of minutes of meetings	Monthly	Treatise	4	12	12	4
3	Meetings of Board of Commissioners						
	a. Total Number of Meetings	Monthly	Times	9	12	12	9
	b. Meeting Attendance	Monthly	%	5	100	73.33	3.67
	c. Completion of minutes of meetings	Monthly	Treatise	5	12	12	5
4	Meeting of the Committee of Commissioners and related Units	A Year	Treatise	6	12	12	6
5	Board of Commissioners Work Visit	A Year	Visit	4	2	2	4
6	Realisation of the work plan of the Board of Commissioners Committee	A Year	%	3	100	100	3
	Sub Total			60			52.27
III	Reporting Aspects						
1	Report on the realisation of KPI for the Board of Commissioners	Quarterly	Report	5	3	3	5
	Board of Commissioners supervision report	Annual	Annual	10	1	1	10
	Sub Total			15			15
IV	Dynamics Aspects						
1	External Auditor's Proposal to Shareholders	Annual	Letter	3	1	1	3
2	Increased Competence through seminars, workshops etc.	A Year	Times	3	4	4	3
3	Board of Commissioners GCG assessment results (self-assessment/Independent Consultant)	Annual	Score	3	32	32	3
4	Distribution of duties of the Board of Commissioners	A Year	Times	3	1	1	3
5	Responses to the Follow up of GCG Auditor/SPI/Assessor Findings	A Year	Letter	3	1	1	3
	Sub Total			15			15
TOTAL				100			92.27

2017			2018			2019		
Target	Realisation	Value	Target	Realisation	Value	Target	Realisation	Value
			6	7	8	6	7	8
1	1	10	1	1	10	1	1	10
		10			10			10
1	1	4	1	1	4	1	1	4
1	1	4	1	1	4	1	1	4
3	3	4	3	3	4	3	2	2.67
1	1	4	1	1	4	1	-	-
12	12	4	12	12	4	12	12	4
100	100	4	100	100	4	100	73.33	2.93
12	12	4	12	12	4	12	12	4
12	12	9	12	12	9	12	12	9
100	100	5	100	100	5	100	73.33	3.67
12	12	5	12	12	5	12	12	5
12	12	6	12	12	6	12	12	6
2	2	4	2	2	4	2	2	4
100	100	3	100	100	3	100	100	3
		60			60			52.27
3	3	5	3	3	5	3	3	5
1	1	10	1	1	10	1	1	10
		15			15			15
1	1	3	1	1	3	1	1	3
4	4	3	4	4	3	4	4	3
25	25	3	25	25	3	25	32	3
1	1	3	1	1	3	1	1	3
1	1	3	1	1	3	1	1	3
		15			15			15
		100			100			92.27

PARTIES PERFORMING THE ASSESSMENT OF THE BOARD OF COMMISSIONERS

In 2019, the performance evaluation of the Board of Commissioners was carried out collegially, as part of the Board of Commissioners Supervisory Report. Implementation of the tasks are planned at the beginning of each year in a Work Program listed in the RKAP. At the end of the year, the Board of Commissioners prepares a Supervisory Report that is submitted to the Shareholders at the GMS for evaluation and approval.

Assessment of the performance of the Board of Commissioners was carried out based on PER-01/MBU/2011 on August 1, 2011 and as amended lastly through Minister of SOE Regulation Number: PER-09/MBU/2012 dated July 6, 2012, Regarding the Implementation of Good Corporate Governance in SOEs and Decrees of Board of Commissioner Number: KEP-04/DK/BF/07/2015 on July 31, 2015 Regarding Changes to the Supervision and Advice Policy.

ASSESSMENT SCORE OF THE BOARD OF COMMISSIONERS' PERFORMANCE

KPI of the Board of Commissioners of the Year 2016 – 2019

Indicators	Value	2016	2017	2018	2019
Planning Aspects	10	10	10	10	10
Supervision & Advice Aspects	60	67	60	54,5	52,27
Reporting Aspects	15	15	15	15	15
Dynamics Aspects	15	15	15	15	15
Total	100	107	100	94,5	92,27

RECOMMENDATION OF ASSESSMENT RESULTS

The recommendations from the performance evaluation of the Board of Commissioners relating to the implementation of GCG are that the Board of Directors (with directions and advice from the Board of Commissioners) are to pay attention to the following matters:

1. Following up and completing any findings, notes, and references/recommendations of the results of internal and external auditors that have not yet

been declared. The progress of the follow-up to the completion of the findings should be discussed comprehensively with the Board of Commissioners and submitted periodically in writing to the Shareholders.

2. Ensuring that the implementation of GCG can be done, consistently and sustainably based on the Minister of SOE Regulation.

REASONS THE RECOMMENDATIONS HAVE NOT YET BEEN IMPLEMENTED

The recommendations from the Shareholders that have been followed up and implemented by Bio Farma are:

1. All findings have been followed up and discussed with the Board of Commissioners. The results of the follow up of these findings are periodically submitted to the Minister of SOEs in the form of Quarterly Corporate Management Reports.
2. Good Corporate Governance (GCG) continues to be carried out consistently.

PERFORMANCE ASSESSMENT CRITERIA FOR THE BOARD OF COMMISSIONERS

The criteria for evaluating the performance of the Board of Commissioners covers:

1. Implementation of the Board of Commissioners' training/learning program.
2. The division of duties and determination of the factors needed to support the implementation of the duties of the Board of Commissioners.
3. Granting approval for the Company's Long-Term Plan and the Company's Work Plan and draft Budget submitted by the Board of Directors.
4. Providing direction to the Board of Directors on the implementation of the Company's plans and policies.
5. Implementation of supervision of the Board of Directors on the implementation of company plans and policies.
6. Supervision of the implementation of the management policy of subsidiaries/joint ventures.
7. Role in nominating members of the Board of Directors, evaluating the performance of the Board of Directors (individual and collegial) and proposing a bonus/incentive for the Board of Directors' performance.

8. Acting on potential conflicts of interest concerning the Board of Commissioners.
9. Monitoring the application of the principles of Good Corporate Governance.
10. Organisation of the Board of Commissioners meeting and the level of attendance at the meeting.
11. Ensuring there is a Secretary of the Board of Commissioners who supports the implementation of the Board of Commissioners' secretarial tasks.
12. Ensuring there is an effective Board of Commissioners' Committee.

through the 2019 Directors' Key Performance Indicator (KPI) has been approved by the Shareholders through a management contract. In addition, an assessment of the performance of the Directors is also carried out through a GCG Assessment.

PERFORMANCE OF THE BOARD OF DIRECTORS BASED ON KEY PERFORMANCE INDICATORS (KPI)

In 2019, performance assessment of the Directors was done through Key Performance Indicators (KPI) and approved by the Shareholders through a Management Contract.

EXTERNAL PARTIES IN PERFORMANCE ASSESSMENT OF THE BOARD OF COMMISSIONERS

From 8 February 2019 to 9 April 2019, the West Java Representative Board of Finance and Development (BPKP) conducted an Assessment of the implementation of GCG in Bio Farma and assessed the aspects of the Board of Commissioners.

PERFORMANCE SCORE FOR THE BOARD OF COMMISSIONERS

In 2019, the results of evaluating the performance of GCG implementation in Bio Farma reached a score of 90,938. This score falls in the category of "Very Good", with an aspect score of the Board of Commissioners of 31,722 also in the category of "Very Good".

PERFORMANCE ASSESSMENT OF THE BOARD OF DIRECTORS

The Board of Directors is committed to continuously improving its performance. To support this, an assessment of the performance of the Directors

PROCEDURES FOR IMPLEMENTING THE ASSESSMENT OF THE BOARD OF DIRECTORS

The performance of the Board of Directors is evaluated collegially by the Shareholders in the GMS based on the company's performance as outlined in the approval and ratification of the Company's Annual Report by the GMS. At the beginning of each year, the Board of Directors must prepare a Key Performance Indicator (KPI) which is a translation of the Company's Work Plan and Budget which is approved by the GMS and set forth in a management contract. The preparation of the KPI refers to the SOE Ministerial Letter Number: S-676/MBU/2004 on December 22, 2004, concerning the Implementation of KPI which aims to serve as an assessment tool for shareholders on the performance of the Directors until the end of the year. The results of the Board of Directors' performance are collegially reported upon by the Board of Commissioners to the GMS in the Board of Commissioners' Supervisory Duties Report.

CRITERIA FOR PERFORMANCE ASSESSMENT OF THE BOARD OF DIRECTORS

The Key Performance Indicators (KPI) used to measure the performance of the Company's Board of Directors consist of 4 (four) perspectives:

Assessment of the Board of Directors' Key Performance Indicators (KPI) in 2019

No	Perspective	Value	Unit	2019 Target	2019 Realisation (Audited)	
		(%)			Value	Score
1	Finance and Market					
	a. Operating Income	6	Rp million	3,682,488	2,542,592	4.14
	b. EBITDA Margin	6	Percentage	30.09	29.13	5.81
	c. Debt to Equity Ratio	5	Percentage	27.86	29.15	4.78
	d. Return on Equity	5	Percentage	15.85	9.05	2.86
		22				17.58

No	Perspective	Value	Unit	2019 Target	2019 Realisation (Audited)	
		(%)			Value	Score
2	Focus on Customer and Market					
	a. Increasing of exported product	10	Rp. million	1.425.724	1,475,797	10.35
	b. Customer Satisfaction	10	Score	85.00	85.70	10.08
		20				20.43
3	Effectiveness of Products and Processes					
	a. PQ WHO	5	Total Products	9	10	5.56
	b. Proper KLH	5	Category	Emas	Hijau	4.00
	c. CAPEX Absorption Realisation	4	Percentage	100	68.60	2.74
	d. Inventory Turn Over	4	Day	76.32	170.96	1.79
		18				14.09
4	Focus on Employees					
	a. Competency Development	5	Percentage	100	119.25	5.96
	b. Employee Productivity	5	Rp/employee	2.976.918.167	2,108,144,251	3.54
	c. Talent Pool of Candidates for the Board of Commissioners	5	person	18	23	6.00
		15				15.50
5	Leadership, Governance, and CSR					
	a. GCG Score	6	Score	90.60	90.94	6.02
	b. Entry Data Portal of SOE	6	Item	5.00	5.00	6.00
	c. Partnerships and Community Development Program and SR	3	Percentage	100	96.39	2.89
		15				14.91
6	Agent of Development					
	a. SOEs Synergy	5	Percentage	30	30.09	5.02
	b. Financial Independence and Invention	5	Percentage	100	100	5.00
		10				10.02
	Total Bobot	100				92.54

PARTIES PERFORMING THE ASSESSMENT

The party conducting the Performance Assessment of the Board of Commissioners is the GMS. Meanwhile, the assessment of the performance of the Directors is the Board of Commissioners and GMS. The Board of Commissioners and Board of Directors will be held accountable for the achievement of their performance in 2018, including the implementation of the duties and responsibilities of the Board of Commissioners and Directors in the GMS to be held in 2019.

KEY PERFORMANCE INDICATORS (KPI)

The 2019 KPI exceeds the target set especially for financial & market aspects, aspects of product & process effectiveness, customer focus and leadership, governance & social responsibility, although on the other hand, the focus of the workforce is not entirely in accordance with the specified targets.

Key Performance Indicators (KPI)

Description		Values Target (%)					
No.	Excellent Performance Assessment Criteria Perspective	2014	2015	2016	2017	2018	2019
1	Finance and Market (7.5)	24	40	22	25	24	22
2	Effectiveness of Products and Process (7.1)	20	20	18	15	20	18
3	Focus of Customer (7.2)	22	10	7	12	22	20
4	Focus of Employees (7.3)	17	10	10	10	17	15
5	Leadership, Governance, and CSR (7.4)	17	20	43	38	17	15
6	Agent of Development	-	-	-	-	-	10
Total		100	100	100	100	100	100

Description		Score of Year Realisation					
No.	Excellent Performance Assessment Criteria Perspective	2014	2015	2016	2017	2018	2019
1	Finance and Market (7.5)	22.03	80.56	8.51	19.67	19.7	17.58
2	Effectiveness of Products and Process (7.1)	17.27	23.33	23.33	17	16.92	14.09
3	Focus of Customer (7.2)	23.59	10	6.97	10.79	20.3	20.43
4	Focus of Employees (7.3)	16.18	11.64	7.32	10.26	17.85	15.5
5	Leadership, Governance, and CSR (7.4)	19.06	20.31	41.49	33.54	16.99	14.91
6	Agent of Development	-	-	-	-	-	10.02
Total		98.13	145.84	87.62	91.27	91.76	92.54

Description		Increase/Decrease %					
No.	Excellent Performance Assessment Criteria Perspective	2014	2015	2016	2017	2018	2019
1	Finance and Market (7.5)	(8.21)	101.40	(61.32)	(21.32)	(17.92)	(10.76)
2	Effectiveness of Products and Process (7.1)	(13.65)	16.65	29.61	13.33	(15.40)	(16.73)
3	Focus of Customer (7.2)	7.23	0.00	(0.43)	(10.08)	(7.73)	0.64
4	Focus of Employees (7.3)	(4.82)	16.40	(26.80)	2.60	5.00	(13.17)
5	Leadership, Governance, and CSR (7.4)	12.12	1.55	(3.51)	(11.74)	(0.06)	(12.24)
6	Agent of Development	-	-	-	-	-	-
Total		(1.87)	45.84	(12.38)	(8.73)	(8.24)	1.93

RESULTS OF THE BOARD OF DIRECTORS' PERFORMANCE ASSESSMENT

In 2019, the results of the performance evaluation of GCG implementation at Bio Farma reached a score of 90,938 which is in the category of "Very Good", with a score for the Board of Directors aspect of 32,832 which is also in the category of "Very Good".

PERFORMANCE ASSESSMENT OF THE BOARD OF DIRECTORS

The Board of Directors is committed to continuously improving the achievement of its performance. To support this, there is an assessment of the performance of the Directors through the GCG Assessment. The performance evaluation of the Directors through the GCG Assessment conducted in 2019 as follows.

PROCEDURES FOR IMPLEMENTING THE BOARD OF DIRECTORS' ASSESSMENT

The assessment uses the services of competent government agencies in the field of GCG conducted by the West Java Representative Finance and Development Supervisory Agency (BPKP) which has previously conducted regular assessments of the implementation of GCG in Bio Farma for 7 (seven) periods. The assessment of the implementation of GCG in Bio Farma for 2018 was carried out by the BPKP Representative of West Java Province to assess the implementation of GCG in 2019.

CRITERIA FOR THE ASSESSMENT OF THE BOARD OF DIRECTORS

The criteria used in evaluating the performance of the Directors include:

1. Implementation of the Board of Directors' training/learning program.
2. Clear division of duties/functions, authorities and responsibilities of the Board of Directors.
3. Compilation of corporate planning.
4. Meeting the company's performance targets.
5. Implementation of operational and financial controls over the implementation of company plans and policies.
6. Implementation of company management in accordance with the applicable laws and regulations and the Articles of Association.
7. Implementation of value-added relationships for the company and stakeholders.
8. Monitor and manage potential conflicts of interest of members of the Board of Directors and management under the Board of Directors.
9. Implementation of information and communication disclosure, as well as timely delivery of information to the Board of Commissioners and Shareholders.
10. Organizing Board of Directors meetings and attendance at Board of Commissioners meetings.

11. Implementation of quality and effective internal supervision.
12. Organisation of quality and effective Corporate Secretary functions.
13. The holding of the Annual GMS and other GMS in accordance with statutory provisions.

PARTIES PERFORMING THE ASSESSMENT OF THE BOARD OF DIRECTORS' PERFORMANCE

On February 8, 2019 to April 9, 2019, the West Java Representative Board of Finance and Development (BPKP) conducted an Assessment of the implementation of GCG in Bio Farma.

RESULTS OF THE BOARD OF DIRECTORS' PERFORMANCE ASSESSMENT

In 2019, the results of the performance evaluation of GCG implementation at Bio Farma reached a score of 90,938 which is in the category of "Very Good".

ASSESSMENT OF GCG IMPLEMENTATION

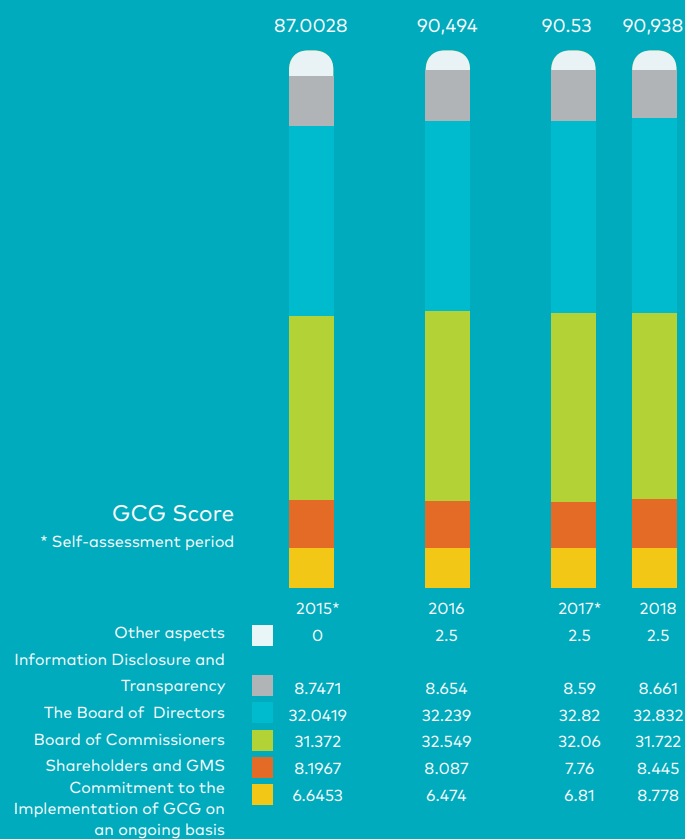
PARTIES PERFORMING THE ASSESSMENT

The assessment uses the services of competent government agencies in the field of GCG, and is conducted by the West Java Representative's Financial and Development Supervisory Agency (BPKP) which has conducted GCG assessments regularly for 7 periods. In 2019, the BPKP West Java Representative conducted a GCG assessment to assess the implementation of GCG in 2018.

SCORE OF EVALUATION OF CRITERIA

Self-Assessment Results of the Implementation of GCG - BPKP West Java Representative at PT Bio Farma (Persero) in 2017 and 2019

KPI Based on the KPKU Perspective		Values	Achievement in 2016			Values	Achievement in 2018		
			Score	% Achievement	Exegesis		Score	% Achievement	Exegesis
I	Commitment to Sustainable Implementation of Good Corporate Governance	7	6,474	92.49	Very Good	7	6,778	96.829	-
II	Shareholders and GMS	9	8,078	89.76	Very Good	9	8,445	93.833	-
III	Board of Commissioners	35	32,549	93.00	Very Good	35	31,722	90.634	-
IV	Board of Directors	35	32,239	92.11	Very Good	35	32,832	93.806	-
V	Information Disclosure and Transparency	9	8,654	96.16	Very Good	9	8,661	96.233	-
Sub Total		95	87,994	-	-	95	88,438	-	-
VI	Other Aspects	5	2,500	-	-	5	2,500	-	-
Total		100	90,494	-	Very Good	100	90,938	-	-



RECOMMENDATIONS ON ASSESSMENT RESULTS AND FOLLOW-UP ASSESSMENT RECOMMENDATIONS FOR GCG IMPLEMENTATION AND REASONS FOR NOT HAVING YET IMPLEMENTED THE RECOMMENDATIONS

In 2019, the BPKP West Java Representative conducted a GCG assessment and provided recommendations for follow-up:

GCG Assessment and Recommendations

Description	2015	2016	2017	2018
Commitment to Sustainable Implementation of Good Corporate Governance	6,6453	6,474	6.81	6,778
Shareholders and GMS	8,1967	8,078	7.76	8,445
Board of Commissioners	31,372	32,549	32.06	31,722
Board of Directors	32,0419	32,239	32.82	32,832
Information Disclosure and Transparency	8,7471	8,654	8.59	8,661
Other Aspects	0	2,500	2.5	2,500
	87,0028	90,494	90.54	90,938

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
1	Determining a definitive member of the Board of Directors no later than 30 (thirty) days after the end of the term of office	√			Decree of the Minister of State-Owned Enterprises as the General Meeting of Shareholders of the Company (Persero) of PT Bio Farma Number: SK-203/MBU/09/2019 on September 13, 2019 concerning Dismissal, Changing Nomenclature of Position, Transfer of Duties, and Appointment of Members of Board of Directors of the Company (Persero) PT Bio Farma
2	Providing an assessment of the performance of the Board of Directors individually and as set forth in the GMS	√			The performance evaluation of the Board of Directors is still carried out collegially and not individually. This can be seen in the Minutes of the Annual General Meeting of Shareholders Ratification of the Annual Company Management Report and the Activity Report of the Partnership & Community Development Program Book Year 2018 (Audited) of PT Bio Farma (Persero) Number: 01 dated May 10, 2019
3	Providing a Board of Commissioners Performance Assessment in accordance with the Board of Commissioners' Work Plan	√			The Minutes of the Annual General Meeting of Shareholders Ratification of the Annual Company Management Report and the Activity Report of the Partnership & Community Development Program Year 2018 (Audited) of PT Bio Farma (Persero) Number: 01 on May 10, 2019, only contains the agenda of the approval meeting of the Task Report Supervision of the Board of Commissioners for Fiscal Year 2018, and does not discuss in detail the evaluation of the Board of Commissioners 'Performance in accordance with the Board of Commissioners' Work Plan

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
4	Carrying out Follow-Up on the Area of improvement resulting from the Assessment of Good Corporate Governance Implementation	√			The Shareholders have not yet fully followed up on the AOI of the Shareholders and GMS aspects
5	Shareholders do not interfere in the company's operational activities which are the responsibility of the Board of Directors	√			Shareholders do not interfere in the Company's operational activities in accordance with the articles of association
6	The Board of Commissioners' training has been documented and contained in the 2018 PT Bio Farma (Persero) Board of Commissioners Supervisory Task Report and the Yogyakarta Executive Development Activity 2018 Report compiled by the HR Division, except that there were no specific reports prepared by the Board of Commissioners regarding the Training Report by the Commissioner		√		The Board of Commissioners' training has been documented and contained in the 2018 PT Bio Farma (Persero) Board of Commissioners Supervisory Task Report and the Yogyakarta Executive Development Activity 2018 Report compiled by the HR Division, except that there were no specific reports prepared by the Board of Commissioners regarding the Training Report by the Commissioner
7	Approving and/or Responding to the Proposed Action of the Board of Directors no later than 14 days after the proposal and the data are received		√		Approval to Pledge the Company's Fixed Assets related to the Extension of the Bank Mandiri Credit Facility in 2019-2020 Number: S-09/DK/BF/08/2019 on August 13, 2019 (approval made <14 days from the Board of Directors' Letter Number: 05073/DIR/VIII/2019 on August 13, 2019 concerning the Application for Approval to Pledge the Company's Fixed Assets related to the Credit Facility Extension from Bank Mandiri in 2019-2020 received by the Board of Commissioners)
8	Ordering the Secretary of the Board of Commissioners to document the process of preparing the Work Plan and Budget of the Board of Commissioners in the Minutes of Meeting or other documentation		√		The Work Plan and Budget of the Board of Commissioners have been included in the Work Plan and Budget of the Board of Commissioners of PT Bio Farma (Persero) in 2018 and were discussed at the Board of Commissioners' Internal Meeting on October 19, 2018 with the agenda of the 2019 Company's Work Plan and Budget Draft Discussion

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
9	Providing direction on strengthening the company's internal control system based on a review of the internal control report		√		The Board of Commissioners' direction on strengthening the company's internal control system based on a review of the internal control report will be discussed at the Audit Committee meeting. Audit Committee Meeting with related units on February 23, 2018, with the agenda to discuss the progress of the follow-up to internal & external audit and evaluation of the internal control system as an entity
10	Increasing the direction and advice on information technology policies and their implementation		√		The directions given by the new Risk, Development and GCG Committee include the implementation of information technology at the Risk, Development and GCG Committee meetings with related units on 24 September 2019 with the Monev agenda for managing corporate risk. IT-based ERM, has not provided direction on information technology policy
11	Increasing the provision of guidance and advice on procurement policies and their implementation		√		Directions from the Board of Commissioners related to the procurement of goods and services and their implementation will be discussed in the Board of Commissioners meeting
12	Improving the provision of direction and advice on quality policy and services		√		Directions from the Board of Commissioners regarding the quality and service policy will be discussed in the Board of Commissioners meeting
13	Explicitly stating in the Work Plan and Budget of the Board of Commissioners regarding the plan to discuss the compliance of the Board of Directors with the applicable laws and regulations and agreements with third parties		√		The plan to discuss the compliance of the Board of Directors with the applicable laws and regulations and the third agreement has been included in the Work Plan and Budget of the Board of Commissioners of PT Bio Farma (Persero) in 2018 by conducting internal discussions/ internal meetings of the Board of Commissioners, Joint Meetings of the Directors and Board of Commissioners, and it is agreed to make legal studies if needed

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
14	Explicitly stating in the Work Plan and Budget of the Board of Commissioners regarding the plan for discussion of the approval, authorisation or recommendation of the Board of Commissioners regarding the Actions of the Board of Directors in accordance with the Articles of Association		√		The discussion plan on the approval/ authorisation or recommendation of the Board of Commissioners regarding the Actions of the Board of Directors in accordance with the Articles of Association has been included in the Work Plan and Budget of the Board of Commissioners of PT Bio Farma (Persero) in 2018 by conducting discussions through the Board of Commissioners' Committee Meetings with related Divisions, Internal Meetings of the Board of Commissioners, Joint Meetings of Directors and Board of Commissioners, and making approval or recommendation letters according to the company's articles of association, where the approval given includes the elimination of fixed assets, changes in the organizational structure one level below the Directors, withdrawal of loans and remuneration of the Board of Directors
15	Providing approval/ authorisation/ recommendation of the Board of Commissioners regarding the actions of the Board of Directors that requires a recommendation/ approval from the Board of Commissioners in a timely manner		√		Approval to Pledge the Company's Fixed Assets related to the Extension of the Bank Mandiri Credit Facility in 2019-2020 Number: S-09/DK/BF/08/2019 on August 13, 2019 (approval made <14 days from the Directors' Letter Number: 05073/DIR/VIII/2019 on August 13, 2019 concerning the Application for Approval to Pledge the Company's Fixed Assets related to the Credit Facility Extension from Bank Mandiri in 2019-2020 received by the Board of Commissioners)
16	Evaluating the performance of the Directors based on the criteria, targets and key performance indicators covered by the Directors' Management Contract individually by considering the realization of the achievements of each Director		√		The performance evaluation of the Board of Directors is still collegial

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
17	Documenting discussions on GCG content in the Company's Annual Report and more actively following up the area of improvement on the results of the GCG assessment which is under the authority of the Board of Commissioners		√		- The discussion was carried out in an RPG Committee meeting regarding GCG content in the Company's Annual Report - The RTL for AOI has been sent to the Audit Committee, the RPG Committee and the Secretary. Board of Commissioners to be followed up on September 16, 2019 by e-mail and discussion was carried out in the RPG Committee meeting on April 22, 2019
18	Documenting the performance evaluation of each member of the Board of Commissioners in the Minutes of Meeting or other documentation		√		Discussions regarding the performance achievements of each member of the Board of Commissioners will be included in the Minutes of Meeting or other documentation
19	Ordering the Secretary of the Board of Commissioners to include an explanation of absence at a meeting in the Minutes of the Meeting and remain consistent in discussing the Follow up actions of the previous meeting in the minutes of the next meeting		√		Minutes of the 2019 Meeting will be refined by consistently explaining the absence in the meeting and following up on the previous meeting
20	Ordering the Secretary of the Board of Commissioners to document the entire archive of incoming and outgoing letters as well as have it scheduled in an orderly manner		√		The Board of Commissioners Secretary will prepare minutes of the meeting immediately so that it can be validated by the Board of Commissioners no later than 7 (seven) days after the meeting is finished
21	Ordering the Secretary of the Board of Commissioners as soon as the meeting is over, to compile the minutes of the meeting as soon as it is over, so that the minutes of the meeting can be validated no later than 7 days after the meeting.		√		The Board of Commissioners Secretary will prepare minutes of the meeting immediately so that it can be validated by the Board of Commissioners no later than 7 (seven) days after the meeting is finished

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
22	Instructing the Secretary of the Board of Commissioners to administer data/information relating to monitoring the Follow-Up Decisions, recommendations and directions of the Board of Commissioners, as well as matters that must obtain approval/recommendations from the Board of Commissioners.		√		Responses/approvals/recommendations along with the directions of the Board of Commissioners have been documented by the Secretary of the Board of Commissioners, only for monitoring the follow up of the decision that have not been documented
23	Carrying out awareness raising on the Code of Conduct and GCG Guidelines in stages so that all employees can follow them			√	Form of internalisation to all units is carried out by sending out socialisation material and videos along with attendance lists by e-mail to all work units
24	Carrying out a workload analysis in the Quality Assurance Section of the Quality Assurance and Regulations Division so that periodic document review can be carried out on time for all documents that enter a period of regular review			√	1. The Quality Assurance & Regulatory Division conducts routine reminding 3 months before entering a period of periodic review to the relevant section, and subsequent periodic reminding is carried out until all documents are followed up. Reminding is done manually using e-mail. Submission of periodic document review is done by the 2. Section owner of the document. Commitment of all work units are required to periodically review the documents of each unit. Until now, there has not been a fulfillment of the periodic review timeline for all documents that have entered the period of regular review. As an improvement, the eQMS master control module documentation application will be implemented, so that the periodic review process will automatically be relayed to the relevant PIC. The review and approval process is carried out using an electronic signature with approval levels up to the Head of the Section and QA documentation, which is expected to expedite the periodic review procedure. For the timeliness of reviewing documents received by the Quality Assurance & Regulation Division, it has been carried out according to the target, which is less than 15 working days, and the achievement of KPI in Quarter 3 97.46%. 3. Workload analyses have been carried out in the Service Quality Assurance Section to evaluate the needs of personnel with workload in the Section.

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
25	Updating the Management Review Guideline for revision 6 by including the standard time for communicating Directors' decisions to the levels below			√	Management Review Guidelines Doc #: SM-I1.7 is in the process of review. The maximum time for communicating the Board of Directors' decisions to the levels below it is 7 (seven) working days and that has been implemented.
26	Establishing mechanisms that govern documentation of each process carried out by the Directors in response to business proposals			√	Standard procedure 235K-GCG-COMP Rev.0 Implementation of the Compliance Function was effective July 3, 2019
27	Monitoring the implementation of Board of Directors' regulations No. PER-06231/DIR/XI/2018 on 30 November 2018 concerning Performance Management Systems			√	Monitoring of the implementation of the Performance Management System was carried out in Semester I of 2019 based on the Individual KPI-Monitoring
28	Encouraging the application of performance targets for each position in the organisation			√	Individual KPI Plans for 2019 and 2020 have been established and recapitulated for each position
29	Conducting analysis and evaluation of job performance and individual performance, regularly			√	Individual performance has been conducted periodically during every 6 (six) months of analysis and evaluation (KPI Monitoring and Evaluation KPI)
30	Documenting and reporting the achievement of individual Directors' performance targets to the Board of Commissioners			√	The performance evaluation of the Board of Directors is still collegial

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
31	Speeding up the process of implementing e-procurement applications in the process of Procurement of Goods and Services			√	The policy of PT Bio Farma (Persero) for the implementation of e-procurement is carried out in stages and started with the implementation of ERP in 2014-2015 which integrates several applications related to the Company's business processes into one application. This is so that each stage of the business process has clear standards and can serve as input for the next process. In 2016-2017, it will be continued by rearranging and collecting partner data to obtain a complete data base in accordance with the standards set as a form of initiation for developing Partner Management Applications. Partner Management Applications need to be developed so that the implementation of qualifications up to the endorsement of partner data is done online and can be integrated with the ERP Application. In early 2018, the Procurement Division continued to the next stage which is related to the e-Procurement Application development plan with risk analysis no. 252-RA-Eproc signed by the Procurement Division, IT Division, Compliance & Risk Management Division, and MPP Division which discusses in detail the risks that may occur from the implementation of e-procurement and its mitigation. In the implementation of e-procurement application development the stages are divided into 3 modules, namely: the e-Tendering Application module, e-Catalog, and e-Purchasing. Therefore, as an initial step, a TOR has been prepared which is accompanied by a User Requirement for e-tendering Application development as a reference for the procurement process of e-tendering application development service providers as implemented in 2018 which was completed on July 8, 2019. In line with the Strategy, Policies and Work Programs of the 2020-2022 Procurement Division that have been prepared, the e-procurement development and implementation plan is carried out in the following stages: - In 2020, an e-Catalog will be developed and implemented as the initial stage of development and implementation of e-Purchasing in order to compile a detailed goods and services database at PT Bio Farma (Persero). - In 2021, e-Purchasing will be developed and implemented as a method of selecting providers through direct selection and direct purchasing carried out online. - In 2022, the implementation of Goods / Services Procurement will be carried out through an integrated e-procurement system between e-Tendering, e-Catalog and e-Purchasing with an ERP system at PT Bio Farma (Persero).

No	Recommendation	PIC on the Follow Up			Follow Up
		Shareholder/GMS	Board of Commissioners	Board of Directors	
32	Conducting evaluation and follow-up on survey results of employee satisfaction levels so that employee satisfaction levels can increase			√	Evaluation and follow-up of the Employee Satisfaction Survey is still in the process of being prepared because it is awaiting the results of the survey that is being conducted (already distributed starting in January) to see the effectiveness of plans/programs to increase employee satisfaction.
33	Evaluating the achievement of success indicators against their targets and implementing the recommendations of the external auditor regarding rescheduling and reconditioning capital loans to the partnership program			√	1. Evaluation of the achievement of indicators of success against the targets of the Partnership Section as reported monthly to the Budget Section. Attached, KPI Partnership Section as of 30 November 2019. 2. Rescheduling and Reconditioning of the capital loan Partnership Program has been carried out with the following details: a. Phase 1 rescheduling of 2019 was conducted on April 1, 2019 to 31 Fostered Partners with a recovery value of Rp439,429,222 b. Phase 2 Rescheduling of 2019 was conducted on December 2, 2019 to 57 Fostered Partners with a recovery value of Rp939,429,300 c. Reconditioning in 2019 was carried out on November 29, 2019 to 11 Fostered Partners with a recovery value of Rp245,134,784
34	Improving the knowledge and expertise of internal auditor staff/the quality of auditors/ personnel assigned to the SPI			√	SPI Training and Education Recapitulation and SPI personnel certification
35	Increasing contributions to the improvement of the Governance process, risk management and internal control by improving the quality of the recommendations of the SPI audit results			√	SPI recommendations which contain directions for improvement of Governance, Risk management, and internal control of SPI through routine audits in the PKPT program.
36	Being consistent in presenting the Annual Report and perfecting the Presentation of the Annual Report in accordance with SK-16 of 2012 and the ARA Criteria so that the ranking of the ARA champions can be maintained			√	The preparation of AR in 2019 will be adjusted to what is contained in SK-16/S.MBU/2012

INTERNAL EVALUATION OF GCG IMPLEMENTATION

In principle, evaluation is performed by the relevant SOEs (Self-Assessment) and the method of implementation can be discussed with independent assessors who may also provide assistance (in the form of assistants) or, by using the services of competent government agencies in the field of GCG. The evaluation of GCG implementation conducted by Bio Farma is an internal evaluation (Self-Assessment), usually conducted by the Counterpart Team. Self-Assessment of the application of GCG for the period 2019 will be carried out in 2020.

ASSESSMENT OF COMPANY'S RISK-BASED RATING

The level of health of the Company is measured based on the guidelines issued by the Minister of SOEs through the Decree of the Minister of State-Owned Enterprises number KEP-100/MBU/2002 on June 4, 2002, concerning the assessment of the health level of State-Owned Enterprises. The Company's performance from 2015 reached a score of 88.50 with the criteria of "Healthy AA". In 2016, it reached a score of 81.60 with the criteria of "Healthy AA". In 2017, it reached a score of 86.00 with the criteria of "Healthy AA". In 2018, the Company reached a score of 90.35 with the criteria of "Healthy AA" and in 2019, it reached a score of 77.10 with the criteria of "Healthy A".

Company's Performance	2014	2015	2016	2017	2018	2019
Score	95.5	88.5	81.6	86	90.35	77.10
	"Healthy AAA"	"Healthy AA"	"Healthy AA"	"Healthy AA"	"Healthy AA"	"Healthy A"

Assessment of the Company's Risk-Based Rating for 2015 – 2019

No.	Indicators	2015		2016		2017		2018			2019		
		Values	Score	Values	Score	Values	Score	Values (%)	Values	Score	Values (%)	Values	Score
I.	FINANCIAL ASPECTS												
1	Return on Equity (ROE)	17.14	20.00	12.47	16.00	12.97	16.00	20	14.18%	18.00	20	9.05	14.00
2	Return on Investment (ROI)	20.27	15.00	16.53	13.50	16.93	13.50	15	15.70%	13.50	15	9.32	7.50
3	Cash Ratio	121.74	5.00	98.85	5.00	63.76	5.00	5	71.90%	5.00	5	55.19	5.00
4	Current Ratio	437.04	5.00	408.14	5.00	338.90	5.00	5	320.93%	5.00	5	260.98	5.00
5	Collection Periods	79.00	4.50	45.49	5.00	37.95	5.00	5	28.66 day	5.00	5	81.72	4.50
6	Inventory Turnover	71.97	4.50	111.68	4.00	86.40	4.50	5	132.82 day	3.50	5	170.96	3.00
7	Total Asset Turnover	48.46	2.50	48.62	2.50	60.05	3.00	5	63.58%	3.00	5	48.91	2.50
8	Equity Capital Ratio to Total Assets	86.01	7.00	86.63	7.00	83.51	7.00	10	72.71%	7.50	10	68.70	8.00
	SUBTOTAL	-	63.50		58.00		59.00	70.00		60.50	70.00	-	49.50
II.	OPERATIONAL ASPECT												
1	Production Efficiency & Productivity	1,291.92	2	1,134.68	4.00	1,529.32	-	-	-	-	-	-	-

No.	Indicators	2015		2016		2017		2018			2019		
		Values	Score	Values	Score	Values	Score	Values (%)	Values	Score	Values (%)	Values	Score
2	Labour Productivity (EMPRO)	-	-	-	-	-	3	4	Rp2,729,513,755	3,97	4	2,131,885,035.19	2,86
3	Maintenance of Production Continuity	14.04	4	17.92	4.00	17.57	4	5	16.81%	5.00	5	19.63	4.00
4	Government Assignments	89.9	2	83.35	1.60	94.36	2	3	100%	3.00	3	100.00	3.00
5	Research & Development	100	3	100	3.00	100	3	3	96.08%	2.88	3	91.25	2.74
	SUBTOTAL	-	11		12.60		12	15		14.85	15		12.60
III.	ADMINISTRATIVE ASPECTS												
1	Annual Calculation Report	100	3	100	3	100	3	3	100%	3	3	100.00	3.00
2	The Company's Work Plan and Budget Arrangement	100	3	100	3	100	3	3	100%	3	3	100.00	3.00
3	Periodic Report	100	3	100	3	100	3	3	100%	3	3	100.00	3.00
4	Partnerships and Community Development Program Performance	-	-	-	-	-	-	-	-	-	-	-	-
	- Effectiveness of Fund Distribution/ Effectiveness of Fund Distribution	86.44	2	32.86	0	97.08	3	3	94.80	3	3	99.81	3.00
	- Loan Return Collectibility	76.3	3	59.95	2	75.77	3	3	75.26	3	3	82.05	3.00
	SUBTOTAL		14		11		15	15		15	15		15.00
	TOTAL SKOR		88.5		81.6		86	100		90.35	100		77.10
	CRITERIA	HEALTHY (AA)		HEALTHY (AA)		HEALTHY (AA)			HEALTHY (AA)			HEALTHY (A)	

REMUNERATION POLICY FOR BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS

REMUNERATION POLICY FOR THE BOARD OF COMMISSIONERS

The matter of remuneration for the Board of Commissioners for 2019 is the authority of the Shareholders and it is determined in the 2018 Fiscal Year General Meeting of Shareholders on the basis of a formula agreed upon by the Shareholders. The amount of remuneration proposed by the Board of Commissioners to the Shareholders is based on the results of the Audit Committee's review by taking into account the realization of their KPI's achievement for the 2018 Fiscal Year.

BASIC REMUNERATION DETERMINATION

Remuneration for the Board of Commissioners refers to:

1. BUMN (SOE) Minister Regulation No. PER-06/MBU/06/2018 on June 4, 2018 concerning the Third Amendment to the Minister of SOE Regulation No. PER-04/MBU/2014 Regarding the Guidelines for Determining the Income of Directors, Board of Commissioners and SOEs Supervisory Board.
2. Decree of the Board of Directors No. 01378 DIR/III/2018 on March 29, 2018, Decree of the Board of Directors No. 02376/DIR/VI/2018 Regarding Technical Instructions for Salary/

- Honorarium Payment and Allowances for the Religious Holidays of the Directors and Board of Commissioners Technically.
3. Minutes of Annual General Meeting of Shareholders Company Management Report and Activity Report of the Partnership and Community Development Program for the Financial Year of 2018 (Audited) of PT Bio Farma (Persero) Number: 01.- May 10, 2019.
 4. The formulation of remuneration determination refers to the Letter of Submission of Earnings Determination of Directors and Board of Commissioners of PT Bio Farma (Persero) 2019 Number: S-423/MBU/D1/05/2019 on May 31, 2019.

PROPOSAL PROCEDURES AND REMUNERATION FOR THE BOARD OF COMMISSIONERS

PROPOSAL PROCEDURES AND REMUNERATION FOR THE BOARD OF COMMISSIONERS

The Company proposes to determine the remuneration for the Board of Commissioners based on the provisions of the Minister of State Owned Enterprises Regulation. According to the Ministerial Regulation, the amount of the Board of Commissioners' income is determined by the General Meeting of Shareholders (GMS).

1. Delegation of the GMS to the Board of Commissioners related to the amount of salary / honorium.
2. The Board of Commissioners assigns the Risk, Development, and GCG Committee to conduct a remuneration study for members of the Board of Commissioners.
3. The Risk, Development and GCG Committee coordinates with the HR Division and related work units in order to prepare the Board of Commissioners' Remuneration proposal.
 - a. The Risk, Development, and GCG Committee formulated the Remuneration recommendations for the Board of Commissioners and then submitted them to the Board of Commissioners.
 - b. The Board of Commissioners discussed the proposal of the Risk, Development, and GCG Committee regarding the proposed Remuneration of the Board of Commissioners.

- c. The Board of Commissioners submitted the Board of Commissioners 'Remuneration proposal in the GMS and the GMS gave the Board of Commissioners the authority and power to determine this by first obtaining Shareholder approval to determine the Bio Farma Board of Commissioners' Remuneration. The General Meeting of Shareholders determines the Board of Commissioners' income based on the 2019 PT Bio Farma (Persero) Directors' and Directors' Estimated Earnings Letter Number: S-423/MBU/D1/05/2019 on May 31, 2019
- d. The Board of Commissioners determines the Remuneration of the Board of Commissioners.

Salaries/honorariums and allowances for the Board of Commissioners for the 2019 Financial Year, including the agreed bonuses for the Company's performance in the 2018 fiscal year, are determined based on the Shareholders' Resolution at the Company's General Meeting of Shareholders of PT Bio Farma (Persero). This is done as in the Minutes of GMS Number: 01 dated May 10, 2019, concerning Ratification of Management Reports, Annual Company Report and Report on Partnership and Community Development Program Activities for Fiscal Year 2018 which also concerns the Determination of Salary/honorarium along with other facilities and benefits for the Directors and Board of Commissioners for the Fiscal Year 2019. Bonuses for directors and the Board of Commissioners for the performance of Fiscal Year 2018 will be determined separately.

Indicators for Determination of Board of Commissioners' Remuneration

Determination of income in the form of salary/ honorarium, allowances and facilities that are permanent is carried out by considering income factors, assets, the financial condition and ability of the company, inflation rates, and other relevant factors, and may not conflict with statutory regulations. Determination of income in the form of benefits and bonuses that are variable, is done by considering the target achievement factors, the level of health and financial capacity of the company as well as other relevant factors. The granting of remuneration to the Board of Commissioners is carried out by deeming the realisation of the achievement of

the Key Performance Indicator (KPI) of the Board of Commissioners for the achievement of the Company's performance in 2018.

REMUNERATION STRUCTURE OF THE BOARD OF COMMISSIONERS

The remuneration given to the Bio Farma Board of Commissioners is done in accordance with the provisions for remuneration of the Board of Commissioners and incorporates salary/honorarium, benefits, facilities and bonus/performance incentives. The remuneration given to the Commissioners is in accordance with SOE Ministerial Regulations.

REMUNERATION PROVIDED TO THE BOARD OF COMMISSIONERS ACCORDING TO THE AGM PROVISIONS AS FOLLOWS:

1. Honorarium.
 - a. The honorarium of the President Commissioner is determined by a factor of 45% of the salary of the President Director.
 - b. Honorarium Members of the Board of Commissioners are determined by a position factor of 90% of the Honorarium of the President Commissioner.
2. Allowances.
 - a. Holiday allowance is 1 (one) honorarium per month.
 - b. Transportation allowance of 20% x honorarium per month.
 - c. Full-Life Insurance: a premium of 25% of the honorarium in one year.
3. Facilities.
 - a. Health: Health facilities are provided in the form of health insurance or reimbursement of medical costs (at cost)
 - b. Legal Aid: as much as usage (at cost).
4. Performance bonus/incentives.
Tantiem/Performance Incentives are based on the performance of the 2018 fiscal year.

REMUNERATION DETAILS OF THE BOARD OF COMMISSIONERS IN 2019

Board of Commissioners' Remuneration in 2019 (In Rupiah)

Nama	Monthly Remuneration			Annual Allowance	Total Salary & Allowance 2019	Performance Incentives for Fiscal Year 2018
	Honorarium	Monthly Allowance	Total			
	1	2	3 = 1 + 2	4	5 = 3 + 4	6
Farid Wajdi Husain	647,550,000	129,510,000	777,060,000	57,150,000	834,210,000	662,824,586
Yuni Suryanto	582,795,000	116,559,000	699,354,000	51,435,000	750,789,000	596,542,127
Made Arya Wijaya	582,795,000	116,559,000	699,354,000	51,435,000	750,789,000	596,542,127
Saud Usman Nasution	582,795,000	116,559,000	699,354,000	51,435,000	750,789,000	596,542,127
Elen Setiadi	582,795,000	116,559,000	699,354,000	51,435,000	750,789,000	-
Oscar Primadi	308,610,000	61,722,000	370,332,000	-	370,332,000	-
Heridadi **)	10,059,677	2,011,935	12,071,612	51,435,000	63,506,612	853,874,025
H. M. Subuh ***)	325,620,000	65,124,000	390,744,000	51,435,000	442,179,000	853,874,025
Ahmad M. Ramly *)	-	-	-	-	-	265,129,834
Ihsan Setiadi Latief *)	-	-	-	-	-	257,331,898
Total	3,623,019,677	724,603,935	4,347,623,612	365,760,000	4,713,383,612	4,682,660,749

Information:

*) term of office 19 April 2018

**) term of office until 7 January 2019

**) term of office until 15 July 2019



DISCLOSURE OF ALLOWANCES AND FACILITIES RECEIVED BY THE BOARD OF COMMISSIONERS

Besides a salary, members of the Board of Commissioners also receive a Holiday Allowance (THR) an honorarium, post-service insurance, and transportation benefits as well as health facilities and legal assistance as follows:

by the 2018 Fiscal Year General Meeting of Shareholders on the basis of a formula agreed upon by the Shareholders. The amount of remuneration proposed by the Board of Commissioners to the Shareholders is based on the results of the Audit Committee's study by taking into account the realisation of KPI in Fiscal Year 2018.

Honorarium, Tunjangan dan Fasilitas Dewan Komisaris

Honorariums	Allowances	Facilities
President Commissioner	Religious holiday allowance: 1 (one) Salary/Honorarium	Medical facility: In the form of health insurance or reimbursement of medical costs (at cost)
Rp647,550,000	Full-service insurance: Premiums borne by the Company are 25% salary/honorarium per year	
Commissioner Rp582,795,000	Transportation Allowances: 20% of the honorarium per month	Legal aid facilities: According to the amount of usage (at cost)

In accordance with the Regulation of Minister of SOEs No. PER-06/MBU/06/2018 dated June 4, 2018 concerning the Third Amendment to the Minister of SOE Regulation No. PER-04/MBU/2014 Regarding the Guidelines for Determining the Income of the Board of Directors, the Board of Commissioners, and the SOEs Supervisory Board.

As of December 31, 2019, there were no performance bonuses nor non-performance bonuses received by any member of the Board of Commissioners and Board of Directors.

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Government of the Republic of Indonesia. Therefore, stock options are not accepted by Members of the Board of Commissioners nor the Board of Directors of Bio Farma.

DESCRIPTION OF REMUNERATION POLICY FOR THE BOARD OF DIRECTORS REFERENCES AND INDICATORS FOR DETERMINATION OF REMUNERATION

The Board of Directors' remuneration in 2019 is the authority of the Shareholders and determined

The Remuneration proposal uses several considerations including comparison with the amount of the previous year's remuneration, the increase in the complexity of the Company's operations, as well as a comparison of the amount of remuneration paid at other companies of the same type, achievement of KPI, and the level of health of the Company.

DETERMINATION OF BASIC REMUNERATION

The determination of the Board of Directors' remuneration refers to:

1. Minister of SOE's Regulation No. PER-06/MBU/06/2018 on June 4, 2018, concerning the Third Amendment to the Minister of SOE Regulation No. PER-04/MBU/2014 Regarding the Guidelines for Determining the Income of Directors, Board of Commissioners, and SOEs Supervisory Board.
2. Decree of the Board of Directors No. 01378/DIR/III/2018 on March 29, 2018, Decree of the Board of Directors No. 02376/DIR/VI/2018 Regarding Technical Instructions for Salary/Honorarium Payment and Allowances for the Religious Holidays of the Directors and Board of Commissioners Technically.

- Minutes of Annual General Meeting of Shareholders Company Management Report and Activity Report of Partnership and Community Development Program Fiscal Year 2018 (Audited) of PT Bio Farma (Persero) Number: 01 on May 10, 2019.
- The formulation of remuneration determination refers to the Letter of Submission of Earnings Determination of the Board of Directors and Board of Commissioners of PT Bio Farma (Persero) 2019 Number: S-423/MBU/D1/05/2019 on May 31, 2019.

PROPOSAL PROCEDURES AND REMUNERATION FOR THE BOARD OF DIRECTORS

The Company determines the remuneration for the Board of Directors in accordance with the provisions of the Minister of State Owned Enterprises Regulation. In obedience to the Ministerial Regulation, the amount of income agreed for the Board of Directors is determined by the General Meeting of Shareholders (GMS).

- The Board of Commissioners assigns the Risk, Development and GCG Committee to conduct a remuneration study for members of the Board of Directors.
- The Risk, Development and GCG Committee coordinates with the HC Division and related to work units in order to prepare the Directors' Remuneration proposal.
- The Risk, Development and GCG Committee formulates the Board of Directors' Remuneration recommendations and then submits them to the Board of Commissioners.
- The Board of Commissioners discusses the proposal of the Risk, Development and GCG Committee regarding the proposed Remuneration of the Directors.
- The Board of Commissioners submits the Board of Directors' Remuneration proposal to the GMS and the GMS gives the Board of Commissioners the authority and power to determine the matter by first obtaining the Shareholder's approval to determine the Board of Directors' Remuneration. The GMS determines the Board of Directors' income based on the Declaration of the Determination of the Income of the Board

of Directors and Board of Commissioners of PT Bio Farma (Persero) 2019 Number: S-423/MBU/D1/05/2019 on May 31, 2019.

- The Board of Commissioners determines the Remuneration of the Board of Directors.

Salary/honorarium and allowances for the Board of Commissioners of the 2019 Financial Year including bonuses for the Company's performance in the 2018 fiscal year are determined by the Shareholders' Resolution at the Company's General Meeting of Shareholders of PT Bio Farma (Persero) as in the GMS Minutes of No. 01 on May 10, 2019, concerning Ratification of Management Reports, Annual Company Report, and Report on Partnership and Community Development Program Activities for Fiscal Year 2018. The Determination of Salary/honorarium along with other facilities and benefits for the Directors and Board of Commissioners for the Fiscal Year 2019 and bonuses for directors and the Board of Commissioners for the performance of Fiscal Year 2018 are determined separately.

INDICATORS FOR DETERMINING THE BOARD OF DIRECTORS' REMUNERATION

Determination of income in the form of salary/honorarium, allowances, and facilities that are permanent is carried out by considering income factors, assets, the financial condition and ability of the company, inflation rates, and other relevant factors, and may not conflict with statutory regulations.

Determination of income in the form of benefits and bonuses that are variable is done by considering the target achievement factors, the level of health and financial capacity of the company as well as other relevant factors. The granting of remuneration to the Board of Directors is carried out with due regard for the realisation of the Board of Directors' Key Performance Indicators (KPI) for the achievement of Company performance in 2018.

REMUNERATION STRUCTURE OF BOARD OF DIRECTORS

Based on a Letter from the Ministry of SOE Number: S-423/MBU/D1/05/2019 on May 31, 2019 concerning Submission of the Determination of the Income of the

Directors and Board of Commissioners of PT Bio Farma (Persero) in 2019, the remuneration received by the Bio Farma Directors in 2019 consists of honorarium, benefits, and other facilities such as insurance and post-retirement allowances as follows:

Board of Directors' Remuneration in 2019

Name	Monthly Remuneration			Annual Allowance	Total Salary & Allowances 2019	Performance Incentives for Fiscal Year 2018
	Salary	Monthly Allowances	Total			
	1	2	3 = 1 + 2	4	5 = 3 + 4	6
Honesti Basyir	508,000,000	100,000,000	608,000,000	-	608,000,000	-
Mas Rahman Roestan	1,381,850,000	300,000,000	1,681,850,000	127,000,000	1,808,850,000	2,090,135,742
I.G.N. Suharta Wijaya	431,800,000	100,000,000	531,800,000	-	531,800,000	-
Sri Harsi Teteki	1,223,150,000	300,000,000	1,523,150,000	107,950,000	1,631,100,000	1,688,975,241
Disril Revolin Putra ***)	1,248,550,000	300,000,000	1,548,550,000	114,300,000	1,662,850,000	1,792,081,288
Juliman ***)	1,223,150,000	300,000,000	1,523,150,000	107,950,000	1,631,100,000	1,913,382,519
Adriansjah Azhari ***)	1,223,150,000	300,000,000	1,523,150,000	107,950,000	1,631,100,000	1,256,911,807
Pardiman **)	834,530,000	210,000,000	1,044,530,000	107,950,000	1,152,480,000	1,256,911,807
Pramusti Indrascaryo *)	-	-	-	-	-	500,800,798
Sugeng Raharso *)	-	-	-	-	-	500,800,798
Total	8,074,180,000	1,910,000,000	9,984,180,000	673,100,000	10,657,280,000	11,000,000,000

Information:

*) : term of office 19 April 2018

**) : term of office until 12 September 2019

***): term of office until 12 September 2019 and appointed as SEVP by the Decree of the Board of Directors

DISCLOSURE OF ALLOWANCES AND FACILITIES RECEIVED BY THE BOARD OF DIRECTORS

Besides a salary, members of the Board of Directors also receive a Holiday Allowance (THR), post-retirement benefits, housing allowances, as well as vehicle, health and legal assistance facilities with the following details:

Gaji, Tunjangan dan Fasilitas Direksi

Salary per year	Allowance	Facilities
President Director Rp1,524,000,000	Religious Holidays Allowance: 1 (one) time Salary payment	Vehicle facilities: 1 (one) unit along with maintenance costs and operational costs, taking into account the condition of the Company. The specifications and types of vehicles are regulated by the Board of Commissioners with a maximum limit of 3,500 cc, taking into account the company's capability and the principle of propriety
Director of HR Rp1,371,600,000	Full-service insurance: The premium borne by the company is 25% of salary in 1 year	Medical facility: In the form of health insurance or substitute for medical costs (at cost)
Other Directors Rp1,295,400,000	Housing Allowances: Rp25,000,000 per month, if providing a house of office must be used until the term of office of the Board of Directors ends and the person concerned is not given a Housing Allowance	Legal aid facilities: as much as usage (at cost)

As of December 31, 2019, there were no performance bonuses nor non-performance bonuses received by any member of the Board of Commissioners or Board of Directors.

As of December 31, 2019, Bio Farma is a State-Owned Enterprise (BUMN) whose shares are 100% owned by the Republic of Indonesia. Therefore, stock options are not received by Members of the Board of Commissioners and Board of Directors of Bio Farma.

MEETING OF BOARD OF COMMISSIONERS, BOARD OF DIRECTORS, AND JOINT MEETING OF BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS

MEETING ATTENDANCE AND FREQUENCY OF MEETINGS OF THE MAJORITY OF MEMBERS OF THE BOARD OF COMMISSIONERS, THE BOARD OF DIRECTORS, AND THE MEETINGS OF THE BOARD OF COMMISSIONERS WITH THE BOARD OF DIRECTORS

Meetings of the Board of Commissioners have been scheduled before the current year as stated in the work program of the Board of Commissioners in 2019.

GUIDELINES FOR IMPLEMENTING MEETINGS OF THE BOARD OF COMMISSIONERS

1. Company's Articles of Association
2. SOE Minister of State Regulation Number: PER-01/MBU/2011 on August 1, 2011, concerning Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012, concerning Amendment to SOE Ministerial Regulation Number: PER-01/MBU/2011 concerning Implementation of Good Corporate Governance in SOEs
3. Decree of the Secretary of the Ministry of SOEs Number: SK-16/S.MBU/2012 Regarding Indicators/Parameters for Evaluation and Evaluation of the Implementation of Good Corporate Governance in SOEs by the Secretary of the Ministry of SOE
4. Joint Decision of the Board of Commissioners and Directors of PT BioFarma (Persero) Number: PER-07/DK/BF/II/2018, Number: PER-06964/DIR/XII/2018 December 31, 2018, Regarding the Guidelines of the Board of Commissioners and

Directors (Board Manual) PT BioFarma (Persero) and the Decision of the Board of Commissioners of PT Bio Farma (Persero) Number: 07/DK/BF/03/2016 Regarding the Rules of Conduct of the Internal Meeting of the Board of Commissioners of PT Bio Farma (Persero).

MEETINGS OF THE BOARD OF COMMISSIONERS AS REGULATED IN THE BOARD OF COMMISSIONERS' BOARD MANUAL

Board of Commissioners' Meeting Agenda

1. The Board of Commissioners proposes to hold a Board of Commissioners Meeting, and determines the event and prepares the necessary materials / documents for discussion at the Board of Commissioners' Meeting.
2. The Agenda for the Board of Commissioners Meeting can be submitted verbally or in writing in the form of memos, letters and others, accompanied by materials/files needed at the Board of Commissioners' Meeting.

Board of Commissioners' Meeting Quorum

1. The Board of Commissioners meeting is valid and able to make binding decisions if it is attended by more than half the number of members of the Board of Commissioners or their authorised representatives.
2. All members of the Board of Commissioners should seek to attend the Board of Commissioners' Meeting.
3. A member of the Board of Commissioners may only be represented at the Board of Commissioners' Meeting by other members of the Board of Commissioners present at the meeting of the Board of Commissioners concerned, when based on written authorisation exclusively for the purpose of the Board of Commissioners' Meeting.
4. Only a member of the Board of Commissioners can represent another member of the Board of Commissioners.

Minutes of the Board of Commissioners' Meeting

1. For each Board of Commissioners Meeting, a Minutes of Meeting must be prepared.
2. Minutes of Board of Commissioners' Meetings must include:

- a. The reason for the absence of any member of the Board of Commissioners, if there is any member of the Board of Commissioners who is not present.
 - b. The results of the evaluation of the implementation of all the decisions resulting from the previous Board of Commissioners Meeting.
 - c. The dynamics of the meeting as the decision-making process of the Board of Commissioners Meeting includes opinions that have been developed in the meeting, both supporting and non-supporting opinions or dissenting opinions if any.
 - d. Consideration and/or analysis of decision making performed at the Board of Commissioners' Meetings.
 - e. Matters decided at the Board of Commissioners' Meeting.
3. Minutes of Board of Commissioners' Meetings are signed by the chair of the meeting, with all members of the Board of Commissioners present at the meeting and with a Notepad.
 4. Minutes of the Board of Commissioners' Meetings are reproduced and submitted to all members of the Board of Commissioners, both those present and/or not attending the Board of Commissioners' Meeting.
 5. The original minutes of each Board of Commissioners' Meeting are to be kept and maintained by the Board of Directors. The Board of Directors can assign a Corporate Secretary. A copy of the Board of Commissioners' Minutes of Meeting is to be kept and maintained by the Board of Commissioners' Secretary.

Frequency and Level of Attendance at Board of Commissioners Meetings

During 2019, the Board of Commissioners held 12 (twelve) internal meetings of the Board of Commissioners.

Attendance of Members of the Board of Commissioners at the 2019 Board of Commissioners Meeting

Name	Position	Total Meetings	Attendance Frequency	Percentage (%) Attendance
Farid Wajdi Husain	President Commissioner	12	12	100
Mohamad Subuh *)	Member of Commissioner	6	4	66.67
Made Arya Wijaya	Member of Commissioner	12	6	50
Saud Usman	Member of Commissioner	12	11	91.67
Yuni Suryanto	Member of Commissioner	12	9	75
Elen Setiadi	Member of Commissioner	12	10	83.33
Oscar Primadi **)	Member of Commissioner	6	1	16.67

Information:

*) Term of office until 16 July 2019

**) Starting from 16 July 2019

DATES, MEETING AGENDAS, DECISIONS, PLACES, AND NAMES OF PARTICIPANTS

Internal Meetings of the Board of Commissioners

Time of Implementation, Meeting Agenda, and Participants at the Board of Commissioners' Internal Meetings in 2019

No.	Date	Agenda	Participants
1.	Thursday, January 24, 2019	1. Corporate Management Report 2018 (unaudited) 2. Progress Report on Feasibility Study Results of JVC Vial Ampul 3. Others	1. Farid W. Husain 2. Saud Usman 3. Made Arya Wijaya 4. Yuni Suryanto 5. Elen Setiadi

No.	Date	Agenda	Participants
2.	Wednesday, February 27, 2019	1. Company Performance Report for January 2019 2. Corporate Management Report (Audited) 2018 3. Completion of the GCG Questionnaire 4. Others	1. Farid W. Husain 2. Mohamad Subuh 3. Saud Usman 4. Elen Setiadi
3.	Thursday, March 28, 2019	1. Company Performance Report, February 2019 2. Preparation of LMP GMS 2018 (Audited) Book Year 3. Strategic matters 4. Others	1. Farid W. Husain 2. Saud Usman 3. Made Arya Wijaya 4. Yuni Suryanto
4.	Tuesday, April 23, 2019	1. Management Report of the First Quarter of 2019 2. The increase in authorized share capital 3. Others	1. Farid Wajdi Husain 2. Mohamad Subuh 3. Saud Usman 4. Yuni Suryanto
5.	Monday, May 27, 2019	1. Company Performance until April 2019 2. Update Joint Venture Vial Ampul 3. Updated the draft of the Regulation of Ministry of Health about Blood Product 4. Others	1. Farid W. Husain 2. Mohamad Subuh 3. Saud Usman 4. Yuni Suryanto 5. Made Arya Wijaya 6. Elen Setiadi
6.	Thursday, June 27, 2019	1. Performance Report of May 2019 2. Foreign Service Travel Report 3. Plan for Interview of Prospective Audit Committee Members 4. Others	1. Farid W. Husain 2. Mohamad Subuh 3. Saud Usman 4. Made Arya Wijaya 5. Elen Setiadi
7.	Monday, July 29, 2019	1. 2019 Semester I Performance Report 2. Others a. The Board of Commissioners' response to the Company's Management Report and Board of Commissioners' Supervisory Reports for Semester I 2019 b. Adjustment to the Division of Duties of the Board of Commissioners c. Adjustment of Audit Committee Composition Board of Commissioners' d. Response to Amendments to the Company's Articles of Association	1. Farid W. Husain 2. Saud Usman 3. Yuni Suryanto 4. Elen Setiadi
8.	Friday, August 23, 2019	1. Company Performance Report August 2019 2. Others	1. Farid W, Husain 2. Saud Usman 3. Elen Setiadi 4. Oscar Primadi
9.	Monday, September 23, 2019	1. Company Performance Report August 2019 2. Others	1. Farid Wajdi Husain 2. Saud Usman 3. Yuni Suryanto 4. Elen Setiadi
10.	Monday, October 23, 2019	1. Quarterly Corporate Management Report III 2019 2. Board of Commissioners' Supervisory Reports for Quarter III 2019 3. Work Plan and Budget Draft of Board of Commissioners 2020 4. Determination of Service Vehicle Facilities for Directors 5. Others	1. Farid Wajdi Husain 2. Saud Usman 3. Yuni Suryanto 4. Elen Setiadi
11.	Friday, November 29, 2019	1. Company Performance Report October 2019 2. Proposed Operational Aspects of Corporate Health Level Assessment in 2020 3. Draft 2020 of the Company's Work Plan and Budget 4. Holding Formation Update 5. Others	1. Farid Wajdi Husain 2. Made Arya Wijaya 3. Saud Usman 4. Yuni Suryanto 5. Elen Setiadi
12.	Friday, December 13, 2019	1. Discussion on the Company's Work Plan and Budget of SOE Holding of Pharmaceutical for 2020 2. Others	1. Farid Wajdi Husain 2. Made Arya Wijaya 3. Yuni Suryanto 4. Elen Setiadi

ATTENDANCE AND FREQUENCY OF THE BOARD OF DIRECTORS' MEETINGS

Meetings of the Board of Directors are scheduled before the current year as stated in the Board of Commissioners' work program in 2019.

GUIDELINES FOR IMPLEMENTING MEETINGS OF THE BOARD OF DIRECTORS

1. Company's Articles of Association
2. SOE Minister of State Regulation Number: PER-01/MBU/2011 on August 1, 2011, concerning the Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 on July 6, 2012, concerning Amendment to SOE Ministerial Regulation Number: PER-01/MBU/2011 concerning Implementation of Good Corporate Governance in SOEs
3. Decree of the Secretary of the Ministry of SOE Number: SK-16/S.MBU/2012 Regarding Indicators/Parameters for Evaluation and Evaluation of the Implementation of Good Corporate Governance in SOEs
4. Joint Decree of the Board of Commissioners and the Board of Directors of PT BioFarma (Persero) Number: PER-07/DK/BF/II/2018, Number: PER-06964/DIR/XII/2018 on December 31, 2018, Regarding the Guidelines for the Board of Commissioners and Directors (Board Manual) PT BioFarma (Persero) and the Decision of the Board of Commissioners of PT Bio Farma (Persero) Number: 07/DK/BF/03/2016 Regarding the Rules of Conduct of the Internal Meeting of the Board of Commissioners of PT Bio Farma (Persero).

Board of Directors' Meetings, determines the events, and prepares the materials/files that need discussing at Directors' Meetings.

2. The Agenda for the Board of Directors' Meeting can be submitted verbally or in writing in the form of memos, letters, and by other means, thereof accompanied by materials/files needed at the Board of Directors' Meeting.
3. The Board of Directors proposes to hold a Board of Directors Meeting, and determines the agenda that needs to be discussed/decided at a Board of Directors Meeting, and for which - if deemed necessary by the members of the Board of Directors concerned - it can assign a Corporate Secretary to perform the preparation of events and prepare materials/files for the Board of Directors' Meeting.
4. Events that have not been finalized but which were discussed/decided at the previous Board of Directors Meeting, can be submitted to the next Board of Directors Meeting by related/interested members of the Board of Directors.
5. Each member of the Board of Directors may add a meeting of the Board of Directors outside of the events previously prepared, to be discussed/decided at the Board of Directors Meeting, provided that the material/file has been prepared by the relevant member of the Board of Directors and all members of the Board of Directors (or their authorised representatives) approves the addition of meeting agenda items.
6. All materials/files that need to be discussed at the Board of Directors' Meeting are to be submitted by the Corporate Secretary to members of the Board of Directors before the Board of Directors' Meeting is held.

MEETINGS OF THE BOARD OF DIRECTORS AS STATED IN THE BOD'S BOARD MANUAL

PARTICIPANTS OF THE MEETING OF THE BOARD OF DIRECTORS

1. Participants at the Board of Directors' Meeting consist of all members of the Board of Directors.
2. If the Board of Directors considers it necessary, other parties may be present at the Board of Directors' Meeting to provide any necessary explanations.

AGENDA OF MEETINGS OF THE BOARD OF DIRECTORS

1. The Board of Directors proposes to hold the

QUORUM OF THE BOARD OF DIRECTORS

1. Board of Directors' meetings are valid and can make binding decisions if they are attended by more than half of the members of the Board of Directors or their authorised representatives.
2. All members of the Board of Directors should endeavour to attend all Board of Directors' Meetings.
3. A member of the Board of Directors may only be represented at a Board of Directors' Meeting by another member of the Board of Directors, when based on written authorization specifically for the purpose of the Board of Directors' meeting.
4. Only a member of the Board of Directors may represent another member of the Board of Directors.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS

1. For each Board of Directors Meeting, a Minutes of Meeting must be made.
2. Minutes of Board of Directors' Meetings must include:
 - a. The reason for the absence of members of the Board of Directors, if there are Directors who are not present.
 - b. The results of the evaluation of the implementation of all the decisions of the previous Directors' Meeting.
 - c. The dynamics of the meeting, as the decision-making process of the Board of Directors meeting includes opinions that have developed in the meeting, both those that support and those that do not support, or different opinions (dissenting opinions) if any.
 - d. Consideration and/or analysis of the decision-making process in the Directors' Meetings.
 - e. Matters decided at the Board of Directors' Meeting.
3. Minutes of Board of Directors' Meetings are signed by the chair of the meeting, all members of the Board of Directors present at the meeting and with a Notepad.
4. Minutes of the Board of Directors' Meetings are to be reproduced and submitted to all members of the Board of Directors, both those present and those not attending the Board of Directors' Meeting.
5. The original minutes of each Board of Directors Meeting are to be kept and maintained by the Board of Directors. The Board of Directors can assign a Corporate Secretary.

FREQUENCY AND ATTENDANCE AT THE BOARD OF DIRECTORS' MEETING

During 2019, the Board of Directors held 38 internal meetings of the Directors.

The attendance list for members of the Board of Directors at the Directors Meeting during 2019 is as follows:

RECAPITULATION OF PRESENCE OF MEMBERS OF THE BOARD OF DIRECTORS AT THE BOARD OF DIRECTORS MEETING OF 2019

Period of January 1, 2019 - September 13, 2019

Name	Position	Terms of Office	Internal Meeting of BOD			Description
			Total Meetings/ Year	Total Attendances	% Attendance	
M. Rahman Rustan	President Director	July 10, 2017 to January 23, 2018 – Director of Marketing	25	25	100%	-
		January 23, 2018 to July 10, 2022	25	25	100%	-
Sri Harsi Teteki	Director of Marketing	January 23, 2018 to January 23, 2022				-
Juliman*	Director of Production	12/04/2013 to 12/04/2018	25	22	88%	Work Service = 2 x Leave = 1 x
		20/04/2018 to 20/04/2023				
		July 10, 2017 until January 23, 2018 – Acting President Director	-	-	-	-
Pardiman *	Director of Finance	20/04/2018 to 20/04/2023	25	25	100%	-
Disril Revolin Putra*	Director of HR & General Affairs	July 14, 2017, to July 14, 2022	25	25	100%	-
Adriansjah Azhari *	Director of Planning and Development	20/04/2018 to 20/04/2023	25	25	100%	-

* End of Term: 13 September 2019

Period of September 13, 2019 – December 31, 2019

Name	Position	Terms of Office	Internal Meeting of BOD			Description
			Total Meetings/ Year	Total Attendances	Total Meetings/ Year	
Honesti Basyir*	President Director	September 13, 2019 to September 12, 2024	13	13	100%	-
		July 10, 2017 to January 23, 2018 – Director of Marketing	-	-	-	-
M. Rahman Rustan**	Director of Operations	January 23, 2018 to July 10, 2022 - President Director	-	-	-	-
		13 September 2019 s/d 12 September 2024 – Direktur Operasi	13	13	100%	-
Sri Harsi Teteki**	Director of Marketing, Planning & Development I	January 23, 2018 to January 23, 2023 – Director of Marketing	13	13	100%	-
		September 13, 2019 to September 12, 2024 - Director of Marketing, Planning & Development I	-	-	-	-
I.G.N Suharta Wijaya*	Director of Finance & Business Partner	20/04/2018 to 20/04/2023	13	13	100%	-

* Starting from: September 13, 2019

** Transfer of Assignments: September 13, 2019

DATES, MEETING AGENDAS, DECISIONS, PLACES, AND NAMES OF PARTICIPANTS OF THE BOARD OF DIRECTORS**INTERNAL MEETING OF THE BOARD OF DIRECTORS**

During 2019, the Board of Directors' meeting discussed various issues faced by the Company, including performance and strategies related to the management of the Company with details of the dates, agendas of the meetings, decisions, places, and names of participants in the Board of Commissioners' Internal Meeting as follows:

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
1	Thursday, January 03, 2019	1. PoA Preparation and Implementation of 2019 RKAP	-	Bio Farma	1. President Director
		2. Land Utilisation of the Indotaisei Area	-		2. Director of Planning and Development
		3. Land Utilisation of Bio Farma Land in Cisarua Lembang	-	Bio Farma	3. Director of Finance
		4. Development of Rotavirus and nOPV2 Vaccines	-		4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
2	Thursday, January 10, 2019	1. Blood Product Development Progress	-		1. President Director
		2. Malaria Vaccine Technology Transfer Proposal	-		2. Director of Planning and Development
		3. Leader Portfolio Change Management	-	Bio Farma	3. Director of Finance
					4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
3	Kamis, 17 Januari 2019	1. Corporate Management Report 2018 (Unaudited)	-		1. President Director
		2. Report of Feasibility Study Results of JVC Vial Ampul (BF, KF, Dongsin)	-		2. Director of Planning and Development
		3. Blood Product Business Review Report	-		3. Director of Finance
		4. Seasonal Flu Vaccine	-	Bio Farma	4. Director of HR and General Affairs
		5. Utilization of Indotaisei Regions	-		5. Director of Marketing
		6. 2019 Recruitment Needs Plan	-		6. Director of Production
		7. 2018 Employee Self-Assessment Results	-		
		8. Others	-		
4	Friday, February 1, 2019	1. KAP Audit Report (Interim per 30 January 2019)	-		1. President Director
					2. Director of Planning and Development
				Bio Farma	3. Director of Finance
					4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
5	Monday, February 11, 2019	1. KAP Audit Report (Interim per 30 January 2019)	-		1. President Director
					2. Director of Planning and Development
				Bio Farma	3. Director of Finance
					4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
6	Friday, February 15, 2019	1. Optimising Land Use in Cisarua, Lembang	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Land Utilisation of the Indotaisei Area	Discussion/ Follow-up to Previous Meeting		2. Director of Planning and Development
		3. Employee Production Services in 2018	Main Agenda	Bio Farma	3. Director of Finance
		4. Application for Participation from the SOE Present to the Country Foundation	Others		4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
7	Wednesday, February 27, 2019	1. Corporate Management Report 2018 (Audited)	Main Agenda		1. President Director
		2. Company Performance Report as of January 31, 2019	Main Agenda		2. Director of Planning and Development
		3. PVC 13 collaboration between Bio Farma and Pfizer	Main Agenda	Bio Farma	3. Director of Finance
		4. Biosimilar Product Partnership Plan	Others		4. Director of HR and General Affairs
		5. Immunicare Development Program	Others		5. Director of Marketing
		6. Flu Vaccinations for All Employees	Others		6. Director of Production
8	1. Optimising Land Use in Cisarua, Lembang	1. Discussion/Follow-up to Previous Meeting	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Bio Farma's response to the Utilization of Bird Flu Assets	Main Agenda		2. Director of Planning and Development
		3. The Pharmacy SOE Holding Preparation Technical Team	Main Agenda	Bio Farma	3. Director of Finance
		4. Socialisation of WHO Audit Agenda	Others		4. Director of HR and General Affairs
		5. Follow-up on the Results of the Coordination Meeting on 10-12 March 2019 in Lembang	Others		5. Director of Marketing
		6. Progress Development of Rotavirus Vaccine	Others		6. Director of Production

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
9	Thursday, March 21, 2019	1. Utilisation of Land in the Indotaisei Area	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Position Paper for Influenza Vaccine Upstream Development Costs	Discussion/ Follow-up to Previous Meeting		2. Director of Planning and Development
		3. PCV 13 collaboration between Bio Farma and Pfizer	Discussion/ Follow-up to Previous Meeting		3. Director of Finance
		4. Offering Cooperation in Development of Human Papilloma Virus (HPV) and Insulin Vaccines	Main Agenda	Bio Farma	4. Director of HR and General Affairs
		5. Company Performance Report until February 2019 and GMS Preparation	Main Agenda		5. Director of Marketing
		6. Proposed System for Research, Product and Technology Committee (RTP)	Main Agenda		6. Director of Production
		7. Visit Report from China	Others		
		8. Cooperation with Morocco	Others		
10	Thursday, March 28, 2019	1. Progress Request for Additional KM Bio Farma Facility Limit in 2019	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Follow-up on the Holding Valuation Team	Others		2. Director of Planning and Development
				Bio Farma	3. Director of Finance
					4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
11	Friday, April 12, 2019	1. Update on Progress of Maria Vaccine Technology Transfer Cooperation Program (11 February 2019)	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Update on the Progress of HPV Vaccine Cooperation (March 21, 2019)	Discussion/ Follow-up to Previous Meeting		2. Director of Planning and Development
		3. Update on Utilisation of Indotaisei Land Utilisation (21 March 2019)	Discussion/ Follow-up to Previous Meeting		3. Director of Finance
		4. Application for Cooperation from Indofarma	Main Agenda		4. Director of HR and General Affairs
		5. Update Progress of nOPV2 Vaccine Development	Main Agenda	Bio Farma	5. Director of Marketing
		6. Update Progress Cooperation with Arabio	Main Agenda		6. Director of Production
		7. Building Progress Update No. 43	Main Agenda		
		8. Potential for Moroccan Cooperation	Others		
		9. Ratek Update with KBUMN on April 9, 2019	Others		
		10. Plans for Board of Directors and Board of Commissioners and Executive Gathering	Others		

Board of Directors' Meeting	Date	Agenda	Place	Directors Attending the Meeting
12	Tuesday, April 23, 2019	1. Payment Guarantee for Purchase Transactions of PT. KFTD	Main Agenda	1. President Director
			Bio Farma	2. Director of Planning and Development
				3. Director of Finance
				4. Director of HR and General Affairs
				5. Director of Marketing
				6. Director of Production (Absent)
13	Thursday, April 25, 2019	1. Proposed Improvement of 2020 Shareholders' Aspirations	Main Agenda	1. President Director
		2. Participation in the 21st Ministry of SOE Anniversary Series in Jakarta	Main Agenda	2. Director of Planning and Development
			Bio Farma	3. Director of Finance
				4. Director of HR and General Affairs
				5. Director of Marketing
				6. Director of Production (Absent)
14	Friday, May 10, 2019	1. Plans for Monitoring the Rating of MTN Bio Farma (Persero) in 2019	Main Agenda	1. President Director
			Bio Farma	2. Director of Planning and Development
				3. Director of Finance
				4. Director of HR and General Affairs
				5. Director of Marketing
				6. Director of Production
15	Wednesday, May 15, 2019	1. Follow Up WHO Assessment	Main Agenda	1. President Director
		2. BF Product Release Acceleration Strategy	Main Agenda	2. Director of Planning and Development
		3. Study of Regulation of Minister of Health Plan on Blood Product	Main Agenda	3. Director of Finance
		4. Status of Progress in Completion of Building Projects for Development of Research Facilities and Technology Transfer for Avian Influenza Vaccine Production at Bio Farma	Main Agenda	4. Director of HR and General Affairs
			Bio Farma	5. Director of Marketing
				6. Director of Production
16	Thursday, May 23, 2019	1. Zoning of Cisarua and Pasteur Land Utilization	Discussion/ Follow-up to Previous Meeting	1. President Director
		2. Company Performance Report as of 30 April 2019	Main Agenda	2. Director of Planning and Development
		3. Product Review (Bulk & Vaccine) in 2019	Main Agenda	3. Director of Finance
			Bio Farma	4. Director of HR and General Affairs
				5. Director of Marketing
				6. Director of Production

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
17	Tuesday, June 11, 2019	1. Bulk mOPV2 Fulfillment Plan	Main Agenda		1. President Director
		2. Evaluation of the Company's Work Plan and Budget Investment in 2019	Others		2. Director of Planning and Development
		3. Report of the Meeting in Geneva, Switzerland	Others	Bio Farma	3. Director of Finance
		4. Corporate Agenda in 2019	Others		4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
18	Tuesday, June 25, 2019	1. Evaluation of the Company's Work Plan and Budget Investment in 2019	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Update on Progress Plan for Cooperation in Malaria Vaccine Technology Transfer	Discussion/ Follow-up to Previous Meeting		2. Director of Planning and Development
		3. Company Performance Report May 21, 2019	Main Agenda		3. Director of Finance
		4. Proposed Increase in Authorized Capital and Issued and Paid-in Capital	Main Agenda	Bio Farma	4. Director of HR and General Affairs
		5. Proposed Amendment to Article 3 of PT Bio Farma (Persero) 's Articles of Association	Main Agenda		5. Director of Marketing
		6. Review Projection of Sales Plans for Semester 2 the Company's Work Plan and Budget in 2019	Main Agenda		6. Director of Production
		7. Disclosure of Cash Position in May 2019 and the Company's Investment Financing Plan	Others		
		8. Public Information Dispute Report	Others		
19	Friday, July 5, 2019	1. Update on the Progress of Completion of Avian Flu Assets	Main Agenda		1. President Director
		2. Functions of the Legal Division and Corporate Governance System Strategy in PT Bio Farma (Persero)	Main Agenda		2. Director of Planning and Development
		3. Corporate Organisation Transformation Roadmap	Main Agenda		3. Director of Finance
		4. Company Strategy Navigation Maps	Main Agenda	Bio Farma	4. Director of HR and General Affairs
		5. Program Plans to Achieve Proper Gold	Main Agenda		5. Director of Marketing
		6. Update on Follow Up of BPK Audit Results	Others		6. Director of Production
		7. Procurement of General Goods	Others		

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
20	Friday, July 12, 2019	1. Review of the Proposed Sales of the Company's Work Plan and Budget Semester 2 Year 2019 (Meeting of Board of Directors on 25 June 2019)	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Evaluation of 2019 the Company's Work Plan and Budget Sales Target Achievement	Discussion/ Follow-up to Previous Meeting		2. Director of Planning and Development
		3. Track and Trace Implementation Plan	Main Agenda		3. Director of Finance
		4. National Life Science Research Forum Event Plan	Others		4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production (Take a leave)
21	Friday, July 26, 2019	1. Finalisation of Organizational Structure	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Review Projection on Sales Plans for Semester 2 the Company's Work Plan and Budget Year 2019	Discussion/ Follow-up to Previous Meeting		2. Director of Planning and Development
		3. 2019 Semester 1 Performance Report	Main Agenda	Bio Farma	3. Director of Finance
		4. Report on BMGF, PATH, Batavia Biosciences Work Visit to Bio Farma, 22-25 July 2019	Main Agenda		4. Director of HR and General Affairs
		5. The Future Manufacturing Research Hub (Vax-Hub)	Main Agenda		5. Director of Marketing
		6. Indonesia-Africa Infrastructure Dialogue (IAID) Event 20-21 August 2019	Others		6. Director of Production
22	Thursday, August 08, 2019	1. 2019 Semester 1 Performance Report and 2019 Turnover Prognosis (Preparation for Technical Meeting with KBUMN)	Main Agenda		1. President Director
		2. Permanent Secretariat of Committees and Investment Committees	Main Agenda		2. Director of Planning and Development
					3. Director of Finance
				Bio Farma	4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
23	Thursday, August 22, 2019	1. Company Performance Report until 31 July 2019	Main Agenda		1. President Director
		2. Review of the Jakarta Representative Office	Others		2. Director of Planning and Development
		3. 2019 Prognosis and 2020 HR Budget	Others	Bio Farma	3. Director of Finance
					4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
24	Tuesday, September 3, 2019	1. Review of the Representative Office in Jakarta	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. The Company's Work Plan and Budget Turnover Plan for 2020	Main Agenda		2. Director of Planning and Development
		3. Amendment to the Building Planning Consultant Contract No. 34	Main Agenda		3. Director of Finance
		4. KPI Coaching and Workshop Results Resume 19-30 August 2019	Main Agenda	Bio Farma	4. Director of HR and General Affairs
		5. Preparation for the OIC Workshop on Cold Chain Management 1-2 October 2019	Main Agenda		5. Director of Marketing
		6. Update on Enoxaparin Collaboration with Mestika Parma	Main Agenda		6. Director of Production
25	Monday, September 9, 2019	1. Finalisation of the 2020 the Company's Work Plan and Budget Turnover Plan (Follow-Up to Previous Meeting on 3 September 2019)	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Finalisation of the Bio Farma Organisational Structure	Main Agenda		2. Director of Planning and Development
		3. Execution of nOPV2 Products (Follow-Up Product Committee Meeting)	Main Agenda	Bio Farma	3. Director of Finance
					4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
26	Monday, September 16, 2019	1. Proposed Appointment of PT Bio Farma (Persero) 's Senior Executive Vice President (SEVP)	Main Agenda		1. President Director
					2. Director of Planning and Development
					3. Director of Finance
				Bio Farma	4. Director of HR and General Affairs
					5. Director of Marketing
					6. Director of Production
27	Thursday, October 3, 2019	1. Update Demand mOPV, bOPV and nOPV2	Main Agenda		1. President Director
		2. Finalization of the 2019 Prognosis Turnover and 2020 Company's Work Plan and Budget	Main Agenda		2. Director of Operations
		3. Activities Related to Pharmaceutical SOE Holding	Main Agenda		3. Director of Finance and Business Partner
		4. Presentation of IAI Consultant regarding Costing Guidelines	Others	Bio Farma	4. Director of Marketing, Research, and Development I
					5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP
28	Friday, October 11, 2019	1. PT Bio Farma's draft of 2020 Company's Work Plan and Budget and gaps against the Company's Long-Term Plan	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Update on Building Development Progress No. 43 and its readiness to use nOPV2 filling	Discussion/ Follow-up to Previous Meeting		2. Director of Operations
		3. PT Bio Farma's draft of 2020 Company's Work Plan and Budget and gaps against the Company's Long-Term Plan	Main Agenda	Bio Farma	3. Director of Finance and Business Partner
		4. Building Progress Update No. 43 and its readiness to use nOPV2 filling	Main Agenda		4. Director of Marketing, Research, and Development I
		5. Meeting at the Islamic Development Bank (IsDB) Head of Quarter Jeddah	Others		5. Production SEVP
					6. Legal & Compliance SEVP
	7. Research and Development SEVP				

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
29	Monday, October 14, 2019	1. Update the Progress of Blood Product Cooperation	Main Agenda		1. President Director
					2. Director of Operations
					3. Director of Finance and Business Partner
				Bio Farma	4. Director of Marketing, Research, and Development I
					5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP
30	Friday, October 18, 2019	1. The Company's Work Plan and Budget draft of PT Bio Farma in 2020	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Quarterly Corporate Management Report III 2019	Main Agenda		2. Director of Operations
		3. PT Bio Farma Draft Master Plan for 2020-2030 (ability to pay)	Main Agenda	Bio Farma	3. Director of Finance and Business Partner
		4. Development of Collaborative Artes HPV Vaccines	Main Agenda		4. Director of Marketing, Research, and Development I
		5. Update Progress on Development of Malaria Vaccine with GSK	Main Agenda		5. Production SEVP
		6. LN BoE Official Travel Agenda until the End of 2019	Others		6. Legal & Compliance SEVP
		7. Corporate Secretary Official Travel Report to Abu Dhabi	Others		7. Research and Development SEVP

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
31	Tuesday, October 29, 2019	1. General	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Update on Malaria Vaccine Development Progress with GSK	Discussion/ Follow-up to Previous Meeting	Bio Farma	2. Director of Operations
		3. Performance Review: Marketing Achievement Progress for the 2019 Company's Work Plan and Budget	Main Agenda		3. Director of Finance and Business Partner
		4. Pilot Project Implementation of Industry 4.0 with the Ministry of Industry	Others		4. Director of Marketing, Research, and Development I
					5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP
32	Tuesday, November 5, 2019	1. Update Product Blood Development Progress	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Update on nOPV2 Vaccine Development Progress and Official Travel Report	Main Agenda		2. Director of Operations
		3. Marketing Performance Update for 2019 Company's Work plan and Budget	Main Agenda		3. Director of Finance and Business Partner
		4. Proposed Bio Farma HR Competency and Expertise Certification Program	Others	Bio Farma	4. Director of Marketing, Research, and Development I
					5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP
33	Tuesday, November 12, 2019	1. Bio Farma Holding and ERP Bio Farma Business Unit Consolidation Report	Main Agenda		1. President Director
		2. Marketing Performance Update for 2019 Company's Work Plan and Budget	Main Agenda		2. Director of Operations
		3. The Future Vaccine Manufacturing Research Hub (Vax-Hub): Securing The Future of Essential Vaccine	Others	Bio Farma	3. Director of Finance and Business Partner
		4. Bio Farma HR Development Roadmap for the next 5 years	Others		4. Director of Marketing, Research, and Development I
		5. Presentation on Bio Farma Proper Gold	Others		5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP

Board of Directors' Meeting	Date	Agenda		Place	Directors Attending the Meeting
34	Tuesday, November 19, 2019	1. Marketing Performance Update for 2019 Company's Work Plan and Budget	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Performance Report until October 2019	Main Agenda		2. Director of Operations
		3. Sharing the Implementation of the JPH Law for Vaccines and Drugs	Others	Bio Farma	3. Director of Finance and Business Partner
		4. FTF Meeting Report with BMGF related to nOPV2	Others		4. Director of Marketing, Research, and Development I
		5. Morocco Office Travel Report	Others		5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP
35	Tuesday, November 26, 2019	1. KAP 2019 Interim Audit Report	Discussion/ Follow-up to Previous Meeting		1. President Director
		2. Marketing Performance Update for 2019 Company's Work Plan and Budget	Main Agenda		2. Director of Operations
		3. SSI BCG Vaccine NIE Return Plan	Main Agenda		3. Director of Finance and Business Partner
		4. Sharing the Implementation of the Halal Product Guarantee Act (JPH) for Vaccines and Drugs	Others	Bio Farma	4. Director of Marketing, Research, and Development I
		5. Morocco Office Travel Report	Others		5. Production SEVP
					6. Legal & Compliance SEVP
					7. Research and Development SEVP
36	Tuesday, December 3, 2019	1. Marketing Performance Update for 2019 Company's Work Plan and Budget	Main Agenda		1. President Director
		2. Update Progress on Malaria Vaccine Development	Main Agenda		2. Director of Operations
		3. FTF Meeting Report with BMGF related to nOPV2	Others	Bio Farma	3. Director of Finance and Business Partner
		4. Report on Official Trip to Korea (Blood Product)	Others		4. Director of Marketing, Research, and Development I
		5. Planned Visit of GAVI & Partners, December 9, 2019	Others		5. Production SEVP
		6. Information on the planned visit of the Indonesian Minister of Health to Bio Farma	Others		6. Legal & Compliance SEVP
					7. Research and Development SEVP

Board of Directors' Meeting	Date	Agenda	Place	Directors Attending the Meeting
37	Tuesday, December 10, 2019	1. Marketing Performance Update for 2019 the Company's Work Plan and Budget	Main Agenda	1. President Director
		2. Update on the Company's Work Plan and Budget Prognosis in 2019 and Update on the Company's Work Plan and Budget in 2020	Main Agenda	2. Director of Operations
		3. NIE Sanofi Products	Others	3. Director of Finance and Business Partner
		4. Update Progress Report of Cooperation with Arabio	Others	4. Director of Marketing, Research, and Development I
		5. Minutes of Handover of Custody of Research Results, Cooperation between Kemenristekdikti	Others	5. Production SEVP
				6. Legal & Compliance SEVP
				7. Research and Development SEVP
38	Thursday, December 26, 2019	1. Contamination of nPOL2 B0119 and B0219	Main Agenda	1. President Director
				2. Director of Operations
				3. Director of Finance and Business Partner
			Bio Farma	4. Director of Marketing, Research, and Development I
				5. Production SEVP
				6. Legal & Compliance SEVP

ATTENDANCE LEVEL AND FREQUENCY OF BOARD OF COMMISSIONERS' AND BOARD OF DIRECTORS' MEETINGS

Based on the Joint Decision of the Board of Commissioners and Directors of PT BioFarma (Persero) Number: PER-07/DK/BF/II/2018, Number: PER-06964/DIR/XII/2018 on December 31, 2018, Regarding the Guidelines of the Board of Commissioners and Directors (Board Manual) PT BioFarma (Persero) and the Decision of the Board of Commissioners of PT Bio Farma (Persero) Number: 07/DK/BF/03/2016 Regarding the Rules of Internal Meetings of the Board of Commissioners of PT Bio Farma (Persero).

JOINT MEETINGS BETWEEN THE BOARD OF DIRECTORS AND THE BOARD OF COMMISSIONERS

PARTICIPANTS IN MEETINGS BETWEEN THE BOARD OF DIRECTORS AND THE BOARD OF COMMISSIONERS

1. Participants in Meetings between the Board of Directors and the Board of Commissioners should consist of all members of the Board

of Directors and all members of the Board of Commissioners.

2. If the Board of Directors and/or the Board of Commissioners deems it necessary, other parties may be present at the Meetings between the Board of Directors and the Board of Commissioners to provide the necessary explanations.

A QUORUM IN MEETINGS BETWEEN THE BOARD OF DIRECTORS AND THE BOARD OF COMMISSIONERS

1. Meetings between the Board of Directors and the Board of Commissioners are valid and can make binding decisions if they are attended by more than half the number of members of the Board of Directors or their authorised representatives and more than half the number of members of the Board of Commissioners or their authorized representatives.
2. All members of the Board of Directors and all members of the Board of Commissioners should attend meetings held between the Directors and the Board of Commissioners.

3. A member of the Board of Directors may only be represented at a Meeting between the Board of Directors and the Board of Commissioners by other members of the Board of Directors who are present at the Meeting between the Board of Directors and the Board of Commissioners, when based on written authorization specifically for the purpose of the Meeting between the Board of Directors and the Board of Commissioners concerned.
4. Only a member of the Board of Directors may represent another member of the Board of Directors.
5. A member of the Board of Commissioners may only be represented at a Meeting between the Board of Directors and the Board of Commissioners by other members of the Board of Commissioners who are present at the Meeting between the Board of Directors and the Board of Commissioners, when based on written authorization specifically for the purpose of a Joint Meeting between the Directors and the Board of Commissioners concerned.
6. Only a member of the Board of Commissioners can represent another member of the Board of Commissioners.

MINUTES OF MEETINGS BETWEEN THE BOARD OF DIRECTORS AND THE BOARD OF COMMISSIONERS

1. For each meeting between the Board of Directors and the Board of Commissioners, a Minutes of Meeting must be made.
2. Minutes of Meeting between the Directors and the Board of Commissioners must include:
 - a. The reason for the absence of members of the Board of Directors and/or Board of Commissioners, if there are Board of Directors and/or Board of Commissioners who are absent.
 - b. Evaluation of results regarding the overall implementation of decisions taken at the previous Meeting between the Directors and the Board of Commissioners.

- c. The dynamics of the meeting as a decision-making process. Meetings between the Directors and the Board of Commissioners include opinions that are developed in the meeting, including both supportive opinions and non-supportive opinions, or dissenting opinions if any.
 - d. Consideration and/or analysis of the decision-making process in the Meeting between the Directors and the Board of Commissioners.
 - e. Matters decided in the Meeting between the Directors and the Board of Commissioners.
3. Minutes of the Meeting between the Board of Directors and the Board of Commissioners are signed by the chair of the meeting, all members of the Board of Directors and the Board of Commissioners present at the meeting, with a Notepad.
4. Minutes of Meetings between the Directors and the Board of Commissioners are reproduced and submitted to all members of the Board of Directors and the Board of Commissioners, including both those present and those not attending the Meeting between the Directors and the Board of Commissioners.
5. The original minutes of each meeting between the Board of Directors and the Board of Commissioners are kept by the Corporate Secretary.

During 2019, the Board of Directors held Joint Meetings with the Board of Commissioners 12 times, as follows:

ATTENDANCE LEVEL AND FREQUENCY OF BOARD OF COMMISSIONERS AND BOARD OF DIRECTORS MEETINGS

During 2019, the Board of Directors held 12 Joint Meetings with the Board of Commissioners. Here are the details:

No.	Date	Agenda	Members of Board of Commissioners Attending the Meeting	%	Description	Members of Board of Directors Attending the Meeting	%	Description	Availability
1	Thursday, January 24, 2019, Gedung Pakarti Center, Jakarta	1. Corporate Management Report 2018 (Unaudited)	1. Farid Wadji Husain	100%	-	1. President Director	100%	-	√
		2. Progress Report of Feasibility Study Results of JVC Vial-Ampoules	2. Mohamad Subuh		Unable to attend due to assignment	2. Director of Planning and Development		Unable to attend due to assignment	
		3. Others	3. Saud Usman Nasution		-	3. Director of Finance		-	
			4. Made Arya Wijaya		-	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		-	5. Director of Marketing		-	
			6. Elen Setiadi		-	6. Director of Production		-	
2	Wednesday, February 27, 2019, Gedung Pakarti Center, Jakarta	1. Company Bio Management Report (LMP) for Financial Year 28 (Audited) of PT Bio Farma (Persero)	1. Farid Wadji Husain	100%	-	1. President Director	100%	-	√
		2. Company Performance Report as of January 31, 2019	2. Mohamad Subuh		-	2. Director of Planning and Development		Unable to attend due to assignment	
		3. Pharmacy Holding Update	3. Saud Usman Nasution		-	3. Director of Finance		-	
		4. Others	4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		Unable to attend due to assignment	5. Director of Marketing		-	
			6. Elen Setiadi		-	6. Director of Production		-	

No.	Date	Agenda	Members of Board of Commissioners Attending the Meeting	%	Description	Members of Board of Directors Attending the Meeting	%	Description	Availability
3	Thursday, March 28, 2019, Gedung Pakarti Center, Jakarta	1. Company Performance Report as of February 28, 2019	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	√
		2. Preparation for LMP GMS 2018 (Audited)	2. Mohamad Subuh		Unable to attend due to assignment	2. Director of Planning and Development		-	
		3. Strategic Matters	3. Saud Usman Nasution		-	3. Director of Finance		-	
		4. Others	4. Made Arya Wijaya		-	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		-	5. Director of Marketing		-	
			6. Elen Setiadi		Unable to attend due to assignment	6. Director of Production		-	
4	Tuesday, April 23, 2019, Gedung Pakarti Center, Jakarta	1. Management Report of the First Quarter of 2019	1. Farid Wajdi Husain	100%	-	1. President Director	83%	-	√
		2. Increase in authorized capital and issued or fully paid-up capital	2. Mohamad Subuh		-	2. Director of Planning and Development		-	
		3. Others	3. Saud Usman Nasution		-	3. Director of Finance		-	
			4. Made Arya Wijaya		-	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		-	5. Director of Marketing		Unable to attend due to assignment	
			6. Elen Setiadi		Unable to attend due to assignment	6. Director of Production		Unable to attend due to being unwell	

No.	Date	Agenda	Members of Board of Commissioners Attending the Meeting	%	Description	Members of Board of Directors Attending the Meeting	%	Description	Availability
5	Monday, May 27, 2019, Gedung Pakarti Center, Jakarta	1. Bio Farma New Product Development Plan	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	
		2. Strategic Matters	2. Mohamad Subuh		-	2. Director of Planning and Development		-	
		3. Others	3. Saud Usman Nasution		Unable to attend due to assignment	3. Director of Finance		-	
			4. Made Arya Wijaya		-	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		-	5. Director of Marketing		-	
			6. Elen Setiadi		-	6. Director of Production		-	
6	Thursday, June 27, 2019, Mercure Gatot Subroto Hotel, Jakarta	1. Company Performance Report up to 31 May 2019	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	√
		2. Amendment to Article 3 of PT Bio Farma (Persero) 's Articles of Association	2. Mohamad Subuh		-	2. Director of Planning and Development		-	
		3. Others:	3. Saud Usman Nasution		-	3. Director of Finance		-	
		Report on the Meeting at the 72nd WHA and the nOPV2 Joint Meeting in Geneva, Switzerland	4. Made Arya Wijaya		-	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		Unable to attend due to assignment	5. Director of Marketing		-	
			6. Elen Setiadi		-	6. Director of Production		-	

No.	Date	Agenda	Members of Board of Commissioners Attending the Meeting	%	Description	Members of Board of Directors Attending the Meeting	%	Description	Availability
7	Monday, July 29, 2019, Bio Farma Bandung	1. Company Performance Report Semester 1 of 2019	1. Farid Wadjdi Husain	100%	-	1. President Director	100%	Unable to attend due to assignment	√
		2. Others	2. Oscar Primadi		Unable to attend due to assignment	2. Director of Planning and Development		-	
			3. Saud Usman Nasution		-	3. Director of Finance		-	
			4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of HR and General Affairs		Unable to attend due to assignment	
			5. Yuni Suryanto		-	5. Director of Marketing		-	
			6. Elen Setiadi		-	6. Director of Production		-	
8	Friday, August 23, 2019, Gedung Pakarti Center, Jakarta	1. Company Performance Report until 31 July 2019	1. Farid Wadjdi Husain	100%	-	1. President Director	100%	Unable to attend due to assignment	√
		2. Others	2. Oscar Primadi		-	2. Director of Planning and Development		-	
			3. Saud Usman Nasution		-	3. Director of Finance		-	
			4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of HR and General Affairs		-	
			5. Yuni Suryanto		Unable to attend due to assignment	5. Director of Marketing		-	
			6. Elen Setiadi		-	6. Director of Production		Pymt Direktur Utama	

No.	Date	Agenda	Members of Board of Commissioners Attending the Meeting	%	Description	Members of Board of Directors Attending the Meeting	%	Description	Availability
9	Monday, 23 September 2019, Gedung Pakarti Center, Jakarta	1. Company Performance Report until 31 July 2019	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	√
		2. Others	2. Oscar Primadi		Unable to attend due to assignment	2. Director of Operations		-	
			3. Saud Usman Nasution		-	3. Director of Finance and Business Partner		-	
			4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of Marketing, Research, and Development I		-	
			5. Yuni Suryanto		-	5. Legal & Compliance SEVP		Unable to attend due to assignment	
			6. Elen Setiadi		-	6. Production SEVP		-	
						7. Planning and Development SEVP		-	
10	Monday, 23 October 2019, Gedung Pakarti Center, Jakarta	1. Update on the Resolution of Avian Influenza	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	√
		2. Quarterly Corporate Management Report III	2. Oscar Primadi		Unable to attend due to assignment	2. Director of Operations		-	
		3. Draft 2020 Company's Work Plan and Budget	3. Saud Usman Nasution		-	3. Director of Finance and Business Partner		-	
		4. Holding Form Update	4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of Marketing, Research, and Development I		-	
			5. Yuni Suryanto		-	5. Legal & Compliance SEVP		-	
			6. Elen Setiadi		-	6. Production SEVP		-	
						7. Planning and Development SEVP		Unable to attend due to assignment	

No.	Date	Agenda	Members of Board of Commissioners Attending the Meeting	%	Description	Members of Board of Directors Attending the Meeting	%	Description	Availability
11	Friday, 29 November 2019, Gedung Pakarti Center, Jakarta	1. Company Performance Report up to 31 October 2019	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	√
		2. Progress Development Report nOPV2	2. Oscar Primadi		Unable to attend due to assignment	2. Director of Operations		-	
		3. Others	3. Saud Usman Nasution		-	3. Director of Finance and Business Partner		-	
			4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of Marketing, Research, and Development I		-	
			5. Yuni Suryanto		-	5. Legal & Compliance SEVP		Unable to attend due to assignment	
			6. Elen Setiadi		-	6. Production SEVP		-	
						7. Planning and Development SEVP		Unable to attend due to assignment	
12	Friday, December 13, 2019, Gedung Pakarti Center, Jakarta	1. Discussion of Pharmaceutical Holding 2020 Company's Work Plan and Budget	1. Farid Wajdi Husain	100%	-	1. President Director	100%	-	√
		2. Report of Visit to SK Plasma, Korea	2. Oscar Primadi		Unable to attend due to assignment	2. Director of Operations		-	
		3. Others	3. Saud Usman Nasution		-	3. Director of Finance and Business Partner		-	
			4. Made Arya Wijaya		Unable to attend due to assignment	4. Director of Marketing, Research, and Development I		-	
			5. Yuni Suryanto		-	5. Legal & Compliance SEVP		Unable to attend due to assignment	
			6. Elen Setiadi		-	6. Production SEVP		-	
						7. Planning and Development SEVP		Unable to attend due to assignment	

INFORMATION ABOUT ULTIMATE AND CONTROLLING SHAREHOLDERS, WHETHER DIRECT OR INDIRECT, AND THE INDIVIDUAL OWNER



Negara
Republik
Indonesia



100%



As of December 31, 2019, Bio Farma is a Non-Listed State-Owned Enterprise (SOE) whose shares are 100% owned by the Republic of Indonesia, represented by the Minister of State-Owned Enterprises (BUMN) of the Republic of Indonesia. Therefore, no information has been provided regarding the Main Shareholders and Controlling Shares, whether direct or indirect, of the individual owners in Bio Farma.

AUDIT COMMITTEE PROFILE OF MEMBERS OF AUDIT COMMITTEE



MADE ARYA WIJAYA
Chairman of the Audit Committee

Profile	The profile of the Chairman of the Audit Committee can be seen in the Identity & Brief History of the Board of Commissioners of this Annual Report.
Legal Basis of Appointment	- The legal basis for the appointment as Chairman of the Audit Committee is based on the Decree of the Board of Commissioners No: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019, Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
Concurrent Position	Director of Budget for the Economy and Maritime Affairs, Directorate General of Budget, Ministry of Finance of the Republic of Indonesia
Affiliation	He has no affiliation with members of the Board of Directors and members of the Board of Commissioners, other Committee members or Shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	He once attended a training on the topic "Vaccine global trends, potential and threats" in Makassar, on May 3, 2019 organized by PT Bio Farma (Persero).



YUNI SURYANTO
Deputy Chairman of Audit Committee

Profile	The profile of the Chairman of the Audit Committee can be seen in the Identity & Brief History of the Board of Commissioners of this Annual Report.
Legal Basis of	- The legal basis for the appointment as Deputy Chairperson and Member of the Audit Committee is based on the Decree of the Board of Commissioners No: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/ BF/07/2019 on July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
Concurrent Position	Assistant Deputy of Data and Information Technology, Ministry of SOE
Affiliation	Has no affiliation with any members of the Board of Directors nor members of the Board of Commissioners, other Committee members or Shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	He once attended a training with the topic "Vaccine global trends, potential and threats" in Makassar, on May 3, 2019 organized by PT Bio Farma (Persero), and a workshop on "Measuring Responsibilities and Risks of Corporate Management Practical Accounting & Public Accountants in Financial Reporting" in Bandung, on August 23, 2019 organized by IAI West Java.

**PRIYATNO****Member of Audit Committee (Independent)**

Nationality	Indonesian
Domicile	Depok
Age and DOB	65 years of age. He was born in Yogyakarta, on June, 20, 1954.
Educational Background	• He earned a Bachelor of Law degree from the University of Indonesia in 1990 and joined the Law and Regulations Postgraduate Program in 1991
Legal Basis of Appointment & Termination	• The legal basis for appointment as a Member of the Bio Farma Audit Committee is based on the Decree of the Board of Commissioners No. Kep-04/DK/BF/05/2017 • Updated with Decree Number: Letter of Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018 • Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019, Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
Positions/Experience	• He commenced his career as Head of the Legal Review Subdivision in 1989. • Serving as Head of Management Sub-Division in 1992. • Serving as Head of the Personnel Preparation Subdivision in 1995. • Serving as Head of Planning Analysis and Evaluation in 1997. • Serving as Head of the Legal Review Section in 1999. • Serving as Head of Rotation Section 2001. • Serving as Head of the Civil Service and Organization Bureau in 2003. • Serving as Head of the General Bureau in 2011.
Concurrent Positions	He does not have any concurrent position.
Certifications	• The agrarian law of 1999 • Anti-corruption technical law of 2000 • Lawyers skills in 2000 • Legal Consultant in 2001
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-



M. ASAWIR HARAHAAP
Member of Audit Committee (Independent)

Nationality	Indonesian
Domicile	Jakarta
Age and DOB	73 years of age. He was born in Padang Sidempuan, on August 11, 1946
Educational Background	• He graduated with a Bachelor of Economics in Accounting from the Institute of Finance/Accounting in 1975.
Legal Basis of Appointment & Termination	• The legal basis for the appointment as the Bio Farma Audit Committee is based on the Decree of the Board of Commissioners No. KEP-10/DK/BF/09/2015 September 30, 2015. • Updated with Decree Number: Appointment Letter Number: KEP-05/DK/BF/06/2017 on June 3, 2017. • Renewed with Decree Number: SK Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018. • The legal basis for the respectful dismissal of M. Asawir Haraahap as a Member of the Bio Farma Audit Committee that has ended his term of office is based on the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-06/DK/BF/07/2019 on July 4, 2019, Regarding Dismissal of Audit Committee Members.
Positions/Experience	• Beginning his career as an Auditor in the Field of State Enterprises and Regional Companies in the Directorate of State Accountants from 1969 until 1989. • Serving as Head of Regional Revenue and Budget Expenditure in the Regional Office VII Palembang DGTNN. • Serving as Head of Industrial Bidwas Services, Trade and Mining Services in the Regional Office VII Palembang DJPKN 1982. • Served as Head of Mining and Energy Section, Bidwas SOE/ROE II in BPKP's South Sumatra Province Representative Unit in 1984. • Serving as an Industry 3 Student, SOE/ROE I Bidwas in the DKI Jakarta BPKP Representative Unit in 1985. • Serving as Head of Spending II in the BPKP South Sumatra Province Representative Unit in 1993. • Served as Head of SOE/ROE I in the BPKP of East Java Province in 1996. • Serving as Chief Representative (Echelon II) in the Deputy Unit for Reception Oversight in 1998. • Served as Director of Tax Revenue Supervision in the Deputy Unit for Supervision of Revenue in 2001. • Serving as Director of Supervision of Government Institutions in the Defence and Security Sector in the Deputy Unit for Supervision of Government Agencies in the Department of Polsoskam in 2001. • Serving as Chief Representative (Echelon II) of the BPKP Representative Unit in East Java Province in 2002. • Served as Deputy (Echelon I) in the Deputy Unit for State Accountants. • Having 37 years' worth of experience as an Auditor or Supervisor in a State, SOE/ROE Company. • Serving as an Independent Commissioner of PT Indofarma Global Medika. • Serving as a Chairperson of the BPKP Dharma Satya Parahita Family Foundation Supervisory Board. • Serving as an Audit Committee of PT Indo Farma (Persero) Tbk, PT Kimia Farma (Persero) Tbk and PT Taspen (Persero). • Being appointed to Bio Farma's Audit Committee on July 1, 2014.
Concurrent Positions	He does not have any concurrent position
Certifications	-
Awards	-
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-



ANDY ELDES
Anggota Komite Audit (Independen)

Nationality	Indonesian
Domicile	Jakarta
Age and DOB	55 years of age. He was born in Ambon, on March, 7, 1964.
Educational Background	Obtained a Bachelor of Accountancy from the Indonesian State College of Accountancy in 1993
Legal Basis of Appointment & Termination	The legal basis for the appointment of Andy Eldes as a member of the Audit Committee to replace Asawir Harahap is based on the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019, Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero).
Positions/Experience	- Started his career as a Junior Auditor at the Deputy for Special Supervision of BPKP in 1989. - Served as a Finance Manager at PT TITAN Petrokimia Nusantara in 2008. - Served as a Director of Audit at Public Accounting Firm of Kanaka Puradiredja, Suhartono from 2009-2010. - Served as a member of the Audit Committee at PT Hotel Indonesia Natour (HIN) in 2010-2018. - Served as an Audit Partner at Public Accounting Firm of Kanaka Puradiredja, Suhartono in 2010-present.
Concurrent Positions	He does not have any concurrent position.
Certifications	(CPA) from IAI 1998 (CA) from IAI 2013 - Curators and Administrators Batch II by the Association of Indonesian Curators and Administrators (HKPI) in 2016 (CLI) from the Indonesian Liquidator Professional Association (PPLI) in 2017
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	Participated in a workshop with the topic "Measuring Responsibilities and Risks of Corporate Management of KJA & KAP Accounting Practitioners in Garuda Financial Reporting and Other Cases" at Prime Park Hotel, Bandung, on August 23, 2019.

AUDIT COMMITTEE

Bio Farma's Audit Committee was formed on August 29, 2003, and its function is to assist the Board of Commissioners in carrying out its supervisory duties on the management of the Company in accordance with the principles of good corporate governance. Furthermore, to provide advice on the implementation of internal controls and corporate audits, and make written reports on each assignment given by the Board of Commissioners, and to provide reports on the implementation of Audit Committee activities and the level of performance achievement to be disclosed in the Company's Annual Report. Audit Committee members are appointed and dismissed by the Board of Commissioners and reported to the GMS. Committee members originating from the Board of Commissioners terminate automatically if their term of office as a member of the Board of Commissioners ends.

BASIC FORMATION OF AUDIT COMMITTEES

1. The establishment of the Audit Committee refers to Law Number 19 of 2003 concerning the SOE's article 70 paragraph 1 which states that the Board of Commissioners must establish an Audit Committee that works collectively and functions as a supervisor of the Company.
2. The Minister of SOE's Regulation Number: PER-05/MBU/2006 on December 20, 2006 concerning the Audit Committee for State-Owned Enterprises which was updated with the Minister of SOE's Regulation Number: PER-12/MBU/2012 on August 24, 2012 concerning Supporting Organs for the Board of Commissioners/Board of SOE's Supervisor.
3. The Audit Committee of PT Bio Farma (Persero) has been formed since 2003, in accordance with Decree No. 023/KEP/DK/BF/2003 on August 29, 2003 concerning the Establishment of the Audit

Committee of PT Bio Farma (Persero). The Audit Committee functions to assist the Board of Commissioners in carrying out supervisory duties on the management of the Company in accordance with the principles of good corporate governance.

4. Bio Farma's Audit Committee was last updated through a Decree of the Board of Commissioners through Decree No: KEP-15/DK/BF/VII/2014 on July 1, 2014 concerning the Appointment of Members of the Audit Committee of PT Bio Farma (Persero).

APPOINTMENT AND TERMINATION OF AUDIT COMMITTEES

The appointment and dismissal of members of the Audit Committee refers to the Minister of SOE Regulation No. PER-12/MBU/2012 on August 24, 2012, which stated that the Chairperson and Members of the Audit Committee are to be appointed and dismissed by the Board of Commissioners and reported to the GMS.

The term of office of Audit Committee members who are not members of the Company's Board of Commissioners is no more than 3 (three) years, however this can be extended once for 2 (two) further years, without prejudice to the Board of Commissioners' right to dismiss them at any time.

COMPOSITION OF AUDIT COMMITTEE

The members of the Bio Farma Audit Committee consists of 4 (four) people, namely 2 (two) members from the Board of Commissioners (as the Chair and Deputy Chair) who are concurrently members and 2 (two) members from external parties. Members of the Bio Farma Audit Committee are not selected from Bio Farma employees and do not have a conflict of interest, and they are not to be

customers and are not to be Bio Farma vendors. The Board of Commissioners appoints and dismisses the Chairperson/Committee Members through the Decree of the Commissioners and details are submitted to the Ministry of SOEs as shareholders. The composition of the Bio Farma Audit Committee is as follows:

Composition of the Audit Committee for the Period of January 1, 2019 - July 3, 2019

No	Name	Position	Terms of Office	Description
1	Made Arya Wijaya	Chairman of Audit Committee	April 26, 2018 - April 20, 2023	- The legal basis for the appointment as Chairman of the Audit Committee is based on the Decree of the Board of Commissioners No: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
2	Yuni Suryanto	Deputy Chairman of Audit Committee	April 26, 2018 - April 20, 2023	- The legal basis for the appointment as Deputy Chairperson and Member of the Audit Committee is based on the Decree of the Board of Commissioners No: KEP-02/DK/BF/04/2018 on April 26, 2018 - Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
3	M. Asawir Harahap (Independent)*	Member of Audit Committee	30 Sep 2015 - 2 June 2017, 3 June 2017 - 25 April 2018, 26 April 2018 - 4 July 2019	- The legal basis for the appointment as the Bio Farma Audit Committee is based on the Decree of the Board of Commissioners No. KEP-10/DK/BF/09/2015 on September 30, 2015 - Updated with Decree Number: SK Appointment Number: KEP-05/DK/BF/06/2017 on June 3, 2017 - Renewed with Decree Number: SK Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018 - The legal basis for the respectful dismissal of M. Asawir Harahap as a Member of the Bio Farma Audit Committee that has ended his term of office is based on the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-06/DK/BF/07/2019 on July 4, 2019 Regarding Dismissal of Audit Committee Members
4	Priyatno (Independent)	Member of Audit Committee	May 2017 - April 25 2018, April 26 2018 - May 2020	- The legal basis for appointment as a Member of the Bio Farma Audit Committee is based on the Decree of the Board of Commissioners No. Kep-04/DK/BF/05/2017 Date May 2017 - Updated with Decree Number: Letter of Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 Dated July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)

* End of Term: July 4, 2019

Composition of the Audit Committee for the Period of July 4, 2019 - December 31, 2019

No	Name	Position	Terms of Office	Description
1	Made Arya Wijaya	Chairman of Audit Committee	April 26, 2018 - April 20, 2023	- The legal basis for the appointment as Chairman of the Audit Committee is based on the Decree of the Board of Commissioners No: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
2	Yuni Suryanto	Deputy Chairman of Audit Committee	April 26, 2018 - April 20, 2023	- The legal basis for the appointment as Deputy Chairperson and Member of the Audit Committee is based on the Decree of the Board of Commissioners No: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 Dated July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
3	Priyatno (Independent)	Member of Audit Committee	May 2017 - April 25 2018, April 26 2018 - May 2020	- The legal basis for appointment as a Member of the Bio Farma Audit Committee is based on the Decree of the Board of Commissioners No. Kep-04/DK/BF/05/2017 on May 2017 - Updated with Decree Number: Letter of Appointment Number: KEP-02/DK/BF/04/2018 on April 26, 2018 - Updated with the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)
4	Andi Eldes (Independent)	Member of Audit Committee	July 4, 2019 - July 03, 2022	The legal basis for the appointment of Andy Eldes as a Member of the Audit Committee replacing Asawir Harahap was based on the Decree of the Board of Commissioners of PT Bio Farma (Persero) No. KEP-07/DK/BF/07/2019 on July 4, 2019 Regarding the Composition of the Audit Committee of PT Bio Farma (Persero) Board of Commissioners of PT Bio Farma (Persero)

INDEPENDENCE OF MEMBERS OF AUDIT COMMITTEE

The independence of Audit Committee members is contained in the Audit Committee Charter, namely that Audit Committee members must meet the following qualifications:

1. High integrity, ability, knowledge and experience that is adequate in accordance with their educational background and able to communicate well.
2. One of the Audit Committee Members has a background in accounting or financial education.
3. Sufficient comprehension in reading and understanding financial statements.
4. Adequate knowledge of the laws and regulations in the field of capital markets and other relevant laws and regulations.
5. Effective communication capability.
6. Time management in completing the task.

7. Not a person in the Public Accountant Office, Legal Consultant Office, or other parties who provide audit services, non-audit services, and/or other consulting services to the Company within the last 6 (six) months before being appointed by the Commissioners.
8. Not a person who has the authority and responsibility to plan, lead or control the Company's activities within the last 12 (twelve) months.
9. Not concurrently serving as a member of the Audit Committee at another SOE/Company.
10. The Audit Committee members do not have the following:
 - a. Family relations due to marriage nor descent to the second degree, neither horizontally nor vertically with the commissioners, directors or major shareholders of the Company, nor
 - b. Direct or indirect business relationships related to the Company's business activities.

All members of the Audit Committee are not to be affiliated with other members of the Audit Committee, nor with the Risk Development and GCG Committee, nor with the Board of Directors, nor with the Board of Commissioners and Ultimate and/or Controlling Shareholders.

Period of January 1, 2019 – December 31, 2019

Declaration of Independence of Potential Conflict of Interests of the Audit Committee	
Made Arya Wijaya Yuni Suryanto M. Assawir Harahap* Priyatno Andi Eldes **	a. Do not have financial ties, management, and/or share ownership. b. Do not have personal interests/relationships that can cause negative impacts and conflicts of interest to the SOE's concerned. c. Do not have blood relatives to the 3rd (third) degree either in a straight line or sideways, nor relationships that arise due to marriage with Members of the Board of Commissioners, nor with the Board of Directors, Other Committees & Major Shareholders and/or Controllers. d. Not concurrently a member of the committee at another company. e. If an Audit Committee member is from a particular institution, then the institution where the Audit Committee member is from may not provide services to the Company. f. Does not conduct the following activities: • Serving as a manager of a political party and/or candidate/member of the legislature and/or is a candidate or serves as head/deputy head of regional government. • Other positions that may cause a conflict of interest related to the position with the Company. • Avoiding conflicts of interest that could affect supervision as an Audit Committee of PT Bio Farma (Persero).

Information

* End of Term of Office on July 4, 2019

** Starting to Serve as an Audit Committee on July 4, 2019

DESCRIPTION OF DUTIES AND RESPONSIBILITIES OF THE AUDIT COMMITTEE

In carrying out its duties, the Audit Committee has an Audit Committee Charter ratified on July 1, 2014. The Audit Committee Charter contains the background, vision, mission, goals and objectives, positions, memberships, rights and authority, duties and responsibilities, relations with related parties, meetings, reports, and conflicts and codes of ethics as guidelines for the Audit Committee.

AUDIT COMMITTEE'S MAIN DUTIES

The Audit Committee has the duty to provide the Board of Commissioners with opinions on reports or matters submitted by the Directors, and to identify matters that require the attention of the Board of Commissioners and to carry out other tasks related to the duties of the Board of Commissioners.

The main duties of the Audit Committee are as follows:

1. Assisting the Board of Commissioners to ensure the effectiveness of the internal control system and the effectiveness of carrying out the duties of external auditors and internal auditors.
2. Assessing the implementation of activities and the results of audits carried out by internal oversight units and external auditors.
3. Providing recommendations regarding improving the management control system and its implementation.
4. Ensuring that there are satisfactory evaluation procedures for information released by the company.
5. Identifying matters that require the attention of the board of commissioners as well as the duties of the other Board of Commissioners.
6. Compiling the types and amounts of salary or honorarium allowances and facilities that have been/will be given to the Board of Directors and Board of Commissioners to be submitted by the Board of Commissioners to the GMS.
7. Evaluating and analysing the payroll system, and honorarium for facility allowances that have been/will be given to the management and employee levels.

The Audit Committee also carries out other duties assigned by the Board of Commissioners as follows, but not limited to review the following items:

1. Information about the Company and the Company's Long-Term Plan, the Company's Work Plan and Budget, Company Management Reports and other information.
2. The Company's compliance with the applicable laws and regulations regarding the Company's activities.
3. Complaints related to the Company.
4. the adequacy of the internal audit function including the number of auditors, annual work plans, and assignments that have been carried out.
5. The adequacy of the external audit function including audit planning and the number of auditors.

RIGHTS AND AUTHORITIES OF AUDIT COMMITTEES

1. New Audit Committee members are given an orientation or introduction program regarding the roles, responsibilities and framework of the Audit Committee.
2. The Audit Committee receives its authority and assignments from the Board of Commissioners by taking into account the regulations relating to State-Owned Enterprises.
3. In carrying out its duties the Audit Committee has the authority to access records or information about employees, funds, assets and other company resources related to the implementation of their duties.
4. The Audit Committee, based on a Letter of Assignment from the Commissioner, has the right of access to information within the Company from the Board of Directors, SPI, and all corporate organisational units. If there are cases/indications of irregularities the audit committee needs to examine/clarify the cases.
5. The Audit Committee with the approval of the Commissioners can seek advice and assistance from experts and other professionals at the expense of the Company.

AUDIT COMMITTEE'S WORK GUIDELINES

In order for the Audit Committee to play an efficient and effective role, the Audit Committee Work Guidelines were updated and endorsed last by the Board of Commissioners on July 1, 2014. The Work Guidelines cover membership structure, membership requirements including competency and independence requirements, duties, responsibilities and authority, as well as meetings, reporting and budget.

DESCRIPTION OF IMPLEMENTATION OF AUDIT COMMITTEE ACTIVITIES IN 2019

During 2019, the Audit Committee carried out its duties and responsibilities in accordance with the Audit Committee Work Guidelines and the Audit Committee Work Plan (RKKA) approved by the Board of Commissioners. The realization of the Audit Committee's duties in 2019 include:

No.	Date	Agenda	Verdicts
1.	02/01/2019	01/DK-KA/BF/I/2019	Activity Reports for Quarter IV of 2018.
2.	24/01/2019	Meeting with SPI in Gedung Pakarti, Jakarta	Discussion on the Performance Report of PT Bio Farma (Persero) 2018 (unaudited).
3.	24/01/2019	02/DK-KA/BF/I/2019	Evaluating the 2018 PT Bio Farma (Persero) Performance Report (unaudited) with conclusions and recommendations.
4.	28/01/2019 to 29/01/2019	PT Bio Farma (Persero) Working Meeting in 2019 at Mercure, Bandung	Bio Farma held the Company's Work Plan and Budget Plan of 2019 with the theme: "Bio Farma Towards Industry 4.0 Acceleration & Growth of Bio Farma Towards Life Science Company" with the following agenda: 1. Making Indonesia 4.0. Introduction and Best Practices for the Manufacturing Industry with Speakers Director General of the Chemical, Textile and Various Industries Ministry of Industry of the Republic of Indonesia 2. The role of the Ministry of SOE RI in encouraging the SOE towards Indonesia 4.0 with the Speaker of the Deputy for Infrastructure for the Ministry of SOE RI 3. Implementation of Information Technology in public services BPOM RI with the Speaker of the Indonesian Drug and Food Control Agency
5.	08/02/2019	1. GCG Entry Meeting in Bandung 2. Meeting with SPI and KAP Roebiani & Partners	1. PT Bio Farma (Persero) GCG Implementation Entry Meeting Assessment Period 2018 2. KAP asked for help so that the data needed for examination materials can be fulfilled faster
6.	26/02/2019	Meeting with SPI in Gedung Pakarti, Jakarta	Corporate Management Report 2018 (audited) Discussion of the January 2019 Corporate Performance Report
7.	26/02/2019	03/DK-KA/BF/II/2019	Audit Committee Evaluation of the Management Report of PT Bio Farma (Persero) 2018 (audited) with conclusions and suggestions.
		04/DK-KA/BF/II/2019	Discussion of the January 2019 Company Performance Report with conclusions and recommendations.
8.	20/03/2019	05/DK-KA/BF/III/2019	Evaluation of the Audit Committee on the Performance of Roebiani KAP & Partners and Proposed Appointment of KAP to conduct General Audit of PT Bio Farma (Persero) Financial Statements for Fiscal Year 2019 with conclusions and recommendations.
9.	25/03/2019	Meeting with SPI in Gedung Pakarti, Jakarta	Discussion of the Company Performance Report for February 2019.
10.	25/03/2019	06/DK-KA/BF/III/2019	Evaluating the Company's February 2019 Performance Report with conclusions and suggestions.
11.	25/03/2019	07/DK-KA/BF/III/2019	Quarterly Activity Report I 2019.
12.	22/04/2019	Meeting at Gedung Pakarti, 7th Floor, Jakarta	1. Discussion on Quarterly Corporate Performance Reports for Year 2019. 2. Discussion of the 2019 First Quarter Examination Report (SPI Division).

No.	Date	Agenda	Verdicts
13.	22/04/2019	08/DK-KA/BF/IV/2019	Evaluation of the PT Bio Farma (Persero) Corporate Management Report for the First Quarter of 2019 with conclusions and recommendations.
14.	29/04/2019	Meeting at Gedung Pakarti, 7th Floor, Jakarta	Discussion on Additional KMK Facilities.
15.	29/04/2019	09/DK-KA/BF/IV/2019	1. The application for Investment Credit facilities has not been fully realised, for the realisation of investment as of March 31, 2019 had only reached Rp269.38 billion or 7.32% of the 2019 Company's Work Plan and Budget. 2. Cash flows from operating activities in the first quarter of 2019 had a deficit of Rp187.34 billion, or minus 272.59% of the Company's Work Plan and Budget of the first quarter of 2019, where cash receipts from customers in the amount of Rp357.36 billion could not cover cash payments to suppliers amounting to Rp409.84 billion or a deficit of Rp52.48 billion (14.69%). 3. Estimated cash receipts as of June 2019 amounted to Rp55.76 billion while expenditures in the period were estimated at Rp584.99 billion. The estimated expenditure includes dividend payments to the government of Rp160.8 billion, assuming 30% of the company's retained earnings in 2018. Realised dividend payments in 2017 amounted to Rp.236.4 billion, or 45% of the company's retained earnings in 2017. 4. Based on the above, the Board of Directors proposes an additional Working Capital Credit Facility limit at PT Bank Mandiri (Persero) Tbk worth Rp250,000,000,000 (two hundred and fifty billion rupiah), bringing the total value limit of PT Bio Farma (Persero) facilities at PT Bank Mandiri (Persero) Tbk which originally amounted to Rp650,000,000,000 (six hundred fifty billion rupiah) up to Rp900,000,000,000 (nine hundred billion rupiah). 5. In accordance with the provisions of bank credit facilities, collateral must be provided in the form of machinery, inventory, and equipment located on Jl.Pasteur No.28 Bandung, so that there is additional collateral from the beginning of Rp695,000,000,000 (six hundred ninety five billion rupiah) to approximately 105% of the total credit facility. In view of the provisions of the Articles of Association of PT Bio Farma (Persero) Article 11 paragraph 8 letter a, which states that the actions of the Board of Directors to Pledge fixed assets for short-term credit withdrawals must obtain written approval from the Board of Commissioners, and that a Credit Facility is urgently needed by the Company for carrying out its business operations, we believe that the President Commissioner can approve the Company's request to collateralise the company's fixed assets related to the additional working capital credit facilities in 2019.
16.	21/05/2019	Meeting at Gedung Pakarti, 7th Floor, Jakarta	Discussion of the Company's Performance Report for April 2019.

No.	Date	Agenda	Verdicts
17.	21/05/2019	10/DK-KA/BF/V/2019	Evaluation of Company Management Reports PT Bio Farma (Persero) ending April 30, 2019 with conclusions and recommendations.
18.	24/06/2019	Meeting at Gedung Pakarti, 7th Floor, Jakarta	Discussion of the Company's Performance Report for May 2019.
19.	24/06/2019	11/DK-KA/BF/VI/2019	Evaluation of PT Bio Farma (Persero) 's Management Report which ended May 31, 2019 with conclusions and recommendations.
20.	03/07/2019	12/DK-KA/BF/VII/2019	Activity Report of the Audit Committee of PT Bio Farma (Persero) Quarter II 2019.
21.	19/07/2019	Meeting at Gedung Pakarti, Jakarta	Discussion on: 1. PT Bio Farma (Persero) Company Performance Report for the First Quarter of 2019 ending June 30, 2019. 2. Quarterly Inspection Results Report II.
22.	22/07/2019	13/DK-KA/BF/VII/2019	Evaluation of PT Bio Farma (Persero) 's LMP which ended on June 30, 2019, with conclusions and recommendations.
23.	30/07/2019	Meeting in Bandung	Discussion on: 1. Presentation and Evaluation of Semester I . 2. Work Plan for Semester II 2019 Company's Work Plan and Budget.
24.	13/08/2019	Meeting at Gedung Pakarti, Jakarta	Discussion Meeting on Bio Farma Investment Credit Collateral Provisions.
25.	14/08/2019	14/DK-KA/BF/VIII/2019	Application for Approval of Investment Credit and Request for Response to Collecting Objects that are required for Investment Credit, with a conclusion.
26.	22/08/2019	Meeting at Gedung Pakarti, Jakarta	PT Bio Farma (Persero) 's Corporate Performance Report Discussion Meeting ended July 31, 2019.
27.	23/08/2019	15/DK-KA/BF/VIII/2019	Evaluation of PT Bio Farma (Persero) 's LMP ending July 31, 2019, with conclusions and recommendations.
28.	23/08/2019	16/DK-KA/BF/VIII/2019	Reports Following the Workshop a.n Yuni Suryanto and Andy Eldes.
29.	17/09/2019	17/DK-KA/BF/IX/2019	Audit Committee Response to Request for Approval to Pledge Company Assets related to Extension of Financing Facilities from the Indonesian Export Financing Agency 2019-2020.
30.	18/09/2019	Meeting at Gedung Pakarti, Jakarta	Discussion meeting: 1. PT Bio Farma (Persero) Company Performance Report for the First Quarter of 2019 ended on August 31, 2019 2. Information on the results of an external assessment of the quality of the SPI 3. Discussion about SE KBUMN No.2/MBU/07/2019 about Strengthening Internal Oversight
31.	22/09/2019	18/DK-KA/BF/IX/2019	Evaluation of PT Bio Farma (Persero) LKP 31 August 2019, with conclusions and recommendations.
32.	25/09/2019	Bio Farma Bandung	Entry Meeting with KAP Roebandini & Partners who will carry out audit service work on the Company's financial statements and Partnerships and Community Development Program's financial statements and other services of PT Bio Farma in 2019 in Bandung.

No.	Date	Agenda	Verdicts
33.	01/10/2019	19/DK-KA/BF/X/2019	Activity Report of the Audit Committee of PT Bio Farma (Persero) Quarter III 2019.
34.	21/10/2019	Meeting at Gedung Pakarti, Jakarta	Meeting on the discussion of the company performance report of PT Bio Farma (Persero) Quarter III 2019 which ended 30 September 2019.
35.	21/10/2019	20/DK-KA/BF/X/2019	Evaluation of PT Bio Farma (Persero) LKP September 30, 2019, with conclusions and recommendations.
36.	25/11/2019	Meeting at Gedung Pakarti, Jakarta	PT Bio Farma (Persero) Quarter I Year 2019 Corporate Performance Report Discussion Meeting ended October 31, 2019.
37.	25/11/2019	21/DK-KA/BF/XI/2019	Evaluation of PT Bio Farma (Persero) LKP October 31, 2019, with conclusions and recommendations.
38.	20/12/2019	Meeting at Gedung Pakarti, Jakarta	Meeting on the Pharmacy Industry Holding the Company's Work Plan and Budget in 2020.
39.	20/12/2019	22/DK-KA/BF/XII/2019	The Audit Committee said a number of things: 1. This RKAP should also be completed with a work plan, not just a financial budget. The requested work plan is prepared for each company separately. 2. Management is also requested to briefly describe the conditions and business processes in the two companies outside PT Bio Farma so that the Audit Committee has an understanding of the two companies. 3. Management is requested to pay attention to the 2019 cash flow prognosis in operating activities. 4. From the data submitted, it is necessary to pay attention to the condition of PT Indo Farma. 5. Management was asked to explain the R&D costs that were not recorded at two companies outside PT Bio Farma. 6. The Company's Work Plan and Budget format related to financial budget data should be submitted per company.
40.	20/12/2019	Meeting at Pakarti, Jakarta	PT Bio Farma (Persero) Company IV Quarterly 2019 Performance Report ending November 30, 2019.
41.	20/12/2019	23/DK-KA/BF/XII/2019 aw	Evaluation of PT Bio Farma (Persero) LKP 30 November 2019, with conclusions and recommendations.

MEETING FREQUENCY AND AUDIT COMMITTEE ATTENDANCE

The provisions of the Audit Committee Meeting are listed in the Audit Committee Charter. Audit Committee Meetings consist of Plenary Meetings which are attended by the Chairperson, Deputy Chairpersons and members of the Audit Committee, and Special Meetings which are only attended by Audit Committee Members. Both types of meetings can invite the Division or other relevant parties as needed.

The Audit Committee holds regular meetings, whether in the form of internal meetings, or meetings with the Board of Commissioners, Directors, Head of SPI, Head of Divisions or External Auditors. Each meeting of the Audit Committee is set forth in the minutes of the meeting which was signed by all those present.

During 2019, the Audit Committee participated in 17 (seventeen) meetings in the form of internal meetings, meetings with SPI, meetings with external auditors, meetings with the Budget & Accounting Division, and also attended meetings of the Board of Commissioners and joint meetings of the Board of Commissioners with the Board of Directors. The attendance data of each Committee member in the meeting are as follows:

Frequency of Meetings and Attendance of the Audit Committee

Name	Position	Total Meetings	Frequency of Attendance	Percentage of Full Attendance (%)
Made Arya Wijaya	Chairman	17	6	35.29
Yuni Suryanto	Deputy Chairman	17	15	88.24
M. Asawir Harahap *)	Member	8	8	100
Priyatno	Member	17	17	100
Andy Eldes **)	Member	9	9	100

Information:

*) term of office until 3 July 2019

**) term of office starts on 4 July 2019

MEETING OF THE AUDIT COMMITTEE

For 2019, the details of the dates, agendas of the meetings, and the names of the Audit Committee Meeting participants are as follows:

No.	Agenda	Date	Participants
1.	Company Performance Report for Fiscal Year 2018 (Un-audited)	Thursday, January 24, 2019	- Yuni Suryanto M. Asawir Harahap - Priyatno
2.	KAP Roebiani's Report and Partners for Financial Statements for the 2018 Financial Year	Friday, February 8, 2019	- Yuni Suryanto M. Asawir Harahap - Priyatno
3.	Performance Report for Fiscal Year 2018 (Audited) and Performance Report for January 2019	Tuesday, February 26, 2019	- Yuni Suryanto M. Asawir Harahap - Priyatno
4.	Company Performance Report February 2019	Monday, March 25, 2019	- Yuni Suryanto M. Asawir Harahap - Priyatno
5.	- Quarterly Corporate Performance Report I 2019 - PKPT Inspection Results Report for Quarter I 2019	Monday, April 22, 2019	- Yuni Suryanto M. Asawir Harahap - Priyatno
6.	Working Capital Credit Facility (KMK) Limit	Monday, April 9, 2019	M. Asawir Harahap - Priyatno
7.	Company Performance Report April 2019	Tuesday, May 21, 2019	- Made Arya Wijaya - Yuni Suryanto M. Asawir Harahap - Priyatno

No.	Agenda	Date	Participants
8.	- Company Performance Report for May 2019 - Application for Approval to Pledge Fixed Assets for the Extension of the Working Capital Credit Facility from Indonesia Eximbank in 2019-2020	Monday, June 24, 2019	- Yuni Suryanto M. Asawir Harahap - Priyatno
9.	- First Semester Corporate Performance Report 2019 - Report on the Results of Internal Audit Checking Quarter II / 2019	Friday, July 19, 2019	- Yuni Suryanto - Priyatno - Andy Eldes
10.	Investment Credit Collateral	Tuesday, August 13, 2019	- Made Arya Wijaya - Yuni Suryanto - Priyatno - Andy Eldes
11.	Company Performance Report for July 2019	Thursday, August 22, 2019	- Yuni Suryanto - Priyatno - Andy Eldes
12.	- Company Performance Report for August 2019 - Results of SPI Quality Assessment and Circular of the Minister of SOE No. SE-2/MBU/07/2019	Wednesday, September 18 2019	- Made Arya Wijaya - Yuni Suryanto - Priyatno - Andy Eldes
13.	KAP General Audit Entry Meeting on the 2019 Financial Report	Wednesday, September 25, 2019	- Yuni Suryanto - Priyatno - Andy Eldes
14.	- Quarterly Business Performance Report III 2019 - Corporate Budget Work Plan 2019 - Quarterly Inspection Results Report 2019	Monday, October 21, 2019	- Yuni Suryanto - Priyatno - Andy Eldes
15.	- Company Performance Report October 2019 - KAP General Audit Interim Report on Financial Reports	Monday, November 25, 2019	- Made Arya Wijaya - Yuni Suryanto - Priyatno - Andy Eldes
16.	Corporate Work Plan for the 2020 Pharmaceutical Industry Holding	Friday, December 13, 2019	- Made Arya Wijaya - Yuni Suryanto - Priyatno - Andy Eldes
17.	- Company Management Report November 2019 - Annual Supervision Work Program (PKPT) 2020	Friday, December 20, 2019	- Made Arya Wijaya - Priyatno - Andy Eldes

PERFORMANCE ASSESSMENT (KPI) OF AUDIT COMMITTEE

The performance evaluation of the Audit Committee is based on the Decision of the Board of Commissioners regarding the Procedures for Performance Evaluation of the Supporting Committee of the Board of Commissioners. The Audit Committee's assessment process is carried out through a self-assessment mechanism using an evaluation method in a system adopted by the Decision of the Board of Commissioners. The results of the Audit Committee's KPI achievements in 2019 are as follows:

No.	Key Performance Indicator (KPI)	Values of Indicators	Achievement Score	Values of Indicators x Achievement Score
1.	Assessment of Realisation of Meetings and Work Programs - Assessment of Realisation of Meeting Implementation - Assessment of Realisation of Work Program Implementation	15 15	116.67 108.57	17.50 16.29
2.	Attendance Level Assessment	40	110.42	44.17
3.	Assessment of Timeliness of Report Submission	30	100.00	30.00
	Audit Committee KPI Achievements in 2019	100		107.96

REMUNERATION OF THE AUDIT COMMITTEE MEMBERS

PENETAPAN REMUNERASI ANGGOTA KOMITE AUDIT

No.	Income Type	Total
1.	Monthly honorarium for members of the Audit Committee	20% x President Director's salary = Rp22,000,000
2.	Benefits: 1. Holiday Allowance 2. Communication Allowances 3. Retirement Allowance 4. Transportation Allowances	1. None 2. None 3. None 4. None
3.	Facilities Medical facility	None
4.	Tantiem/Performance Incentives	None

REMUNERATION OF THE AUDIT COMMITTEE IN 2019

in Rupiah

Name	Monthly Remuneration			Annual Allowance	Total Honors & Benefits 2019
	Honorarium	Monthly Allowance	Total		
	1	2	3=1+2	4	5=3+4
M.Asawir Harahap	135,400,000	-	135,400,000	25,400,000	160,800,000
Priyatno, S.H	287,800,000	-	287,800,000	25,400,000	313,200,000
Andy Eldes	152,400,000	-	152,400,000	-	152,400,000
Total	423,200,000	-	423,200,000	50,800,000	474,000,000

Term of Office: July 4, 2019

Starting to Serve as an Audit Committee: July 4, 2019

TRAINING PROGRAMS IN ORDER TO IMPROVE AUDIT COMMITTEE COMPETENCY

AUDIT COMMITTEE COMPETENCY TRAINING AND DEVELOPMENT PROGRAM

In the context of increasing the competency of the Audit Committee members, the program is intended

to improve professionalism and performance, develop personal potential and support the implementation of the Audit Committee's duties.

Throughout 2019, Audit Committee members have participated in assorted training programs as follows:

Audit Committee Training Program 2019

Name of Director	Type of Training	Topic	Date	Venue	Keynote Speaker
Andy Eldes	Workshop	Measuring the responsibilities and risks of corporate management accounting practitioners KJA & KAP in Garuda financial reporting and other cases	August 23, 2019	Hotel Prime Park, Bandung	Marisi Purba, SE, Ak. MH, CA

NOMINATION AND/OR REMUNERATION COMMITTEE

In 2011, the Bio Farma Board of Commissioners formed a Nomination and Remuneration Committee based on Decree No. KEP-02/DK/BF/V/2011 on May 12, 2011.

In 2012, the Bio Farma Board of Commissioners changed the Nomination and Remuneration Committee into 2 (two) Committees namely the Audit & Remuneration Committee and the Risk & Nomination Committee.

To assist the Board of Commissioners' duties in planning, supervising and controlling Bio Farma's business activities in an efficient and effective manner, based on Decree No. KEP-10/DK/BF/IV/2013 on April 15, 2013, the Board of Commissioners changed the name of the Audit & Remuneration Committee to the Audit Committee and the Risk & Nomination Committee to the Risk Committee.

In 2014, the Board of Commissioners changed the name of the Risk Committee to the Risk, Development and GCG Committee based on the Decree of the Board of Commissioners No. KEP-02/DK/BF/I/2014 on January 15, 2014.

PROFILE OF THE NOMINATION AND REMUNERATION COMMITTEE

During that term, Bio Farma did not provide information about the work history of any members of the Remuneration and Nomination Committee such as their work experience, position, agency, or term of office because the committee had already been renamed as the Audit Committee and the Risk, Development & GCG Committee. However, the information is provided in the Audit Committee chapter and the Risk, Development and GCG Committee chapter of this annual report.

PERFORMANCE OF THE NOMINATION AND REMUNERATION COMMITTEE

Bio Farma did not provide information about the performance of the Nomination and/or Remuneration Committee nor information relating to the independence of their members, such as a description of their duties and responsibilities, description of the implementation of the activities of the Nomination and/or Remuneration Committee in the financial year, frequency of meetings and attendance Nomination and/or Remuneration Committee, statement of the existence of the Nomination and/or Remuneration Committee guidelines and Policy regarding the succession of the Directors because it had already been renamed the Audit Committee and the Risk, Development & GCG Committee. However, such information is provided in the Audit Committee chapter and the Risk, Development & GCG Committee chapter of this annual report.

RISK MONITORING COMMITTEE PROFILE

On the basis of the situation, Bio Farma did not provide information about the work history of all members of the Risk Monitoring Committee regarding their work experience, position, agency, or term of office because it had already been renamed as the Risk, Development & GCG Committee. The information can be seen in the Risk, Development and GCG Committee section of this annual report.

RISK MONITORING COMMITTEE PERFORMANCE

On that matter, Bio Farma did not specifically provide information about the performance of the Risk Monitoring Committee, nor information relating to the independence of the members of the Risk Monitoring Committee, such as a description of their duties and responsibilities, description of the implementation of the Risk Monitoring Committee activities in the financial year, frequency of meetings

and the level of attendance of the Risk Monitoring Committee, because the name had been changed to the Risk, Development and GCG Committee. The information can be seen in the Risk, Development and GCG Committee section of this annual report.

PROFILE OF GOVERNANCE AND COMPLIANCE COMMITTEE

Bio Farma, thus, did not provide information about the work history of all members of the Governance and Compliance Committee regarding their work experience, position, agency, or term of office because it had been renamed as the Risk, Development & GCG Committee. The information can be seen in the Risk, Development and GCG Committee section of this annual report.

PERFORMANCE OF GOVERNANCE AND COMPLIANCE COMMITTEE

On that issue, Bio Farma did not specifically provide information about the performance of the Governance and Compliance Committee nor information relating to the independence of its members, such as a description of duties and responsibilities, a description of the implementation of the Governance and Compliance Committee activities in the financial year, the frequency of meetings and the attendance of the Committee Governance and Compliance because it had been renamed the Risk, Development and GCG Committee. The information can be seen in the Risk, Development and GCG Committee section of this annual report.



OTHER COMMITTEES UNDER THE BOARD OF COMMISSIONERS OWNED BY BIO FARMA RISK, DEVELOPMENT, AND GCG COMMITTEE

Brief History of the Risk, Development, and GCG Committee



SAUD USMAN NASUTION
Chairman of the Risk, Development, and GCG Committee

Profile	The Profile of the Risk, Development, and GCG Committee can be seen in the Identity & Brief History of the Board of Commissioners of this Annual Report.
Legal Basis of Appointment	- The legal basis for the termination as Deputy Chairman I concurrently as a Member of the Risk, Development and GCG Committee based on the Decree of the Board of Commissioners Decree of Appointment Number: KEP-03/DK/BF/04/2018 on April 26, 2018. - The legal basis for the appointment as Chair of the Risk, Development and GCG Committee is based on the Decree of the Board of Commissioners No. KEP-05/DK/BF/02/2019 Concerning the Composition of the PT Bio Farma (Persero) Risk, Development and GCG Committee on February 18, 2019.
Concurrent Position	He does not have any concurrent position
Affiliation	He has no affiliation with members of the Board of Directors nor members of the Board of Commissioners, nor other Committee members or Shareholders.
Share Ownership in Bio Farma	-
Other commissioners and shareholders	He once attended a training on the topic "Vaccine global trends, potential and threats" in Makassar, on May 3, 2019 organised by PT Bio Farma (Persero).



OSCAR PRIMADI
Deputy Chairman I of Risk, Development and GCG Committee

Profile	The Profile of the Risk, Development, and GCG Committee can be seen in the Identity & Brief History of the Board of Commissioners of this Annual Report.
Legal Basis of Appointment & Termination	The legal basis for the appointment as Deputy Chairman I of the Risk, Development, and GCG Committee is based on the Decree of the Board of Commissioners Number: KEP-09/DK/BF/07/2019 on July 30, 2019, Regarding Changes in the Composition of the Risk, Development, and GCG Committee of PT Bio Farma (Persero).
Concurrent Position	Secretary General of the Ministry of Health.
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

**H.M. SUBUH****Deputy Chairman II of the Risk, Development and GCG Committee**

Profile	The Profile of the Risk, Development, and GCG Committee can be seen in the Identity & Brief History of the Board of Commissioners of this Annual Report.
Legal Basis of Appointment & Termination	- Legal basis for appointment as Deputy Chair II Concurrently as a Member of the Risk, Development and GCG Committee, Board of Commissioners Decree No. KEP-02/DK/BF/VII/2015 on July 9, 2015, - Updated with Decree No. SK. KEP-03/DK/BF/02/2016 on February 4, 2016, amended by Decree of the Board of Commissioners No. KEP-03/DK/BF/04/2018 on April 26, 2018. - Updated with Decree No. SK. KEP-05/DK/BF/02/2019 on February 18, 2019, - Legal Basis for Dismissal as Deputy Chair II of the Risk, Development and GCG Committee Committee is based on the Decree of the Board of Commissioners Number: KEP-09/DK/BF/07/2019 on July 30, 2019, Regarding Changes in the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero). M. Subuh was honorably dismissed after his term of office as a Deputy Chairman I of the Risk, Development and GCG Committee and was replaced by Oscar Primadi.
Concurrent Position	He does not have any concurrent position
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	He attended a training on the topic of "Vaccine global trends, potentials and threats" in Makassar, on May 3, 2019 organised by PT Bio Farma (Persero)

**ELEN SETIADI****Deputy Chairman II of the Risk, Development and GCG Committee**

Profile	The Profile of the Risk, Development and GCG Committee can be seen in the Identity & Brief History of the Board of Commissioners of this Annual Report.
Legal Basis of Appointment & Termination	- Legal basis for appointment as Deputy Chair II of the Risk, Development and GCG Committee, Board of Commissioners Decree No. KEP-05/DK/BF/02/2019 Concerning the Composition of the PT Bio Farma (Persero) Risk, Development and GCG Committee on 18 February 2019. - Updated with Decree of the Board of Commissioners Number: KEP-09/DK/BF/07/2019 on July 30, 2019, Concerning Changes in the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero).
Concurrent Position	Expert Staff for Economic and Political Relations, Law and Security, Coordinating Ministry for Economic Affairs RI.
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	He once attended a training on the topic of "Vaccine global trends, potentials and threats" in Makassar, on May 3, 2019 organised by PT Bio Farma (Persero).



JUDI JANUARDI ENDJUN

**Member of the Risk, Development and GCG Committee
(Independent)**

Nationality	Indonesian
Domicile	Jakarta
Age, Place and Date of Birth	54 years of age. He was born in Jakarta in 1965
Educational Background	• Doctoral Degree from the Faculty of Medicine, Padjadjaran University in 1985. • A Diploma of Ultrasound, University of Zagreb, Croatia in 1991. • Obtaining the title of Specialist 1 Obstetrics & Gynecology from the Faculty of Medicine UI in 1993. • Earning a Master of Law degree from UPN Veteran in 2019. • Achieving Certified Mediator: Jimly School of Law and Government - RI Supreme Court in 2020.
Legal Basis of Appointment & Termination	• The legal basis for this appointment as a Member of the Risk, Development and GCG Committee, is based on the Decree of the Board of Commissioners No. KEP-02/DK/BF/02/2016 on February 2, 2016, amended by Decree of the Board of Commissioners No. KEP-03/DK/BF/02/2016 on February 4, 2016. • Updated with Decree No. SK. KEP-03/DK/BF/04/2018 on April 26, 2018. • The legal basis for the reappointment of Judi Januadi Endjun as a Member of the Board of Commissioners of the Risk, Development and GCG Committee, is based on the Decree of the Board of Commissioners No. KEP-03/DK/BF/02/2019 on February 2, 2019 Regarding Members of the Risk, Development and GCG Committee of PT Bio Farma (Persero).
Positions/Experience	• Commenced his career as Head of Public Health Center in the Sub-district of Hato Bulico Timor-Timor 1985-1987. • Staff of the Gatot Soebroto Army Hospital OBGIN Department, Jakarta from 1993-present. • Active as a lecturer at the Gatot Subroto Army Hospital AKBD, PPDS OBGIN FKUI, FK UPN Veteran and FK UHAMKA from 1993-present. • Currently still serves as Head of the Fetomaternal Subdivision Section, Dep. Obgin, RSPAD/FK UPN Veteran.
Awards and Certifications	Dedication as a Public Health Center Doctor in East Timor Province (1987), 30-year service as a civil servant, and Exemplary Doctor Gatot Soebroto Central Army Hospital.
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

**MUHAMMAD BUDI PRASETYO**

**Member of the Risk, Development, and GCG Committee
(Independent)**

Nationality	Indonesian
Domicile	Depok
Age, Place and Date of Birth	35 years of age. He was born in Jakarta on February, 6th 1965
Educational Background	- Obtained a Bachelor of Economics from Faculty of Economics, UI, in 2007 - Obtained Master of Management Science from Faculty of Economics, UI, in 2011
Legal Basis of Appointment & Termination	The legal basis for his appointment as a member of the Risk, Development, and GCG Committee, on the basis of the Decree of the Board of Commissioners No. KEP-04/DK/BF/02/2019 on February 18, 2019, concerning the Appointment of the Development and GCG Committee Members of PT Bio Farma (Persero). Replacing Afrizal who was dismissed with honour and whose term of office has expired based on the Decree of the Board of Commissioners No. KEP-01/DK/BF/01/2019 on January 16, 2019.
Position/Experience	- Started his career as a Freelance Assistant at the Management Institute of FEB, UI, in 2008-2010 - Served as Head of the FEB UI Management Department Computing Laboratory in 2010-2013 - As a Lecturer in the Management Department of FEB, UI, in 2012-present
Concurrent Position	He does not have any concurrent position
Awards and Certifications	-
Affiliation	He has no affiliation with members of the Board of Directors nor other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

BASIC FORMATION OF THE RISK, DEVELOPMENT AND GCG COMMITTEE

- Law Number 19 of 2003 concerning BUMN Article 70 paragraph 3, requires the Board of Commissioners to form other committees in addition to the Audit Committee whose function is to assist the Board of Commissioners in carrying out their supervisory duties and responsibilities at PT Bio Farma (Persero).
- SOE Ministerial Decree Number: 117/M-MBU/2002 on July 31, 2002. Updated with Regulation of the Minister of SOE Number: (PER-01/MBU/2011 August 1, 2011) Regarding the Implementation of Good Corporate Governance On SOEs As Last Amended Through SOE Ministerial Regulation Number: (PER-09/MBU/2012 on July 6, 2012) Regarding Amendments to SOE Ministerial Regulation Number: (PER-01/MBU/2011) Regarding the Implementation of Good Corporate Governance

In BUMN article 17 paragraph 1 states that the Board of Commissioners' organs consist of:

- Secretary of the Board of Commissioners (if needed).
- Audit Committee.
- Other Committees (if needed).
- SOE Minister of State Regulation Number: PER-12/MBU/2012 concerning Supporting Organs for the Board of Commissioners.

APPOINTMENT AND TERMINATION OF RISK, DEVELOPMENT, AND GCG COMMITTEES

The mechanism and procedures for the appointment and dismissal of members of the Risk, Development, and GCG Committee are regulated in the Working Guidelines for the Development Risk and GCG Committee. The Risk, Development, and GCG Committee was formed by the Board of

Commissioners and serves to assist the Board of Commissioners in carrying out their duties. The Risk, Development, and GCG Committee reports directly to the Board of Commissioners.

Bio Farma's Risk, Development, and GCG Committee through Board of Commissioners Decree Number: (KEP-06/DK/BF/II/2014 on February 2014) concerning the Appointment of PT Bio Farma's (Persero) Risk, Development, and GCG Committee, has been updated through Board Decree Commissioner Number: (KEP-03/DK/BF/04/2018 on April 26, 2018) concerning Changes in the Composition of the Risk, Development, and GCG Committee of PT Bio Farma (Persero) and renewed based on the Decree of the Board of Commissioners (No. KEP-05/DK /BF/02/2019) Concerning the Composition of the PT Bio Farma (Persero) Risk, Development and GCG Committee on February 18, 2019.

The term of office of members of the Risk, Development, and GCG Committee who are not members of the Board of Commissioners is no

longer than 3 (three) years and can be extended once for 2 (two) terms of office, without prejudice to the right of the Board of Commissioners to dismiss them at any time.

COMPOSITION OF THE RISK, DEVELOPMENT, & GCG COMMITTEE

Bio Farma's Risk, Development, and GCG Committee consists of 5 (five) people, including 3 (three) members from the Board of Commissioners as the Chair and Deputy Chair are concurrently members of both, and the other 2 (two) members are from external parties. Members of Bio Farma's Risk, Development, and GCG Committee are not selected from Bio Farma employees and do not have a conflict of interest. Furthermore, they are not customers and are not Bio Farma vendors. The Board of Commissioners appoints and dismisses the Chairperson/Committee Members through the Decree of the Commissioners and this is submitted to the Ministry of SOEs as the shareholders.

The composition of Bio Farma's Risk, Development, and GCG Committee is as follows:

Periode 01 Januari 2019 – 31 Desember 2019

No	Name	Position	Terms of Office	Description
1	Saud Usman	Chairman of the Risk, Development and GCG Committee	26/04/2018 to 20 April 2023	- The legal basis for the termination as Deputy Chairman I and serving concurrently as a Member of the Risk, Development, and GCG Committee is based on the Decree of the Board of Commissioners Decree of Appointment Number: KEP-03/DK/BF/04/2018 on April 26, 2018. - The legal basis for the appointment as Chair of the Risk, Development, and GCG Committee is based on the Decree of the Board of Commissioners No. KEP-05/DK/BF/02/2019 Concerning the Composition of PT Bio Farma's (Persero) Risk, Development, and GCG Committee on February 18, 2019.
2	Oscar Primadi***	Deputy Chairman I and serving concurrently as a Member of the Risk, Development, & GCG Committee	16 July 2019 – 15 July 2024	The legal basis for the appointment as Deputy Chairman I of the Risk, Development, and GCG Committee is based on the Decree of the Board of Commissioners Number: (KEP-09/DK/BF/07/2019 on 30 July 2019) Regarding Changes in the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero).

No	Name	Position	Terms of Office	Description
3	H. M. Subuh*	Deputy Chairman II serving concurrently as a Member of the Risk, Development, & GCG Committee	09 July 2015 – 16 July 2019	- The legal basis for appointment as Deputy Chair II while serving concurrently as a Member of the Risk, Development, and GCG Committee, is based on Board of Commissioners Decree No. KEP-02/DK/BF/VII/2015 on July 9, 2015, - Updated with Decree No. SK. KEP-03/DK/BF/02/2016 dated February 4, 2016, amended by Decree of the Board of Commissioners No. KEP-03/DK/BF/04/2018 on April 26, 2018 - Updated with Decree No. SK. KEP-05/DK/BF/02/2019 on February 18, 2019, - Legal Basis for Dismissal as Deputy Chair II of the Risk, Development, and GCG Committee is based on the Decree of the Board of Commissioners Number: (KEP-09/DK/BF/07/2019 on 30 July 2019) Regarding Changes in the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero). M. Subuh was honorably dismissed after his term of office as Deputy Chairman I of the Risk, Development and GCG Committee and was replaced by Oscar Primadi.
4.	Elen Setiadi**	Deputy Chairman II serving concurrently as a Member of the Risk, Development & GCG Committee	08 January 2019 – 07 January 2024	- The legal basis for appointment as Deputy Chair II of the Risk, Development, and GCG Committee, is based on Board of Commissioners Decree No. KEP-05/DK/BF/02/2019 Concerning the Composition of the PT Bio Farma (Persero) Risk, Development, and GCG Committee on 18 February 2019. - Updated by the Decree of the Board of Commissioners Number: KEP-09/DK/BF/07/2019 on 30 July 2019 Concerning Changes in the Composition of the Risk, Development and GCG Committee of PT Bio Farma (Persero).
5.	Judi Januardi Endjun (Independen)	Member of the Risk, Development, & GCG Committee	04 Feb 2016 – 04 Feb 2019	- The legal basis for the appointment as a Member of the Risk, Development, and GCG Committee, based on the Decree of the Board of Commissioners (No. KEP-02/DK/BF/02/2016 on February 2, 2016) and amended by Decree of the Board of Commissioners No. KEP-03/DK/BF/02/2016 on February 4, 2016, - Updated with Decree No. SK. KEP-03/DK/BF/04/2018 on April 26, 2018 - The legal basis for the reappointment of Judi Januardi Endjun as a Member of the Board of Commissioners of the Risk, Development, and GCG Committee, is based on the Decree of the Board of Commissioners No. KEP-03/DK/BF/02/2019 on February 2, 2019 Regarding Members of the Risk, Development and GCG Committee of PT Bio Farma (Persero).

No	Name	Position	Terms of Office	Description
6.	Muhammad Budi Prasetyo****	Member of the Risk, Development, & GCG Committee	18 February 2019 – 17 February 2024	The legal basis for the appointment as a Member of the Risk, Development, and GCG Committee, is based on the Decree of the Board of Commissioners (No. KEP-04/DK/BF/02/2019 on 18 February 2019) Concerning the Appointment of PT Bio Farma (Persero) Committee, Development and GCG Members. Substituted for Afrizal who was honorably dismissed for his term of office based on the Decree of the Board of Commissioners No. KEP-01/DK/BF/01/2019 on January 16, 2019.

*The End of Term of Office: July 16, 2019

**Starting from January 8, 2019

***Starting from: July 16, 2019

****Start Serving: February 18, 2019

Independence of the Risk, Development, and GCG Committee

Declaration of Independence from Potential Conflicts of Interest in the Risk, Development & GCG Committee	
Saud Usman Nasution	1. Does not have financial ties, management, and/or share ownership.
Oscar Primadi***	2. Does not have personal interests/relationships that can cause negative impacts and conflicts of interest to the SOEs concerned.
H.M. Subuh*	3. Does not have blood relatives up to the 3rd (third) degree either according to a straight line (vertical) or sideways (lateral) line or relationships arising from marriage with Members of the Board of Commissioners or with Directors, Major Shareholders and/or Controllers.
Elen Setiadi**	4. Not concurrently a member of the committee at another company.
Judi Januardi Endjun	5. If a member of the Risk, Development, and GCG Committee comes from a particular institution, then the institution where the members of the Risk, Development, and GCG Committee come from may not provide services to the Company.
Muhammad Budi Prasetyo****	6. Does not have the following activities: - Serves as a manager of political parties, and/or candidates/members of the legislature, and/or is a candidate or serves as head/deputy head of regional government. - Does not have other positions that may cause a conflict of interest related to the position with the Company. - Eschewing conflicts of interest that could affect supervision as the PT Bio Farma (Persero) Risk, Development & GCG Committee.

Information

*The End of Term of Office: July 16, 2019

**Starting from January 8, 2019

***Starting from: July 16, 2019

****Start Serving: February 18, 2019

EXPLANATION OF ASSIGNMENTS AND RESPONSIBILITIES

DUTIES, AUTHORITIES, AND RESPONSIBILITIES OF THE RISK, DEVELOPMENT, & GCG COMMITTEE

Based on the PT Bio Farma (Persero) Risk, Development, and GCG Committee Charter, the duties and responsibilities of the Risk, Development, and GCG Committee are described below. The Risk, Development, and GCG Committee has the duty and responsibility to provide recommendations to the Board of Commissioners, including but not limited to the following:

1. Conducting and providing recommendations on the effectiveness of the implementation of risk management carried out by the Compliance and Risk Management Division of the Company.
2. Conducting a risk assessment by the Compliance and Risk Management Division of the company's material investment plan.
3. Supervising the activities of the Compliance and Risk Management Division in monitoring the implementation of risk mitigation by the relevant work units.
4. Supervising the implementation of the Risk, Development, and GCG Committee recommendations by the Compliance and Risk Management Division.
5. Evaluating the business development or expansion plan.
6. Monitoring the implementation of GCG principles and policies and accompanying the Compliance and Risk Management (CRM) Division on GCG assessments by external parties on a regular basis.
7. Performing an analysis and evaluation of the proposed Corporate Activity Plan and Budget (RKAP) and an annual review of the Company's Long-Term Plan (RJPP) submitted by the Directors.
8. Reviewing risk information and company risk management in the reports to be published.
9. Discussing important risks with the units in the Company as needed.
10. Developing a system of evaluation and nomination of candidates for Directors and the Board of Commissioners.
11. Evaluation and analysis of the selection, recruitment, and succession system of the Company's employees.
12. Arranging the types and amounts of salary and honorarium, benefits and facilities that

are to be given to the Directors and the Board of Commissioners and to be submitted by the Board of Commissioners to the GMS.

13. Evaluating and scrutinising the payroll system, honorarium, support and facilities that have been/will be provided at both management level and employee level.

THE AUTHORITIES OF THE RISK, DEVELOPMENT, & GCG COMMITTEE

To support the implementation of its duties and obligations, the committee is authorised to:

1. Acquiring all documents and full, independent and unlimited access to the Company's policies related to business development strategies, GCG implementation, risk management, and the Company's nomination and remuneration system.
2. Cooperating with the Company's management counterpart, including the related members of the Board of Directors, and especially with the Division Compliance and Risk Management, HR Division, Corporate Strategy, SPI, and other related divisions as Risk/Business Process Owners.
3. Reviewing the functions of the Compliance and Risk Management Division, particularly in coordinating and implementing supervision of the implementation of GCG principles and the existence and effectiveness of ERM implementation at PT Bio Farma (Persero)
4. Acquiring input from external professionals/independent parties when required at the Company's expense.

DESCRIPTION OF THE IMPLEMENTATION OF RISK, DEVELOPMENT, AND GCG COMMITTEE ACTIVITIES

Throughout 2019, the Risk, Development, and GCG Committees have carried out their duties according to the work plan approved by the Board of Commissioners as follows:

Description of the Implementation of Risk, Development and GCG Committee Meetings

No.	Date	Agenda	Verdicts
1.	27/02/2019	Discussion on monitoring and evaluation of corporate risk management "the failure of the HR division in creating employee talent and leaving / moving employees who have high potential"	- To mitigate two risks related to HR (the failure of the HR division to create employee talent and the discharge / transfer of high potential employees ", the company has developed a road map for the development of HR 2017-2022. The road map is divided into several stages. The first stage (2017 - 2018) is the stage of infrastructure development and this includes employee productivity, company policy, and population training. The second stage (2018 - 2019) is the implementation phase which takes place on an ongoing basis. The third stage (2019 - 2022) is the stage of achieving HR Excellence whereby the company has qualified human resources that can meet various domestic and global demands. The company wants to create a talent pool with a profile that meets 3 key areas of expertise, namely existing product specialization, product engineering specialization, and corporate business management. - When compared to other companies, employee turnover rates at Biofarma are relatively low. In 2018, the turnover rate was only 0.17%. Employees who leave the company do not usually leave due to job dissatisfaction but rather, they leave because they get an opportunity to continue schooling or because they are accepted at other companies in their respective fields (this usually occurs with employees in the supporting divisions such as finance, accounting, etc.). - In creating and retaining talent, the company has several strategies, and has taken various steps, such as conducting strict recruitment and selection by centralizing recruitment with other SOEs. The stages of selection include: assessment of BUMN values, basic skills tests, BUMN capability tests, psychological tests, interviews, and health tests. In addition to recruitment, the company has also created a career management system that clearly follows the Career Management System Decree Number: 00118 / DIR / I / 2018. The company maps HR based on competence and performance, and there are 9 groups of HR categories based on these two things. HR who have high performance and competence are given special treatment. - In order to develop BOD-1 competencies, the company has carried out several activities, including developing business acumen, conducting group mentoring, and activities to communicate the company's vision in December 2018 and April 2019. Thus, some of the competency deficiencies in BOD-1 have been minimized. - The Company also conducted a BOD-1 assessment in February 2018, and the results are valid for two years. The assessment was attended by 35 officials at Band 1 level. The results of the assessment were divided into two groups, namely domestic competency results, and global competency results. In the domestic competency results, only 2 of the BOD-1 were already in the ready category, while 25 people were in the ready with development category, and the remaining 8 were in the not ready category. While in terms of global competence, the majority of BOD-1 (23 people) were in the not ready category, while 11 people were in the ready with development category, and only 1 person was in the ready category. These results indicate that the company needs to make various breakthroughs to improve both the domestic and the global competencies of the BOD-1 so that more and more can be included in the category of ready and ready to occupy important positions in the Company.

No.	Date	Agenda	Verdicts
			• Of the many SOE-Domestic competencies, those with the lowest average scores were those related to innovation and creativity, strategic orientation, change leadership, and aligning performance for success. While the global competencies that had low average scores were global business savvy, strategic thinking, visionary leadership, change leadership, managing diversity, and intercultural empathy. From these results, it can be concluded that the BOD-1 of PT Bio Farma must improve its competencies in the management of corporate business. Characteristically, the Bio Farma HR were found to have very specific sets of skills and competencies, and this is one of the reasons for the low business management competency of BOD-1. • In addition to conducting assessment of the BOD-1 and its employees, the company has also developed a set of Key Performance Indicators which will later determine the performance appraisal system. The KPI compiled by Bio Farma are aligned with the company's business plan as stipulated in the GMS. Furthermore, the KPI uses a Top-Down Approach so it must align with the business plan. The KPI are measured using a balance scorecard approach which is quantitative in nature and consists of 3 stages (planning, monitoring and evaluation), and performance achievement is associated with next year's incentives both in terms of the work units and individually. • The company has also developed a remuneration road map which includes structuring a fixed and variable salary composition. The remuneration strategy uses the principle of equal position, competence and performance in accordance with internal equity and strategies that have competitive value with both national and international industries. The distribution of the fixed and variable components is arranged so that it is in line with the KPI that has been prepared. • In addition, the company has also conducted an overall employee assessment. The assessment was conducted on 11,118 out of 11,132 employees (98.76%) and excluding BOD-1 employees, employees undergoing CLTP, at overseas schools, and employees over 55 years old. The results show that 16% of employees are in the top talent category, 28% are in the promotable category, and 64% of employees have less than the standard teamwork rating. These results indicate that the majority of employees at Bio Farma need to improve their competencies related to soft skills and teamwork. These results were confirmed by the results of the follow-up assessments which are based on competencies related to hard skills, cognitive skills, and soft skills. Employees who do not meet the soft skill standards numbered the highest when compared to other competencies. Work characteristics and competencies at Bio Farma are thought to be the cause of low employee soft skills. Because most employees have skills and competencies that are very specific, most employees at Bio Farma only wish to work in one division and rarely do rotations. In many other companies, such rotation is useful for improving employee teamwork. Thus, in the context of Bio Farma, the rotation policy must be further analyzed because it has the potential to create other risks, such as incompetence among new employees who are newly placed in a division which requires time for adaptation and learning. Therefore, other methods need to be considered to improve the soft skills of Bio Farma employees.

No.	Date	Agenda	Verdicts
			- The RPG committee is very concerned that the assessment results show that 64% of employees are considered below the teamwork standards. These findings must be addressed carefully so as to avoid making the wrong policy which could in fact pose another risk in the future. - The RPG committee is also concerned about the management of human resources included in the millennial group because this group has very different characteristics and presents its own challenges. But if they can be handled well they will become superior human resources who can provide benefits to the company in the future. - The RPG Committee also criticized the reconstruction phase which was carried out centrally together with other SOEs. That is because Bio Farma's needs are very specific and not uniform with the needs of other SOEs. Career paths must also be disclosed so that each employee has individual expectations and can evaluate himself related to the career goals he is achieving.
2.	28/03/2019	Discussion and monitoring of corporate risk evaluation: "changes in national and international regulatory policies".	- The company has just been audited by WHO and is already feeling the effects of regulatory changes. In the future, it will be more difficult to convince WHO that the facilities owned by the company meet the standards required by WHO. This is due to changes in international regulations relating to very dynamic facility standards. The impact in the future is closely related to the investment related facilities that must be owned by the company. - At the global level, WHO policy is strongly influenced by the policies of developed countries and the policies in those countries are strongly influenced by the industry in that country. One solution is to conduct an international placement whereby companies will place human resources in several countries in order to observe various changes that may occur. In addition, the synergy of regulation and diplomacy, especially with regard to BPPOM and the Ministry of Foreign Affairs, can also be a solution. The company has had a bad experience, when the company was delisted by WHO in 2004 which resulted in a 60% decrease in the company's revenue for the year. - Vaccines are highly regulated products, starting from the production stage to the product distribution. At present, there are 8 vaccine-related regulations, including CGMPs that are very dynamic and can often change in the short term. The CDOB (method of drug distribution) governs the way of good drug distribution, and the CUKB (good clinical trial method) proves that the company's products meet the clinical requirements. Some other regulations exist, such as Eudralex which is a rule in Europe adopted by WHO, and also PIC/S, and WHO TRS.
			- The QMS process in the vaccine industry includes, product development, product scale up, routine manufacturing processes, distribution, sales to consumers, up until the vaccine products end production. Thus, QMS in the vaccine industry has a very broad and complex scope which includes many aspects. - As a company that produces vaccines, Biofarma has several stakeholders, namely BPOM, WHO, NRA, Society, and Customers. The five parties each have a strong influence on the company, especially related to the risks faced by Biofarma. - Until now, there are 13 vaccine products which are included in the WHO prequalification. Two of them (Hep B (Uniject) and DTP-HepB) have been voluntary delisting due to the limited demand for both products

No.	Date	Agenda	Verdicts
			The results of an audit conducted by WHO over several weeks are quite encouraging, although there are a number of records that must be followed up on. The main focus of the previous WHO audit was the mOPV2 and the measles vaccine. The findings of the WHO audit are: although none of the findings are critical, there are 4 findings that are Major findings, and 22 findings that are listed as Other findings. However, the 4 Major findings must be addressed and corrected as they have the potential to turn critical and be very detrimental to the company.
			Major findings found by WHO : 1) the management of the media fill test, 2) the design, the controls, and the practices in aseptic rooms in building 33, 3) the monitoring of environmental monitoring data and review at the time of batch release, 4) the management of deviations and the level of investigation. The company has formulated a plan that will be carried out to immediately improve the four major findings, and most of it is planned for completion by the end of 2019.
			- The other 22 findings were mostly technical. However, one of the findings that is quite crucial is related to regulatory intelligence, as stated at the opening of the meeting. The WHO audit results concluded that Bio Farma does not yet have procedures in place for conducting regulatory intelligence. Where it exists, the implementation has not been effective. This finding can be considered quite important considering several cases where it has happened before. For example, there were partners in Egypt whose companies had to be closed because of mass unrest and these were very difficult to reactivate afterwards. - The RPG Committee suggests that the directors should be more up to date about various changes that have occurred at the national level. For example, a national research ethics committee has been formed at the Ministry of Health which can more or less affect the company's business.
			- The WHO audit findings must be responded to positively. The outcomes of the findings can be improved if there is an awareness within each employee to audit themselves as to whether or not they are up to standard. Therefore, the RPG committee is very concerned about the existence of SOPs that can be implemented to ensure discipline in all units. These SOPs must comply with various WHO provisions and national provisions. The Board of Directors must map which WHO findings must be prioritized for immediate implementation. Thus, corrective steps can be prioritized and carried out immediately. - In addition, the RPG committee also underlined the issue of halal certification where the public is very concerned about the issue of halal certification from vaccine products produced by Bio Farma. If indeed it requires a complicated process, Bio Farma can open up lines of communication with related parties in order to request an extension of time for implementing the JPH Law. - No less important is the issue of terrorism. In modern times, biological weapons can be very dangerous. Unlike bombs, biological weapons are very difficult to detect so the threat they pose is greater than bombs. Biological bombs have started to be used in the Syrian war and it is not impossible that big countries will want to supervise Indonesia in this regard because of several cases of terrorism that have occurred in Indonesia. Therefore, vigilance must always be improved.

No.	Date	Agenda	Verdicts
3.	5/04/2019	Attending the exit meeting assessment for PT GC Farma GCG Implementation Assessment Period 2018	The RPG Committee participated in the exit meeting with all Directors, and the Board of Commissioners of PT. Bio Farma (Persero) in order to find out the results of the assessment of the implementation of Good Corporate Governance at PT Bio. At this event, BPKP explained the results of the GCG assessment, and the good final results that were obtained by PT Bio Farma showed an overall improvement compared to the results of the previous assessment. BPKP also submitted several proposals and recommendations that could be implemented by PT Bio Farma in order to improve the implementation of GCG in PT Bio Farma.
4.	5/04/2019	Site visit to several facilities of PT Bio Farma (Persero)	This activity was carried out after the RPG committee attended an exit meeting assessment about the implementation of GCG at PT Bio Farma. In this activity, the RPG committee visited several production facilities owned by PT Bio Farma that are still under construction, such as Building 43. The RPG committee provided input on various preventive measures that can be carried out by the company to minimize the risk of damage to production facilities and the possibility of fraud and interference from internal and external companies. In addition, the RPG committee also visited the serum production facility in Cisarua, Lembang, West Java. During the visit, the RPG committee received a comprehensive explanation of the various daily activities carried out at the facility.
5.	22/04/2019	Discussion of Assessment Results of PT Biofarma's GCG Implementation by BPKP West Java	- Assessment of GCG implementation by the West Java BPKP is conducted every two years. The last assessment was conducted in 2016 and was carried out again in 2018. During the year, the company conducted a self-assessment related to the implementation of GCG at PT. Bio Farma. In 2016, the results of the GCG implementation assessment conducted by BPKP West Java showed that PT Bio Farma had obtained a GCG implementation score of 90,494. In 2017, the results of the self-assessment conducted obtained results of 90,53. The latest assessment conducted by BPKP at the end of 2018 showed more improved results, with a GCG score of 90,938. - The aspects assessed were: 1) disclosure and transparency, 2) directors, 3) the board of commissioners, 4) shareholders and the GMS, 5) commitment to governance implementation, and 6) other aspects. Of the six aspects, the aspects of the board of commissioners and directors have the highest weighting, which is 35. In both aspects, the board of commissioners achieved a score of 31,722 or 91% of the target weight. While the directors scored 32,832 or 94% of the target weight. Both are included in the "Very Good" category. While in the other four aspects, PT Bio Farma also received a relatively high score and was included in the "Very Good" category. Although the scores obtained are in the category of "Very Good", BPKP provided several recommendations and follow-up plans for Areas of Improvement. These materials are worthy of attention and evaluation for future improvement. The AOI covers all aspects of GCG in the company, namely the directors and the commissioners, as well as risk management and related GCG divisions. - When compared to other pharmaceutical SOEs, the Biofarma assessment results are higher and better. - Following up on the results of the GCG implementation assessment, the GCG division and risk management division will coordinate further and in more detail. - Meeting the requirements of the Aol recommendations is not too difficult to achieve as long as it is done in a disciplined manner. If not, they threaten to become a bigger pile of work, including for the Board of Commissioners. Viewed from all Aol points, documentation is a key word that must be considered by the company. All activities that have been carried out must be documented in written form, and there is a need for good cooperation between the directors and commissioners as well as support from related parties in the company's management so that good documentation of activities can be achieved. - The RPG Committee expects that all recommendations must be implemented without exception.

No.	Date	Agenda	Verdicts
6.	17/05/2019	Corporate Risk Discussion: Employee Performance does not Reach KPI Targets	• The Company has a measurable KPI design in place, and now uses a quantitative approach that will later replace the previous performance appraisal system which tends to be more qualitative. • The KPI design will be linked to the employee remuneration system, especially in preparing the merit system. Thus, it is expected that there will be an overall increase in productivity from employees because the remuneration they receive will now be determined by their ability to achieve their KPIs. • This new system has been running for 3 months and its implementation will be evaluated to better understand which aspects are least effective. • Related to this, the RPG committee showed their appreciation to the directors for having designed and prepared the KPI system. The KPI system is now being implemented, and it is expected to increase employee productivity. • However, there are still several things that must be considered by the directors, including: • Whether or not the process of preparing the KPI was preceded by benchmarking domestic and foreign similar companies • Also, the company's strategy for those employees in the non-millennial category who might have difficulties in adapting to the use of technology in carrying out the KPI implementation. • The RPG Committee also believes that the KPI system is a good system. However, its application must be balanced with an increase in employee competency and capacity. Thus, employees who have KPIs below the target range may in future be required to take part in various competency and capacity building programs so that their productivity increases and their KPI can achieve the target. • The RPG Committee also specifically highlighted several other aspects that are not directly related to the company's targets such as the administration, correspondence, and the like. The Committee provided their direction so as not to give rise to jealousy between divisions or departments caused by a performance appraisal system which might not be in accordance with the work activities carried out by the employees. • The Board of Directors responded well to the various questions and directions that were submitted by the RPG Committee and various inputs related to the KPI system that were designed by the directors will be accommodated and implemented in the improvement of the KPI system.
7.	17/05/2019	Attending an iftar invitation with PT Bio Farma	In this activity, the RPG committee attended an invitation to break the fast which was held by PT Bio Farma. The joint breaking of the fast event was held at the mosque within PT Bio Farma with all the directors, the board of commissioners, Bio Farma employees, and all invitees, such as orphans, poor people, and several other invitations.

No.	Date	Agenda	Verdicts
8.	24/06/2019	Corporate risk discussion: Risk of counterfeiting and illegal products	• The Committee recommends re-evaluating the legal aspects of the sales process of Bio Farma products. That is because all issues related to counterfeiting products and illegal products depend on the legal aspect. Legal aspects that need to be clarified are production rights, copyrights, and marketing authorization. • In addition, the issue of halal status must also be a concern because it has become a sensitive thing that is rolling in the community. • The committee also conveyed related historical data on counterfeiting of vaccine products. Reflecting on the experience of vaccine forgery cases that occurred in 2015, none of the vaccines from Biofarma were falsified. The results of the analysis show that this was due to the fact that Biofarma vaccine products are generic products whose prices are relatively cheap so that the cost of counterfeiting is more expensive. However, the issue of product counterfeiting must still be anticipated in the future. WHO currently has Global Vaccine Safety in place for the period 2012 - 2020 which means that WHO will discuss Global Vaccine Safety again in 2020. This is a good opportunity for Biofarma to provide input regarding Global Vaccine Safety because Biofarma is a vaccine company that is in the top 5 in the world. • The RPG committee raised important points related to distribution lines. If the distribution line only reaches the Provincial District, the monitoring must be extra tight. We are responsible for what is called Post Marketing Surveillance that must reach the user. Because whatever happens that is related to vaccines, people will assume it is related to Biofarma. Post Marketing Surveillance is generally a weak application, especially for Indonesia which is geographically wide. But if able to be implemented well in Indonesia, it can become Indonesia's competitive advantage at the global level. Examples of experiences of Cold Chain distribution to the interior serve as valuable lessons related to the difficulty of applying PMS to the interior. Vaccine stock systems must be considered at various levels of distribution, so that vaccine availability is guaranteed. And all this time, the distribution mechanism has run without any evaluation. Even though this is a strategic industry, immunization is the first health program launched since President Soekarno's administration. • The committee also admonished that the case occurred in 2015 should not happen. The mode is simple, that is by collecting used vials. Therefore, the vial should ideally be replaced with an ampoule because it is far more efficient and the waste is easier to handle. From the safety side, it is also easier to be contaminated.

No.	Date	Agenda	Verdicts
9.	18/07/2019	Corporate risk discussion: • Delay in the implementation of the Building project • The concept of the function of the legal division & corporate legal system governance strategy at PT Bio Farma	• In planning the construction of buildings and production facilities, companies must pay attention to the possible risks that can occur, especially the risks associated with the selection of consultant planners. If there is a delay in the completion of work by the consultant, the company must provide sanctions so that the error does not occur again. This is because the overall effect on the total development time is very significant. • The Company can re-evaluate and check the building construction plan. Consideration must be given to making a scale of priorities, especially in relation to the availability of funds. • Looking at the realization of the 2019 investment, it is necessary to check whether the investment realization will reach the target as planned. From the investment realization completion curve, the investment (development) burden in the last semester of 2019 seems very solid.
10.	30/07/2019	Attending to the Company's Work Plan and Budget Plan of Action in 2019	2019. Participants discussed the progress of the company's performance until mid-semester 2019 (January - June 2019) and formulated the company's strategy to achieve the 2019 RKAP target by the end of 2019. Various problems were described, and a strategy for completion was formulated and discussed, so that the company's performance could improve in the second half of 2019.
11.	20/08/2019	Discussion about the Risk Implementation of the MRP which is not on target	• MRP is an important application system for companies, especially for managing inventories that must be managed as well as possible. Therefore, the implementation target must be sure not to experience delays. • In addition, it turns out the company also still uses a costing system that is not in accordance with the characteristics of the company's products. ABC costing is still not used, and this can lead to errors in the calculation of vaccine production costs, making the company inaccurate in setting product prices. Therefore, the implementation of ABC costing must be prioritised so that the MRP implementation can be carried out immediately. • Thus, the new costing system and new MRP system are to be implemented immediately as planned.

No.	Date	Agenda	Verdicts
12.	19/09/2019	Corporate risk discussion: • Inability to meet long-term obligations (credit) • Inability to meet short-term obligations (liquidity)	• Financial mismatch between credit and liquidity is a serious problem that must be faced by the company. Under these conditions, the company's operating cash flow becomes negative. While on the other hand, the company must ensure that its funding needs for operational activities are met. If this need is not fulfilled, it will disrupt various operational activities, especially the company's production activities. The company's financial burden is getting heavier because it has to disburse working capital loans to meet the company's operational needs. • One way to fund the company's operational needs is to boost sales in the remainder of 2019. Does the company have the latest information related to the latest developments in sales realization? Because based on the mid-year evaluation information in August, the company's sales have decreased, especially in the government sector. If sales can be optimized, the results of sales are very helpful for companies in funding operational expenses. • In addition, because the company has begun the process of disbursing investment loans of Rp.2.2 trillion with an interest rate of 9% per year, the company's financial burden from the investment side has increased significantly. This should be the benchmark for the preparation of the company's sales plan or strategy in the future because the company must ensure it has the ability to fulfil its various obligations. • Companies should be able to make plans for certain periods of time. For the short term, having knowledge of what products should be prioritized for sale will facilitate the expected income. Then, in terms of financing, companies must obey the financial planning principles. Operational funds must be used for operational activities and investment activities must be funded by investment loans. Because there is no planning, the company seems overwhelmed in facing various problems that were not previously thought of. The company must therefore revise its plans, especially for the short term.

No.	Date	Agenda	Verdicts
			- If the company considers that there is a superior product that still has to be developed, the product should not be placed in the short-term planning horizon. Thus, the company must check which products can be realized immediately and which require more time to realize. If this principle is not obeyed, then the risk of bankruptcy can increase. The AAA rating becomes meaningless if the company does not adhere to the financial planning principles when using funds. The company has a broad market share but its marketing is facing obstacles. The marketing department must have many strategies to boost marketing and sales, for example by having more sales partnerships, selling at cheap prices, and so on. When marketing is successful, fresh funds are obtained and operations can be fulfilled, so that cash flow is healthy. Sales volume must be prioritized over large values. - The company must tighten its belt in all lines. The committee appreciates Mr. Disril's ideas to make savings. However, during the mid-year evaluation, it was apparent that not all parts of the company reached their target. This means that the existing concept cannot be successfully implemented. - From previous meetings, the interactions between the various sections still looks fragmented. The finance department only performs its own activities, as do the production section and other sections. - Past management put various sets of planning targets in place that had to be obeyed by all lines of the company. For example, investment loans should have been completed last year. However, these failed miserably due to the company's internal negligence, so that one year was wasted. We have to sit together to solve this problem. - The first thing to be done is to re-evaluate the Company's Long-Term Plan. For example: spending on CSR and other non-urgent needs which can be saved. Commissioners will agree because the aim is to maintain the company's sustainability. The government (in this case the Minister) must also be informed. - These developments regarding credit and liquidity risks must be discussed thoroughly and their progress must be assessed. Therefore, at the next meeting, these developments must be discussed again.
13.	22/10/2019	Corporate risk discussion: Follow-up discussion on credit risk and liquidity risk	- There must be a clear operating income projection from Biofarma over the next few years to meet the operational needs so that the operating cash flow does not fall into deficit. One way to do this is to ensure that the company's sales targets are achieved. - Other divisions must also know the possible consequences of companies disbursing investment loans from banks. The decision to do so carries a lot of risk, and the possible consequences must be understood by all units in the company. This risk can be mitigated as long as each unit is committed to fulfilling their respective responsibilities. - Bio Farma must re-evaluate its planning. The negative cash flow problems currently faced by the company indicate a major problem exists in the planning. In good planning, short-term, medium-term, and long-term targets must be clear so as to facilitate the company in implementing them. Products that are ready and can immediately generate revenue for the company can be included in the short-term goals. While products that are still under development can be included in the long-term goals. - The sales target for the end of 2019 should be immediately coordinated with the Ministry of Health. Commissioners from the Ministry of Health can be contacted to facilitate the coordination process.

No.	Date	Agenda	Verdicts
14.	28/11/2019	Discussion: - Sales progress in 2019. - Monitoring of follow-up/ risk handling regarding the inability to sell in bulk to one of the bulk consumers, so that the product inventory was not absorbed. - The position of the company's cash flow in 2019. - Monitoring the follow-up of investment credit handlers.	- Judging from the company's sales report for 2019, it is worrying that the company's sales to the government sector experienced negative growth and missed the RKAP target. Meanwhile, sales to the private sector also missed the RKAP target slightly. Conversely, sales to the export sector reached and exceeded the RKAP target. From this data, it can be seen that the export sector can be considered a priority for the company's sales target in 2020 although Biofarma must also pay attention to domestic vaccine needs. - In addition, for the private sector, the rules for the distribution and sale of products in the private sector must be clarified. If the private sector buys vaccines from the Department of Health while the Department of Health obtains them from the Ministry of Health, the process will make it difficult for Biofarma to sell products directly to the private sector. Biofarma should be able to sell products directly to the private sector. - So that next year there will be no problem of absorption of sales from the government like this year, Biofarma can provide a letter to the Ministry of SOEs to convey the various problems currently faced so that KBUMN knows the problems in Biofarma and can assist Biofarma coordinate with the government. - To optimise the Company's development going forward, the long-term target that must be ensured is the development and acceleration of blood products and other new products. While for the medium term, companies can review business processes related to policies and regulations so that these can be included in the discussion of government policies that are being compiled by the Coordinating Minister for Economy.
15.	19/12/2019	Discussion on the Function and Role of the Compliance and Risk Management Division for the Company	- The concept of determining risk categories applies to monthly, quarterly and yearly timeframes, because there are changes from time to time. There must be a set of criteria for how long the risk can be evaluated so that the problem can be resolved. - Risk categories: there are 10 qualitative risk categories, but can they later be made into quantitative categories as well? Perhaps if there are also quantitative measurements, each work unit will know which is the most crucial, and which needs to be completed immediately. - It is feared that if there are five risks chosen by the unit, nothing will be accomplished later, because the work units are not integrated with each other. It should be determined directly which work unit will handle the risks that have been set, so they can be more focused. - There is a need for risk measurement, as to whether the risk has been completed or whether there has been a risk shift.

ATTENDANCE AND MEETING FREQUENCY OF THE RISK, DEVELOPMENT, AND GCG COMMITTEE

The Risk, Development, and GCG Committee meets at least once a month, chaired by the Chair of the Committee. During 2019, the Risk, Development and GCG Committee held/attended 11 (eleven) meetings. All meetings were held in accordance with the provisions of the duties and responsibilities of the Risk, Development and GCG Committee. The attendance data of each Committee member in the meeting was as follows:

Name	Position	Total Meetings	Frequency of Attendance	Percentage of full Attendance (%)
Saud Usman	Chairman	11	11	100
M. Subuh *	Deputy Chairman I	5	1	20
Oscar Primadi ***	Deputy Chairman I	6	1	16.67
Elen Setiadi **	Deputy Chairman II	11	4	36.36
Judi Januadi Endjun	Member	11	7	63.63
M. Budi Prasetyo ****	Member	11	11	100

Caption: * End of Office Period: July 16, 2019 ** Start Serving: January 8, 2019 *** Start Serving: July 16, 2019

**** Start Serving: February 18, 2019

IMPLEMENTATION OF MEETINGS OF THE RISK, DEVELOPMENT, AND GCG COMMITTEE

During 2019, the details of the dates, agendas, and names of the participants in the Risk, Development and GCG Committee meetings were as follows:

Agenda	Date	Participants
Corporate Risk 2019 The HR Division's failure to create employee talent Resigning/transferring employees who have high potential	Thursday, February 27, 2019	Saud Usman Judi Januadi Endjun M. Budi Prasetyo
Corporate Risk Monitoring and Evaluation: Changes to National and International Regulatory Policies The HR Division's failure to create employee talent Resigning/transferring employees who have high talent and potential	Jakarta, March 28, 2019	Saud Usman M. Budi Prasetyo Judi Januadi Endjun
Assessment Results of PT Bio Farma (Persero) GCG Implementation by BPKP West Java	Jakarta, April 22, 2019	Saud Usman M. Budi Prasetyo
Corporate Risk: Employee Performance Does Not Reach KPI Targets	Bandung, May 17, 2019	Saud Usman M. Budi Prasetyo Judi Januadi Endjun
Corporate Risk 2019: Counterfeiting of Bio Farma Products	Monday, June 24, 2019	Saud Usman M. Subuh Judi Januadi Endjun M. Budi Prasetyo
Corporate Risk: Delay in the Implementation of Building Projects The Concept of Function of the Legal Division and Corporate Governance System Strategy in PT Bio Farma	Thursday, July 18, 2019	Saud Usman Judi Januadi Endjun M. Budi Prasetyo
Corporate Risk: Risk of MRP Implementation Not Targeting	Jakarta, August 20, 2019	Saud Usman Oscar Primadi Elen Setiadi M. Budi Prasetyo

Agenda	Date	Participants
Corporate Risk: Inability to Meet Long-Term Obligations (Credit) Inability to Meet Short-Term Obligations (Liquidity)	Jakarta, September 19, 2019	Saud Usman Judi Januadi Endjun M. Budi Prasetyo
Credit and Liquidity Risk Follow-up	Thursday, October 22, 2019	Saud Usman Elen Setiadi M. Budi Prasetyo
Follow-Up on Corporate Risk Management in 2019: Risk of Inability to Fulfil Long-Term Obligations (Investment Credit)/Defaults and Loan Interest Risk of Inability to Meet Short-Term Liabilities (Liquidity)/ Inadequacy of Working Capital Risk of Not Absorbing Product/Revenue Inventory Not Reached	Thursday, November 28, 2019	Saud Usman Elen Setiadi Judi Januadi Endjun M. Budi Prasetyo
Function and Role of the Compliance and Risk Management Division for the Company	Thursday, December 19, 2019	Saud Usman Elen Setiadi M. Budi Prasetyo

PERFORMANCE ASSESSMENT (KPI) COMMITTEE OF RISK, DEVELOPMENT, AND GCG

The performance evaluation of the Risk, Development, and GCG Committee is carried out based on the Decision of the Board of Commissioners regarding the Procedures for Performance Evaluation of the Supporting Committee of the Board of Commissioners. The process of evaluating the Risk, Development, and GCG Committee is carried out through a self-assessment mechanism using the evaluation method in a system that is applied in the Decision of the Board of Commissioners. The results of the KPI Risk, Development, and GCG Committee in 2019 are as follows:

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PERFORMANCE ASSESSMENT (KPI) COMMITTEE OF RISK, DEVELOPMENT, AND GCG

The performance evaluation of the Risk, Development, and GCG Committee is carried out based on the Decision of the Board of Commissioners regarding the Procedures for Performance Evaluation of the Supporting Committee of the Board of Commissioners. The process of evaluating the Risk, Development, and GCG Committee is carried out through a self-assessment mechanism using the evaluation method in a system that is applied in the Decision of the Board of Commissioners. The results of the KPI Risk, Development, and GCG Committee in 2019 are as follows:

No.	Key Performance Indicator (KPI)	Values of Indicators	Achievement Score	Values of Indicators x Achievement Score
1	Assessment of Realisation of Meetings and Work • Assessment of Realisation of Meeting Implementation • Assessment of Realisation of Work Program Implementation	15 15	116.67 108.57	17.50 16.29
2	Attendance Level Assessment	40	110.42	44.17
3	Assessment of Timeliness of Report Submission	30	100.00	30.00
Audit Committee KPI Achievements in 2019		100	-	107.96

REMUNERATION OF RISK, DEVELOPMENT, AND GCG COMMITTEE

DETERMINATION OF INCOME FOR THE MEMBERS OF PT BIO FARMA'S (PERSERO) RISK, DEVELOPMENT, AND GCG COMMITTEE

No	Income Type	Total
1	Monthly honorarium for members of the Audit Committee	20% x President Director's salary = Rp22,000,000
2	Allowance:	
	1. Religious Holiday Allowance	1. None
	2. Communication Allowance	2. None
	3. Retirement Allowance	3. None
	4. Transportation Allowance	4. None
3	Facilities	None
	Healthcare	
4	Tantiem/Performance Incentive	None

Remuneration for the Risk, Development, and GCG Committee is determined based on the Decision of the Board of Commissioners with the following details:

REMUNERATION OF THE RISK, DEVELOPMENT, AND GCG COMMITTEE OF 2019

In Rupiah

Name	Monthly Remuneration			Annual Allowance	Total Honorarium & Allowances 2019
	Honorarium	Monthly Allowance	Total		
	1	2	3=1+2	4	5=3+4
Judi Januardi Enjund	287,800,000	-	287,800,000	25,400,000	313,200,000
Muhammad Budi Prasetyo	243,800,000	-	243,800,000	25,400,000	269,200,000
Afrizal, SE, Msi, Ak *)	10,645,161	-	10,645,161	-	10,645,161
Total	542,245,161	-	542,245,161	50,800,000	593,045,161

Information

* End of term of office: July 16, 2019

**Starting office: July 16, 2019

***Starting office: January 8, 2019

****Starting office: 18 February 2019

TRAINING PROGRAMS TO INCREASE THE COMPETENCY OF THE RISK, DEVELOPMENT, AND GCG COMMITTEES

TRAINING PROGRAMS TO DEVELOP THE COMPETENCY OF THE RISK, DEVELOPMENT, AND GCG COMMITTEE

Training is intended to improve professionalism, performance, and the development of personal potential. It is done to increase individual competency and support the implementation of the Risk, Development and GCG Committee duties. However, during 2019, the members of the Risk, Development, and GCG Committees did not participate in any training programs.



SECRETARY TO THE BOARD OF COMMISSIONERS



AAN ROSYANTO
Secretary of the Board of Commissioners

Citizenship	Indonesian
Domicile	Jakarta
Age, Place and Date of Birth	Born in Demak, on September 9, 1982. Aan is 37 years of age.
Educational Background	He holds a Bachelor of Accounting from the University of Indonesia in 2007.
Legal Basis of Appointment & Termination	The legal basis for the appointment of the Secretary of the Bio Farma Board of Commissioners is based on Decree 2017.
Previous Positions & Experience	- Commenced his career in the Acting Staff Section - General Bureau of the Secretariat of the Ministry of State Enterprises in 2003-2004. - Served as the Acting Assistant Deputy for Transportation Business Affairs in the Branch for Logistics and Tourism Business in 2004-2006. - Served as the Acting Assistant Deputy for Financial Services in the Branch for Banking and Financial Services in 2006-2010. - Served as Acting Inspectorate of the Ministry of SOEs in 2011-2012 - Served as a Head of Subdivision for Infrastructure and Logistics IIA2 in the Branch for Infrastructure and Logistics in 2012-2013. - Serving as a Head of Subdivision of Business Services IIIa2 in the Branch for Business Services in 2013-2014. - Served as Head of Subdivision for Business Financing Services and Other Services IIIb in the Branch for Financial Services, Construction Services and Other Services in 2014-2015. - Served as the Head of Subdivision for Social and Environmental Responsibility Policy in the Branch for Business Infrastructure in 2015-2017. - Appointed as Secretary of the Bio Farma Board of Commissioners on 2017.
Concurrent Positions	Concurrent positions are not in conflict with SOE Ministerial Regulation No. PER-03/MBU/02/2015 CHAPTER IV, on February 17, 2015, Regarding Requirements & Procedures & Dismissal of Members of the Board of Directors of SOE - Reasons and Procedures for Dismissal of the Board of Directors of SOE. Served as the Head of Protocol at the Secretariat of the Ministry of SOEs from July 2017-present.
Awards/Certifications	-
Affiliations	He has no affiliations with members of the Board of Directors, nor with other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

LEGAL BASIS OF CRITERIA AND PROCEDURES FOR DISMISSAL AND APPOINTMENT OF THE SECRETARY TO THE BOARD OF COMMISSIONERS

The criteria and procedures for appointing the Secretary to the Board of Commissioners refer to SOE Ministerial Regulation Number: PER-12/MBU/2012 on August 24, 2012, concerning Supporting Organs of the SOE Board of Commissioners, among others the Secretary to the Board of Commissioners should be from

outside the Company, and be appointed by the Board of Commissioners, has a good understanding of corporate governance, as well as communication skill ability.

DUTIES AND RESPONSIBILITIES TOWARDS THE BOARD OF COMMISSIONERS

The Secretary of the Board of Commissioners is responsible to the Board of Commissioners, and has the following duties and responsibilities:

1. Assisting the Board of Commissioners to maintain and carry out technical procedures in an orderly manner;
2. Preparing meetings, including briefing sheets for the Board of Commissioners, and for sharing information between the Board of Commissioners and the Directors and Shareholders and/or other related parties;
3. Providing information/data as needed by the Board of Commissioners and the Committee periodically and/or at any time if requested;
4. Collecting technical data originating from Committees within the Board of Commissioners for the purposes of the Board of Commissioners;
5. Preparing minutes of meetings, both for internal meetings of the Board of Commissioners, and for joint meetings of the Board of Commissioners and Directors in accordance with the provisions of the articles of association of the company;
6. Preparing minutes of meetings for the Board of Commissioners and Directors, in which the Secretary of the Board of Commissioners must cooperate with the Corporate Secretary;
7. Providing the Board of Commissioners' documents with incoming letters, outgoing letters, as well as minutes of meetings and other documents;
8. Preparing the Work Plan and Budgetary Plan of the Board of Commissioners;
9. Compiling the Reports of the Board of Commissioners' Reports;
10. Delivering to the President Commissioner every letter that comes in to get a disposition;
11. Following proper administrative order, every letter signed by the Board of Commissioners must first be corrected and initialed by the Secretary of the Board of Commissioners;
12. In each of the activities of the Committees, the Secretary of the Board of Commissioners can also assist to enable the smooth running of the said tasks;
13. Each October, in coordination with management, the Secretary of the Board of Commissioners is to prepare the Budget Work Plan of the Board of Commissioners (RKAK) for the following year;
14. In carrying out their duties, the Secretary of the Board of Commissioners is assisted by the staff of the Secretariat of the Board of Commissioners whose existence is appointed or dismissed by the Board of Commissioners;
15. Ensuring that the Board of Commissioners adheres to the laws and regulations and applies GCG principles;
16. Coordinating with Committee members if necessary, in order to expedite the duties of the Board of Commissioners;
17. Acting as liaison officer for the Board of Commissioners with other parties.

REMUNERATION OF SECRETARY OF BOARD OF COMMISSIONERS

Remuneration for the Board of Commissioners' Secretary is stipulated in the Decision of the Board of Commissioners of PT Bio Farma (Persero) Number: KEP-09/DK/BF/07/2016 on July 27, 2016: Regarding the Determination of Honorarium, Allowances, and Facilities for the Secretary of the Board of Commissioners of PT Bio Farma (Persero) Year 2016. Remuneration received by the Secretary of the Board of Commissioners consists of honorarium, benefits, facilities, and bonuses/work incentives.

Determination of Income for the Board of Commissioners' Secretary

No.	Income Type	Magnitude
1.	Honorarium	15% x gaji Direktur Utama = Rp16.500.000
2.	Allowances: 1. Holiday Allowance 2. Communication Allowance 3. Transportation Allowance 4. Full-Term Insurance	1 (one) Take Home Pay per month = Rp16,500,000 5% of the Honorarium per month = Rp825,000 20% x Honorarium per month = Rp3,300,000 Full-time insurance is provided with the following conditions: a. Given during office (starting upon appointment until it stops) b. Premiums borne by companies at most 25% (twenty-five percent) of the honorarium in one year c. Providing premiums, fees, or other relevant terms for post-service insurance, including premiums for accident and death insurance.

Determination of Income for the Board of Commissioners' Secretary		
No.	Income Type	Magnitude
3.	Facilities 1. Health Facilities 2. Legal Aid	The Secretary to the Board of Commissioners and a husband/wife and a maximum of 3 (three) children who have not reached the age of 25 years are entitled to health facilities provided in the form of health insurance or reimbursement of medical expenses. Health facilities are provided in the form of: a. Outpatient and medication; b. Inpatient and medication; and c. Domestic medical check-up 1 (one) time per year for the person concerned. In accordance with Company regulations
4.	Tantiem/Performance Incentives	In accordance PER-12 / MBU / 2012 dated 24 August 2012 In accordance with the Circular of the Deputy Minister of SOE Number: SE-03 / MBU / Wk / 2014
5.	Tax Obligations	Income Tax is borne by the Company

Tax obligations such as income tax are borne by the Company, except for the taxes on tantiem/incentives which are borne by the person concerned.

Remuneration received by the Secretary of the Board of Commissioners consists of honorarium, benefits, and other facilities such as insurance. The remuneration amount of the Board of Commissioners' Secretary is determined through the GMS as detailed below:

Remuneration of the Board of Commissioners' Secretary in 2018					
In Rupiah					
Name	Salary per year	Benefits per year	Net salary per year	Tantiem & THR	Amount
	1	2	3 = 1 + 2	4	5 = 3 + 4
Aan Rosyianto	198,000,000	49,500,000	247,500,000	16,500,000	264,000,000
Total	198,000,000	49,500,000	247,500,000	16,500,000	264,000,000

Remuneration of the Board of Commissioners' Secretary in 2019					
In Rupiah					
Name	Salary per year	Benefits per year	Net salary per year	Tantiem & THR	Amount
	1	2	3 = 1 + 2	4	5 = 3 + 4
Aan Rosyianto	198,000,000	49,500,000	247,500,000	16,500,000	264,000,000
Total	198,000,000	49,500,000	247,500,000	16,500,000	264,000,000

TRAINING PROGRAM IN ORDER TO IMPROVE THE COMPETENCE OF THE BOARD OF COMMISSIONERS SECRETARY

COMPETENCY TRAINING AND DEVELOPMENT PROGRAM FOR THE SECRETARY OF THE BOARD OF COMMISSIONERS

Provided in the context of increasing the competency of the secretary and intended to improve professionalism and performance, and to develop the potential of the individual to support the implementation of the duties of the Secretary of the Board of Commissioners. During 2019, the Secretary of the Board of Commissioners did not participate in any training programs.

CORPORATE SECRETARY



BAMBANG HERIYANTO
Corporate Secretary

Citizenship	Indonesian
Domicile	Bandung
Age, Place and Date of Birth	49 years of age. Born in Cirebon, on January 18, 1970,
Educational background	- a Bachelor of Pharmacy degree from the Bandung Institute of Technology in 1994 - Awarded title of Pharmacist from the Bandung Institute of Technology in 1995 - a Masters in Operations Management from Padjadjaran University in 2005
Legal Basis of Appointment & Termination	- The legal basis for the appointment as Corporate Secretary is based on Directors Decree Number 0501 / HC / TTK / VII / 2017 dated 19 July 2017 Concerning Employee Career Transfers. - Legal basis for approval of the appointment as Corporate Secretary is based on the Decree of the Board of Commissioners Number: S-22 / DK / BF / 07/2017 dated July 17, 2017.
Job Experience	- Started his career in 1997, as a staff member in the Purification & Diagnostics/ Reagentsia Division - Served as Head of Sera & Diagnostics Production in 2002 - Served as Head of Formulation & Filling Section in 2003 - Served as Head of the Tetanus Vaccine Production Section in 2009 - Served as Head of the Division of Virus Vaccine Production in 2012 - Served as Head of Compliance & Risk Management Division in 2015 - Appointed as Corporate Secretary from 2017 - Present.
Concurrent Position	He does not have a concurrent position.
Awards/certifications	-
Affiliations	He has no affiliations with members of the Board of Directors, nor with other members of the Board of Commissioners, nor with shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

The Corporate Secretary is directly responsible to the Directors and is appointed and dismissed based on the Directors' Decree which is based on the Company's internal mechanisms, with the approval of the Board of Commissioners.

GUIDELINES FOR APPOINTMENT AND TERMINATION OF CORPORATE SECRETARY

THE BASIS FOR APPOINTMENT AND DISMISSAL AS WELL AS THE FUNCTION OF THE BIO FARMA CORPORATE SECRETARY REFERS TO:

SOE Minister of State Regulation Number: PER-01 / MBU / 2011, Article 29 on 1 August 2011 concerning Implementation of Good Corporate Governance in SOEs, and as amended lastly through SOE

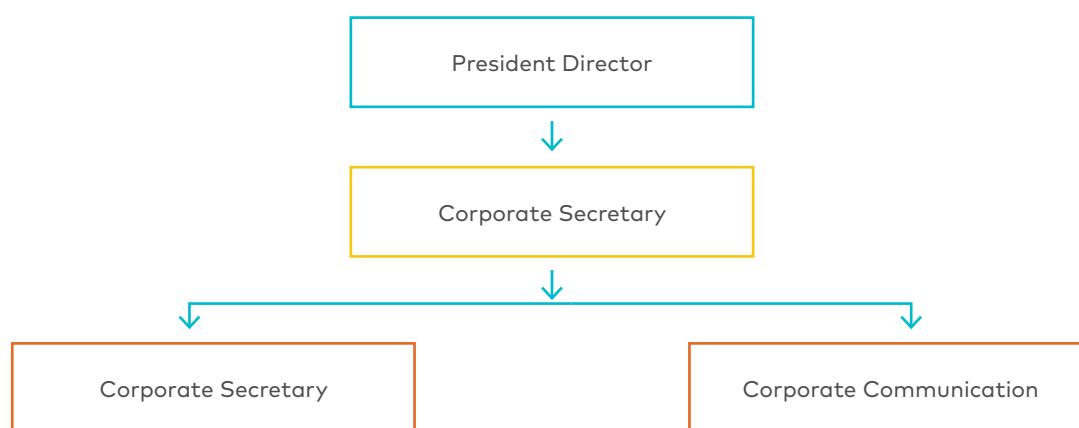
Ministerial Regulation Number: PER-09 / MBU / 2012 dated July 6, 2012 concerning the Amendment to SOE Ministerial Regulation Number: PER-01 / MBU / 2011 concerning the Implementation of Good Corporate Governance in SOE Directors Decree Number 0501 / HC / TTK / VII / 2017 on July 19, 2017 and concerning the Appointment of Bambang Heryanto as Corporate Secretary. Furthermore, by the Decree of the Board of Commissioners Number: S-22 / DK / BF / 07/2017 on July 17, 2017 concerning Approval of Appointment of Corporate Secretary (Corporate Secretary) and Head of Internal Control and Control.

Based on Directors Decree No. 04276 / DIR / XI / 2017 Date 17 November 2017 Regarding Organizational Structure of PT Bio Farma (Persero)

and updated with Directors Decree No. 00117 / DIR / I / 2018 Dated January 8, 2018 Regarding Amendment to Decree of Board of Directors Decree No. 04276 / DIR / XI / 2017 Date 17 November 2017 Concerning Organisational Structure of PT Bio Farma (Persero), and renewed with Decree of the Directors of PT Bio Farma (Persero) No. KEP-05769 / DIR / IX / 2019, September 16, 2019 concerning the Organizational Structure of PT Bio Farma (Persero), including the Position of the Corporate Secretary under the President Director.

DUTIES AND RESPONSIBILITIES OF THE CORPORATE SECRETARY

The duties and responsibilities of the Corporate Secretary are set out in the Job Description & Job Specification Documents, as ratified by the President Director on 29 June 2018, are to ensure the availability of an integrated management system and to ensure that the implementation of the Company's agenda and management of the Company's image is done effectively and efficiently through planning, implementation and supervision. Furthermore, to perform the gatekeeper agenda of the Company, facilitating communication between the Company and all stakeholders as a liaison officer in communication with all Stakeholders and perform information management (provisioning, acquisition, processing, administration of information) that is timely, accurate and objective to Stakeholders.



DETAILS OF COMPANY SECRETARY TASKS

1. Implementing and describing the Company's general policies and Corporate Secretary policies in particular by taking into account quality, environment and OHS aspects.
2. Providing the information needed by the Directors and Board of Commissioners periodically and / or at any time when requested.
3. Representing the Board of Directors or companies in conveying information or statements to interested parties.
4. Ensuring the implementation of an integrated management system.
5. Ensuring the application of GCG principles.
6. Being responsible for the implementation and preparation of reports on the implementation of the introduction program for the Board of Commissioners and Board of Directors.
Ensuring that the introduction program for the Board of Commissioners and Board of Directors is going well. This includes introducing:
 - a. Implementation of GCG principles.
 - b. Company Overview.
 - c. Delegation of authority, internal and external audits, internal control systems and policies including the Audit Committee.
 - d. Duties and responsibilities of the Board of Commissioners and Directors.
7. Following global information updates.

8. Planning, coordinating, and controlling the secretariat activities of international forums and associations, documenting the results of directors' meetings, the results of joint-director-commissioners' meetings and board of commissioners' documents.
9. Planning, coordinating, and controlling Corporate Communication activities, Secretariat activities and other related activities, including information on the decisions of the directors' meeting to the relevant units.
10. Managing and securing all facilities that are the Company's assets.
11. Establishing good relations with internal and external parties.
12. Reviewing legal aspects and related agreements, both internally and with foreign partners.
13. Implementing applicable legal and licensing requirements.
14. Implementing OHS implementation.
15. Implementing waste control.
16. Implementing savings in natural resources, such as the use of paper, electricity, water, diesel and raw materials.

To support the Company's vision to become a world-class vaccine producer with global competitiveness, the Corporate Secretary has the strategic task of actively representing the Company in various international forums such as the World Health Organization (WHO), the Organization of Islamic Conferences (OIC), DCVMN, GAVI, and so on.

REALIZATION OF THE IMPLEMENTATION OF CORPORATE SECRETARY DUTIES IN 2019

During 2019, the Corporate Secretary carried out the following duties:

5. Preparing data/material needed by the Board of Directors.
6. Preparing presentation materials for the Board of Directors, acting as a resource person in the company's internal and external affairs.

7. Arranging the Board of Directors' schedule.
8. Arrangement of the Board of Directors' guests.
9. Taking care of the administration of official travel of the Board of Directors at home and abroad.
10. Coordinating with internal and external parties for Company activities.
11. Preparing meetings and following up on meetings.
12. Arrangement of the Company's guest visits and following up on results of visits.
13. Arrangement of Company events and follow up on the results of Company events.
14. Exploring e-correspondence programs for letter distribution.
15. Holding a Coffee Morning event.
16. Documentation of company activities.
17. Compiling news and disseminating information through posters, banners, and print media such as magazines and newspapers, e-mail, and online media (both social media and other online media).
18. Santri Roadshow Activities Healthy and Hospitality Leaders Boarding School.
19. Organising media relations activities, media gathering, and following the activities of the Merdeka Barat Forum 9.
20. Mass Media Interview.
21. Carrying out public information activities.
22. Carrying out advertising activities.
23. Media monitoring of company articles.
24. Carrying out updates on website content information, SOE's portal content.

TRAINING PROGRAMS IN ORDER TO DEVELOP THE COMPETENCE OF THE CORPORATE SECRETARY

In order to support the performance of the Corporate Secretary and add insight in the field of Good Corporate Governance, during 2019, various training programs were provided as follows:

Corporate Secretary Competency Development Program

No	Name of Participant	Position	Training Topics	Organizer	Place	Date
1	Bambang Heriyanto	Head of Division	How to make the pharmaceutical business remain relevant in the BPJS era	GP of Pharmacy Indonesia	Jakarta	02-May-19
2	Bambang Heriyanto	Head of Division	Legal Cases and Criminal Prevention in Corporate Management	CLDI	Jakarta	11-July-19

INTERNAL CONTROL UNIT (SPI) / INTERNAL AUDIT UNIT

Internal Audit is an assurance and compliance activity that is independent and objective and serves to improve company value and improve company operational performance using a systematic approach by evaluating and increasing the effectiveness of risk management, internal controls, and good corporate governance processes.

PROFILE HEAD OF INTERNAL CONTROL UNIT (SPI)



GANDJAR TRISNASARI
Head of Internal Control Unit (SPI)

Citizenship	Indonesian
Domicile	Bandung
Age, Place and Date of Birth	55 years of age. He was born in Tanjung Karang, on September 10, 1964.
Educational background	- a Bachelor of Pharmacy & Pharmacist title from the Bandung Institute of Technology in 1989. - a Masters in Operations Management from Padjadjaran University in 2004.
Legal Basis Appointment & Termination	- The legal basis for her appointment as the Head of Internal Control Unit (SPI) is based on Directors Decree Number 0502 / HC / TTK / VII / 2017 dated 19 July 2017 concerning Employee Career Transfers. - The legal basis for the Appointment Agreement as the Head of Internal Control is based on the Decree of the Board of Commissioners Number: S-22 / DK / BF / 07/2017 dated 17 July 2017.
Job Experience	- Beginning her career at Bio Farma as Head of the Bacteria Vaccine Quality Testing Section, May 1995 - September 2001. - Serving as Head of the Tetanus Vaccine Production Section, September 2001 - December 2004. - Serving as Head of Quality Assurance Operation, December 2004 - September 2007. - Serving as Head of the Bacteria Vaccine Production Division, September 2007 - January 2015. - Serving as Head of the Pharmaceutical Production Division, January 2015 - July 2017. - Being appointed as Head of the Internal Audit Unit, from 2017 to present. - Being active in various activities including serving as an examiner in the Pharmacist examination activities organised by the School of Pharmacy in 2013, 2014, 2016 & 2018. - Being a guest speaker at several National Health Seminar events held by STIKES Puguwarmas, Cilacap in 2016. - Guest speaker: 7th Annual World Vaccine Congress Singapore 2013. - Guest speaker: Information dissemination on WHO PQ in Indonesia in 2012. - Guest speaker: Evaluation of the Development of the Pre-Qualification program in Indonesia in 2012.
Concurrent Position	She does not have any concurrent position
Awards/Certifications	-
Affiliations	She has no affiliations with members of the Board of Directors nor other members of the Board of Commissioners nor shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	- Special Training for Ka. SPI, PPAK on 17-23 January 2019 - Pre Managerial II specifically for the Head of SPI, YPIA-Jakarta, 09-14 September 2019 - National Seminar on the Role of SPI in securing the Company's Investment Policy, AAI, October 8-12, 2019 - Risk based Audit Training, YPIA-Jakarta, 04-06 November 2019

Bio Farma formed an Internal Audit Unit called the Internal Control Unit (SPI) led by the Head of the Internal Control Unit (SPI) who was appointed and dismissed by the President Director with the approval of the Board of Commissioners. The Internal Control Unit (SPI) is an objective and independent supervisory unit, formed to provide added value in improving Company performance by taking into account the principles of Good Corporate Governance.

BASIC APPLICATION OF THE INTERNAL CONTROL UNIT IN BIO FARMA

1. SOE Ministerial Regulation Number: PER-01 / MBU / 2011 on 1 August 2011 concerning the Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09 / MBU / 2012 on 6 July 2012 concerning Amendment to SOE Ministerial Regulation Number: PER-01 / MBU / 2011 concerning Implementation of Good Corporate Governance in SOEs.
2. Letter of the Secretary of the Ministry of State Owned Enterprises No. S-168 / MBU / 2008 on June 27, 2008 concerning indicators / parameters of evaluation and evaluation of the implementation of Good Corporate Governance which was updated with the Decree of the Secretary of the Ministry of BUMN Number: SK-16 / S.MBU / 2012.
3. Company's articles of association.
4. Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero) dated 31 December 2018 Regarding the Guidelines for the Implementation of Good Corporate Governance in PT Bio Farma (Persero).

OUTLINE OF SPI CONTAINING 2 (TWO) ASPECTS

1. STRUCTURAL ASPECTS

Structural Aspects of Regulations Regarding

- Position, duties and functions of SPI
- SPI authority
- SPI's accountability
- Internal Supervisory Requirements
- Charter of Internal Oversight
- Relationship between SPI and the Board of Commissioners and Audit Committee organs

2. PROCESS ASPECTS

Aspects of the Regulating Process Regarding

- Internal Control planning, implementation, reporting
- Monitoring the follow up of internal and external supervision results
- Implementation of quality assurance programs
- Documentation and administration

TOTAL OF EMPLOYEES (INTERNAL AUDITORS) IN THE INTERNAL CONTROL UNIT (SPI) DIVISION

As of December 31, 2018, the Internal Audit Unit (SPI) had 12 (twelve) employees consisting of 1 (one) Head of Internal Control and 11 employees who were directly related to the implementation of Internal Audit. The auditor's is educated to the level of Strata 2, Strata 1, Diploma III, and SMEA. Each Auditor has attended training in the field of auditing on an ongoing basis.

Name	Position	Education
Gandjar Trisnasari	Head of Internal Control Unit (SPI)	Master's Degree
Edi Iskandar	Associate	Master's Degree
Leni Lestari	Associate	Master's Degree

Name	Position	Education
Ahmad Agus Romansyah	Associate	Master's Degree
Dini Elsiana D	Associate	Master's Degree
Johnny H. Gultom	Associate	Undergraduate
Nurdin Wijaya	Senior Expert	Master's Degree
Emilina	Senior Expert	Undergraduate
Benny Emirald H.	Senior Expert	Undergraduate
Dani Matias	Senior Expert	Associate Degree
Dedi Mulyadi	Senior Expert	SMEA
Young Darmawan	Staff	Undergraduate

Composition of Employees of Internal Control Unit (SPI) as of December 31, 2018

Position	Number of people
Head of Internal Control	1
Associate Expert in Internal Control	5
Senior Expert on Internal Oversight	5
Staff	1
Total	12

CERTIFICATION OF SPI PERSONNEL AS INTERNAL AUDIT PROFESSIONALS (INTERNAL AUDIT)

In carrying out Internal Audit activities, the Internal Audit Unit is supported by professional Auditors. As of December 31, 2019, the qualifications and competencies of the Bio Farma Internal Control Unit employees are as follows:

Position	Number of Personnel	Qualification	Number of Personnel
Head of Internal Control (SPI)	1	Special Training Ka. SPI	1
Expert Associate Internal Control Unit (SPI)	5	Qualified Internal Audit (QIA)	4
		Certified as Information System Auditor (CISA)	1
		Certified as Accountant (CA) **	1
		Certified Tax Consultant (BKP) **	1
		Certified International Project Manager (CIPM) **	1
		ITIL Management Based Certificate of IT Service V.30	1
Young Expert Internal Control Unit (SPI)	5	Qualified Internal Auditor (QIA)	4
Staff	1	Qualified Internal Auditor (QIA)	-
Amount	12	Amount	9

**Not a qualification, but there are SPI personnel who have received a certificate of YDM

INTERNAL AUDIT CHARTER

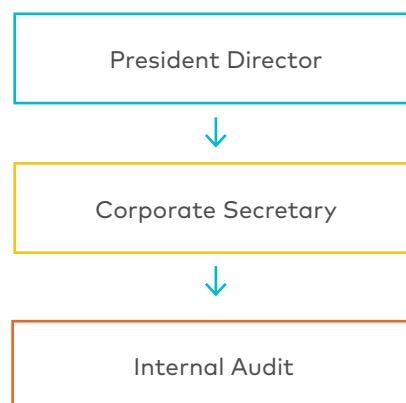
Based on the Joint Decree of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-04 / DK / BF / 11/2018; and Number: KEP-05574 / DIR / XI / 2018 on November 2, 2018 concerning the Internal Audit Charter, namely the position of the Internal Audit Unit as the Internal Audit Organization, the scope of duties, reporting responsibilities, authority and roles, and the standards of the internal auditor profession. The Internal Audit Charter is designed to be a guideline for Internal Auditors to carry out their duties optimally, and is known by the Auditee / other related parties so that mutual understanding and good cooperation can be created in realizing Bio Farma's Vision and Mission. With the Internal Audit Charter, the Internal Audit Unit (SPI) is expected to produce a quality audit report to support all Company activities.

POSITION OF INTERNAL CONTROL UNIT (SPI) IN ORGANIZATIONAL STRUCTURE

ORGANISATIONAL STRUCTURE OF THE HEAD OF INTERNAL SUPERVISION UNIT (SPI)

Based on the Board of Directors Decree No. 05586 / Dir / VIII / 2015 on 21 August 2015 concerning the Organizational Structure of PT Bio Farma (Persero), the Internal Control Unit (SPI) was changed to Internal Supervision (PI). Updated with Decree No. 04276 / DIR / XI / 2017 Date 17 November 2017 Regarding Organizational Structure of PT Bio Farma (Persero) and updated with Directors Decree No. 00117 / DIR / I / 2018 Dated January 8, 2018 Regarding Amendment to Decree of Board of Directors Decree No. 04276 / DIR / XI / 2017 Date 17 November 2017 Concerning Organizational Structure of PT Bio Farma (Persero), and renewed with Decree of the Directors of PT Bio Farma (Persero) No. KEP-05769 / DIR / IX / 2019, September 16, 2019 concerning the Organizational Structure of PT Bio Farma (Persero), including the Position of the Head of Internal Control Unit under the President Director.

Structurally, the Internal Control Unit (SPI) is under the President Director and is led by a Head of Internal Control Unit that oversees Internal



Auditors (Intermediate Experts of SPI and SPI Young Experts). The auditor at SPI is responsible to the Head of SPI. The Head of the SPI is appointed and dismissed by the President Director with the approval of the Board of Commissioners.

DUTIES, AUTHORITIES, AND RESPONSIBILITIES OF THE SPI

SPI DUTIES

1. Developing and implementing an Annual Inspection Work Program (PKPT).
2. Testing and evaluating the implementation of internal controls, risk management and GCG in accordance with Company policy.
3. Checking and evaluating the efficiency and effectiveness of operations, finance, human resources, information technology, and other activities in the company.
4. Providing recommendations for improvement and objective information about the activities examined to Management.
5. Making an audit report and submitting it to the President Director and the Board of Commissioners.
6. Monitoring implementation of the follow up on the recommended improvements.
7. Carrying out consulting tasks to improve the internal control system.
8. Together with the audit committee discussing the audit report and requesting the required input.
9. Conducting special inspection if needed.

SPI AUTHORITY

1. Accessing all information, documents, and records, to the Directors and to employees, as to the location of the Company's assets, to the information system, and to the systems and procedures relevant to the company related to the audit duties and functions.
2. Communicating directly with the Directors, Board of Commissioners, Audit Committee, Risk Committee.
3. Holding regular and original meetings with the Directors, Commissioners, Audit Committee, Risk Committee.
4. Coordinating if the company is being audited by an external auditor (KAP, BPK, etc.).
5. Allocating audit resources, determining focus of the audit scope and schedule.
6. Improving knowledge and skills in the field of auditing.
7. Getting advice and suggestions from professionals / experts.

SPI RESPONSIBILITIES

1. Providing assessments and suggestions regarding the adequacy and effectiveness of the Company's management process in controlling its activities and risk management.
2. Reporting important events related to the management control system, and reporting enhancements/improvements to the internal control system that need to be done.
3. Providing examination reports according to the annual inspection work program, on a regular basis.
4. Reporting the achievements of the KPI Internal Control unit.

INTERNAL SUPERVISION CHARTER

Based on Joint Decree of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-04 / DK / BF / 11/2018;

Number: KEP-05574 / DIR / XI / 2018 dated November 2, 2018 concerning the Charter of Internal Audit (Internal Audit Charter). Bio Farma already has an Internal Audit Charter, which is a formal document containing recognition of the existence and commitment of the Chairperson to the function of an Internal Control Unit (SPI) at Bio Farma.

AUDITOR REQUIREMENTS

1. Having integrity and professionalism, independent, honest and objective behavior in carrying out their duties.
2. Having knowledge and technical experience of auditing and other disciplines relevant to their assignments.
3. Having the ability to interact and communicate effectively both verbally and in writing.
4. Having a desire to increase knowledge and abilities in the audit field.

REALISATION OF THE IMPLEMENTATION OF INTERNAL SUPERVISORY UNIT (SPI) ACTIVITIES IN 2019**INTERNAL AUDIT PLANNING IN 2019**

At the end of each year, the SPI creates an Annual Supervision Work Program (PKPT) for the following year. SPI prepares an internal audit schedule by taking into account the level of risk of each part audited. In 2018, SPI will conduct an audit of 9 (nine) objects. The PKPT plan was approved by the President Director, communicated to the Directors and Board of Commissioners c/q Audit Committee. In addition to conducting the audit, the SPI also plans an auditor's competency development activity plan. The Annual Oversight Work Program (PKPT) & Bio Farma Auditor Competency Development Activity Plan for 2019 are as follows:

**Annual Oversight Work Program (PKPT) & Auditor Competency Development Activity Plan
Bio Farma in 2019**

Annual Supervision Work Program (PKPT)	Month of Examination	Published Month Report	LHP Amount
Operational Audit of 2017-2018 Corporate Risk Management in the Compliance & Risk Management Division	March 2019	March 25, 2019	1
Audit of the Quality Assurance & Regulation Division Risk Assessment	March 2019	March 25, 2019	1
Operational Audit of Control & Compliance with Regulations in the Procurement Division	May 2019	May 22, 2019	1
Operational Audit of Clinical & Immunization Unit Activities	May 2019	May 31, 2019	1
Operational Audit of Inventory Management and Control in the Production & Inventory Management Division	June 2019	June 24, 2019	1
Operational Audit of Spare Parts Management and Control in the Engineering & Maintenance Division	June 2019	June 19, 2019	1
Operational Audit of MRP Implementation in IT Division, Production & Inventory Management Division and Budget & Accounting Division	September 2019	September 5, 2019	1
Audit of the Implementation of Building Construction Projects in the Project Management Division	September 2019	September 6, 2019	1
Audit of Research Activities to Prepare for Rotavirus and Typhoid Vaccine Product Launching in the Research Division	September 2019	September 6, 2019	1

Bio Farma's Internal Control Unit (SPI) prepares and implements the Annual Inspection Work Program (PKPT) to conduct an audit of the process of controlling operational activities, risk management and Corporate Governance, providing independent and objective consultations and recommendations.

IMPLEMENTATION OF INTERNAL SUPERVISION IN 2019

During 2019, SPI carried out the Annual Supervision Work Program (PKPT) and audits outside PKPT / Non PKPT, namely:

The inspection program in accordance with PKPT which is conducted through 9 (nine) inspections, where 3 (three) inspections are conducted in the first quarter, 2 (two) examinations are conducted in the second quarter and 4 (four) other objectives are conducted in the third quarter / 2019.

The inspection month period in the first quarter is March 2019, with the schedule of Audit Reports to be published on March 25, 2019 and with 2 (two) LHPs produced.

Furthermore, in the second quarter, the inspection month period from May to June 2019, with the scheduled publication of Audit Reports on 22 May 2019, 31 May 2019, 19 June 2019, and 24 June 2019 with as many as 4 (four) LHP's produced.

The inspection period in the third quarter of September 2019, with the schedule for the Audit Reports to be published on September 5 and September 6, 2019, will produce 3 (three) LHPs.

Examination programs outside of PKPT / Non PKPT are carried out through 3 (three) inspections. 1 (one) examination in the first quarter produced 1 (one) Study Result on March 14, 2019, and in

the second quarter there was 1 (one) examination with 1 (one) Study Result that was published on April 15, 2019. Furthermore, in the III quarter there was 1 (one) examination with 1 (one) Study Result published on September 30, 2019.

In addition, during 2019, SPI also became an External Auditor Counterpart, for the following activities: Audit Activities of the Company's Financial Statements and PKBL Activity Reports for Fiscal Year 2018 by KAP Roebiandini and Partners and Partners and Mapping and Review Activities of PDN (Domestic Product) and TKDN (Domestic Component Level) PT Bio Farma (Persero) in 2019 by BPKP of West Java Province.

SPI DIVISION PLANNING FOR 2020

The 2020 SPI Division Plans are as follows:

No	SPI Division Plan
1	Examination according to PKPT
2	Inspections outside PKPT: 1. Following up on internal and external audits in 2019/2020 2. Assessing the effectiveness of IT applications outside of ERP and MRP (related divisions) 3. Audit of company activities on a periodic basis 4. Reviewing non-production systems 5. Quarterly cash hospitalization for 2020 6. Stock hospitalization at the end of 2020 7. Counterpart of the External Auditor Team 2020 8. The duties of the President Director's instructions

PARTIES THAT CAN APPOINT AND DISMISS THE INTERNAL CONTROL HEAD GUIDELINES FOR REMOVING AND STOPPING THE INTERNAL CONTROL UNIT HEAD

In accordance with SOE Ministerial Regulation Number: PER-01 / MBU / 2011 Article 28 (3) dated 1 August 2011 concerning Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09 / MBU / 2012 dated July 6, 2012 concerning Amendments to SOE Ministerial Regulation Number: PER-01 / MBU / 2011 concerning the Implementation of Good Corporate Governance in SOEs.

DECREE OF THE BOARD OF DIRECTORS OF APPOINTMENT AND TERMINATION OF THE HEAD OF THE INTERNAL CONTROL UNIT

Appointment of the Head of Internal Oversight based on the Decree of the Directors of PT Bio Farma (Persero) Number: 0502 / HC / TTK / VII / 2017 dated July 19, 2017 concerning Career Transfer Employees decided that Bro. Gandjar Trisnasari Grade 3 (Three), who was originally the Head of Pharmaceutical Production Division at the Production Directorate, should undergo a Career Transfer to the Internal Supervision Unit at the Main Directorate from July 19, 2017. And by the approval of the Board of Commissioners Np. S-22 / DK / BF / 07/2017 dated July 17, 2017.

The Internal Control Unit is under the President Director and is led by the Head of the Internal Control Unit (SPI) which oversees the Internal Auditors (Associate Expert PI and PI Youth Expert). The auditor at the Internal Control Unit is responsible to the Head of the Internal Control Unit. The Head of the Internal Audit Unit is appointed and dismissed by the President Director with the approval of the Board of Commissioners.

PROGRAM FOR TRAINING AND DEVELOPMENT OF INTERNAL CONTROL UNIT (SPI) CAPABILITY

In order to improve competency and capability as an Internal Monitoring Unit (SPI), and in accordance with the need to carry out Internal Audit tasks, in 2019, SPI personnel have participated in various trainings, seminars and workshops as follows:

No.	Date	Topic	The place	Organiser	Type of Training	Name of Participant
1	January 8, 2019	Workshop on Annual Report & Sustainability Report	Bandung	NCSR	Skill	1. Ahmad Agus R. 2. Emilina
2	January 17-23 2019	Special Training for Head of Office	-	PPAK	Certification	Gandjar Trisnasari
3	March 11-22, 2019	Advanced Internal Audit I	Jakarta	YPIA	Certification	Nurdin Wijaya
4	March 18-20 2019	Certified Data Center Auditor Professional	Jakarta	-	Certification	Edi Iskandar
5	March 18-30 2019	Advanced Internal Audit	Jakarta	YPIA	Certification	Benny Emirald
6	April 12, 2019	Management & Presentation of Holding Company Financial Statements	-	-	Skill	Dini Elsiana D.
7	May 6, 2019	IA Professional Code of Ethics Standards	-	IPPF	Skill	Dini Elsiana D.
8	May 27-29 2019	Audit of Financial Statements	-	-	Skill	Ahmad Agus R.
9	June 17-29 2019	Basic Internal Auditor Level Training	-	-	Skill	Young Darmawan
10	June 24 to July 5, 2019	Basic Level Certification II	-	-	Certification	1. Dini Elsiana D. 2. Dani Matias
11	June 22-July 2, 2019	Advanced Internal Audit	Jakarta	YPIA	Certification	Dini Elsiana D.
12	July 11-12 2019	Strategic Business & Leadership	Bandung	-	Knowledge	Dini Elsiana D.
13	July 22-August 02 2019	Advanced Internal Audit II	Jakarta	YPIA	Certification	Dani Matias
14	August 1, 2019	PSAK Workshop 71 Revenue & Contracts with Customers	Bandung	IAI	Knowledge	Sulaeman Mahdi
15	August 15-16 2019	Sales Recognition Strategies in a Legal & Industrial Perspective	Bandung	IAI	Knowledge	1. Ahmad Agus R. 2. Dini Elsiana D. 3. Sulaeman Mahdi 4. Benny EMirald
16	August 21-23 2019	FKSPI Seminar "Internal Audit in The Era of VUCA & Digitalization	Semarang	-	Skill	1. Edi Iskandar 2. Johnny Gultom
17	September 2-3 2019	Implementation of Internal Control-COSO 2013 based	Jakarta	YPIA	Skill	Sulaeman Mahdi
18	September 9-14 2019	Special Managerial Pre II SPI Head	Jakarta	YPIA	Certification	Gandjar Trisnasari
19	September 23, 2019	Test for Inauguration of PIA Degree	Jakarta	-	Certification	-

No.	Date	Topic	The place	Organiser	Type of Training	Name of Participant
20.	September 25-26 2019	Implementation & Impact of PSAK 73-Lease on Company Operations	Bandung	IAI	Knowledge	1. Sulaeman Mahdi 2. Nurdin Wijaya
21.	October 7, 2019	Training on "Technical Guidance on Archive Management in the Environment of PT Bio Farma"	-	ANRI	Knowledge	1. Dini Elsiana D. 2. Emilina 3. Young Darmawan
22.	October 8-12 2019	National Seminar on SPI's Role in Securing Company Investment Policies	-	AAI	Skill	1. Gandjar Trisnasari 2. Dini Elsiana D.
23.	October 14-23, 2019	Managerial Level QIA Certification	Jakarta	YPIA	Certification	1. Nurdin Wijaya 2. Benny Emirald
24.	October 21-22 2019	Goods & Services Procurement Audit Training	Jakarta	YPIA	Skill	Johnny Gultom
25.	November 4, 2019	Risk Based Audit Training	Jakarta	YPIA	Skill	Gandjar Trisnasari
26.	November 25-December 7, 2019	QIA Certification Advanced Level	Jakarta	YPIA	Certification	Dini Elsiana D.
27.	November 26-28, 2019	Integrity Builder Certification	-	KPK	Certification	1. Nurdin Wijaya 2. Benny Emirald
28.	November 27-29 2019	Basic Anti-Corruption Training	-	KPK	Knowledge	Ahmad Agus R.
29.	December 9-19 2019	Managerial Level QIA Certification	Jakarta	YPIA	Certification	1. Dani Matias 2. Emilina
30.	December 16-17 2019	SAP BPC High Level	-	Electing Consulting	Knowledge	1. Dini Elsiana D. 2. Benny Emirald

QUALITY ASSURANCE AND REGULATORY AFFAIRS / QA-RA DIVISION

In addition to the Internal Control Unit (SPI), Bio Farma also has a Quality Assurance & Regulatory Division (QA-RA) with duties, authorities & responsibilities including conducting Quality Management System Audit, Environmental Management System, Management System Audit Occupational Health & Safety, Good Production Practices Audit (GMP), Vendor Audits, Customer Complaints Audits.

PROFILE HEAD OF QUALITY GUARANTEE DIVISION AND REGULATION (QA-RA)



JENI TRESNABUDI

Head of Quality Assurance and Regulation Division (QA-RA)

Citizenship	Indonesian
Domicile	Bandung
Age, Place and Date of Birth	52 years of age. She was born in Bandung, on January 24, 1967
Educational background	- a Bachelor of Pharmacy & Pharmacist degree from the Bandung Institute of Technology in 1993 - a Master's in Operations Management from Padjadjaran University in 2005
Legal Basis Appointment & Termination	The legal basis for the appointment as Head of the Quality & Regulatory Assurance Division (QA) is Decree No: 02504 / DIR / VI / 2018 on July 2, 2018.
Job Experience	- Starting her career at Bio Farma as a Staff member for Quality Control of the Bacteria Vaccine in 1996-2001 - Serving as a Head of the Quality Control Division for Bacteria Vaccines in 2001-2008 - Serving as a Head of the Quality Assurance Operation Section in 2008-2011 - Being appointed Head of Quality Assurance System Section 2012-2014 - Serving as a Head of Pharmaceutical Production Division in 2014 - Serving as a Head of the Bacteria Vaccine Production Division in 2015-2016 - Being appointed as Head of Quality & Regulatory Assurance Division in 2018 - Present. - Having competence in the Field of Quality Supervision, Current GMP, etc. - Qualified as an Auditor and Lead Auditor to various companies at home and abroad.
Concurrent Position	She does not have a dual position.
Awards/Certifications	-
Affiliations	She has no affiliations with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

Bio Farma consistently and continuously conducts supervision and quality assurance by implementing: Good Manufacturing Practices (cGMP), Good Laboratory Practices (GLP), Good Regulatory Practices (GRP), Good Clinical Practices (GCP), Good Distribution Practices (GDP), ISO 9001, ISO 14001 and OHSAS 18001. These monitoring and quality assurance procedures are closely monitored by the National Control Authority (NCA) which is recognized by the World Health Organization (WHO), and known in Indonesia as the Agency for Drug and Food Control (BPOM).

DUTIES, AUTHORITIES AND RESPONSIBILITIES OF THE HEAD OF QUALITY GUARANTEE AND REGULATION (QA)

HEAD OF DUTY AND QUALITY GUARANTEE DIVISION (QA) DIVISION

1. Conducting Quality Management System Audit
2. Conducting an Environmental Management System Audit
3. Conducting an Occupational Health & Safety Management System Audit
4. Conducting a Good Production Practices Audit (GMP)
5. Conducting Vendor Audits
6. Conducting Customer Complaints Audit

AUTHORITY OF HEAD OF QUALITY GUARANTEE DIVISION (QA)

The Head of the Quality Assurance and / or MR Division has the authority to approve the audit program and appoint a competent and independent audit team that will conduct an audit to each relevant Division / Section and order the audit outside the predetermined schedule either with notice and / or without notice to auditee.

RESPONSIBILITY OF THE HEAD OF QUALITY GUARANTEE AND REGULATION GUARANTEE (QA)

1. Responsible for implementing ISO 9001 integration.
2. Responsible for implementing ISO 14001 integration.
3. Responsible for implementing the integration of OHSAS 18001.

The Head of the QA Service Section is responsible for making the audit schedule, audit program, scope of the audit and evaluation, including storing

internal audit records, and for reporting the audit to the Head of the QA and / or MR Division. Also, for making an internal audit schedule based on risk analysis (Risk Analysis).

COMPETENCY OF HEAD OF QUALITY GUARANTEE AND REGULATION GUARANTEE (QA)

1. The Head of the Quality Assurance (QA) Division has competencies in the fields of quality control, current GMP, etc.
2. Having qualifications as auditors and lead auditors with various companies at home and abroad to ensure Bio Farma vendors meet the quality management system and environmentally friendly aspects.

APPOINTMENT AND TERMINATION OF QUALITY GUARANTEE AND REGULATION (QA) DIVISION

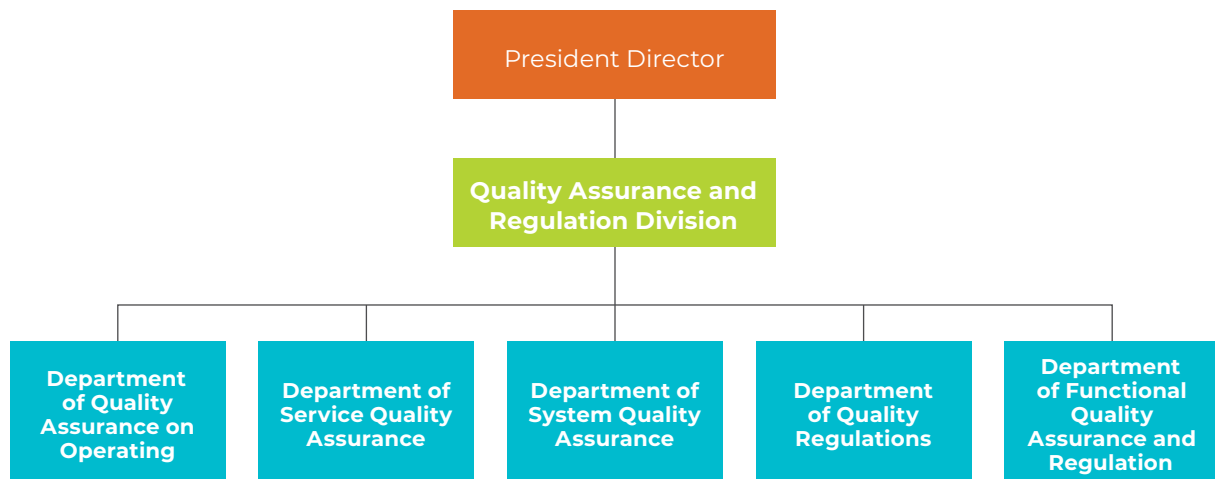
The Head of the Quality and Regulatory Assurance Division (QA) is appointed and dismissed by the President Director, Bio Farma Directors Decree Number: 02504 / DIR / VI / 2018 dated July 2, 2018 concerning the appointment of the Head of the Quality & Regulation Management Division.

POSITION OF QUALITY GUARANTEE AND REGULATION (QA) DIVISION IN ORGANISATIONAL STRUCTURE

Organisational Structure of Quality Assurance and Regulation (QA)

Based on Directors Decree No. 05586 / Dir / VIII / 2015 on 21 August 2015 concerning the Organizational Structure of PT Bio Farma (Persero), the Internal Control Unit (SPI) was changed to Internal Supervision (PI). Updated with Decree No. 04276 / DIR / XI / 2017 Date 17 November 2017 Regarding Organizational Structure of PT Bio Farma (Persero) and updated with Directors Decree No. 00117 / DIR / I / 2018 dated January 8, 2018 concerning Amendment to Decree or Decree of the Board of Directors No. 04276 / DIR / XI / 2017 Date 17 November 2017 Concerning Organizational Structure of PT Bio Farma (Persero), and renewed with Decree of the Directors of PT Bio Farma (Persero) No. KEP-05769 / DIR / IX / 2019, September 16, 2019 concerning the Organizational Structure of PT Bio Farma (Persero), including structurally, the Quality Assurance and Regulatory Division (QA) which is under the President Director and is led by a Head of Division who oversees

the Guarantor Section Operational Quality, Service Quality Assurance Section, System Quality Assurance Division, Quality Regulatory Section, and Quality Assurance and Regulation Functional Section. The organizational structure of the Bio Farma QA Division is as follows:



TOTAL NUMBER OF INTERNAL AUDITORS FOR QUALITY ASSURANCE (QA)

As of December 31, 2019, there were 108 (one hundred and eight) Internal Auditors representing Quality Assurance, Quality Control, Production, Engineering, Laboratory Animals, Inventory Management, Marketing and Administration. The details are as follows:

No.	Auditor Competency	Amount
1	GMP, ISO and OHSAS auditors	98 people
2	ISO and OHSAS auditors	10 people
	Total	108 people

The Internal Auditor's educational background is Strata 2 (S2) and Strata 1 (S1) in the fields of Pharmacy, Biology, Medicine and other fields. Each Auditor has attended training on auditing on an ongoing basis.

PROGRAM FOR TRAINING AND DEVELOPMENT OF QUALITY GUARANTEE AND REGULATION COMPETENCE (QA) IN 2019

Quality Assurance Competency Training and Development Program

In order to increase the self-competence of members of the Internal Auditor QA, training is intended to improve professionalism, performance, development of personal potential and support the implementation of the duties of the Internal Auditor QA. Throughout 2019, QA Internal Auditor members have participated in various training programs as follows:

Training group	Topic	Participant	Speaker	Reason
QSHE	ISO Integrated Management System Lead Auditor (ISO 9001: 2015, ISO 14001: 2015 and OHSAS 18001: 2007 based on ISO 19011)	Internal Auditor PT Bio Farma	Official Institution (External)	ISO-related regulatory updates and improvement of ISO-based internal audit capabilities

QUALITY ASSURANCE (QA) AUDITOR CERTIFICATION

In carrying out audit activities, QA is supported by professional auditors. As of December 31, 2019, the qualifications and competencies of the Bio Farma QA Auditors are as follows:

No.	Auditor competence	Amount
1	Lead Auditor GMP, ISO, OHSAS	48 people
2	ISO and OHSAS Lead Auditors	5 people

A number of other observer personnel who are quite experienced are also in the process of completing the certification. In 2019, there were no prospective auditors currently with the auditor qualifications.

REALISATION OF IMPLEMENTATION OF AUDITOR ACTIVITIES QA OF 2019**Application of Quality Management System / QMS**

The implementation of the Quality Management System at Bio Farma aims to maintain the consistency of meeting the integrated system. In the implementation, the company has appointed a person in charge of the Management Representative (MR) namely the Corporate Secretary and a representative of MR Quality to assist the implementation is the Quality Assurance & Regulation Division. The system integration team of ISO 9001, ISO 14001 and OHSAS 18001 consists of various coordinated work units, ensuring the implementation of the integrated system and serving as an internal auditor and auditor of the Bio Farma vendor, in accordance with PT Bio Farma (Persero) Letter of Assignment Number 00897 / DIR / III / 2018 About the Assignment as an Implementation Team for the Integration of ISO 9001, ISO 14001 and OHSAS 18001 Systems by PT Bio Farma (Persero) in 2018. Implementation of the Quality Management System in 2018 is as follows:

No	Date	Activity
1	July 2, 2018	Certificate Renewal and NST to ISO 14001:2015
2	July 2, 2018	Certificate Renewal OHSAS 18001:2007
3	4-6 July 2018	AUDIT OF ISO 9001 : 2015 Surveillance 3-5

QA AUDIT WORK PROGRAM IN 2020

Audit planning to be carried out by QA Auditors in 2020 is as follows:

1. The administration is audited at least once a year (aspects of quality, environment and OHS).
2. Production, QA, QC, engineering and non-administrative departments are inspected at least three times a year, twice on the GMP aspect and once on all aspects including quality, environment, and OHS aspects.
3. The EHS section is audited at least three times a year (on aspects of quality, environment and OHS).



PUBLIC ACCOUNTANT

The function of independent oversight of the Company's financial aspects is carried out through external audits conducted by a Public Accounting Firm. KAP auditing the Company is an extension of the BPK in carrying out the duties and authority of the audit. However, the domain of audit that can be reached by the KAP in the Company is only an examination of the fairness of the presentation of a financial statement, which generally is an audit of the financial statements or financial audits of the Company.

A Public Accountant is someone who has obtained permission to provide services as regulated by Law. Whereas a Public Accounting Firm (KAP), is a business entity established under the provisions of the legislation which has obtained a business license under this Law.

GUIDELINES ABOUT PUBLIC ACCOUNTANT

- Provisions regarding public accountants in Indonesia are regulated under the Law of the Republic of Indonesia Number 5 of 2011 concerning Public Accountants and Regulation of the Minister of Finance Number 443 / KMK.01 / 2011 concerning the Establishment of the Indonesian Institute of Certified Public Accountants as the Professional Association of Indonesian Public Accountants.

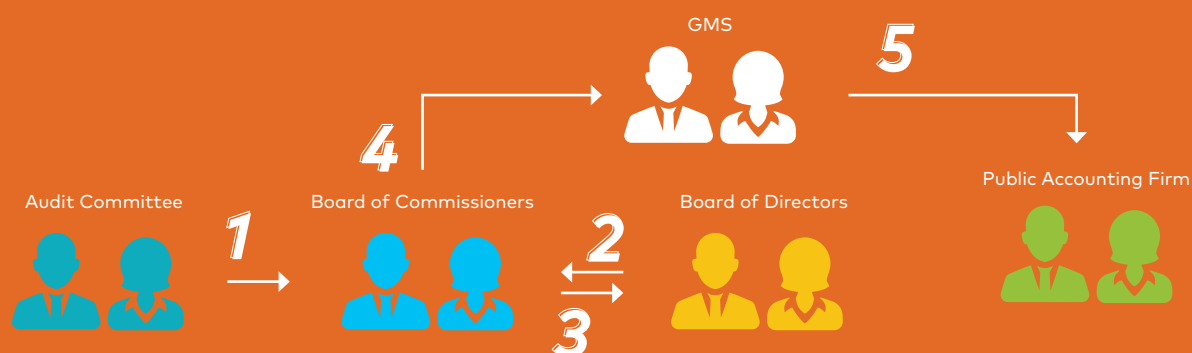
- Law Number 5 of 2011 concerning Public Accounting Firms.
- Law of PT, Number 40 Year 2007 article 66 paragraph (4) and article 68 paragraph (3) that SOE Persero can also be audited by a Public Accounting Firm (KAP).
- Company's articles of association.

The appointment was in accordance with the Minister of Finance Regulation No.17 / PMK.01 / 2008 dated February 5, 2008 article 3, paragraph 1, which states that the provision of general audit services on the financial statements of an entity is performed by the KAP for a maximum of 6 (six) fiscal years and by a Public Accountant for a maximum of 3 (three) consecutive financial years.

PUBLIC ACCOUNTING APPOINTMENT PROCESS

Based on the Audit Committee Charter, which regulates the process of selecting and appointing Public Accountants, and the provisions that must be obeyed related to the legality, competence and independence of Public Accountants in force in Indonesia, the Audit Committee is responsible for the selection of Public Accountants.

The process for appointing public accountants is through the following mechanisms:



- The meeting discussed the procurement of KAP Audit Services and evaluation of the previous year's KAP implementation, namely the Public Accounting Firm (KAP) Djoemarma, Wahyudin & Partners. The evaluation results are satisfactory, so that direct appointments can be made, considering that the KAP provides audit services for 6 consecutive years.
- Submitting to the Board of Commissioners the evaluation of KAP and provide suggestions regarding the procurement of KAP Audit Services based on the results of the Audit Committee meeting.

Appealing for the Board of Directors to carry out the process of procuring KAP Audit Services based on KAP evaluation results and in accordance with Bio Farma regulations and to negotiate the value of audit services and audit scope.

Proposing KAP Audit services

Undertaking the KAP procurement process through direct selection and negotiation regarding the value of audit services and the scope of the audit.

The GMS approved the appointment of KAP and delegated the authority to the Board of Commissioners to determine the additional scope and amount of audit fees.

The process of selecting public accountants is carried out in accordance with the mechanism of procurement of goods and services that applies at Bio Farma.

The Public Accounting Firm (KAP) Roebiandini and Partners carry out audits based on auditing standards set by the Indonesian Institute of Certified Public Accountants and state financial audit standards issued by the Indonesian National Audit Board.

OTHER SERVICES PROVIDED BY THE FINANCIAL AUDITORS LAST YEAR

In addition to Financial Audit Services, KAP Roebiandini and Partners in 2019 also provide other services to Bio Farma, as follows:

1. SPI Quality Assessment Services

Assessment of the quality of Internal Oversight conducted by the External Auditor which aims to provide reasonable assurance that the objective and Internal Control compliance is within the standards of The Institute of Internal Auditors (The IIA).

The next objective is to identify whether there are opportunities for quality improvement so as to increase the effectiveness and efficiency of the internal audit process and provide added value to the Company.

2. ERP Implementation Assessment Services

The Company is currently converting information systems, namely by implementing an ERP

(Enterprise Resources Planning) system in order to improve the Company's capabilities and competitiveness. Implementation of information systems requires significant adjustments to business processes and human resources.

The purpose of the assessment of the ERP system as implemented is to ensure that changes in the organization, SOPs and internal control systems are in accordance with the ERP system, so that it can produce various information and reports that the Company needs.

TOTAL OF FEES PROVIDED TO PUBLIC ACCOUNTANT

Bio Farma determines the value of the Audit Services fee. The Company's Financial Statements and PT Bio Farma (Persero) Partnership and Community Development Program Financial Statements for the 2018 fiscal year amounted to Rp250,000,000 (excluding 10% VAT). The fee for the SPI Quality Assessment service was Rp80,000,000 (excluding VAT).

NAME AND YEAR OF THE PUBLIC ACCOUNTANT THAT AUDITED THE ANNUAL FINANCIAL STATEMENTS FOR THE LAST 5 YEARS

The following are the Public Accounting Firms that have audited Bio Farma Financial Statements throughout 2014 - 2019 as follows:

Audit Year	Public accounting firm	Accountant Name (Responsible Partner)	No. Registration	Period	Audit Fee (Rp)	Opinion	KAP Permission	Other Services Outside Financial Audit
2019	Roebiandini and Partners	Rudiana	No. Public Accountant Registration: NRAP: AP.1055	2	IDR 250,800,000	Present fairly, in all material respects, the financial position of PT Bio Farma (Persero) on December 31, 2019 and its financial performance & cash flow for the year ending on that date in accordance with Indonesian GAAP in Indonesia	NIUKAP.684 / KM.1 / 2008	SPI Quality Assessment Services

Audit Year	Public accounting firm	Accountant Name (Responsible Partner)	No. Registration	Period	Audit Fee (Rp)	Opinion	KAP Permission	Other Services Outside Financial Audit
2018	Roebiandini and Partners	Rudiana	No. Public Accountant Registration: NRAP: AP.1055	1	IDR 250,800,000	Presenting fairly, in all material respects, the financial position of PT Bio Farma (Persero) on December 31, 2018 and its financial performance & cash flow for the year ending on that date in accordance with Indonesian GAAP in Indonesia	NIUKAP.684 / KM.1 / 2008	SPI Quality Assessment Services & ERP Implementation Assessment Services
2017	Djoemarma, Wahyudin & Partners	Djoemarma	No. Public Accountant Registration: NRAP: AP.0190	6	Rp.256,300,000	Fair in all material things	NIUKAP: KEP-350 / KM.17 / 2000	No other services were performed
2016	Djoemarma, Wahyudin & Partners	Djoemarma	No. Public Accountant Registration: NRAP: AP.0190	5	Rp.215,000,000	Fair in all material things	NIUKAP: KEP-350 / KM.17 / 2000	No other services were performed
2015	Djoemarma, Wahyudin & Partners	Djoemarma	No. Public Accountant Registration: NRAP: AP.0190	4	Rp.215,000,000	Fair in all material things	NIUKAP: KEP-350 / KM.17 / 2000	No other services were performed

MANAGEMENT'S RESPONSIBILITIES FOR FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Indonesian GAAP, and for implementing the internal controls deemed necessary by management to enable the preparation of financial statements that are free from material misstatements, whether caused by fraud or errors.

AUDITOR'S RESPONSIBILITIES

The Auditor's responsibility is to express an opinion on the financial statements based on an audit. The auditor conducts audits based on the SA determined by the Indonesian Institute of Certified Public Accountants. The standard requires the

auditor to comply with ethical requirements and to plan and carry out audits to obtain adequate confidence about whether the financial statements are free from material misstatement.

OPINION

According to Roebiandini's Public Accounting Firm (KAP) and Partners, PT Bio Farma (Persero) 's financial statements as presented with Report Number: No: 00008 / 2.0756 / AU.1 / 04 / 1055-2 / 1 / II / 2020 dated February 12, 2019 are reasonable in all material respects, and the financial position of PT Bio Farma (Persero) as of December 31, 2018 and its financial performance & cash flow for the year ending on that date is in accordance with Indonesian GAAP.

DESCRIPTION OF CORPORATE RISK MANAGEMENT

PROFILE OF HEAD OF COMPLIANCE & RISK MANAGEMENT DIVISION



SRI WIDAYATININGSIH

Head of Compliance & Risk Management Division

Citizenship	Indonesian
Domicile	Bandung
Age, Place and Date of Birth	56 years of age, born in Unggaran on May 3, 1963
Educational Background	Obtained a Bachelor of Economics degree from the Islamic University of Indonesia (UII) in 1991
Legal Basis of Appointment & Termination	The legal basis for the appointment as Head of the Compliance & Risk Management Division is based on the Decree of the Board of Directors of PT Bio Farma (Persero) Number: 0219/HC/TKK/III/2017 on March 15, 2017, concerning Employee Career Transfer
Position Experience	• Began her career at Bio Farma as a Planning Section Staff in 1994 • a Staff of the Internal Audit Unit in 1995 • a Senior Expert in the Internal Audit Unit in 1999 • an Associate Expert in Internal Control Unit in 2002 • a Head of the Public Procurement Section in 2007 • a Head of Management Accounting Section in 2010 • a Head of Logistics Division 2013 • a Head of the Internal Audit Unit in 2015 • Being appointed as a Head of Compliance & Risk Management Division in 2017
Concurrent Position	She does not have any concurrent positions
Awards/certifications	-
Affiliate Relationship	She has no affiliations with members of the Board of Directors and other members of the Board of Commissioners or shareholders.
Share Ownership in Bio Farma	-
Education or training to improve competence	-

CORPORATE RISK MANAGEMENT

Corporate Risk Management is an effort to identify, analyze/evaluate, manage and review company risks effectively so that the stated goals of the company can be achieved with the minimum risk impact.

Corporate Risk Management in Bio Farma is outlined in the Bio Farma Manual (MBF-01 and MBF-02) 02571 / DIR / VI / 2018 dated June 25, 2018 and Regulation of the Directors of PT Bio Farma (Persero) Number: PER-07970 / DIR / XII / 2019 dated 27 December 2019 concerning General Guidelines for the Implementation of Risk Management at PT Bio Farma (Persero).

RISK MANAGEMENT SYSTEM APPLIED BY BIO FARMA

Since 2009, the Risk Management System implemented at Bio Farma refers to the COSO Enterprise Risk Management - Integrated Framework. Along with the design of the Bio Farma Integrated Management System, the Bio Farma Risk Management System underwent a change with COSO Enterprise Risk Management - Integrated Framework bridging to ISO 31000 (2018).

BASIC APPLICATION OF RISK MANAGEMENT

1. SOE Ministerial Decree Number 117/M-MBU/2002 dated July 31, 2002, amended by SOE Ministerial Regulation Number: PER-01/MBU/2011 on August 1, 2011 concerning the Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09/MBU/2012 dated July 6, 2012 concerning Amendment to SOE Ministerial Regulation Number: PER-01/MBU/2011 concerning Implementation of Good Corporate Governance at SOEs.
2. Corporate Risk Management in Bio Farma is outlined in the PT Bio Farma (Persero) Company Management System Policy Number: MBF-02571/DIR/VI/2018.
3. GCG General Guidelines issued by KNKG (2006).
4. Company's articles of association.
5. Regulation of the Directors of PT Bio Farma (Persero). Number: PER-07970/DIR/XII/2019 dated 27 December 2019 concerning General Guidelines for the Implementation of Risk Management at PT Bio Farma (Persero).

RISK MANAGEMENT STRATEGY

In achieving the vision and mission of the Company's risk management, Bio Farma carries out the following risk management strategies:



ORGANISATIONAL STRUCTURE OF COMPLIANCE AND RISK MANAGEMENT DIVISION



Based on Decree No. 04276/DIR/XI/2017 on 17 November 2017: Concerning Organizational Structure of PT Bio Farma (Persero), and as updated with Directors Decree No. 00117/DIR/I/2018 Dated January 8, 2018 Regarding Amendment to Decree of Board of Directors Decree No. 04276/DIR/XI/2017 Date 17 November 2017 Concerning Organizational Structure of PT Bio Farma (Persero), and renewed with Decree of the Directors of PT Bio Farma (Persero) No. KEP-05769/DIR/IX/2019, September 16, 2019 concerning the Organizational Structure of PT Bio Farma (Persero), among which is that in managing risk management, Bio Farma has formed a Division that oversees the Compliance function namely the Compliance & Risk Management Division. The Head of Compliance & Risk Management is responsible to the Legal & Compliance SEVP which is responsible to the President Director. The Head of Compliance & Risk Management Division is in charge of 2 Sections, namely Compliance and Risk Management.

DUTIES AND RESPONSIBILITIES OF RISK COMPLIANCE AND MANAGEMENT DIVISION

1. Duties and Responsibilities of the Head of the Compliance & Risk Management Division is to ensure the Company's governance and compliance is in accordance with the applicable

regulations through planning, implementation and supervision of the implementation of Governance, Risk and Compliance (GRC) in an integrated, consistent and continuous manner to support the achievement of GCG and the Company's vision based on procedures and regulations that apply both nationally and internationally.

2. Supervising and coordinating the Risk & Control Self-Assessment (RCSA) process for all of the Company's operational activities in the Bio Farma environment and all strategic projects or initiatives.
3. Conducting a Loss Event Management (LEM) process in the form of data collection and evaluation of events that cause financial and non-financial losses as well as necessary follow-up steps.
4. Managing Key Risk Indicators (KRI) as an early warning system to anticipate risks that can affect the achievement of the Company's strategic objectives.
5. Conducting special studies for new initiatives/projects in accordance with management's request to support decision making.
6. Providing input on long-term and short-term strategic and operational risk factors in the preparation of the Company's management policy.

RISK MANAGEMENT POLICY

In carrying out work activities, all decision making at Bio Pharma is based on some level of risk. Therefore, there is a need for policies / procedures governing the implementation of risk management. Corporate risk management is regulated in:

1. Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero)
Number: PER-06/DK/BF/12/2018; Number: PER-06963/DIR/XII/2018 dated December 31, 2018 Regarding Guidelines for the Implementation of Good Corporate Governance at PT Bio Farma (Persero).
2. Joint Regulations of the Board of Commissioners and Directors Number: PER-07/DK/BF/12/2018; No. PER-06 964/DIR/XII/2018 dated December 31, 2018 on Guidelines for the Board of Commissioners and Board of Directors (Board Manual) PT Bio Farma (Persero).
3. PT Bio Farma (Persero) 's Company Management System Policy Number: MBF-02571/DIR/VI/2018 dated June 25, 2018.
4. Regulation of the Directors of PT Bio Farma (Persero) Number: PER-07970/DIR/XII/2019 dated December 27, 2019 concerning General Guidelines for the Implementation of Risk Management at PT Bio Farma (Persero).
5. 265-MR-01 Rev.2 concerning Standard Procedures for Preparing Risk Management Reports and Risk Study Reports.
6. 265-MR-02 Rev.0 concerning Determination of the Likelihood and Impact Level of Risk.

Since 2009, the Risk Management System implemented at Bio Farma refers to the COSO Enterprise Risk Management - Integrated Framework. Along with the design of the Bio Farma Integrated Management System, the Bio Farma Risk Management System underwent a change with COSO Enterprise Risk Management - Integrated Framework bridging to ISO 31000 (2018).

The current Bio Farma Risk Management Policy has adopted the ISO 31000 standard which consists of Risk Management Principles, a Risk Management Framework, and Risk Management Principles which have as their main objectives:

1. The availability of basic guidelines for the Company in managing Company risks.
2. Coordinating the processes and activities of integrated and synchronized risk management within the Company.

PURPOSE AND OBJECTIVES OF THE IMPLEMENTATION OF RISK MANAGEMENT IN BIO FARMA

1. Improving relations with stakeholders in implementing risk management wherein it is mandatory to identify the stakeholders and their expectations. Through reciprocal communications that are quite intense, common perceptions and shared interests can be raised, thus a better relationship can be obtained.
2. Improving company reputation. Through good communication with stakeholders, the company is better able to handle the risks it faces. As a result, the trust of customers, suppliers, creditors, the business community, and the general community has also increased.
3. Improving the effectiveness and efficiency of management. All risks that can hamper organizational processes are well identified. Thus, disruptions to the smooth process of the organization can also be anticipated beforehand. Therefore, if any disturbance does occur, the organization is ready to handle it properly.
4. Giving more reasonable guarantees for the achievement of company goals due to the implementation of more effective and efficient management, improved relations with stakeholders, and better ability to handle company risks, including compliance and legal risks.
5. Raising awareness of the impact of business activities and actions and/or from external factors that contain risks.
6. Reducing the potential of events that are considered dangerous that may occur in the present or the future.
7. Increase shareholder value.
8. Providing a comprehensive picture to stakeholders and managers of the Company regarding potential opportunities and losses so that decision makers and internal policy makers have sufficient availability of data and information about the Company's performance to make decisions more effectively and efficiently.

9. Bio Farma continually develops and improves the framework of the integrated and comprehensive risk management system and internal control structure, so that it can provide information on potential risks as early as possible, and take adequate steps to minimize the impact of such risks. This risk management framework is outlined in policies, procedures, authorities, and other provisions, as well as various risk management tools that apply throughout the scope of our business activities.

REVIEW OF RESULTS TAKEN BY RISK MANAGEMENT SYSTEM IN 2019

PERFORMANCE EVALUATION OF COMPLIANCE AND RISK MANAGEMENT DIVISION

Evaluation of the effectiveness of the risk management system is performed by measuring 8 (eight) Key Risk Indicator elements as follows:

1. Awareness, as indicated by measuring the level of awareness of internal stakeholders, both to risks in general and the implementation of risk management that is being carried out.
2. Reputation, as indicated by measuring the views and acceptance of internal stakeholders on the application of Risk Management.
3. Culture, as indicated by measuring the extent to which risk awareness culture has taken root and is the background of the implementation of Risk Management practices.
4. Expertise, as indicated by measuring the level of competence of internal stakeholders in the field of Risk Management to support the application of risk management.
5. Trust, as indicated by measuring the extent of the confidence of internal stakeholders in the results of the implementation of Risk Management.
6. Resources, as indicated by measuring resources, especially the availability of the company's human resources to support the implementation of risk management.
7. Implementation, as indicated by measuring the extent of the risk management practices and by maintaining a risk management

database/information company supported by an information technology-based automation process.

8. The process of measuring the extent to which Risk Management practices have been carried out is based on a methodology that refers to best practices in applying Risk Management.

In all, 1,126 (one thousand one hundred and twenty-six) risk events were identified from 80 (eighty) work units (Sections) and 12 (twelve) projects. These were divided into 27 (twenty-seven) activities (Divisions), then evaluated and measured based on the respective values of likelihood and impact, in order to identify the priority risks that must be controlled.

RISKS FACED BY THE COMPANY

In 2019, there were 10 (ten) corporate risks, which were divided into 8 (eight) risks from routine activities and 2 (two) project risks, as follows:

RISKS IN ROUTINE ACTIVITIES

1. Changes to National & International Policies/Regulations.
2. Inability to meet long-term obligations (credit).
3. Inability to meet short-term obligations (liquidity).
4. Resigning/transferring employees who have high talent and potential.
5. The HR Division's failure to create employee talent.
6. Employee performance did not reach KPI targets.
7. Counterfeiting of Bio Farma products.
8. Lack of product absorption.

PROJECT RISKS

1. The implementation of MRP is not on target.
2. Delay in the implementation of building projects.

After determining risks related to corporate and strategic steps to be taken by the company, in dealing with those risks, the Compliance and Risk Management Division will evaluate and monitor the risk management activities carried out by each unit.

BIO FARMA CORPORATE RISK DETAILS

In 2019, there were 10 (ten) corporate risks, which were divided into 8 (eight) risks from routine activities and 2 (two) project risks. Each Head of each risk unit is responsible for each risk, and the way it is handled as a whole becomes a measure of the effectiveness of risk management in Bio Farma. The details of the corporate risks are:

No	Type of Risks	Confronted Risks	
1	Risks in Routine Activity	Changes to National & International Policies / Regulations	This risk has a considerable impact on the Company's ability to benefit so that when this risk occurs, the Company must immediately adjust to new regulations / policies as soon as possible and prepare anticipatory strategies if regulations change again.
		Ketidakmampuan Memenuhi Kewajiban Jangka Panjang (Kredit)	In order to meet investment needs, starting in 2018 and continuing into 2019, the Company plans to withdraw funds (Investment Credit facilities) from banks and / or other financial institutions as Creditors. The Company's ability to pay principal and interest on loans can be seen from the level of sales of the Company's products (performance cash flow) according to the projections contained in the RJPP. If the level of sales of the Company's products decreases more than projected, it will reduce the revenue and profits generated such that the Company may be unable to make payments, either on the principal or interest of the loan. If this happens, in addition to the fines that will be given by the creditor due to the late payment of the loan, the Company also risks losing any assets that are pledged.
		Inability to fulfill short-term obligations (liquidity)	The Company's working capital needs are directly related to the time needed to produce products to sell. The longer the production time, the greater the working capital needed. In addition, the cost of the product will affect the amount of working capital needed. The greater the cost of the product sold, the greater the need for working capital to finance it. In order to increase production capacity, the Company requires financing in order to finance the procurement of investment goods in the form of buildings, facilities and equipment. The planning function of the Company regarding its investment needs is further enhanced, including when preparing the timeline for investment realization and its financing methods. Potential risks need to be identified in relation to the Company's ability to finance investment needs that have long-term returns and its ability to meet working capital requirements for short-term operations. Risks arising from this condition include the use of the Company's working capital to finance investment needs, which should use investment-specific financing, especially from external parties.
		Exit / Move Employees with High Talents and Potential	Employees are the most valuable assets in running the Company's business. Every company always needs and employs qualified employees, especially employees who have high talent and potential. There are many factors and causes of qualified employees leaving the company. However, if the employee leaves the company with all the competencies and knowledge he has, it will have an adverse effect on the company's business performance, especially if he/she moves to a competing company.

No	Type of Risks	Confronted Risks	
		The failure of the HR Division in creating employee talent	The success of the Company in running the business is inseparable from the success of the Company creating talent from the Employees in accordance with their needs. Companies can create talents who have expertise in products, talents who have expertise in product engineering and talents who have expertise in managing company business. It should be noted by all stakeholders of the Company, that it has now entered industrial era 4.0, where all company activities are based on connectivity and digitization in the entire supply chain. It is no longer relevant to talent management based on seniority or hierarchy. Many companies end their business trips because of being late or even failing to create talent from their employees. The failure to create talent starts from the Company's business plan and execution itself, for if the design of the organizational structure does not fit in to the Company's business, there may be a failure in talent recruitment, talent career management, talent competency management and/or talent retention management .
		Employee Performance Does Not Reach KPI Targets	Key Performance Indicators (KPI) that are in line with the company's business and that have been agreed in the Work Plan and Corporate Budget (RKAP) between the Shareholders and Management will then be translated into KPI directorates, divisions, and sections. If the realization of Employee Performance and work units cannot be achieved in accordance with the business targets set by the KPI targets in the RKAP, there will be a risk of financial revenue reduction (bonuses, payroll) for all stakeholders.
		Counterfeiting of Bio Farma Products	In 2016, there were findings of the circulation of fake vaccines in Indonesia. Although the results of further investigations show that no Bio Farma vaccine was falsified, and only the serum was falsified, however, the company saw a risk of counterfeiting of the vaccine as well. This case of forgery is likely to occur again in the future and this can cause a decrease in the level of consumer confidence in Bio Farma products, both vaccines and serum, which in turn will affect the company's revenue.
		The Market Not Absorbing Product Inventory	The company routinely supplies vaccines for the needs of the domestic (Government and Private) and foreign immunization programs (International and Bilateral Institutional Sales). Vaccine availability is adjusted to the forecast or product delivery plan to consumers. There is a risk if the product has been produced and is ready to be marketed, but the product is not absorbed.
2	Project Activity Risks	MRP Implementation Not on Target	Bio Farma's vision "to become a world-class and globally competitive Life Science Company " needs to be supported by information technology that can provide information for decision-making by management in determining the selling price of competitive products. One system to help improve the efficiency and effectiveness of the Company's operations is the Manufacturing Resource Planning (MRP) system. Implementation of the MRP system requires that business processes are precisely defined in accordance with regulatory and business needs; strong commitment from management and all employees for data transparency; active role of related work units in defining integrated business processes and data validation; and the use of the MRP system as one of the Company's mandatory tools. Implementation level must be reduced to the KPI of each unit.

No	Type of Risks	Confronted Risks	
		Delay in the Implementation of Building Projects	Companies must be able to maintain the availability of products in accordance with market needs, both through the improvement and investment of new production facilities and infrastructure, as well as through research and development of new products. Adequate facilities are needed to support the production process to meet the requirements or regulations. Adequate research & development facilities are also needed so that research and development of new products can be completed on time and the product can enter the market as needed. Delays in investment programs that support both research and production processes will result in loss of opportunity to reach the market, so planning and implementing investment programs must be timely and targeted. In 2019, to increase the capacity and capability of the Company, several construction projects have been budgeted for which some of the funds come from investment loans.

RISK MANAGEMENT

Bio Farma is committed to complying with the laws and regulations that apply in carrying out its activities, and makes efforts to always implement a culture of compliance and ensure the implementation of the compliance function, which includes taking the following actions:

1. Realising the implementation of a culture of compliance at all levels of the organisation and the Company's business activities.
2. Managing compliance risks faced by the Company.
3. Ensuring that the policies, provisions, procedures and business activities carried out are in accordance with applicable laws, government regulations and business ethics.

RISK MANAGEMENT POLICY

Since 2009, the Risk Management System which is implemented at Bio Farma refers to the COSO Enterprise Risk Management - Integrated Framework. Along with the design of the Bio Farma Integrated Management System, the Bio Farma Risk Management System underwent a change with COSO Enterprise Risk Management - Integrated Framework bridging to ISO 31000 (2018).

The current Bio Farma Risk Management Policy has adopted the ISO 31000 standard which consists of Risk Management Principles, a Risk Management Framework, and Risk Management Principles which have as their main objectives:

1. The availability of basic guidelines for the Company in managing Company risks.
2. Coordinating the processes and activities of integrated and synchronized risk management within the Company.

RISK MANAGEMENT PRINCIPLES

Referring to the Risk Management Standards (ISO 31000: 2018 - Risk Management - Principles and guidelines) Bio Farma risk management applies the following principles:

1. Protects and creates added value.
 2. An integrated part of business processes.
 3. Part of the decision-making process.
 4. Specifically deals with aspects of uncertainty
 5. Systematic, structured and timely.
 6. Based on the best information available.
 7. Typical for its users (tailored).
 8. Considers human and cultural factors.
 9. Must be transparent and inclusive.
 10. Dynamic, repetitive, and responsive to change.
 11. Must facilitate continuous organisational development and improvement.
6. Making a summary of the regulations, analyzing their impact on the Company, and informing all changes in regulations issued by the government to all levels of the Directors and Division Heads/ Functions concerned, so as to facilitate the implementation of the compliance function.
 7. Carrying out a risk assessment of each business process target as stated in the Corporate Budget Work Plan (RKAP), and making a risk mitigation or control plan as outlined in the Operational Work Plan (RKO).
 8. Conducting monitoring and evaluation to ensure that existing risks have been managed well, including performing evaluations on a regular basis by the Risk Management Affairs Office of the Board of Directors and through the risk-based audit approach by the SPI section.

COMPLIANCE RISK MANAGEMENT

Compliance risk management is focused on efforts to improve the culture of compliance at all business activities and at every level of the organization.

During 2019, the Compliance and Risk Management Division carried out the following activities:

1. Proceeding to socialize the importance of the function and role of compliance in the Company's activities to encourage the creation of a culture of compliance.
2. Determining the steps needed in the framework of compliance to ensure all policies, provisions, systems, and procedures as well as business activities are carried out in accordance with the provisions of the legislation in force.
3. Monitoring and maintaining the Company's business activities to ensure it does not deviate from applicable regulations in order to minimize non-compliance risks.
4. Taking precautionary measures, when necessary, so that the policies and / or decisions taken by the Directors do not deviate from the provisions of the applicable laws and regulations.
5. Monitoring and maintaining the Company's compliance with all agreements and commitments made by the Company with other parties.

ERM BIO FARMA MANAGEMENT

ERM Bio Farma is divided into 2 (two) units, namely:

1. ERM Risk Unit and
2. ERM Corporate.

ERM RISK UNIT

ERM Risk Unit Reports are compiled by all Risk Units in accordance with 265-MR-01 Rev.2 concerning the Standard Procedures for Preparing Risk Management Reports and Risk Assessment Reports and 265-MR-02 Rev.0 regarding Determination of the Possibility and Impact of Risks, namely that each Risk Unit should make an annual ERM Risk Unit Report, with the following report format:

1. Introductory Chapter, describing the purpose and objectives of risk management for the company. For example, to map and explore all of the risks in the Company as a whole, covering all ten categories, so that those risks can be managed and controlled.

2. Scope and describe the related business unit risk process (for the Risk Management Report of the risk unit) and the overall business process in the Company (for the Corporate Risk Management Report).
3. Risk Profile and Risk Matrix Table.
Risk Profiles are made by each risk unit while corporate risk profiles are created by the Risk Management Section and sourced from the Risk Management Report of all risk units, which covers ten risk categories in the Company.
4. Discussion Chapter, contains information about:
 - a. The amount of risk that has been identified and declared to be included as a risk from the related unit risk or included in Corporate risk.
 - b. The amount of risk is based on the various risk categories: Strategic, Financial, Operational, Project, Compliance, Reputational, Environmental & K3, Production, Research and Integrated.
 - c. The amount and type of risk based on the cause of risk: 6 M (man, method, material, machine, measurement, and mother nature).
 - d. The amount of inherent risk is based on the level of risk and data such as: No. Sort, No. Register, Risk Event, Probability, Impact, and Risk Level. As well as displaying a table of the number of Risk Levels sorted from the largest to the smallest as a priority reference for risk management.

5. Conclusions, which conclude whether or not a risk will or can enter into corporate risk and the actions that need to be taken to handle it.
6. Risk Management Follow-Up Plans, to be filled with plans for risk management follow-up activities that have been identified and need to be followed up on.
7. Compilation Working Paper, filled with an explanation of the probability value and impact value filled in the risk profile table.

ERM CORPORATE

Wherein the Corporate ERM is compiled by the Compliance and Risk Management Division by analyzing and recommending the ERM Report of the Risk Unit (from all sections) which is subsequently submitted to management (Directors) to determine the amount of the Corporate Risk Profile.

FOLLOW-UP CORPORATE RISK HANDLING

After determining the corporate risks and the strategic steps to be taken in dealing with those risks, the Compliance and Risk Management Division as the corporate risk manager will evaluate and monitor the risk management activities carried out by each unit. Each Risk Unit Head or Project Team Leader is responsible for handling each risk and these activities as a whole become a measure of the effectiveness of the implementation of Risk Management in Bio Farma.

Risk management activities for each Bio Farma corporate risk in 2019

No. Registration	Corporate Risk	Handling Activities (Mitigation)	PIC
01-ERM-2019	Changes to National and International Policies / Regulations	• Playing an active role in providing input, suggestions and ideas in order to direct changes in national and international regulatory policies to ensure corporate interests and national interests will get positive points and the changes to be proposed • QMS, cGMP implementation; including document control, qualification implementation, validation, calibration, self-inspection • Active in national and international scale QMS & cGMP forums; including meeting fora, outreach, training, workshops, conferences • Ensuring product development in accordance with regulatory requirements; including product development design, implementation of qualifications & validation • Collaborate with Bio Farma internally in maintaining QMS • Ensuring selling products that meet QMS • Always updated with terms / regulations and market conditions • Looking for prospective customer information either through an agent or not • Coordination with internal and external parties of the company	• Quality regulation • Quality Regulatory Guarantor • Corporate Export Sales • Institutional Export Sales

No. Registration	Corporate Risk	Handling Activities (Mitigation)	PIC
02-ERM-2019	Inability to Meet Long-Term Obligations (Credit)	• The planning function of the Company regarding investment needs is further enhanced, including when preparing the timeline for investment realization and payment methods • Regular and effective communication and coordination between lines within the Company, so that the investment project timeline and realization can go according to plan	• Treasury
03-ERM-2019	Inability to fulfill short-term obligations (liquidity)	• Performing the monitoring and coordination with the Directorate of Marketing to ensure the planned cash receipts for the sale of the Company can be received according to the time that has been set. • Maintenance of working capital financing facilities from external parties that are owned by the Company, so that they can be used to finance the Company's operations if needed. • Monitoring of the implementation of the phased timeline realization of investments, in order to take into account the fulfillment of financing needs.	• Treasury

No. Registration	Corporate Risk	Handling Activities (Mitigation)	PIC
04-ERM-2019	Resigning/Transferring of Employees with High Talent and Potential	• Socialization and implementation of the Human Capital Management system based on competence and performance. • Dissemination and implementation of a comprehensive retention program to bind employees to the company. • Dissemination and implementation of development programs that can provide opportunities for employees to develop themselves	• Work management
05-ERM-2019	The failure of the HR Division in creating employee talent	• Designing, socializing and composing a corporate work culture that leads to a transformative and adaptive work culture in the digital era and contributes to the company's business performance • Designing and implementing development programs that can provide opportunities for employees to develop themselves • Designing and implementing a system of performance targets and competencies that challenge and make the climate conducive	• Work management
06-ERM-2019	Employee Performance Does Not Reach KPI Targets	• Dissemination and implementation of the Performance Management System • Intensive monitoring and assistance during the Performance Management System cycle, from planning, to monitoring and evaluating • Ensuring the availability of the company's strategic and business plans that can be communicated to all work units	• Work management

No. Registration	Corporate Risk	Handling Activities (Mitigation)	PIC
07-ERM-2019	Counterfeiting Bio Farma Products	• The packaging system uses the Track and Trace system • Packing system with a single type of vaccine in the packing area • Track and Trace barcoding in a polyurethane box • Delivery using a registered, trained forwarder, including sub-forwarders	• Distribution & PBF
08-ERM-2019	Not Absorbing Product Inventory	• Adding new bulk buyers particularly for bulk measles and bulk Hib • Internal information exchange regarding changes in regulations in the purchaser's country	• Corporate Export Sales
09-ERM-2019	MRP Implementation Not on Target	• Improving the Cost Accounting System • Aligning business processes with the accounting system • Developing user requirements and risk studies • Development • Validation and documentation • Soft Live • Go Live • Conducting coordination meetings with the Production Section, General Procurement Section, Marketing Section, and other Parts • Updating the production plan and sales plan • Coaching to users • Reminding related parts • Coordination with related sections regarding the appropriate calculation method • Calculating manually with Excel according to the applicable method	• System Development • Production Management • Management Accounting
10-ERM-2019	Delay in the Implementation of Building Projects	Coordinating with users and the Procurement Section related to the 2019 procurement plan	• User (Related section) • Project Management Division • CAPEX Procurement Section

EFFORTS TO INCREASE A RISK AWARENESS CULTURE

To improve effectiveness and achieve the objectives of risk management implementation, the Compliance and Risk Management Division always strives to increase the commitment of the Company's leadership to provide full support and contribution in the implementation of Risk Management, developing a risk awareness culture (corporate risk culture) throughout the Company's processes by emphasizing the concept of risk as everyone's responsibility (risk is everybody's business) through ongoing socialization and always developing competencies and learning processes on an ongoing basis through risk management training in general or specifically. In 2019, Risk Management Socialization, Training and Knowledge Sharing were held on February 8, 2019 for the risk managers in each Business Unit / Unit / Division / Development Project at Bio Farma. Cultivation of a risk awareness culture is also carried out through media socialization.

PROGRAM FOR TRAINING AND DEVELOPMENT OF RISK MANAGEMENT COMPETENCY

In the context of improving the quality of risk management within the Bio Farma environment and developing the competency of personnel in charge of risk management, a training program was held in the form of a public training organized by professionals, and in-house training by institutions, in collaboration with experienced resource persons and trainers in Risk Management. The competency development program is as follows:

Name	Position	Topic	Date	The place	Type of Training
Syarief Amanullah	Head of Division	ISO 31000 ERM Fundamentals	July 1-5 2019	Jakarta	Skill
		Training "Sales Recognition Strategy in Legal & Industry Perspective"	August 15-16 2019	Hotel Aston Tropicana, Bandung	Knowledge
		"PSAK 73: Leasing of Company Operations" Training	September 25-26 2019	Learning Center PT Bio Farma	Knowledge
		ISO 31000 Series 2: Risk Assessment Techniques	October 1-4, 2019	Bandung	Skill
Mudi Risandi	Section Chief	ISO 31000 ERM Fundamentals	July 1-5 2019	Jakarta	Skill
		ISO 31000 Series 2: Risk Assessment Techniques	October 1-4, 2019	Bandung	Skill

RISK MANAGEMENT CERTIFICATION

The Bio Farma employees who have achieved Risk Management certification are:

Name	Position	Type of Certification
Syarief Amanullah	Head of Division	ERMAP (Enterprise Risk Management Associate Professional)
Mudi Risandi	Section Chief	ERMAP (Enterprise Risk Management Associate Professional)

INTERNAL CONTROL SYSTEM

The Internal Control System is a monitoring process mechanism established by Bio Farma management on an ongoing basis (ongoing basis) whose quality of design and implementation is influenced by the Board of Commissioners, Directors and all Bio Farma people.

GUIDELINES FOR APPLYING INTERNAL CONTROL IN BIO FARMA

Bio Farma has implemented a system of supervision and internal control as mandated in:

1. Regulation of Minister of SOE Number: PER-01 / MBU / 2011 concerning Implementation of Good Corporate Governance, article 26.
2. Regulation of Minister of SOE Number: PER-01 / MBU / 2011 concerning Implementation of Good Corporate Governance, article 28.

APPLICATION OF AN INTERNAL CONTROL SYSTEM FOR THE BOARD OF COMMISSIONERS, BOARD OF DIRECTORS, AND PEOPLE OF BIO FARMA

BOARD OF COMMISSIONERS

Supervising and providing advice regarding adequacy and fairness in the preparation of financial statements, as well as risk management, assisted by Committees owned by the Board of Commissioners.

BOARD OF DIRECTORS

Implementing the Company's policies and procedures consistently and ensuring compliance with applicable regulations. This application is related to operational activities, risk management, strategic planning, division of tasks, delegation of authority, and adequate accounting policies.

Bio Farma's Corporate Governance Policy states that the functions of the Board of Directors in the Company's Internal Control System are:

1. The Board of Directors must establish and implement a reliable system of internal control of the Company in order to safeguard the Company's wealth and performance and comply with statutory regulations.

2. The Internal Audit carries out testing and review of the Company's internal control system.
3. The Internal Audit reports the implementation of its duties to the Director of Finance.
4. Structurally, the Internal Audit is responsible to the Director of Finance and has a coordinating relationship with the Audit Committee.

EMPLOYEES/PEOPLE OF BIO FARMA

All Bio Farma employees are an inseparable part of the internal control system and in their daily functional tasks must learn and understand the internal control system policies in the Company. Internal control becomes an integrated part of the systems and procedures of each activity in the work unit, so that any deviation can be identified early, and so that corrective steps can be taken by the work unit concerned.

Bio Farma has an Internal Control Unit (SPI) that plays a role in evaluating the adequacy and effectiveness of internal controls as carried out by the Company's management. The Internal Control Unit (SPI) always conducts internal supervision by carrying out a systematic approach so that the implementation of GCG principles can run accordingly.

INTERNAL CONTROL INCLUDES FINANCIAL AND OPERATIONAL CONTROL

REVIEW OF IMPLEMENTATION OF INTERNAL CONTROL SYSTEM IN FINANCIAL REPORTING REVIEW/COFR REVIEW

Internal control over financial reporting is an important element in the management of the Company and is the basis for healthy and safe operational activities. Internal control over financial reporting (ICFR) can help the Company's management improve the Company's compliance with applicable laws and regulations, ensure the availability of financial reports and management reports that are true, complete, and timely, and achieve the efficiency and effectiveness of reporting activities on corporate finance.

Referring to the internationally recognized framework namely COSO -Internal-Control Framework, the Internal Audit has conducted a review of the implementation of the Internal Control system in Financial Reporting (Internal Control over Financial Reporting Review , ICOFR Review).

Efforts made by Bio Farma on financial control

1. Preparing a work plan that discusses the overall Bio Farma strategy which includes the direction of business development.
2. Investment control.
3. Cost allocation.
4. Monitor the Company's Work Plan and Budget and the realization in periodic reports that are discussed at the Board of Directors meeting when the Board of Directors follow up.
5. Earnings to be run according to the Company's plan.

REVIEW OF THE INTERNAL CONTROL SYSTEM IN THE IMPLEMENTATION OF COMPANY OPERATIONAL ACTIVITIES

In 2019, the Internal Control Unit and the Quality Assurance and Regulations (QA) conducted operational audits in all Work Units in Bio Farma and evaluated the implementation of the Company's risk management as explained in the Chapter on the Internal Control Unit, and the Quality & Regulatory Oversight and Regulation and Management Division Risks in this Annual Report.

EFFORTS MADE BY BIO FARMA FOR OPERATIONAL CONTROL, TO SEE WHETHER THE OPERATIONAL ACTIVITIES ARE PERFORMED EFFECTIVELY AND EFFICIENTLY

1. Operational control: The Company uses standard operating procedures (SOP) that detail the work procedures for each operational activity carried out by Bio Farma in relation to new products & activities, including mitigation of related operational risks.
2. The deciding rules that have been determined in advance and over a relatively short period of time. The company identifies operations and activities related to important aspects of the environment identified in line with policies, objectives and targets.

3. Bio Farma creates a good corporate organizational structure, equipped with a supervision / control division so that it can support operational control.

The control system at Bio Farma involves all Bio Farma people, including the Board of Commissioners and Directors. Control activities must be planned in advance before being implemented, in order to control risks that affect performance or result in Bio Farma losses. Control activities also include the establishment of control policies and procedures and an early verification process to ensure that these policies and procedures are consistently adhered to, and these activities are inseparable from every function in Bio Farma's daily activities. Control activities are applied at all functional levels, according to the Company's organizational structure.

FITNESS OF THE INTERNAL CONTROL SYSTEM WITHIN THE INTERNATIONALLY RECOGNIZED FRAMEWORK (COSO - INTERNATIONAL CONTROL FRAMEWORK)

PURPOSE OF THE BIO FARMA INTERNAL CONTROL SYSTEM

1. The purpose of Compliance is to ensure that all Bio Farma's business activities have been carried out in accordance with applicable laws and regulations, both those issued by the government as well as the internal policies and regulations stipulated by Bio Farma.
2. The purpose of having the Information is for the availability of a true, complete, timely and relevant financial statement, and for management to have the information needed in order to make the right and accountable decision.
3. Operational Objectives: namely, to increase effectiveness and efficiency in using assets and other resources in order to protect Bio Farma from the risk of loss.
4. The purpose of promoting a risk aware culture is to identify weaknesses and assess deviations early and reassess the fairness of policies and procedures in Bio Farma on an ongoing basis.

5. Reducing the impact of losses and irregularities including fraud and violations of prudential aspects.

REVIEW & EVALUATION RESULTS ON THE EFFECTIVENESS OF THE INTERNAL CONTROL SYSTEM IN 2019

A review and evaluation of the effectiveness of the Bio Farma internal control system is carried out at the entity and operational level. Reviews and evaluations of the effectiveness of the Internal Control System are conducted periodically by internal and external auditors in accordance with applicable audit procedures. The Internal Control Unit (SPI) Division reviews and evaluates the Audited Sections determined in the PKPT. Whereas entity review and evaluation are carried out by the External Auditor, the Public Accounting Firm (KAP) examines each book closing at the time of the general audit. Audit results on the effectiveness of the internal control system are outlined in the Independent Auditor's Report on Compliance with Legislation and Internal Control.

PURPOSE AND OBJECTIVES OF THE INTERNAL CONTROL SYSTEM REVIEW AND EVALUATION

1. Giving confidence to the Directors in providing assertions about the effectiveness of internal control to further provide confidence to other stakeholders that the implementation of the company's internal control system is sufficient to achieve the expected goals, namely compliance with applicable laws and regulations, the availability of financial and management information that is correct, complete, and timely, as well as the efficiency/effectiveness of the Company's business activities.
2. Providing recommendations to the Board of Directors regarding improvements in the implementation of the company's internal control system in the future (areas of improvement).

SIGNIFICANT ISSUES FACED BY THE COMPANY, SUBSIDIARIES, AND MEMBERS OF THE BOARD OF COMMISSIONERS AND MEMBERS OF THE BOARD OF DIRECTORS WHO RESPONSE TO THE ANNUAL REPORT PERIOD

As of 31 December 2019, at Bio Farma, there were no important cases (neither civil nor criminal) that were being faced by the Company, its subsidiaries, members of the Board of Directors and/or members of the Board of Commissioners who served during the annual reporting period, on either civil and criminal legal issues. There was no impact on the Company's financial and operational conditions.

Therefore, as of December 31, 2019, Bio Farma did not present any information on the principal of any case/lawsuit, the status of the settlement of any case/lawsuit, the Company's risk exposure, nor the nominal value of any claim/lawsuit, nor administrative sanctions imposed on the Company, nor members of the Board of Commissioners and Directors, by authorization (market capital, banking and others).

This shows the obedience and compliance of members of the Board of Directors and Board of Commissioners to all regulations relating to the management of the Company as well as the commitment of management to upholding the principles of good governance.

LEGAL ISSUES INVOLVING THE BOARD OF COMMISSIONERS AND THE BOARD OF DIRECTORS

During 2019, there were no legal issues involving members of the Company's Board of Commissioners and Directors.

ADMINISTRATION SANCTIONS BY REGULATORS

During 2019, there were no administrative sanctions imposed on Bio Farma, nor the members of the Board of Commissioners and Directors, by the relevant authorities (capital markets, banking and others).

TRANSACTIONS THAT CONTAIN CONFLICTS OF INTEREST

During 2019, there were no transactions containing conflicts of interest that could harm the Company.

ACCESS TO INFORMATION AND COMPANY DATA

Bio Farma always makes it easy for stakeholders to access Company information and data via telephone, website (in Indonesian and English), mass media, mailing lists, newsletters, Facebook, Twitter, Instagram, customer care and Youtube.

DISCLOSURE OF PUBLIC INFORMATION (KIP)

In 2019, Bio Farma again won the Public Information Openness award from the Central Information Commission. This is the 6th award since 2013. This award shows the commitment of Bio Farma to consistently implement Law Number 14 of 2008 on Public Information Openness (KIP) which requires Public Agencies including State-Owned Enterprises (BUMN) to present information intended for the public interest.

Bio Farma does a lot of innovation in the field of public services both in hard facilities and soft facilities supported by integrated Information and Technology (IT) such as the provision of information provided at the Bio Farma Museum and Exhibition Hall. Bio Farma has a complete KIP device and mechanism, updated every year.

Through this public information service, the people's right to obtain various information about the company, business processes, governance, financial reports, corporate social responsibility, and other related information can be fulfilled.

EXTERNAL COMMUNICATION

Bio Farma has a Company website (www.biofarma.co.id) in Indonesian and English which provides complete information about Bio Farma such as Company profile, vision, mission, strategy, products, management structure, GCG policy, CoC, Company news, Annual Reports, Sustainability Reports, and media releases. The Bio Farma website displays the latest information in a transparent, consistent and targeted manner so as to properly shape the public's understanding of Bio Farma.

The Corporate Secretary is responsible for ensuring that information submitted through the website is timely, accurate, and complete, and does not violate applicable laws and regulations.

In addition to online media, the Company also utilizes TV and radio media in the form of radio ads/ spots, Bio Farma info, and talk shows. In addition, Bio Farma also uses outdoor media in the form of digital wall magazines. Digital Mading provides information about Bio Farma's management activities in the form of photos.

Print media are used to spread information in the form of news and financial report publications. News disseminated in the form of Company activities that needs to be known by the public including annual reports, company profiles and brochures.

During 2019, Bio Farma issued 66 press releases with the following details:

List of Press Releases for 2019

No	Title of Press Release	Date
1	Indonesia Has Become a Vaccine Production Center for Islamic States	
2	"Performance Strengthening Transition as a Momentum for BPOM RI HR Development"	15-Jan-19
3	In contact with the source of the disease, around 2000 Cleaning Officers and Satpol PP were immunized with Flubio & Tetanus	26-Jan-19
4	Fulfill Tax Compliance, Bio Farma won Tax Award	24-Jan-19
5	Expanding Immunization Services, Bio Farma Launches Immunicare	31-Jan-19
6	Director of Bio Farma Describes Strategies for Achieving 2019 Performance Targets	8-Feb-19
7	Bio Farma Signs the Integrity Pact & Entry Meeting Assessment of GCG Implementation by BPKP West Java	8-Feb-19
8	<i>Vaccinology Training Held Again at Bio Farma, which was followed by 80 Doctors from all over Indonesia</i>	11-Feb-19
9	Prospective Umrah Pilgrims can get Meningitis Vaccine at Immunicare Bio Farma	13-Feb-19
10	Strengthening Research Collaboration, Bio Farma Collaborates with Unhas	Feb 22-19
11	House of Representatives Commission VI: Indonesian Pharmaceutical Industry Can Be Global	14-Mar-19
12	Community Running Bio Farma Employees Accompany Children with Down Syndrome Running as far as 1.6 KM	2-Apr-19
13	Bio Farma Wins "Very Good" Predicate in Assessment of GCG Implementation in 2018	5-Apr-19
14	Bio Farma prepares Vaccination Service Expansion Scheme through the "Imunicare" brand	23-Apr-19
15	Expanding Market Share, Bio Farma Will Plunge Into Retail Market	23-Apr-19

No	Title of Press Release	Date
16	Minister of Finance Sri Mulyani Reviews Bio Farma Research and Support Facilities for Vaccine Export Development	26-Apr-19
17	Bill & Melinda Gates Foundation, and PATH Entrust Research and Development of New Products in Bio Farma	26-Apr-19
18	Bio Farma was chosen by the World Health Organization (WHO) and UNICEF in the Provision of Oral Polio Vaccine Type 2 Monovalent (mOPV-2) for Global Stockpiling	26-Apr-19
19	Turkey's Ministry of Health Entrusts Research Cooperation on Vaccine Development and Production in Bio Farma	2-May-19
20	Bio Farma continues to strengthen the Life Science Business Line by producing blood products, diagnostics and biosimilar	9-May-19
21	Safari Ramadan; Promoting Disability Independence, Bio Farma Provides Skills Training in Making Muslim Clothing	20-May-19
22	Helping Pre-Prosperous Families, Bio Farma Holds a Cheap Market for Ramadan	29-May-19
23	Bio Farma Sends 1000 Residents and Provides 22 Free Homecoming Transportation	31-May-19
24	Do not Want Players Affected by Disease, Persib Player Vaccine Flubio	31-May-19
25	Chad, Persib Player Country Ezechiele N'Douassel Has Used Bio Farma Vaccine since 2011	1-Jun-19
26	Bio Farma is Interested in Making Campus an Innovative Strategic Partner	24-Jun-19
27	Bio Farma Successfully Maintains ISO and OHSAS Integration Certification	24-Jun-19
28	Bio Farma Is Ready to Carry Out KPKU Assessment in Semester II 2019	5-Jul-19
29	Vaccine Education Through Advocacy and Outreach	10-Jul-19
30	Bio Farma Prime Exports of New Products to Africa	17-Jul-19
31	Bio Farma Is Ready To Help OIC Member Countries Increase Vaccine Production Capacity	31-Jul-19
32	Ministry of Health Continues to Push Center of Excellence in Biotechnology	31-Jul-19
33	Bio Farma Proves Commitment to Being Environmentally Friendly	31-Jul-19
34	Bio Farma Launches the Medan Branch "Imunicare" Vaccination Service	7-Aug-19
35	Synergy of Bio Farma and Other SOEs to Clean Jatiluhur Reservoir	20-Aug-19
36	Bio Farma Special Paskibra Uniform	20-Aug-19
37	Bio Farma Strengthens Collaboration to Expand Market Share in the African Continent	21-Aug-19
38	Managing Director of Bio Farma and Bio Farma Wins the 2019 Green CEO Award	30-Aug-19
39	"Kulo Nuwun Yogyakarta, Imunicare Ready to Serve the Gudeg City Community"	30-Aug-19
40	Bio Farma Lifescience Products Launch Soon	5-Sep-19
41	Bio Farma and Pegadaian Prepare Joint Business Synergy	6-Sep-19

No	Title of Press Release	Date
42	Bio Farma Increases Competitiveness through Sustainability	16-Sep-19
43	Bio Farma Introduces a New Board of Directors	17-Sep-19
44	FRLN 2019, Collaboration Towards Independence of the National Life Science Products rev 1	26-Sep-18
45	Bio Farma Hosts Cold Chain Management System Workshop for Organisation of Islamic Cooperation (OIC) Countries	2-Oct-19
49	16 OIC Member Delegation Visits Bio Farma's Center of Excellence Facility	4-Oct-19
46	The 14th Imunicare Branch is present on the Island of the Gods	7-Oct-19
47	Bio Farma Offers Partnership in Launching Imunicare Partners in Denpasar	9-Oct-19
48	Indonesia was asked to continue to oversee the independence of the Biotechnology and Vaccine Center of Excellence	21-Oct-19
50	Bio Farma Educates 400 Santri in East Java Healthy Lifestyle	21-Oct-19
51	Increasing Production Capacity, Bio Farma is Ready for Market Expansion to the African Continent	25-Oct-19
52	Bio Farma's Director of Operations, M. Rahman Roestan Wins Top 50 Leaders of Change Bearings Award	29-Oct-19
53	Bio Farma Sabet Top Socio-Eco Friendly Processing Industry Sector from Warta Ekonomi	29-Oct-19
54	Bio Farma Wins "Excellent" in the Indonesian State Owned Enterprise category from Infobank	29-Oct-19
55	Bio Farma & Unibraw's Biosciences Laboratory Received An Award for National Children's Work	11-Nov-19
56	2019 SEA Games: 1,500 Indonesian contingents received IPV vaccine from Bio Farma	11-Nov-19
57	Take advantage of Industry 4.0 Bio Farma owned Germplasm Bank	11-Nov-19
58	Enter Industry Bio Farma Strengthens Collaboration with the Indonesian Ministry of Industry and Sucofindo	20-Nov-19
59	Bio Farma Wins Gold Rank in Asia Sustainability Reporting Rating 2019	25-Nov-19
60	Bio Farma Wins Top 2019 Awards in Digital Awards	Nov-28-19
61	Bio Farma Wins "Innovative Industrial Research and Development Institution (IIRDI) Award in the Field of Health / Medicine category	2-Dec-19
62	Senegal's Turn to Get Biotechnology From Indonesia	3-Dec-19
63	Bio Farma Wins Best 2019 State Organizers' (LHKPN) Wealth Award	9-Dec-19
64	Kemenristek / KBRIN: Will Support Bio Farma to Become an Innovation Based Industry	12-Dec-19
65	Bio Farma will explore Immunotherapy Products for Cancer	Dec 17 19
66	RI Minister of Health Invites OIC Members to Visit Bio Farma Center of Excellence Laboratory	Dec 17 19

Bio Farma also distributes releases not only domestically but internationally through the ACN Newswire network and the Indonesian News Agency (ANTARA) which is part of the BUMN synergy, which is sent to various international media, especially in Asia, Africa and the Middle East.

CUSTOMER CARE

Through Bio Farma's customer care number 1500810, stakeholders can inquire about the services carried out by Bio Farma, such as vaccination schedules and other services.



INTERNAL COMMUNICATION

The success of internal communication is greatly supported by the communication media used and the information content disseminated. Thus, all employees can understand the information conveyed quickly and effectively.

BIO FARMA INFORMATION SERVICE CENTER

Bio Farma opens consumer information services through various interactive communication media where consumers or other communities can express opinions, complaints and questions through various media such as:

MENU CUSTOMER CARE

On the company website	: www.biofarma.co.id
Portal of the Ministry of SoE	: http://www.bumn.go.id/biofarma/kontak-kami/
Corporate blog	: www.infoimunisasi.com
Telepon	: (62-22) 2033755
Faksimile	: (62-22) 2041306
Email	: mail@biofarma.co.id
Facebook	: infoimunisasi
Twitter / instagram / youtube	: @biofarmalD

CODE OF CONDUCTS

To achieve the Company's goals in the long term, the implementation of GCG must be based on high integrity and necessary code of conduct that can be a reference for the Company's organs and all Bio Farma people in applying values and business ethics so that they are part of the Company's culture.

GUIDELINES FOR APPLICATION OF CODE OF ETHICS (CODE OF CONDUCT) IN BIO FARMA

Showing Bio Farma's concern for the implementation of the code of conduct (Code of Conduct), the Bio Farma Board of Directors has issued a Decree as follows:

1. Company's articles of association
2. Decree of the Board of Directors Number: 00223/Dir/I/2009 dated January 12, 2009 concerning the Code of Conduct, updated with the Joint Agreement Letter of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-05/DK/BF/II/2013, Number: 01024/DIR/II/2013 dated February 22, 2013 concerning the Code of Conduct of PT Bio Farma (Persero) which has been updated with the SKB Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-07/DK/BF/III/2014, Number: 01103/DIR/III/2014 dated March 6, 2014 concerning Amendments to the Joint Decision of the Board of Commissioners and Directors of PT Bio Farma (Persero) and to be reviewed in the Joint Rules of the Board of Commissioners and Directors of PT Bio Farma (Persero) No. PER-08/DK/BF/12/2018 No. PER-06965/DIR/XII/2018 dated 31 December 2018 concerning the Code of Conduct of PT Bio Farma (Persero)

CODE OF CONDUCT

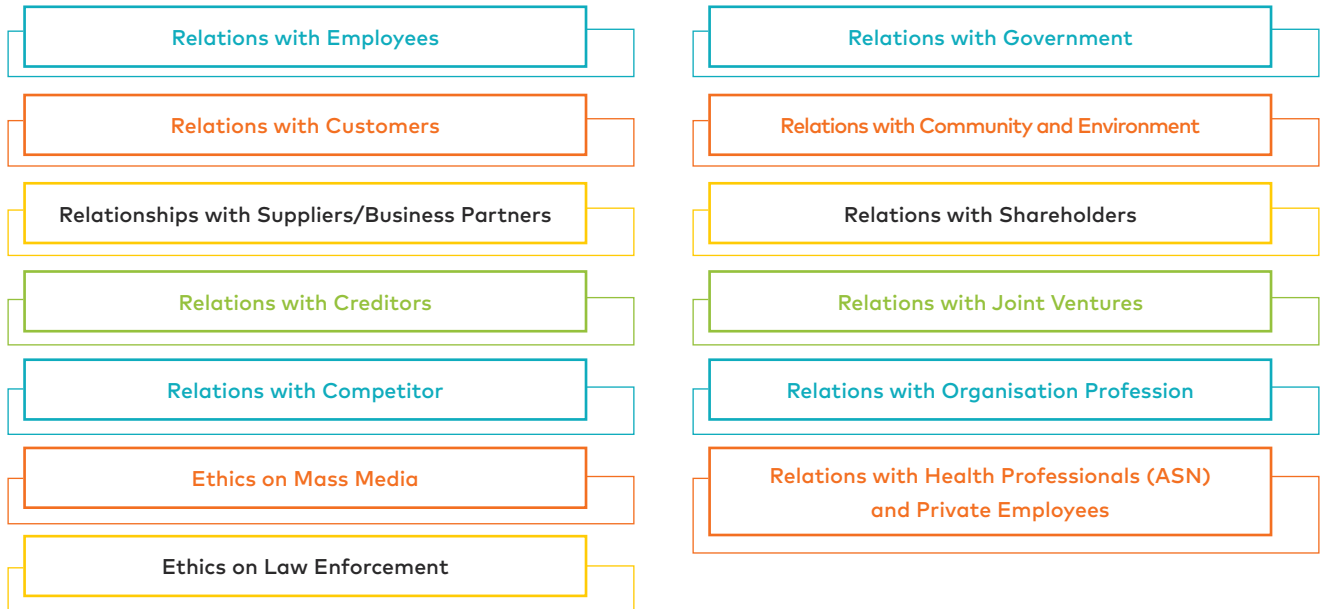
CONTENTS OF THE CODE OF CONDUCT

The Code of Conduct is one form of Bio Farma's commitments in the framework of implementing and enforcing Good Corporate Governance and is a set of commitments that contains obligations, prohibitions and relationships with other stakeholders.

The Bio Farma code of ethics includes equality and respect for human rights, relations with suppliers and customers, relationships with competitors, relations with surrounding communities, behavior towards fellow employees, compliance with laws and fair employment opportunities. The code of ethics also contains the principles of business ethics guidelines from the KNKG. The code of ethics also regulates the suitability of Bio Farma's behavior, including: anti-corruption behavior, not taking drugs and alcohol and not committing sexual harassment or other immoral behavior. In addition, along with the development of information technology, Bio Farma regulates the use of social media for Bio Farma people.

The Company's code of ethics covers business ethics and work ethics. Business Ethics regulates behavioral standards in interacting and dealing with stakeholders, while Business Ethics regulates Bio Farma human behavior standards in carrying out work and interacting.

BEHAVIOUR STANDARDS IMPLEMENTED BY THE COMPANY IN INTERACTING AND RELATING TO STAKEHOLDERS



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BEHAVIOUR STANDARDS IN IMPLEMENTING JOBS OR INTERACTING



THE CODE OF CONDUCTS IS ALSO REGULATED MATTERS, SUCH AS:

CONFLICT OF INTEREST	GRATIFICATION	ANTI-BRIBERY AND CORRUPTION	ETHICAL BEHAVIOUR AGAINST SUBSTITUTES, SUPERIORS, AND EMPLOYEES
• Situations that could lead to a Conflict of Interest • Types of Conflict of Interest • Source of Cause of Conflict of Interest • Preventive Measures and Handling of Possible Situations Cause Conflict of Interest • Conflict of Interest Reporting Mechanism • Supporting Factors for the Success of Handling Conflicts of Interest • Sanctions for Violations	• Gratuities that must be reported • Gratuities that are not obliged to be reported • Gratuities related to official service • Limits on Gratification • Gratuity Reporting Mechanism • Gratification Control Unit (UPG) • Reporting on Gratification Control		

DISSEMINATION OF CODE OF CONDUCT



DISCLOSURE THAT THE CODE OF CONDUCT APPLIES TO ALL LEVELS IN BIO FARMA

Every Bio Farma employee must have a commitment to be able to align themselves with the value system and work culture in the Company. Therefore, all Bio Farma people must put themselves in place to equalize and unite their beliefs and determination in order to be able to apply work attitudes and behavior in accordance with the company's value system and work culture, which is codified in the Code of Conduct. The successful implementation of the Code of Conduct is the responsibility of every Bio Farma employee in their respective work units.

DISSEMINATION OF CODE OF ETHICS INTERNALISATION, DISSEMINATION AND SIGNING OF THE CODE OF CONDUCT

Dissemination of the code of conduct is done by means of socialisation of the Code of Conduct to provide understanding and awareness to all Bio Farma people that it is important to implement this Code of Conduct.

On February 8, 2019, the Bio Farma Multipurpose Building (GSG) hosted an internalization and socialisation of the Code of Conduct. This event was attended by all Bio Farma people and ended with the signing of the Compliance Statement of the Code of Conduct.

Once a year, all Bio Farma people are required to declare their ability to obey and implement each item of the Code of Conduct in writing. This is manifested in a statement of compliance signed by each Bio Farma employee as one of the conditions for continuing work relations with the company.

The socialisation of the Code of Conduct at Bio Farma is carried out as follows:

1. Management provides understanding and awareness to employees to implement the Code of Conduct through socialization events which are conducted in a face-to-face manner with all employees at least once a year.
2. Video Outreach.
3. Website, intranet, banner.
4. GCG Application.
5. Distributing questionnaires regularly every year.

SANCTIONS FOR EACH TYPE OF VIOLATION REGULATED IN THE CODE OF ETHICS (NORMATIVE)

The Board of Commissioners, Directors, all Bio Farma Personnel, Suppliers, Business Partners or other Stakeholders who are proven to have violated the Code of Conduct will be sanctioned in accordance with the applicable provisions of the Company under the following conditions:

BIO FARMA PEOPLE

Sanctions are in accordance with disciplinary actions in the form of oral or written reprimands, disciplinary penalties, to termination of employment in accordance with the mechanism stipulated in the Collective Labor Agreement & applicable Company Regulations.

DIRECTORS & BOARD OF COMMISSIONERS

Sanctions for the Directors and the Board of Commissioners who commit violations are determined by the Shareholders.

SUPPORTING ORGANS OF THE BOARD OF COMMISSIONERS

Sanctions for Supporting Organs of the Board of Commissioners who commit violations are determined by the Board of Commissioners.

SUPPLIERS, BUSINESS PARTNERS OR OTHER STAKEHOLDERS

Sanctions according to contracts, relevant Company procedures & laws and regulations.

FOR LEGAL VIOLATIONS

The problem can be passed on to the authorities.

TOTAL VIOLATIONS OF CODE OF ETHICS AND SANCTIONS PROVIDED IN THE LAST YEAR BOOK

Violations of the code of conduct carried out by Bio Farma employees are monitored and evaluated by the Compliance, Risk Management, and HR divisions with the authority to provide punishment in accordance with the Collective Labor Agreement in force in the Company. As of December 31, 2019, at Bio Farma there were no code of ethics violations, thus no information was provided on the number of violations of the code of ethics along with sanctions imposed in 2019.

MECHANISM OF ENFORCING THE CODE OF CONDUCT INCLUDING REPORTING AND SANCTIONS ON VIOLATIONS

Enforcement and sanctions for violators of the Code of Conduct are regulated by a Joint Decree of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-05/DK/BF/II/2013, Number: 01024/DIR/II/2013 which has been updated with the Decree Together with the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: KEP-07/DK/BF/III/2014, Number: 01103/DIR/III/2014 dated March 6, 2014 Regarding the Code of Conduct of PT Bio Farma (Persero) and is known again in the Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero) No. PER-08/DK/BF/12/2018 No. PER-06965/DIR/XII/2018 dated 31 December 2018 concerning the Code of Conduct of PT Bio Farma (Persero).

1. In the event of a violation of the Board of Commissioners Joint Regulations and these Directors, then Bio Farma Entrepreneurs are required to report to:
 - a. The direct supervisor concerned, in which each supervisor is obliged to give full attention to the report of the subordinate and try to resolve it completely in accordance

with the provisions in force in the Company. If he is unable to report directly to a superior because of a Conflict of Interest with his employer, he can discuss the matter with the following parties:

- Head from the direct supervisor concerned;
 - HR Division;
 - Compliance & Risk Management Division; or
 - Trade Unions;
- b. Violation Complaint Box (Whistleblowing System).
2. Besides the internal parties of the Company, the Whistleblowing System can also be carried out by external parties such as Customers, Business Partners, and other stakeholders.

GRATIFICATION CONTROL

Bio Farma is committed to not giving and receiving gifts and gratuities, with the issuance of the Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: PER-08/DK/BF/12/2018 Number: PER-06965/DIR/XII/2018 Regarding PT Bio Farma (Persero) 's Code of Conduct, there is a Gratification Control Policy. This policy refers to KPK Regulation No. 6 of 2015 concerning Amendments to the KPK Regulation No. 2 of 2014 concerning Guidelines for Reporting and Establishing Gratification Status. The Gratification Control Policy has been published on the internal portal and the Company's website.

SOCIALIZATION OF GRATIFICATION CONTROL

The socialization of gratification control was carried out through face-to-face media conducted on February 8, 2019, e-mails, banners, posters, intranets and websites, videos, bulletins and annual reports. Also, at the time of religious holidays Bio Farma conducts socialization that prohibits receiving Gratification in any form, including parcels, gifts, money, and so on.

NUMBER OF CODE OF CONDUCTS VIOLATIONS AND SANCTIONS GIVEN IN THE LAST FINANCIAL YEAR

Violations of the code of conduct committed by Bio Farma personnel are monitored and evaluated by the Compliance & Risk Management Division with the authority to provide punishment accordingly, with the Collective Bargaining Agreement that applies to the Company. As of December 31, 2019, Bio Farma had no violations of the code of conduct, so it did not inform the number of violations of the code of ethics and the sanctions given in 2019.

CONFLICT OF INTEREST

GUIDELINES ON CONFLICTS OF INTEREST

1. BUMN Minister Regulation Number: PER-01/MBU/2011, BUMN Directors are prohibited from taking actions that create a conflict of interest and from taking personal benefits, either directly or indirectly from the decision-making and activities of the relevant SOEs in addition to legal income.
2. Guidelines for Handling Conflicts of Interest are regulated in the Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: PER-08/DK/BF/12/2018 Number: PER-06965/DIR/XII/2018 Regarding the Code of Conduct of PT Bio Farma (Persero), where the purpose and objective is as a guideline for Bio Farma Personnel to understand, prevent and overcome Conflicts of Interest in the Company, as guidelines in taking a firm attitude towards Conflicts of Interest in the Company, and realizing the management of the Company that is free from all forms of Corruption, Collusion and Nepotism (KKN).

CONFLICT OF INTEREST REPORTING MECHANISM

If a Conflict of Interest situation occurs, the Bio Farma Institute is required to report the matter through:

1. Direct Supervisors Reporting which is done through direct superiors if the reporter is a Bio Farma Entity who is involved or has the potential to be directly involved in a conflict of interest situation. Reporting is carried out by submitting a Potential Conflict of Interest Statement to the direct supervisor.

2. Violation Reporting System (Whistleblowing System).

Reporting through the Whistleblowing System is carried out if the reporter is a Bio Farma Reporter or other party (Customers, Working Partners and the Community) who does not have direct involvement, but are aware of or potential Conflicts of Interest in the Company. Reporting through the Whistleblowing System is carried out in accordance with a separate mechanism governing the Whistleblowing System in the Company. Reporting on the occurrence of a Conflict of Interest in item 2 above must be done in good faith and does not constitute a personal complaint regarding a particular Company policy nor is it based on bad will / slander.

SANCTIONS FOR VIOLATIONS

Violations of the provisions in this Code will be subject to sanctions based on the provisions in force in the Company.

DISCLOSURES ABOUT THE VIOLATION REPORTING SYSTEM (WHISTLEBLOWING SYSTEM)

Reporting Violations (whistleblowing) is the disclosure of violations or disclosure of acts that are against the law, unethical / immoral acts or other actions that can harm the Company or Stakeholders, which are carried out by Bio Farma people or Bio Farma Leaders to Bio Farma Leaders or other institutions who can take action on these violations.

System Reporting Violations (Whistleblowing System - WBS) is a system that manages the complaint / disclosure regarding conduct that is unlawful, unethical / undue confidential, anonymous, and independent (independent) and it is used to optimize the role of Bio Farma people and other parties in disclosing violations that occur within the Company.

THE LEGAL BASIS OF THE APPLICATION OF THE WHISTLEBLOWING SYSTEM (WBS)

1. Law No.28 of 1999 concerning State Administration that is Clean and Free of Corruption, Collusion and Nepotism, Article 9

(Republic of Indonesia State Gazette Number 75 of 1999, Supplement to Republic of Indonesia State Gazette Number 3851).

2. Law No.31 of 1999 concerning Eradication of Corruption Crimes article 31 and article 41 paragraph (2) point e. and has been updated with Law No.20 of 2001 concerning Eradication of Corruption.
3. PP No.71 of 2000 concerning Procedures for the Implementation of Community Participation and the Awarding of Corruption Prevention and Eradication Article 6.
4. Law No. 15 of 2002 in conjunction with Law No. 25 of 2003 concerning Money Laundering Acts articles 39 to 43.
5. PP No.57 of 2003 concerning Procedures for Special Protection for Reporters and Witnesses for Money Laundering.
6. Law No.13 of 2003 concerning Manpower article 153 paragraph (1) letter l and article 158 paragraph (1) letter i.
7. Law No.19 of 2003 concerning SOEs (RI State Gazette of 2003 Number 70, RI State Gazette Number 4297).
8. Law No.7 of 2006 concerning the Ratification of the United Nations Convention Against Corruption (UNCAC), Section 33 of UNCAC.
9. Law No.13 of 2006 concerning Witness and Victim Protection Article 10, paragraph 1;
10. Law No.40 of 2007 concerning Limited Liability Companies.
11. Government Regulation No. 1 of 1997 concerning the Transfer of the Form of Bio Farma General Corporation to a Company (Persero) Company.
12. Government Regulation No.45 of 2005 concerning Establishment, Management, Supervision and Disbanding of SOEs.
13. National Police Chief Regulation Number 17 of 2005 concerning Special Protection Procedures for Reporters and Witnesses for Money Laundering.
14. SOE Ministerial Regulation Number: PER-01 / MBU / 2011 dated 1 August 2011 concerning the Implementation of Good Corporate Governance in SOEs as amended lastly through SOE Ministerial Regulation Number: PER-09 / MBU / 2012 on 6 July 2012 concerning Amendment to SOE Ministerial Regulation Number: PER-01 / MBU / 2011 concerning Implementation of Good Corporate Governance in SOEs.

15. Decree of the Secretary of the Ministry of SOEs No. SK-16 / S.MBU / 2012 dated June 6, 2012 concerning Indicators / Evaluation and Evaluation Parameters for the Implementation of GCG in SOEs.

COMPANY POLICY REGARDING THE APPLICATION OF WHISTLEBLOWING SYSTEM (WBS)

1. Articles of Association of PT Bio Farma (Persero).
2. PKB PT Bio Farma (Persero) with Workers Union.
3. Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero)
Number: PER-06 / DK / BF / 12/2018; Number: PER-06963 / DIR / XII / 2018 dated 31 December 2018 concerning Guidelines for the Implementation of Good Corporate Governance at PT Bio Farma (Persero).
4. Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero)
Number: PER-08 / DK / BF / 12/2018; Number: PER-06965 / DIR / XII / 2018 dated December 31, 2018 concerning the Code of Conduct.

SUBMISSION OF VIOLATION REPORTS

1. Receipt of Violation Reports
2. Determination of Reported Abuse by Admin and Manager
3. Establishment of Investigation Team
4. Communication with the Reporter
5. Monitoring of the Handling of the Reporting of the Alleged Violations
 - a. When submitting Reporting Violations (Whistleblowing) reporters can include their identity and personal data such as a home / office address , email address , facsimile, contact number, or they may not include personal data (anonymous). The company provides protection to whistleblowers as follows:
 - b. Protecting the confidentiality of the Reporter's identity;
 - c. Protection for countermeasures from the Reported Party;
 - d. Protection from dismissal, demotion or suspension, postponement of promotion, pressure and physical action;
 - e. Protection of adverse records in his personal data file (personal file record).

- f. Information regarding the follow-up process that is being carried out (to the Reporting Party which includes personal data). This information is submitted confidentially to the Reporting Party.
6. The alleged violations are addressed by the administration team for Reporting Violations (Whistleblowing), the manager of the Reporting Violations (Whistleblowing) team , and the Investigation Team, as follows:
 - a. Abuse Reporting Admin (Whistleblowing), Compliance & Risk Management Division staff and Abuse Reporting Managers are Officers (Section Heads, Section Heads and Division Heads) in the Compliance & Risk Management Division.
 - b. The Investigation team is formed by the Directors for Complaints of Violations that are allegedly committed by Employees, while for the Complaints of Violations that are suspected by Directors, the Board of Commissioners or Supporting Organs of the Board of Commissioners the investigation team is formed by the Board of Commissioners.
 - c. In serious and sensitive cases, an independent external investigator / auditor can be used in investigating the violation report .
7. Whistleblowing media include:
 - a. electronic mail (email): reporting.wbs@biofarma.co.id
 - b. official letter addressed to the President Director (for alleged violations committed by Employees) or to the President Commissioner (for alleged violations committed by the Directors, Board of Commissioners or Supporting Organs of the Board of Commissioners) by post to the following address: Jalan Pasteur No.28 Bandung 40161,
 - c. or drop box in the Corporate Office or,
 - d. GCG application with the address portal.biofarma.co.id (media for Bio Farma Employees as Reporters)
8. GCG application with the address portal.biofarma.co.id (media for Bio Farma Employees as Reporters) communication with the Reporting Party will be carried out through the Whistleblowing Manager. In this communication, the Reporting Entity will obtain information regarding the handling of the reported case and

whether it can be followed up or not (with a Reporter who lists his personal data clearly). If the Reporting Party is a Bio Farma Person, the Reporting Party must be willing to sign a written agreement regarding the confidentiality of information either received from the Company, or submitted to the Company.

PROTECTION FOR REPORTING VIOLATIONS

In the application of WBS, the Company provides protection to the complainant / whistleblower (Whistleblowing) as follows:

1. Protection of confidentiality of the reporter's identity.
2. Protection against countermeasures due to the report.
3. Protection from dismissal, demotion or suspension, postponement of promotion, pressure and physical actions.
4. Protection against adverse records in his personal data file (personal file record).
5. Information regarding the follow-up process being executed (to the reporter who includes personal data). This information is conveyed confidentially to the reporter.

THE HANDLING OF COMPLAINTS

Handling of Complaints/Reporting of Alleged Violations is regulated for in a Joint Regulation of the Board of Commissioners and Directors of PT Bio Farma (Persero) Number: PER-08/DK/BF/12/2018; Number: PER-06965/DIR/XII/2018 dated December 31, 2018 concerning the Code of Conduct.

Receipt of Reports on Alleged Violations

1. Reporting of Violations (Whistleblowing) allegedly committed by Employees can be addressed to the Board of Directors and submitted through:
 - a. Electronic mail (email) : reporting.wbs@biofarma.co.id;
 - b. Official letters addressed to the President Director by direct delivery or by post with the following address:
Managing Director of PT Bio Farma (Persero)
Up: Reporting Abuse Manager
Jalan Pasteur No. 28 Bandung 40161
 - c. Drop Box at the Company's office
 - d. GCG application with the address portal.
biofarma.co.id (media for Bio Farma Employees as Reporters).

2. Complaints regarding alleged violations committed by the Directors, Board of Commissioners, or the Supporting Organs of the Board of Commissioners can be addressed to the Board of Commissioners and submitted through:
 - a. Electronic mail (e-mail) : reporting.wbs@biofarma.co.id
 - b. Official letters addressed to the Board of Commissioners by direct delivery or by post with the following address:
 - c. President Commissioner of PT Bio Farma (Persero)
Up: Reporting Abuse Manager
Jalan Pasteur No. 28 Bandung 40161
 - d. Drop Box at the Company's office.

SOCIALIZATION OF THE WISTLEBLOWING SYSTEM

The company disseminates the Violation Reporting System (WBS) to all Bio Farma People to provide an understanding of the Customer Reporting Policy (WBS). Socialization is also carried out to other Stakeholders through the Company's website.

ACTIONS FOR HANDLING THE REPORTING OF VIOLATIONS

INVESTIGATION TEAM

1. First, the Investigation Team receives a report from the Whistleblowing System Management Team.
2. The investigation team will then conduct an investigation. Implementation of Investigation is done by the Investigation Team on Reporting of Violations. Once a report is received the investigation is carried out within 30 (thirty) working days and can be extended no later than 30 (thirty) working days later.
3. Making Minutes of Investigation Results and reporting to the President Director (for alleged violations committed by employees) or to the Board of Commissioners (for violations committed by the Board of Directors, Board of Commissioners or Supporting Organs of the Board of Commissioners) if necessary, the Investigation Team can present their work to the Directors / Board of Commissioners.
4. Documenting the entire investigation process with supporting evidence, working papers, minutes and other documents.

THE DIRECTORS

1. First, the Board of Directors receives a report from the Whistleblowing System Management Team on the alleged violations.
2. The Board of Directors then assigns an investigation team to carry out an investigation.
3. Based on the Minutes of the Investigation Results, the Directors will study the matter and decide on it.
4. Decisions on the results of the investigation will be submitted by the Directors to the Whistleblowing Management Team in accordance with the reporting path to be subsequently submitted to the Reported Party.
5. Documenting the entire investigation process with supporting evidence, working papers, minutes and other documents.

BOARD OF COMMISSIONERS

1. First, the Board of Commissioners receives a report from the Whistleblowing System Management Team for alleged violations committed by the Board of Directors/Board of Commissioners.
2. Then, the Board of Commissioners will conduct an investigation in accordance with the principles contained in the Guidelines System for Alleged Violations.
3. Based on the Minutes of Investigation Results, the Board of Commissioners will study the matter and decide on it.
4. The decision on the results of the investigation will be submitted by the Board of Commissioners to the Whistleblowing System Management Team in accordance with the reporting path to be subsequently submitted to the Reported Party.
5. Documenting the entire investigation process with supporting evidence, working papers, minutes and other documents.

ASSIGNMENT OF THE WHISTLEBLOWING SYSTEM (WBS) MANAGEMENT TEAM

In addressing the alleged violations, the administrative team for Reporting Violations (Whistleblowing) , the manager for Reporting

Violations (Whistleblowing) , and the investigation team will act as follows:

1. Abuse Reporting Admin (Whistleblowing), Compliance & Risk Management Division staff and Abuse Reporting Managers are Officers (Section Heads and Division Heads) in the Compliance & Risk Management Division;
2. The duty of the Whistleblowing Admin is to receive, register and administer the Whistleblowing that goes through e-mails, letters, drop boxes and applications to be forwarded to the Whistleblowing Manager;
3. Admin of Whistleblowing maintains the confidentiality of the Reporter's identity in accordance with the policies set especially the confidentiality and security aspects of the Reporting Entity;
4. In the event that the Reporting Party sees that the violation was carried out by the Whistleblowing Manager , the violation report must be sent directly to the President Director of the Company;
5. In the case of violations committed by the Directors, the Board of Commissioners or Supporting Organs of the Board of Commissioners must be sent directly to the President Commissioner;
6. In the case of violations committed by the President Commissioner this must be sent directly to the Shareholders;
7. In the event that the Reported Party or the party involved with the reported violation is one of the Board of Commissioners or Supporting Organs of the Board of Commissioners, then the person concerned is not involved in the follow-up process of Whistleblowing ; The task of the Whistleblowing Manager is to receive a Whistleblowing report which is forwarded by the Whistleblowing Admin and to verify the supporting documents submitted by the Reporting Entity, compile the Minutes of Verification Results and report to the President Director (for alleged violations committed by employees) or to the President Commissioner (for alleged violations

committed by the Directors, Board of Commissioners or Supporting Organs of the Board of Commissioners).

NUMBER OF COMPLAINTS THAT WERE ENTERED AND PROCESSED IN 2019

In 2019, the manager of the WBS did not receive any reports related to violations committed by Company Organs or Bio Farma People. As such it does not provide any information on the number of complaints that were received and processed in 2019.

SANCTIONS / FOLLOW UP FOR COMPLAINTS THAT WERE PROCESSED IN 2019

In 2019, the WBS Management Team did not receive any reports related to violations committed by Company Organs or Bio Farma People, thereby no sanctions / follow-up on complaints were processed in 2019.

As part of the effective implementation of Good Corporate Governance, the socialization and enforcement of the application of the Whistleblowing System always seeks to be continuously improved and there will therefore be periodic improvements to the system in accordance with the Company's business development.

POLICY ON THE DIVERSITY OF THE BOARD OF COMMISSIONERS AND THE COMPOSITION OF THE DIRECTORS

DESCRIPTION OF COMPANY POLICY CONCERNING DIVERSITY OF THE COMPOSITION OF THE BOARD OF COMMISSIONERS AND DIRECTORS IN EDUCATION (FIELD OF STUDY), EXPERTISE, EXPERIENCE AND AGE

Having diversity in the composition of the Board of Commissioners encourages more objective and comprehensive decision making because decisions are made by paying attention to various points of view and interests without discrimination.

GUIDELINES FOR IMPLEMENTING DIVERSITY

In connection with the abovementioned matters and based on Article 30 and Article 59 of Law Number 19 of 2003 concerning State-Owned Enterprises and Article 58 of Government Regulation Number 45 of 2005 concerning the Establishment, Management, Supervision and Disbanding of State-Owned Enterprises, as stipulated in Regulation of the Minister of State-Owned Enterprises Number PER-19 / MBU / 10/2014 dated 17 October 2014 concerning Requirements and Procedures for Appointment and Dismissal of Members of the Board of Commissioners and Board of Trustees of State-Owned Enterprises as amended by Regulation of the Minister of State-Owned Enterprises Number PER-21 / MBU / 11/2014 dated 7 November 2014.

That to further clarify and expedite the process, and adjust to regulations / policy changes in the procedures for the appointment and dismissal of Members of the Board of Commissioners and the Supervisory Board, the Regulation of the Minister of State Owned Enterprises Number PER-19 / MBU / 10/2014 as amended by The Regulation of the Minister of State-Owned Enterprises Number PER-21 / MBU / 11/2014 needs to be reviewed, so that the process of appointing and dismissing Members of the Board of Commissioners and the Supervisory Board can be carried out well, with more effective planning and accountability.

In connection with the aforementioned matters and based on Article 30 and Article 59 of Law Number 19 of 2003 concerning State-Owned Enterprises and Article 58 of Government Regulation Number 45 of 2005 concerning the Establishment, Management, Supervision and Dissolution of State-Owned Enterprises, it has stipulated Regulation of the Minister for State-Owned Enterprises Number PER-19/MBU/10/2014 on October 17, 2014, concerning Requirements and Procedures for the Appointment and Dismissal of Members of the Board of Commissioners and Supervisory Board for State-Owned Enterprises as amended by Regulation of the Minister for State-Owned Enterprises Number PER-21/MBU/11/2014 on November 7, 2014.

That in order to further clarify and streamline the process, as well as adjust to regulations/policy changes in the procedures for appointing and

dismissing Members of the Board of Commissioners and the Board of Supervisors, the Regulation of the State Minister for State-Owned Enterprises Number PER-19/MBU10/2014 as amended by Regulation of the Minister for State Owned Enterprises Number PER-21/MBU/11/2014 needs to be reviewed, so that the process of appointing and dismissing members of the Board of Commissioners and the Board of Supervisors can be carried out in a better, more planned and effective manner and can be accounted for.

In 2019, diversity in the composition of the Board of Commissioners was as follows:

Period 1 January 2019 - 16 July 2019

Name	Gender	Ages Pert 31 December 2019	Education			Expertise									
				S2	S3	Medical	Public Administration Public Qualifications	The Economy Management	Economic accounting	Law	Business Administration	Pharmacy	Social Politics	Communication & Informatics Engineering	Religion
Farid Wajdi Husain	Male	69		√		√							√		
M. Subuh*	Male	57		√		√	√					√			
Made Arya Wijaya	Male	54		√				√	√						
Saud Usman Nasution	Male	61			√					√			√		
Yuni Suryanto	Male	55		√					√		√				
Elen Setiadi	Male	48		√				√		√			√		

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* Expires on July 16, 2019

Period 13 September 2019 - 31 December 2019

Name	Gender	Ages As of December 31, 2019	Education			Expertise									
			S1	S2	S3	Medical	Public Administration Public Qualifications	The Economy Management	Economic accounting	Law	Business Administration	Pharmacy	Social Politics	Communication & Informatics Engineering	Religion
Farid Wajdi Husain	Male	69		√		√							√		
Oscar Primadi*	Male	60		√		√									
Made Arya Wijaya	Male	54		√				√	√						
Saud Usman Nasution	Male	61			√					√			√		
Yuni Suryanto	Male	55		√					√		√				
Elen Setiadi	Male	48		√				√		√			√		

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* Starting to serve on July 16, 2019

DIVERSITY OF BOARD OF DIRECTORS' COMPOSITION

In order to support the achievement of the Company's Vision, and to advance and develop the Company by making breakthrough initiatives in all aspects while facing global competition, Bio Farma has a Board of Directors that is expert, experienced, integrated and highly dedicated.

The Bio Farma Board of Directors is competent and has a range of experience relevant to the positions held and to the collegial duty and responsibility of managing the Company for the interests and objectives of the Company, as well as representing the Company both inside and outside the court. Furthermore, it has a diversity of ages, educational backgrounds (Fields of Study), and work experience.

The diversity of the composition of the Board of Directors encourages more objective and comprehensive decision making because decisions are made by paying attention to various points of view and interests without discrimination.

COMPANY GUIDELINES ON THE BOARD OF DIRECTORS' DIVERSITY COMPOSITION

The Bio Farma Guidelines regarding the diversity of the composition of the Directors refers to the following: SOE Ministerial Regulation Number: PER-03 / MBU / 02/2015 Regarding Requirements, Procedures for Appointment and Dismissal of SOE Directors.

COMPANY POLICY CONCERNING DIVERSITY IN THE COMPOSITION OF THE BOARD OF DIRECTORS

Bio Farma's policy regarding the diversity of the composition of the Board of Commissioners refers to the following:

1. Articles of Association of PT Bio Farma (Persero)
2. Joint Decision Between Directors and Board of Commissioners Number: KEP-06/DK/BF/II/2013 and Number: 01025/DIR/II/2013 dated February 22, 2013 and has been updated with Decree No. PER-07/DK/BF/2018, No. PER-06 964/DIR/XII/2018 dated December 31, 2018 on Guidelines for the Board of Commissioners and Board of Directors (Board Manual) PT Bio Farma (Persero).

In order to obtain SOE Human Resources, especially members of the Board of Directors who are professional, have integrity, are dedicated and have competence, to carry out their duties and responsibilities, and to realize a process of replacing members of the Board of Directors properly, it is necessary to improve guidelines governing the requirements, procedures for appointment, and termination of accountable members of the board of directors.

Diversity in the composition of the Bio Farma's Board of Directors includes:

1. Individuality
 - a. Good-tempered and have the ability to carry out the task as well as possible
 - b. Competent in legal actions
 - c. Bankruptcy was never declared within 5 (five) years prior to nomination
 - d. Never been a member of the Board of Directors or a Board of Commissioners/ Supervisory Board that was found guilty of causing a company to go bankrupt within 5 (five) years prior to nomination
 - e. Has never been convicted of a criminal offense that is detrimental to the country's finances and/or related to the financial sector within 5 (five) years prior to nomination.
2. Integrity:

Technical competence/expertise, that the person concerned has:

 - a. Adequate knowledge in the Company's business fields
 - b. Experience and expertise in the field of corporate management
 - c. Ability to carry out strategic management in the context of developing the Company
 - d. Understanding of the Company's management issues related to one of the management functions
 - e. Dedication and full time availability to do the work.
 - f. Psychological fitness such that the person concerned has an adequate level of intelligence and emotional stability to carry out his duties as a member of the Company's Board of Directors
3. Other requirements based on statutory regulations

In 2019, the Bio Farma Directors' Diversity Composition is as follows:

Period 1 January 2019 - 13 September 2019

Name	Gender	Ages Pert 31 December 2019	Education			Expertise											
			S1	S2	S3	Medical	The Economy Management	Law	Business Administration	Pharmacy	Pharmacist	Strategic Management	Operation Management	Industrial Engineering	Marketing	Human Resources	Planning & Development
M. Rahman Roestan	Male	49			√				√	√	√	√			√		
Juliman*	Male	57		√						√	√		√	√	√		
Sri Harsi Teteki	Female	55		√		√									√		
Disril Revolin Putra*	Male	54		√				√	√							√	
Pardiman*	Male	59		√			√									√	
Adriansjah Azhari*	Male	56		√						√	√	√	√				√

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* Expires on September 13, 2019

Period 13 September 2019 – 31 December 2019

Name	Gender	Ages Pert 31 December 2019	Education			Expertise										
			S1	S2	S3	Medical	The Economy Management	Economics of Financial Accounting	Business Administration	Pharmacy	Pharmacist	Strategic Management	Project Management	Industrial Engineering	Marketing	
Honesti Basyir*	Male	51		√				√				√	√	√		
M. Rahman Roestan	Male	49			√				√	√	√	√				√
Sri Harsi Teteki	Female	55		√		√										√
I.G.N. Suharta Wijaya*	Male	52		√			√	√								

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* Starting to serve on September 13, 2019

Composition of Members of the Board of Commissioners and Directors of Bio Farma in 2019

Year	Number of Commissioners	Number of Directors
2015	6	6
2016	6	6
2017	6	6
2018	6	6
January 1, 2019 - September 13, 2019	6	6
September 13 2019 - December 31 2019	6	4

Based on the above table, it can be seen that as of December 31, 2019, the number and composition of the Board of Commissioners' members was 6 people and the number of Directors was 4 people so that it was in accordance with the applicable regulations.

COMPARATIVE STUDY

Comparative Study or Benchmarking is a value-added process for companies, especially Bio Farma, because with benchmarking, Bio Farma is able to see a picture of working conditions in other companies and can adopt them as best practices to achieve desired goals. Bio Farma also gains added value if it applies the goal of benchmarking from other companies because it can be seen that Bio Farma has a working system or working process that can be used as an example (best practices) for other companies. The benchmarking that has been performed and / or is the goal of benchmarking from other companies can be seen in the table below:

Comparative Study During 2019

No	Tanggal	Institution Name	Topic
1	30-Apr-19	Cilegon City Government Social Service	Implementation of the company's CSR program for Community Empowerment
2	13-Sep-19	PT Kimia Farma (Persero), PT Phapros Tbk, PT Industri Jamu Sido Appears, PT Kalbe Farma	Proper benchmarking
3	20-Sep-19	Sucofindo	Implementation of Governance, Risk and Compliance
4	20-Sep-19	PTPN VIII	Strategic Planning and Change Management Office
5	24-Oct-19	District Government. Cilacap	Implementation of the company's CSR program for Community Empowerment



Corporate Social RESPONSIBILITY



INFORMATION RELATED TO CORPORATE SOCIAL RESPONSIBILITY
IS ELUCIDATED WITHIN THE SUSTAINABILITY REPORT WHICH IS AN
INCORPORATED PART OF THIS ANNUAL REPORT.

Bio Farma has proffered information related to Corporate Social Responsibility in its sustainability report; thus, Bio Farma no longer discloses such information in the Annual Report.

This is manifested in compliance with the FSA Circular Letter No. 30/SEOJK.04/2016 On the Form and Contents of Annual Report of Issuers or Public Companies, point III.2.h.2) & 3) which regulates that:

In the event that an Issuer or Public Company presents information on social and environmental responsibilities in a separate report such as a social and environmental responsibility report or a sustainability report, the Issuer or Public Company is excluded from disclosing information about social and environmental responsibilities in the Annual Report; and the report as referred to is submitted to the Financial Services Authority in conjunction with the submission of the Annual Report.

INDEPENDENT AUDITOR'S REPORT OF FINANCIAL STATEMENTS

PT BIO FARMA (PERSERO)