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# **Policy Review of Dairy Industry in Indonesia**



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## EXECUTIVE SUMMARY

This dairy policy review aims to identify and recommend strategies and policies to support the development of sustainable, profitable, and smallholder-inclusive dairy supply chains in North Sumatra and West Java. After reviewing the performance of imports and prices of dairy cows and dairy products and the underlying policies, the study team proposes alternative policy approaches to achieve the development goal of smallholder dairy farming.

The world market for dairy products has been long characterized by instability in supply and demand, resulting in high price volatility. The dynamics of production in the major dairy exporting countries and consumption in the world's major importing countries determine the volatility of the world market prices of dairy products. The main exporting countries of dairy products include New Zealand, Germany, the USA, Netherland, France, Belgium, and Australia. Meanwhile, the top five dairy importing countries in 2019 include China, Germany, Belgium, Netherlands, dan Italy. Indonesia was the top 9th world importing country of dairy products.

The Indonesian dairy industry is characterized by small farmers, having fewer than five dairy cows. In 2020, Indonesia still produced less than a third of the domestic demand for dairy products. Currently, the dependence on imported milk supply is still at the level of 77 percent in covering Indonesia's milk consumption needs. The Government of Indonesia (GoI) puts huge resources into the national dairy sector, aiming to increase domestic production. Similarly, the private sector is also playing a role in investment to develop infrastructure and build capacity to enhance growth in Indonesia's dairy sector. Moreover, high volatility of world prices implies high risk and uncertainty that can result in depletion of foreign exchange for imports when there is a spike in the world market prices. Such conditions, therefore, must be anticipated with policies and programs to increase domestic dairy production if reducing import dependency and domestic dairy product prices are the government's primary concerns.

This report describes the main points of policy undertaken as a component of the AGB/2012/099 study: 'Improving the supply, competitiveness, and livelihoods of small-scale dairy production in Indonesia' (IndoDairy), commissioned by the Australian International Center for Agricultural Research (ACIAR). Specifically, this report discussed several regulations issued by the Government of Indonesia (GoI) related to (1) Dairy Inputs, (2) Price of Domestic and Imported Dairy Products, (3) Investments in the Domestic Industry, (4) Access to Credit, (5) Importation Regulation of Live Dairy Cattle, and (6) Importation of Dairy Products. By using SWOT analysis, the strengths, weaknesses, opportunities, and threats in each regulation are discussed particularly to support the development of sustainable, profitable, and smallholder-inclusive dairy supply chains.

Many regulations have been established by the GoI related to the dairy industry. During pandemic Covid 19, additional regulations were also issued aiming to address the impact of the Covid-19 pandemic on the dairy industry. It is necessary to implement regulations that can encourage the increase in domestic fresh milk (SSDN) through coordination between ministries and agencies, both at the central and regional levels. This coordination is expected to create concrete steps so that small businesses in the national dairy sector can have better access to good quality dairy cow inputs and dairy cattle feed, green land, capital, as well as digital and traditional markets. The results of SWOT analysis give the best position for facing competition which is SO or strengths-opportunities strategies.

For the regulations related to **dairy inputs** since the high quality of fresh milk is important for the processing milk industry, the programs that can ensure the availability of easily accessible technology, affordable feed and medicines, heifers and breeder cows, and other cost-reducing technologies in dairy farming are needed. The procurement of refrigeration

facilities at the farmer and cooperative levels is important. The selection of seeds at the breeder level, quality parent procurement, importation of superior semen, and recording of national data collection of seeds for selection purposes should also be implemented. From the aspect of cultivation, the strategy should focus on the provision of forage land for fodder, concentrate feed, fermented feed through the utilization of land potential. Moreover, the government needs to loosen the restrictions on imports of heifers and breeder dairy cows.

For **the regulation related to the price of domestic and imported dairy products**, a progressive policy strategy should include increasing the promotion of dairy products, producing premium dairy products, shortening the sales chain through digital marketing, and increasing the added value of dairy products. A progressive policy strategy related to **investments in the dairy industry** could include tax allowance facilities for investors, simplify administration aspects, eliminate unnecessary costs, and create stable economic and political situations in Indonesia. The government also needs to simultaneously encourage and facilitate the development of medium and large-scale dairy farms by attracting private investments, both domestic and foreign direct investments. The business partnership programs between large-scale and small-scale livestock need to be encouraged and facilitated to realize an inclusive growth of the industry. The promotion of partnerships will be the key to the successful development of the national dairy industry, as has happened in several countries, including Japan.

A progressive policy strategy related to **access to credit** could include the effort to improve the knowledge and competence of dairy farmers related to the financial records, support from industry through dairy development partnership programs, and special interest rate for farmers/cooperatives or other investors interested in developing dairy industry in Indonesia. A progressive policy strategy in the area of **importation regulation of live dairy cattle and other inputs** could include the increase of the government's role in foreign trade policy, particularly in the World Trade Organization (WTO) related to the regulations of the protection of breeders, and negotiations with import policy makers in the international agencies and trade partner countries. It is also important to provide training related to the importance of animal welfare for dairy farmers, cooperatives, and related institutions to avoid conflict with animal care organizations at national and international levels. A progressive policy strategy related to **dairy product** importation could include the increase of the government roles in strengthening the domestic powdered milk market through policies that can provide incentives for the processing milk industry (Industri Pengelohan Susu-IPS) to be able to produce domestic powdered milk that can compete with imported product. Regulation of the Minister of Agriculture 2017 that requires businesses producing processed milk (IPS) to have a processing unit within three years should also be monitored related to the implementation. For importers that cannot produce processed milk, they are required to establish partnerships with relevant actors along the dairy values chain in the form of production facilities and capital for dairy farmers.

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## 1. INTRODUCTION

Indonesia's dairy industry is characterized by smallholder farmers. Farm sizes are typically small with farms, on average, owning less than five milking cows (Guntoro et al. 2016). In 2012 Indonesia was producing less than one-third of its domestic demand for dairy products. The fragility of domestic milk supply within Indonesia was demonstrated during 2014 when approximately 40 percent of the nation's dairy herd was slaughtered due to high beef prices.

The Government of Indonesia (GoI) is investing substantial resources into the nation's dairy sector, aiming to increase domestic production. Likewise, the private sector is investing heavily in developing infrastructure and building capacity to improve the growth of the Indonesian dairy sector.

The dairy industry in Indonesia has shown an increase in domestic consumption of milk and its derivative products. This trend is driven by the increasing population, people's awareness of healthy life, and increasing per capita income (USD 3,927.3/capita) in 2018, even though it slightly decreased in 2020 (USD 3,911.7/capita) due to pandemic covid-19 (Statistics Indonesia, 2021). The average growth of whole milk consumption in Indonesia from 2017-2020 has increased by 1.23% per year (Ministry of Agriculture, 2021). In 2017, the national milk consumption was about 16.29 kg/capita/year, increased to 16.49 kg/capita/year in 2018, then decreased to 16.23 kg/capita/year in 2019 (Table 1. ). During the Covid-19 pandemic (2020), milk consumption in Indonesia slightly increased to 16.27 kg/capita/year. By increasing milk consumption, the immunity will increase reducing the probability to be infected by the virus. However, the consumption of milk per capita in Indonesia was still lower compared to other Southeast Asian countries, e.g., Malaysia (36.20 kg/capita/year), Myanmar (26.7 kg/capita/year), and Thailand (22.2 kg/capita/year).

Table 1. Domestic Needs, Production, Import and Consumption of Milk in Indonesia in 2017-2020

Description	2017	2018	2019	2020	Growth (%)
Domestic needs (000 ton)	4267.32	4355.08	4332.88	4385.73	2.06
Production (000 ton)	918.24	992.64	957.22	997.35	8.10
Import (000 ton)	3355.81	3368.08	3380.4	3392.76	0.37
Percent import	78.64	77.34	78.02	77.36	-1.66
Consumption (kg/capita/year)	16.29	16.49	16.32	16.27	1.23

Source: Ministry of Agriculture (2021)



The dairy market in Indonesia is still heavily reliant on imported milk products. During the period of 2017-2020, imported milk contributed more than 77 percent of milk national needs. During the same period, the average growth of milk production in Indonesia was about 8.10 percent. Although the growth of milk production is four times higher than the growth of domestic needs, Indonesia still relies on imported milk to fulfill the domestic needs..

Table 2. Number of Dairy Cattle in Indonesia from 2016 to 2020

No	Province	Number of Cattle (head)					Average (head)	Contribution (%)	Growth (%)
		2016	2017	2018	2019	2020			
1	East Java	265,002	273,881	295,809	287,196	295,141	283,406	50.8%	-1%
2	Central Java	137,334	138,560	154,202	140,520	139,605	142,044	25.5%	2%
3	West Java	119,595	115,827	118,800	122,505	118,212	118,988	21.3%	-13%
4	DI Yogyakarta	4,069	4,003	3,747	3,873	3,537	3,846	0.7%	11%
5	DKI Jakarta	2,411	1,897	2,023	2,024	2,024	2,076	0.4%	-16%
6	Other Provinces	5,522	6,273	6,941	8,883	9,746	7,473	1.3%	76%
	<b>Indonesia</b>	<b>533,933</b>	<b>540,441</b>	<b>581,522</b>	<b>565,001</b>	<b>568,265</b>	<b>557,832</b>	<b>100%</b>	<b>6.43%</b>

Source: Statistics Indonesia (2021)

The milk production is concentrated in Java Island which the population of cattle reached 97.6 percent of the total population in Indonesia (**Error! Reference source not found.**). East Java, Central Java, and West Java Provinces were the main production zones of milk producers. East Java Province accounted for 54,2 percent of the total national milk production, followed by West Java with 33 percent contribution and Central Java with 10.8 percent (Table 3). However, it is important to note that the growth of fresh milk production in West Java reduced by 1 percent during the period 2016-2019.

Table 3. Fresh Milk Production in Indonesia from 2016 to 2019

No	Province	Production (ton)				Average (ton)	Contribution (%)	Growth (%)
		2016	2017	2018	2019			
1	East Java	492,460.6	498,915.8	512,846.8	521,123.4	506,337	54.2%	6%
2	West Java	302,559	310,461	319,004	300,337	308,090	33.0%	-1%
3	Central Java	99,997	99,607	100,998	102,949	100,888	10.8%	3%
4	D.I Yogyakarta	6,226	6,125	4,059	5,926	5,584	0.6%	-5%
5	DKI Jakarta	4,726	5,418	5,098	5,100	5,085	0.5%	8%
6	Other Provinces	6,767	7,582	8,997	9,101	8,112	0.9%	34%
	<b>Indonesia</b>	<b>912,735</b>	<b>928,108</b>	<b>951,004</b>	<b>944,537</b>	<b>934,096</b>	<b>100.0%</b>	<b>3%</b>

Source: Statistics Indonesia (2021)

There have been several development efforts to increase domestic milk production. Over the last few years (2016-2020), the national dairy cattle numbers have increased by 6.43 percent to reach the amount of 568,265 dairy cattle (**Error! Reference source not found.**). Milk production has also increased during the four years (2016-2019) by 3 percent to reach 944,537 tons in 2019 (Table 3). In Java, the biggest growth of dairy cow number over the last five years has occurred in East Java province, with a growth of 6 percent. Meanwhile, the

biggest growth of fresh milk production during the last four years occurred in DKI Jakarta provinces with a rate of 8 percent.

The majority of cows in Indonesia are owned by individual farmers with an average of three to four cows per farmer. In East Java, 94 percent of cows are owned by individual farmers which dairying is only a part-time business for many farmers. However, for some individual farmers, milk is their main income source. Many of the individual dairy farmers are represented by the Indonesian Association of Dairy Cooperatives (Gabungan Koperasi Susu Indonesia /GKSI) which oversees industry development including policies regarding sourcing funding for infrastructure and cattle and milk price negotiation. Some larger size dairy farmers operate outside the cooperative system and sell to milk processors directly.

Corporate dairy farming consists of only several producers but their roles tend to expand. Corporate dairy farming contributes only 6 (six) percent of dairy cows and milk production in East Java. In Indonesia, there are five corporate dairy farms with 4 (four) located in West Java and 1 (one) in East Java. Corporate farming will expand into North Sumatra with two major liquid milk companies planning to establish dairy farms and milk processing plants near Medan in North Sumatra with a focus on export to Asian markets.

The Indonesian Association of Milk Processors (MPI) represents the milk processing sector and has the five largest milk processors including Frisian Flag, Nestle, Sari Husada / Danone, Ultra Jaya, and Indolakto / Indomilk. The five major companies absorb about 85 percent of Indonesia’s milk production. Their main factories are located in the following regions: 1) Jakarta – Frisian Flag; 2) West Java – Indolakto, Ultra Jaya; 3) Central Java – Sari Husada; and 4) East Java – Nestle

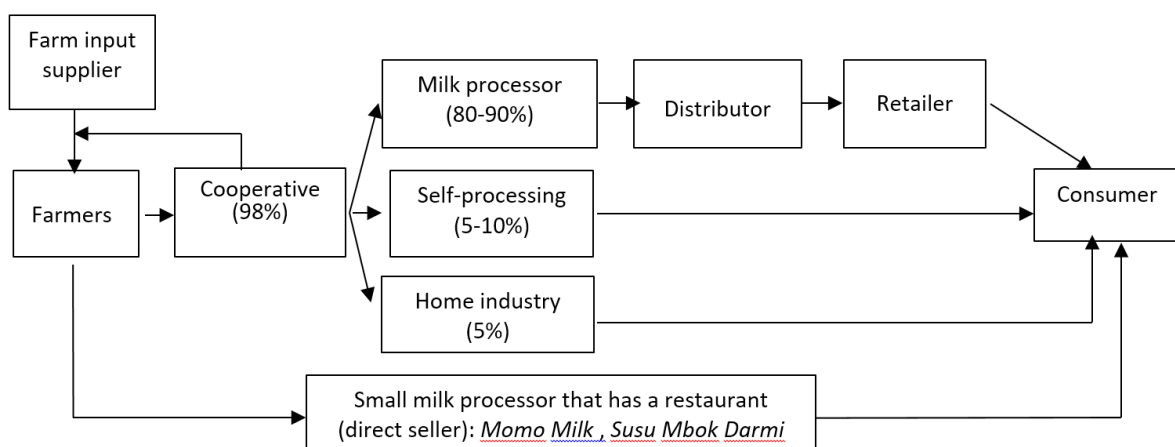


Figure 1. The Dairy Value Chain in West Java Province

The dairy sector in Indonesia also contributes substantially to livelihoods especially to smallholder households in rural areas. Based on field research in West Java in 2018, the Indonesian dairy value chain consists of farm input suppliers, farmers, cooperatives, milk processors, distributors, retailers, and consumers (Figure 1). The roles of the actors along the dairy value chain are presented in Table 4

Table 4. The Roles of Actors along the Dairy Value Chain in Indonesia

No	Value Chain Actor	Role
1	Input Supplier	Farm input suppliers provide feed, equipment, infrastructure, and veterinary care for cattle. Raw materials of feed mostly are obtained from suppliers near the farmers' location.
2	Farmers	The roles of farmers in the value chain are maintaining the cattle and selling fresh milk. Most of the farmers are classified as smallholders which they mostly have on average 2-3 cattle. For most farmers producing milk, dairy production is the primary source of income (80 percent).
3	Dairy Co-operatives	Dairy cooperatives have a vital role to bridge farmers and milk processors. A cooperative gives technical and managerial skills for farmers, financial support, and market access
4	Milk processors	Milk processors transform fresh milk into some milk products such as pasteurized milk, Ultra High-Temperature milk, yogurt, cheese, and others
5	Retailers	Retailers sell the milk products to end consumers

The government has already issued a blueprint for developing a national dairy farming and dairy industry, revised twice since its issuance. However, the implementation and implementation of this blueprint is still very minimal. To realize the blueprint, especially the development of smallholders' dairy farms, the policymakers and stakeholders need to understand the market development of dairy products, live cattle and heifers, domestically and in the world market, and underlying government policies and programs on this industry.

Several regulations have been issued by the Indonesian Government (GoI) to increase domestic milk production and the performance of dairy value chains. This report discussed policies related to (1) Dairy Inputs, (2) Price of Domestic and Imported Dairy Products, (3) Investments in the Domestic Industry, (4) Access to Credit, (5) Importation Regulation of Live Dairy Cattle, and (6) Importation of Dairy Products. Strategies and policies to support the development of sustainable, profitable, and smallholder-inclusive dairy supply chains are also discussed.

This dairy policy review aims to identify and recommend strategies and policies to support the development of sustainable, profitable, and smallholder-inclusive dairy supply chains in North Sumatra and West Java. After reviewing the performance of imports and prices of dairy cows and dairy products and the underlying policies, we then propose alternative policy approaches to achieve the development goal of smallholder dairy farming.

## **2. OVERVIEW OF THE REGULATORY FRAMEWORKS**

This section reviews relevant policies and regulations related to dairy inputs, investment, and access to credit. Some issues of each aspect are also presented based on the field trip results conducted by the study team in North Sumatra and West Java.

The section is started by providing of the overview of the main stakeholders in the Indonesian dairy industry as follows.

- i) DGLAHS – The Directorate General of Livestock and Animal Health Services at the Ministry of Agriculture oversees the national strategy and Government policy issues affecting Indonesia’s dairy industry. There are five directorates under DGLAHS covering (1) breeding, (2) livestock production, (3) livestock fodder, (4) animal health, and (5) veterinary public health and post-harvest.
- ii) GKSI – The Indonesian Association of Dairy Cooperatives (GKSI) oversees the industry development including policies regarding accessing funding for infrastructure and cattle. The activities of GKSI are mainly handled by branches in East Java, Central Java and West Java.
- iii) KUDs – Koperasi Unit Desa (KUD) is the local dairy center known as the primary village cooperative of GKSI. The KUDs supply farmers with technical services on production, animal health (veterinarian) etc. The KUDs act as the local milk collection center which have important roles in linking smallholder dairy farmers and milk processors. The KUD collects and distributes payments to its members (dairy farmers) based on their milk quality and volume. Some of the KUDs have exclusive arrangements to supply a major milk processor and some have established their milk products and brands for the local market.
- iv) MPI – The Indonesian Association of Milk Processors (MPI) represents the milk processing sector. MPI members buy milk from GKSI members and can buy direct from some large farmers and import milk powders to fulfill their needs. There are five milk

processors that are a member of MPI – the five major milk processors are Nestle, Frisian Flag, Sari Husada, Indomilk, and Ultra Jaya.

- v) AI Centres – Semen for artificial insemination in cattle is domestically produced by two Artificial Insemination (AI) centers located in Malang, East Java, and Lembang, West Java.
- vi) Cikole Dairy Training Centre– The Centre is funded by Japan International Corporation Agency (JICA) and provides technology transfer to improve dairy farming and milk production.
- vii) Smallholders – Smallholder dairy farmers have important roles in milk production in Indonesia. Most of Indonesia’s 192,160 dairy farmers are smallholders with an average of three to four cows each. The majority of farmers are a member of cooperatives (KUD) in which they sell their products to milk processors through their KUDs. Smallholder dairy farmers face several challenges enterprise-scale, herd nutrition, animal husbandry, reproductive performance, and milk harvesting cause low levels of business profitability and productivity. There is also poor transparency of marketplace signals and asymmetric information.

## **2.1. Dairy Inputs**

### **2.1.1 Challenges/Issues on Dairy Inputs**

Based on field research in West Java and North Sumatera Province conducted in 2018, there are some challenges or issues related to dairy inputs. The main problems in the feed are quality, availability, and price:

- **Quality**

The quality of feed raw materials in the off-season, like brans, is still low while the price is high. Concentrates used by farmers are classified as medium quality so that the milk quality is low. Lack of raw materials is the other problem to producing high quality concentrates.

The other constraint to increasing milk production is inadequate to feed resources.

- **Availability**

Availability of feed raw material tends to fluctuate. In terms of forages, lands for forages are limited and keep decreasing. There is competition with the poultry industry in using some raw materials. Formerly, pollard is only used for dairy cattle, but currently, it is also used for poultry.

- **Price**

Factors affecting the feed price fluctuation are stock, demand, and weather. For example, raw materials coming from outside Java, sometimes, cannot be delivered on time because of the bad weather and ocean wave is high. For pollard, there is a tendency to export rather than fulfilling domestic demand due to the higher export price.

### **2.1.2. Regulation Related to Dairy Input**

The regulations related to dairy input were issued by the Government of Indonesia, Law of the Republic of Indonesia No. 11 of 2020 on Job Creation (Revising Law Number 41 of 2014 and Law Number 18 of 2009 about Livestock and Animal Health). It regulates the provision and development of seeds that are carried out by prioritizing domestic production (Article 13). The Government and/or the Regional Government in accordance with its authority are obliged to undertake breeding, development of seeding and/or breeding business by involving the participation of the community to ensure the availability of seeds and by encouraging the application of reproductive technology. Every seed in circulation shall have a seed certificate containing information about the pedigree and its superiority features. Seed certificates are issued by an accredited seed certification institution.

It also regulates the importation of seeds (Article 15). Seed importation can be done to a) improve genetic quality and diversity; b) develop science and technology; c) overcome the shortage of seed in the country; and d) meet research and development needs. Every person who imports seeds is required to fulfill Business Licensing from the Government. Meanwhile, the exportation of seeds is regulated in Article 16. Seed exportation from a domestic to a foreign country can be done if the domestic requirement has been fulfilled and the preservation of local Livestock has been guaranteed. Every person who exports seeds is required to fulfill Business Licensing from the Government.

To meet the availability of seedlings (regulated in (Article 18), productive female ruminants are selected for breeding, whereas unproductive female ruminants are removed to be cut. Local Government in accordance with the authority to provide funds to collect livestock (productive female ruminants) issued by the community and accommodate the livestock in the technical implementation unit in the area for the breeding purposes and provision of productive female ruminants in the area.

Another regulation related to dairy inputs has been issued by Central Government Number 6 of 2013 about Farmers Empowerment. This regulation states that government/local government have livestock services program, namely: a) provision and management of common grazing land; b) provision of superior seeds; c) rescue of productive female ruminants; and d) provision of artificial insemination post (Law Number 6 of 2013 Article 10). In facilitating the program, government and local government in accordance with their authorities to provide facilities for: a) good farming practices in livestock; b) harvesting and post-harvest activities of livestock products through the provision of slaughterhouses, dairy, meat, and eggs processing industries; c) distribution and marketing activities of livestock products through the provision of conveyance, animal markets, livestock collecting place, and refrigeration installations; and d) storage of animal and fodder products through the provision of warehouses and/or refrigerated warehouses (Law Number 6 of 2013 Article 17).

In order to increase the quality of dairy inputs especially for the provision of cattle seeds, the Indonesian Ministry of Trade has issued regulation Number 29 of 2019 about Provision of Animal and Animal Products Export & Import (Replacing Regulation Number 59/M-DAG/PER/8/2016 and Regulation Number 05/M-DAG/PER/1/2016). This regulation states that Import of Animal Species and Animal Products can only be done after obtaining Import Approval from the Minister. The Minister delegates the authority to issue Import Approval to the Director-General. The Director-General mandates the issuance of the Import Approval as to the Director of Import. Import of animal and Animal Products can only be done by: a) importer holding NIB that acts as an Identification Number (*Angka Pengenal Impor/API*); b) social institutions; and c) representatives of Foreign Countries/International Institutions.

To obtain import approval, the importers who own NIB (that act as API) must submit an application electronically (<http://inatrade.kemendag.go.id>) to the Director-General through the Director of Export by enclosing: a) The deed of establishment of the company and its amendments; b) NIB that act as API; c) Evidence of ownership of the raising animal place; d) Proof of ownership of cold storage and refrigerated transportation; e) Statement letter stating that the slaughter will be carried out at the Slaughterhouse in accordance with the provisions of the laws and regulations; f) Recommendation from the Minister of Agriculture or an official appointed by the Minister of Agriculture; or f) Recommendation from the Head of the National Agency of Drug and Food Control (BPOM) or an officer appointed by the Head of the National Agency of Drug and Food Control (BPOM) and a recommendation from the Minister of

Agriculture or an official appointed by the Minister of Agriculture for the import of animal products which still has a risk of spreading zoonosis.

The latest regulation related to Milk Supply and Distribution has been issued by the Indonesian Ministry of Agriculture Number 33/Permentan/PK.450/7/2018 which revise Regulation of Minister of Agriculture Number 30/Permentan/PK.450/7/2018 about Milk Supply and Distribution (also Revising Regulation of Minister of Agriculture Number 26/Permentan/PK.450/7/2017). Improvement of milk productivity can be done through a) improving seed quality; b) provision of fodder; c) improving the quality of fodder and feeding; and d) improving animal raising and health management (Article 4). The improvement of cattle population can be done through a) Improvement of birthrate; b) Preventing slaughter on productive female cattle; c) Supply of productive female cattle, and d) Rearing (Article 10). The improvement of birthrate is done through the handling of reproduction disturbance and the improvement of reproduction efficiency based on Technical Guidance to Reproduction Optimization and Handling of Reproduction Disturbance on Cattle (Article 11).

The prevention of slaughter on productive female cattle is based on the terms of the Law (Article 12). The supply of productive female cattle is done through the foreign cattle supply into the territory of the Republic of Indonesia. The supply of productive female cattle can be done by farmers, cooperatives, businessmen, and the government. The supply of foreign cattle into the territory of the Republic of Indonesia is based on the terms of the Law (Article 13). Rearing activity is done by farmers, cooperatives, businessmen, and the government and is based on the pasture pattern, intensive, and/or semi-intensive (Article 14).

It also regulates how to improve national milk quality through a) providing high-quality fodder with adequate nutritional content to the cattle; b) preserving cattle's hygiene, shelter sanitation, tools, water, and milker (Article 15). To increase milk production quality, the Ministry of Agriculture (Article 32) also regulates production partnership through a) increasing the population of dairy cattle in farmers, joint groups of farmers, and/or cooperatives; b) improving rearing facilities; and/or c) enhancing of skills and competences of farmers, a joint group of farmers and/or cooperatives.

## **2.2. Price of Domestic and Imported Products**

### **2.2.1 Domestic Price Development of Dairy Products**

Milk and dairy products are still luxury goods in Indonesia, so their availability is still limited, and prices are not yet affordable by the wider community. It is not surprising that per capita milk consumption in Indonesia is still low, lower than that of other ASEAN countries,



and much lower than the level of milk consumption in developed countries. This situation has long been a concern of the Indonesian government. Various policies and programs to increase national milk production has been carried out by the government, but so far have not succeeded in increasing national milk production. Domestic milk production can only meet the needs of national milk consumption of less than 20 percent, and the rest still has to be met from imports.

Before the 1998 economic crisis, the Indonesian Government heavily regulated the national dairy industry, including an obligation for milk processors and importers to procure fresh milk produced by dairy farmers as a requirement to obtain an import permit. This "local content" policy obliged milk processors and importers to absorb a certain amount of domestically produced fresh milk according to the prevailing domestic-import ratio and submit a proof of absorption (BUSEP) to get an import permit. This price policy was combined with the import control policies through import tariffs and import licensing. These mixed-policy instruments successfully increased domestic dairy production capacity, including increased dairy population, milk production, and productivity. However, the BUSEP policy was abolished in 1998 as one of the agreed conditions included in the IMF letter of intent (LOI) and consistent with the WTO rules. Since then, the Government has no longer implemented a pricing policy on domestically produced fresh milk.

After the government no longer stipulates the minimum price for fresh milk received by farmers, news about the drops in fresh milk prices is often reported in the media. However, the verification results show that the decline in the price of fresh milk usually occurs because the fresh milk produced by farmers does not meet the quality required by the milk processing factory. Dairy farmers who are members of dairy cooperatives in the study sites (Pangalengan, Garut, Cianjur, and Bogor) have received remunerative prices for fresh milk according to quality standards.

Table 5. Development of Retail Prices of Selected Dairy Product in Indonesia

Year	Price of Milk (Rp/Kg)			CPI 2010=100	Price of Milk (Rp/Kg)		
	Fresh milk <sup>a</sup>	WMP <sup>b</sup>	SCM <sup>b</sup>		Fresh milk	WMP	SCM
2010	2,950	66,214	20,382	100.0	2,950	66,214	20,382
2011	3,100	66,844	21,211	105.4	2,941	63,419	20,125
2012	3,150	70,039	21,778	109.9	2,866	63,730	19,816
2013	3,350	75,705	21,917	116.9	2,866	64,760	18,749
2014	3,875	93,969	24,380	124.4	3,115	75,538	19,598
2015	4,375	102,246	26,081	132.3	3,307	77,283	19,713

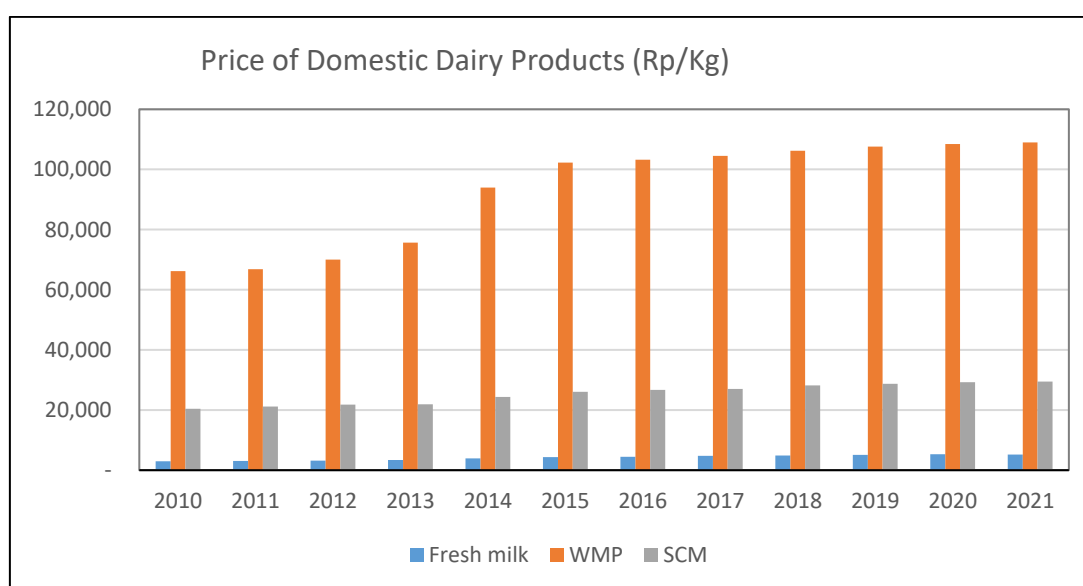
Year	Price of Milk (Rp/Kg)			CPI 2010=100	Price of Milk (Rp/Kg)		
	Fresh milk <sup>a</sup>	WMP <sup>b</sup>	SCM <sup>b</sup>		Fresh milk	WMP	SCM
2016	4,500	103,228	26,726	137.0	3,285	75,349	19,508
2017	4,788	104,464	27,031	142.2	3,367	73,463	19,009
2018	4,838	106,179	28,159	146.7	3,298	72,378	19,195
2019	5,100	107,550	28,735	151.2	3,373	71,131	19,005
2020	5,300	108,420	29,284	154.1	3,439	70,357	19,003
2021	5,183	109,006	29,492	155.6	3,331	70,055	18,954

Source:

a) GKSI (Indonesia's Association of Dairy Cooperatives)

b) Whole milk powder (WMP) and Sweetened condense milk (SCM): DG Domestic Trade, MOT, Indonesia

The development of the price of fresh milk can be used as an indicator to see the continuity of the dairy farming business. Table 5 and Figure 2 show the price development of farmgate prices of fresh milk, retail prices of whole milk powder (WMP) dan sweetened-condensed milk (SCM). The table shows that the farmgate price of fresh milk (price received farmers) has practically not experienced any fundamental changes in 2010-2021. Unfortunately, there is no time-series data set available for the price of fresh milk paid by milk processors. The results of the Indo-Dairy Farm Household Survey (IFHS) 2017 indicated that the price of fresh milk received by farmers (farmgate) was approximately to be 35-40% lower than the retail price of fresh milk in the countryside and was 75-80% lower than the retail price of pasteurized (fresh) milk. The price difference was the cost of handling, processing and distribution.



Source: GKSI for fresh milk; DG of Domestic Trade, MOT, for WMP and SCM.

Notes: WMP (whole milk powder); SCM (Sweetened condense milk)

Figure 2. Prices of Domestic Dairy Products (Rp/Kg)

The domestic price of sweetened condensed milk was also relatively constant during 2008-2019. This is easy to understand because sweetened condensed milk, later announced by BPOM and became public knowledge, contains very little milk. The content of milk in sweetened condensed milk is so low that it is not appropriate to use the word milk in its name. Unfortunately, the government authority (BPOM) was not firm in regulating the use of this trade name. Frisian Flag Indonesia (FFI) no longer uses the word milk for its product but uses the name *sweetened condensed*, while other brands still use sweetened condensed milk.

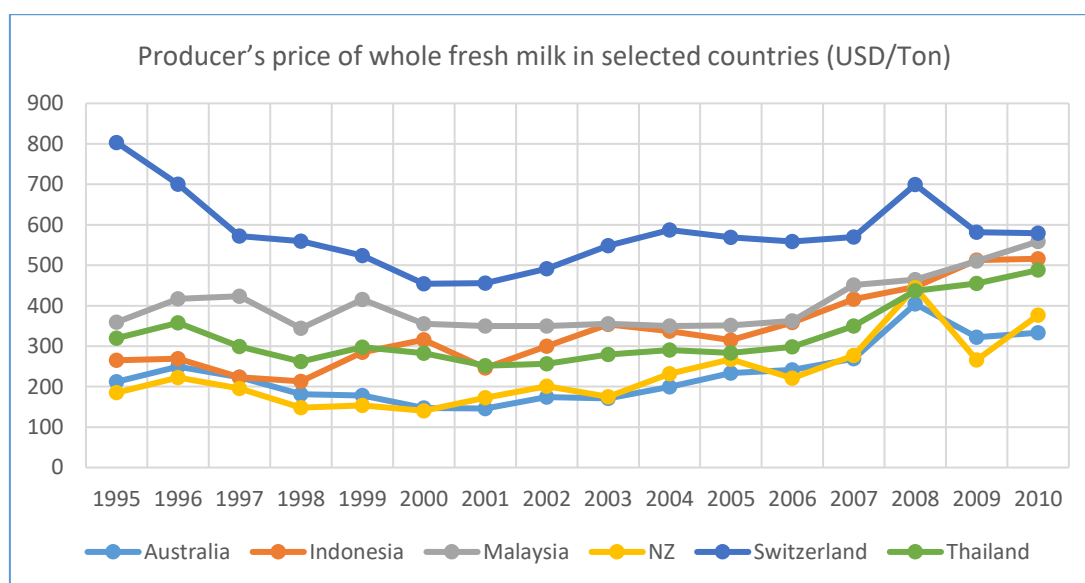
In contrast to the above two dairy products, the domestic price of powdered milk continued to increase during the 2010-2020 period, soared in 2014, and has continued to increase since then. The increase in the price of powdered milk was triggered by the increase in prices of dairy products on the world market, including Skim Milk Powder (SMP) and Full Milk Powder (FMP), which were imported as raw materials for powdered milk. The decline in the world prices of SMP and FCMP is usually followed by a decline in prices of domestically produced fresh milk but not followed by a decline in powdered milk prices. This asymmetric price adjustment situation only benefits importers and a small number of milk processing industries who are also importers (importers-producers) but is very detrimental to smallholder dairy farmers and consumers of dairy products.

Table 6. Producer's Price of Whole Fresh Milk in Selected Countries (USD/Ton)

Year	Australia	Indonesia	Malaysia	New Zealand	Switzerland	Thailand
1995	212	265	359	185	803	320
1996	250	269	417	223	701	358
1997	223	223	423	196	572	299
1998	182	213	344	148	559	262
1999	178	285	416	154	524	298
2000	147	316	355	140	454	282
2001	146	246	350	172	456	252
2002	174	300	350	201	492	257
2003	171	354	355	175	548	279
2004	199	338	350	232	587	291
2005	234	315	351	268	569	283
2006	242	358	363	221	558	299
2007	269	417	451	277	570	349
2008	404	446	465	445	700	437
2009	322	513	511	266	582	455
2010	333	516	559	377	579	488
Average	230	336	401	230	578	325

Source: FAOStat-Trade data (<http://www.fao.org>)

As seen in Table 6 and Figure 3, a simple across-country comparison shows that New Zealand and Australia are producers of cheap fresh milk, at an average of USD 230/ton, while Switzerland has been one of the most expensive producers with an average price of USD 578/ton during 1995-2010. The farmgate prices of fresh milk in New Zealand and Australia are much lower than those in the net-importing countries such as Indonesia, Malaysia, and Thailand. Therefore, it is not surprising that Australia and NZ are highly competitive world exporters of dairy products.



Source: FAOStat- Trade data (<http://www.fao.org>)

Figure 3. Prices of Fresh Milk in a number Milk of Producing Countries

Meanwhile, despite its being a world net-exporter of dairy products, farmgate prices in Switzerland turned out to be much higher than the farmgate price of fresh milk in Indonesia, Malaysia, and Thailand. This situation indicates the magnitude of domestic subsidy imposed by the government of Switzerland for its' dairy farmers in this country. This situation makes net-importing developing countries, including Indonesia, Malaysia, and Thailand, constantly depend on imported products from "artificially competitive" countries such as Switzerland and probably other EU member countries.

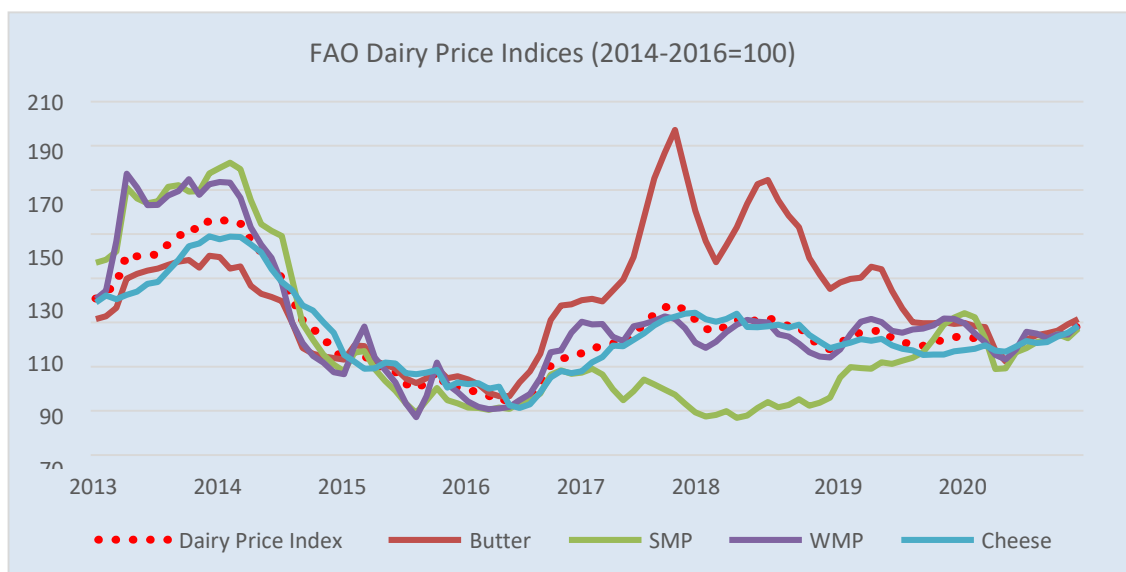
Indonesia is a net importer of dairy products and was the ninth world's largest importer in 2019<sup>4</sup>. Only about 20% of milk production meets domestic milk needs, and the other 80

<sup>4</sup> <https://www.bizvibe.com/blog/food-beverages/top-10-largest-milk-producing-countries>

percent still has to be imported. The very high dependence on imports makes the domestic dairy product market vulnerable to price fluctuations on the world market. What is even worse is that as a result of the non-competitive structure of the domestic dairy product market, there is an asymmetric price adjustment mechanism, as mentioned above.

### 2.2.2 The World Dairy Price Development of Dairy Product

Historically, the world market prices of milk and milk products have always been volatile. The dynamics of production in the major dairy exporting countries and consumption in the world's major importing countries determine the volatility of the world market prices of dairy products. The main exporting countries of dairy products include New Zealand, Germany, the USA, Netherland, France, Belgium, and Australia. Meanwhile, the top five dairy importing countries in 2019 include China, Germany, Belgium, Netherlands, dan Italy. Indonesia was the top 9th world importing country of dairy products. The FAO dairy price index shows the price fluctuation during 2000-2017 and 2000-2020, as shown in Table 7 and Figure 4 (FAO, 2018; FAO, 2020; FAO, 2021)<sup>5</sup>.



Source: FAO Dairy Market Review, April 2021

Figure 4. FAO Selected Dairy Product Price Index 2013-2020

<sup>5</sup> <http://www.fao.org>

Table 7. International Prices of Dairy Products and Dairy Price Index (USD/Ton)

Period (Year/Month)	International prices (USD per ton) <sup>b)</sup>				Price Index <sup>a)</sup> (2014–16=100)
	Butter	SMP	WMP	C. cheese	
Annual average <sup>c</sup>					
2009	3,021	2,391	2,570	3,292	91
2010	4,268	2,971	3,499	3,739	112
2011	5,023	3,408	3,962	4,380	130
2012	3,740	3,063	3,336	3,877	112
2013	4,784	4,148	4,730	4,563	141
2014	4,278	3,606	3,854	4,542	130
2015	3,306	2,089	2,537	3,076	87
2016	3,473	1,986	2,481	2,807	83
2017	5,641	2,011	3,163	3,664	108
2018	5,587	1,834	3,060	3,736	107
2019	4,443	2,440	3,186	3,435	103
Monthly					
2020 – Jan	4,043	2,927	3,241	3,390	104
2020 – Feb	3,391	2,877	3,109	3,410	103
2020 – Mar	3,997	2,637	2,990	3,465	102
2020 – Apr	3,592	2,279	2,822	3,381	96
2020 – May	3,403	2,285	2,759	3,362	94
2020 – Jun	3,595	2,473	2,892	3,447	98
2020 – Jul	3,778	2,519	3,129	3,516	102
2020 – Aug	3,841	2,590	3,103	3,505	102
2020 – Sep	3,872	2,625	3,043	3,524	102
2020 – Oct	3,920	2,682	3,097	3,609	104
2020 – Nov	4,021	2,635	3,091	3,664	105
2020 – Dec	4,098	2,744	3,219	3,801	109

Source: FAO Dairy Market Review, April 2021

Notes:

(a) The FAO Dairy Price Index represents a trade-weighted average of international price quotations for butter, cheese, SMP and WMP.

(b) All sub-component prices represent average FOB prices for the European Union and Oceania

(c) Annual average of monthly index values from January to December

Product prices are the mid-point price ranges reported by Dairy Market News (USDA) and European Commission-reported European Union prices (starting from 2008).

Table 7 shows that FAO Dairy Price Index averaged 98.2 points in June 2020, gaining 3.8 points from May after four months of consecutive declines, but remained 4.6 percent below the corresponding month last year. This increase in the index was principally caused by a renewed import demand, especially from the Middle East and East Asia, following the easing of COVID-19 related lockdowns and transport bottlenecks. Relatively limited export availabilities from major exporting regions also provided support to prices. In Europe, milk production began seasonally declining. At the same time, internal demand saw an increase, given improved prospects for the resumption of food services sales with the easing of COVID-19 related social distancing and travel restrictions. In Oceania, milk production has reached its seasonal lows, with most dairy cows dried off (FAO, 2020).

In June, skim milk powder (SMP) rose the most, principally driven by a rebound in import demand from the Middle East for spot supplies. Similarly, import demand for whole milk powder (WMP) also rebound, mainly from East Asia. Butter prices saw a revival amid increased internal demand with the easing of COVID-19 travel restrictions and importers seeking the relatively lower-priced European supplies. After two months of decline, cheese prices slightly increased in June, reflecting high import demand and somewhat limited export availability.

Notwithstanding the rebound in the index value in June 2020, the FAO Dairy Price Index remained 5.7 points (5.4 percent) below its level in January, when the index registered its highest value during the last 12 months. Before June's price revival, the overall dairy index fell consecutively for four months, reflecting the impact of COVID-19 on global dairy markets. From January to May, SMP prices fell the most (-21.9 percent), followed by butter (-15.8 percent) and WMP (-14.9 percent). In dairy importing countries, COVID-19 related lockdowns and social distancing measures led to market disruptions; transport bottlenecks, especially port congestion and delays in cargo handling, also made importing more difficult, contributing importers to delay their purchases. In exporting countries, reduced milk and milk products, especially fresh milk, led producers to divert higher milk volumes into powder manufacturing. The situation was made more difficult in the producing countries in the Northern Hemisphere, as milk production was at its peak, especially from March to May (FAO, 2020).

The FAO Dairy Market Review (2021) described that the international dairy price index in 2020 averaged 101.8 points, down 1.0 points (1.0 percent) from 2019, primarily reflecting reduced import demand due to widespread economic downturns in many dairy importing countries. High export availabilities in exporting countries, caused by reduced internal sales,

and increased processing of less labour-intensive milk products, especially milk powders, to overcome labour shortages, also weighed on global milk prices.

The description of world milk consumption and production was primarily based on the FAO Dairy Market Review of April 2021 (FAO, 2021). Among the milk products, butter prices fell the most (-13.5 percent). FAO butter price index was already trending downward since reaching its peak in 2017. COVID-19-related import curtailments and reduced internal sales accelerated the decline, depressing prices by 16 percent (USD 4,043 to USD 3,403 per ton) between January and May. However, prices began recovering since June in response to solid import demand and internal consumption stability.

The average whole milk powder (WMP) prices declined by 4.5 percent in 2020 due to lower purchases by Asia, especially China, Bangladesh, Malaysia, and Singapore. Like the other milk product prices, skim milk powder (SMP) prices also fell during the first several months of 2020. Many large importing countries lowered imports in line with economic downturns and lower demand from industrial food processors and food services sectors. However, prices trended upward from May, lifting the annual 2020 average value by 6.8 percent, mainly due to limited supplies in Europe and increased import demand from Middle Eastern and Asian countries (FAO, 2021).

Global milk production reached nearly 906 million tons in 2020, up 2.0 percent from 2019, driven by output increases in all geographical regions, except in Africa, where production remained stable. Milk volume increases were highest in Asia, followed by Europe, the Americas, Oceania, Central America, and the Caribbean.

In Asia, milk output rose to 379 million tons in 2020, up 2.6 percent year-on-year, principally driven by increases mainly in India, China, Pakistan, and Turkey. Kazakhstan, Uzbekistan, and Japan registered moderate production expansions. In India, milk output reached 195 million tons in 2020, up 2.0 percent from 2019, underpinned by the continued rise in dairy cattle population and improved feed and fodder availability on favourable monsoon rains (June to September). In China, the increased output of large-scale dairy farms and their operational and production efficiency improvements underpinned the over 7 percent milk output growth. In Pakistan, milk output increased by 3.2 percent, mainly due to a rise in cattle numbers, partially offset by poor milk collections during the pandemic's early phase. In Japan, price support to farmers under government COVID-19 assistance, combined with lowering tariff-rate quotas (TRQs) for butter and SMP, ensured milk market stability and production growth.



In Europe, milk output rose to 236 million tons, up 1.6 percent from 2019, mainly due to production increases in the European Union, the Russian Federation, and Belarus. In the European Union, yield improvements, a slight increase in dairy cattle numbers, and robust internal and foreign demand were behind the production increases. The European Union COVID-19 livestock assistance program also helped stabilize farm-gate prices, encouraging high milk deliveries. In the Russian Federation, milk production rose, boosted by yield improvements in large-scale dairy farms. Farm management improvements, quality feed use in Belarus, and the continued solid purchases by the neighbouring countries, mainly the Russian Federation, were crucial in production expansion.

In North America, milk output reached nearly 111 million tons in 2020, up 2.1 percent from 2019. In the United States of America, milk output rose by 2.2 percent to 101 million tons, driven by increased dairy herd numbers and milk yields. COVID-19 livestock sector assistance helped sustain internal demand and production, despite pandemic-related adverse impacts, especially labour shortages and transport hurdles. Buoyant import demand from Asia was also a factor that helped milk production expansion. In Canada, milk output increased slightly, despite a slowdown in milk deliveries due to labour constraints and plummeted milk sales in early 2020 (FAO, 2021).

In Central America and the Caribbean, milk production expanded by 1.6 percent to 18 million tons, driven by increased production in Mexico's largest milk producer. Following a nearly decade-old growth pattern, Mexico's 2020 production expanded by 2.2 percent from 2019, as farming technology and genetics improvements continued. Animal feed production increased too, boosting output.

In South America, milk production expanded by 2.0 percent to nearly 82 million<sup>3</sup> in 2020, driven by higher outputs in Argentina, Brazil, Chile, and Uruguay, partially offset by a decline in Venezuela. In Argentina, milk production expanded faster due to improved pastures and internal and foreign demand. Freezing retail milk prices helped sustain demand, incidentally, lowering dairy farm profits. However, the subsequent decision to allow a 2 percent increase in retail milk prices stabilized farm profit margins, helping production. Brazil's milk output rose, helped by milk production recovery in the last quarter, following one of the country's most prolonged droughts between May and October 2020. High milk outputs of large-scale dairy farms that rely on animal feed also supported sustaining an output expansion.

In Oceania, following a 2.5 percent contraction in 2019, milk output expanded by 1.1 percent to 31 million tons in 2020. After four years of decline, Australia's milk production rebounded by over 9 million tons, underpinned by good rains, improved pastures, and increased

fodder and feed availability. Government assistance to drought-affected farming households and the extension of farm household allowances also contributed to production expansion. In New Zealand, following a marginal (0.7 percent) contraction in 2019, milk output rose slightly (+0.4 percent), reaching 22 million tons. Favourable weather and robust import demand from China were behind the production growth. Despite COVID-19 market disruptions, profit margins remained attractive because of high farm-gate prices offered by the leading milk cooperative and government financial support to cover increased freight costs.

In Africa, milk production remained stable, at 49 million tons. Algeria registered a significant output increase, whereas Kenya, Ethiopia, and South Africa, among others, registered declines. Algeria's output increased by 3.8 percent to 3.3 million tons, triggered by the farm modernization program granted land for dairy production, pasture development, and opportunities for importing genetic materials. Algeria's prohibition of subsidized milk powder manufacturing pasteurized milk, milk products, or derivatives also boosted output. After three years of expansions, milk production fell marginally in Kenya, owing to drier and warmer weather in 2020's last quarter, which constrained animal feed availability. South Africa's production declined slightly due to dry weather conditions and feed price increases that lowered farm profits. Elsewhere in Africa, adverse market conditions were prevalent, stemming from economic downturns, conflicts and displacements, droughts, and floods in some regions, limiting milk production.

The world dairy trade increased by 1.2 percent to nearly 79 million tons (milk equivalent) in 2020, principally due to increased imports by a few countries, namely China, Algeria, Saudi Arabia, and Brazil. China, the world's largest dairy importer, purchased 17 million milk products, a 7.4 percent increase over 2019, partly induced by the early end of COVID-19 lockdowns but driven mainly by rising per capita consumption among affluent consumers and urban consumers and expanding consumer base. Although COVID-19 market disturbances lowered fresh milk consumption in early 2020, Saudi Arabia's annual dairy imports rose by 13.5 percent after petroleum prices recovered in May. Brazil imported more milk products, especially cheese, and WMP, to meet the domestic supply gap, which emerged from lower milk production due to the prolonged drought between May and October.

In contrast, many leading dairy importing countries, Mexico, the United Arab Emirates, the Philippines, Bangladesh, Japan, and Indonesia, reduced milk imports due to market lockdowns, transport blockages, and economic downturns. Following an 8.2 percent average import growth rate during 2015-19, Mexico's imports fell by 17 percent, as the economic downturn led to job losses and lower purchasing power. Meanwhile, increased national milk

production was sufficient to meet internal industrial and consumer demand. Economic downturns related to the pandemic are attributed to import curtailments by the Philippines, the United Arab Emirates, Bangladesh, and Indonesia. Japan's dairy imports declined by 7 percent to 2.1 million tons.

Concerning exports, the United States of America, the Islamic Republic of Iran, Argentina, Belarus, and the European Union supplied much of the expanded international import demand. Overall, increased national milk production and lower domestic sales led to excess supply and increased export availabilities. Moreover, exporting milk products became an attractive option for many countries such as Argentina. In contrast, New Zealand, Turkey, and India exports declined, primarily in response to a contraction in import demand, reflecting the country's trading partners' economic downturns or limited internal sales.

The data show that the world dairy market is constantly experiencing supply and demand turmoil, resulting in price volatility. This world market situation needs to be carefully considered in managing national dairy industry development, particularly given an ever-increasing demand for milk and milk products. The policy question is how the government should facilitate the development of the national dairy industry and what kind of policies and regulations are needed to effectively and efficiently build a national milk industry. Inaccuracy in addressing the world milk market and milk products and inaccuracy in choosing policy instruments will lead to inefficient allocation of resources and disrupt dairy industry development.

The Indonesian government has committed to building a national milk industry, embodied in the blueprint of the national milk industry. Therefore, the government's commitment to building a more robust national milk industry is justified and needs to be supported. Unfortunately, there have not been any concrete, consistent and sustainable steps in realizing the national dairy blueprint.

## **2.3. Investments in the Dairy Industry**

### **2.3.1 Challenges/Issues on Livestock Investments**

Based on field research in West Java and North Sumatera Province, there are some challenges or issues related to investments in the domestic dairy industry. There are still challenges to accommodate investment opportunities that would lead to the development of new and sustainable smallholder dairy supply chains in North Sumatera and improve the functioning of dairy supply chains in West Java. There is still a lack in the regulation and program implementation of the enhancement of investment activities both domestic and foreign

investment to accelerate development in order to support micro, small and medium enterprises, and cooperatives in the dairy industry. The dairy industry still has not got a strong priority to be developed.

### 2.3.2 Regulation related to Livestock Investment

The livestock domestic investments (PMDN) are detailed by the sectors (**Error! Reference source not found.**8), seems that the biggest livestock domestic investments value in 2018 was livestock of poultry amounting to Rp632.47 billion (72.99 percent of the total livestock PMDN), followed by livestock of cattle and buffaloes amounting to Rp123.92 billion (14.3 percent). The biggest livestock domestic investments value in 2020 was still livestock of poultry amounting to Rp2,160.55 billion (94.99 percent of the total livestock PMDN), followed by livestock of cattle and buffaloes amounting to Rp100.86 billion (4.43 percent).

Table 8. Value of Livestock Domestic Investment 2018-2020

Sector	2018		2019		2020	
	Value (Million Rp)	Share (%)	Value (Million Rp)	Share (%)	Value (Million Rp)	Share (%)
Cow and Buffalo Farm	123,919	14.30%	174,724	16.63%	100,863	4.43%
Pig Farm	26,000	3.00%	-	0.00%	10,881	0.48%
Poultry Farm	632,470	72.99%	875,765	83.37%	2,160,547	94.99%
Goat and Sheep Farm	-	0.00%	-	0.00%	2,146	0.09%
Livestock Service Sector	84,074	9.70%	-	0.00%	-	0.00%
<b>Total</b>	<b>866,464</b>	<b>100%</b>	<b>1,052,689</b>	<b>100%</b>	<b>2,283,452</b>	<b>100%</b>

Source: Directorate General of Livestock and Animal Health (2020)

The livestock foreign direct investments (FDI) are shown in **Error! Reference source not found.**9. Those are also detailed by its sector, seems that the biggest livestock foreign direct investments value in 2018 was livestock of poultry amounting to USD71.11 million (59.74 percent of the total livestock foreign direct investments), followed by livestock of cattle and buffaloes amounting to USD47.63 million (40.01 percent). The biggest livestock foreign direct investments value in 2020 was still livestock of poultry amounting to USD40.97 million (92.20 percent of the total livestock FDI), followed by livestock of cattle and buffaloes amounting to USD3.47 million (only 7.8 percent).

Table 9. Value of Livestock Foreign Direct Investment 2018-2020

Sector	2018		2019		2020	
	Value (Thousand USD)	Share (%)	Value (Thousand USD)	Share (%)	Value (Thousand USD)	Share (%)
Cow and Buffalo Farm	47,632	40.01%	9,855	26.09%	3,468	7.80%
Pig Farm	-	0.00%	-	0.00%	-	0.00%
Poultry Farm	71,110	59.74%	24,290	64.30%	40,975	92.20%
Goat and Sheep Farm	94	0.08%	1,900	5.03%	-	0.00%
Livestock Service Sector	203	0.17%	1,733	4.59%	-	0.00%
Total	119,039	100%	37,778	100%	44,443	100%

Source: Directorate General of Livestock and Animal Health (2020)

Domestic investment for cow and buffalo farms in 2018-2020 decreased by 0.64 percent, and if in 2020 is compared to 2019, the domestic investments decreased even more significantly by 42.27 percent. The FDI in the cow and buffalo sector decreased by 72.06 percent in the 2018-2020 period. The decline in investment in 2020 occurred due to regulations from the Australian Government that limited the trade of cattle to all partner countries including Indonesia (Directorate General of Livestock and Animal Health, 2020).

The regulation related to livestock investment were issued by the central government through President Decree Number 49 of 2021 which revise some of the regulations in the President Decree Number 10 of 2021 about the list of business sectors in investment (replacing the President Decree Number 44 of 2016). Article 2 paragraph (1) of President Decree 49/2021 states that all business fields are open to investment activities, except for the following business fields: a.) declared closed for investment; or b.) for activities that can only be carried out by the Central Government. Business fields that are declared closed for investment are Alcoholic Liquor Industry (KBLI 11010), Alcoholic Beverage Industry: Wine (KBLI 11020), and Malt Containing Beverage Industry (KBLI 11031). Business fields for activities that can only be carried out by the Central Government are activities that are of a service nature or in the framework of defense and security that are strategic and cannot be carried out or cooperated with other parties.

The business fields that are open for investment activities are divided into 3 types, namely: (a) open business fields; (b) closed business fields, and (c) business fields that are open with conditions. Meanwhile, in the new provisions, Article 2 paragraph (1) of President Decree 10/2021 states that all business fields in investment activities are open unless the business fields

are explicitly declared closed or are part of business fields that can only be carried out by the Central Government. The Open Business Fields consist of:

- a. Priority Business Fields;
- b. Business fields allocated or partnerships with Cooperatives and MSMEs;
- c. Business Fields with certain requirements; and
- d. Business Fields that can be cultivated by all Investors.

Investors who invest in Business Fields listed on the list of priority business fields are given fiscal incentives; and/or non-fiscal incentives. Non-fiscal incentives include ease of business licensing, provision of supporting infrastructure, a guarantee of energy availability, guarantee of the availability of raw materials, immigration, employment, and other facilities in accordance with the provisions of laws and regulations. Fiscal incentives consist of:

- a. Tax incentives provided:
  - income tax for investment in certain business fields and or in certain areas (tax allowance);
  - reduction of corporate income tax (tax holiday); or
  - reduction of corporate income tax and net income reduction facility in the context of investment as well as reduction of gross income in the context of certain activities (investment allowance)
- b. Customs incentives in the form of exemption from import duty on the import of machinery and goods and materials for the construction or industrial development in the context of Investment.

Priority Business Fields refers to a business field that meets criteria: a. national strategic programs/projects; b. capital intensive; c. labor-intensive; d. high technology; e. pioneer industry; f. export orientation; and/or g. orientation in research activities, development, and innovation. Business fields allocated or partnerships with Cooperatives and MSMEs are business fields allocated for Cooperatives, MSMEs and are the business open to Large Enterprises to do partnership with Cooperatives and MSMEs. Business Fields with certain requirements are Business Fields that can be operated by all Investors including Cooperatives and MSMEs that meet the following requirements:

- a. Investment requirements for domestic investors;
- b. Investment requirements with restrictions on foreign capital ownership;
- c. Investment requirements with special permits; or

- d. Other investment requirements are business fields that are limited and closely monitored and regulated in separate laws and regulations in the field of control and supervision of alcoholic beverages.

In order to meet the reduction of the national unemployment rate (until 4-4.6 percent by 2024), according to the National Medium-Term Development Plan (RPJMN), 2020-2024 of which should be encouraged to increase investment in labor-intensive industries. The other regulation related to livestock investment has been issued by Central Government Law Number 78 of 2019 about Tax Allowance Facility for Investment in Certain Business and/or in Certain Regions. This regulation states that to encourage economic growth, equitable development and accelerated development in certain regions, to deepen of industrial structure, and to encourage foreign investment and domestic investment in certain business fields and/or in certain regions, for taxpayers who make new investments or expansions from existing businesses in certain business fields and/or in certain regions can be provided with Tax Allowance Facility.

Following tax allowance facilities which are conducted by the government, namely: a) net income deduction of 30 percent charged for 6 years each at 5 percent/year; b) depreciation and amortization are accelerated; c) income tax of 10 percent on dividends paid to overseas taxpayers or lower rates if there is a Tax Treaty; and d) Compensation for losses longer than 5 years but not more than 10 years.

There are some milk processing industries related to President Decree Number 10 of 2021 (revised in President Decree Number 49 of 2021) regulation:

1. Annex 1 No 14: Breeding and Cultivation of Dairy Cattle (KBLI code: 01412)  
This group includes livestock businesses that organize dairy cow breeding, to produce dairy cattle breeds, semen, and embryos and farms that organize dairy cow cultivation to produce milk. The requirements are doing partnerships with farmers in cattle farming business at least 10 percent of the cage capacity and integrated and/or partnerships with fresh milk and cream processing industries (KBLI 10510).
2. Annex 1 No 51: Milk Processing Industry (MPI) for Fresh and Cream Milk (KBLI code: 10510)  
This group includes the business of processing fresh liquid milk, pasteurized, sterilized, homogenized, and/or ultra heating (UHT) milk and the cream processing industry of fresh liquid milk, pasteurization, sterilization, and homogenization. This is applied for all industries related in all provinces in Indonesia.

3. Annex 1 No 60: Baby Food Industry (KBLI code: 10791)

Some products included in this category, namely: infant formula, advanced milk and other advanced foods, baby food, and foods containing homogenized ingredients.

In order to improve the scale and efficiency of livestock business, the economic capability of farmers or businessmen, market access, competitiveness, and build a synergy of mutual benefit, and equitable, it is necessary to establish a partnership of livestock business. Indonesian Ministry of Agriculture has been issued regulation Number 13/Permentan/PK.240/5/2017 about Livestock Business Partnership. Based on the regulation in Article 2, the types of livestock business that can be in partnership consist of: a) Livestock; b) animal products; and c) production facilities and infrastructure. Livestock as intended includes cows, buffalo, goats, sheep, chickens, ducks, quail, pigs, and rabbits. The animal products as intended include eggs, meat, milk, and other dairy products. Production facilities and infrastructure are implemented from upstream to downstream (Article 3).

Participants of Livestock Business Partnership include a) farmers; b) farming companies; c) companies in other fields; and d) the government and/or local government. Livestock Business Partnership can be done through the following patterns: a) core-plasma; b) profit sharing; c) lease; d) general trading; and/or e) subcontracts. Partnerships between livestock companies and/or companies in other fields with the government and/or regional governments are implemented in order to improve the competitiveness of livestock business through education, training, counseling, apprenticeship, promotion, and/or technology transfer process.

Partnership agreements shall be done in the form of a written agreement that at least contains: a) types of Livestock, types of animal products, and/or types of production facilities cooperation; b) rights and obligations; c) stipulation of quality standards; d) market price; e) marketing guarantees; f) sharing of profits and business risks; g) capital and/or financing; h) payment mechanism; i) duration; and j) dispute resolution. Partnership agreements must be recognized by the local government as a fostering of business partnerships.

Regulation Number 13/Permentan/PK.240/5/2017 which is issued by the Indonesian Ministry of Agriculture in accordance with Law Number 6 of 2013 Chapter V about partnership development in increasing synergy between livestock businessmen. The regulation regulates how to increase the income of farmers, synergy, and business competitiveness through business



partnerships: a) between farmers; b) between farmers and livestock companies; and c) between breeders and companies in other sectors. Business partnerships can be performed at least in the form of a) revenue sharing; b) lease; or c) the plasma core.

Law Number 41 of 2014 (some articles are revised in Law of the Republic of Indonesia No. 11 of 2020 on Job Creation) also regulates business partnership. Farmers can conduct business partnerships in the field of cattle farming based on mutual agreement, strengthening, benefits, respect, responsibility, dependency, and justice. A business partnership can be done: a) Inter-farmers; b) between farmers and livestock companies; c) between farmers and companies in other sectors; and d) between the livestock companies and the Government or the Regional Government in accordance with its authority. Business partnerships can be: a) provision of production facilities; b) production; c) marketing; and d) capital or financing. Government and Local Government in accordance with their authority to guide/coach business partnership.

Regulation of Minister of Agriculture Number 26/Permentan/PK.450/7/2017 Chapter IV has been revised in Regulation of Minister of Agriculture Number 33/Permentan/PK.450/7/2018. It also regulates livestock business partnerships especially related to milk production or the dairy industry. Businessman shall establish a partnership with breeders, farmer group associations, and/or cooperatives using domestic fresh milk (SSDN) or mutually beneficial promotions.

Utilization of milk based on the suitability of milk production and real production capacity of businessmen. The suitability of milk production and the real production capacity of a businessman shall be calculated annually no later than November of the previous year and shall be determined by the Directorate General of Livestock and Animal Health. The calculation of the milk production suitability and the real production capacity of a businessman can be done by the analysis team of supply and demand of milk which is consist of the Coordination Ministry for Economic Affairs, Ministry of Agriculture, Ministry of Trade, Ministry of Industry, Ministry of Cooperatives and SMEs, Statistics Indonesia and higher education institution.

Partnership in the provision of production facilities can be done through the provision of equipment and buildings. Production partnerships can be done through: a) increasing the population of dairy cattle in farmers, joint groups of farmers, and/or cooperatives; b) Rearing facilities; and/or c) enhancement of skills and competence of farmers, a joint group of farmers

and/or cooperatives. Capital or financing partnerships be done through: a) facilitation of business capital with affordable interest; and/or b) guarantee to obtain business credit

## **2.4. Access to Credit for Key Players in the Dairy Industry**

### **2.4.1. Challenges/Issues Access to Credit**

Based on field research in West Java and North Sumatera Province, there are some challenges or issues related to credit access for key players in the dairy industry. Based on regulation, the central and local government should provide financial and capital supports to farmers to buy dairy cows, equipment, and other dairy inputs through partnership. However, there is still a lack of regulation and program implementation. The farmers and farmer groups in both provinces still have a problem getting access to financial and capital supports from the government. Furthermore, access to credit is difficult as many farmers do not have collateral to meet the bank requirements.

The government also still has challenges in establishing a good partnership between processing industries and farmers and/or cooperatives that produce livestock products. Partnerships between them can be cooperation in: a) capital or financing; b) processing; c) marketing; d) distribution; e) supply chain.

### **2.4.2. Regulation Related to Access to Credit in The Dairy Industry**

The regulation related to livestock investment has been issued by the central government through Law Number 6 of 2013 Chapter II Part 1 about Access to Financial and Capital Sources. Financial and capital sources for farmers' empowerment can come from the government and local governments. Besides that, it can also come from the community, banking institutions, and other financial institutions non-bank, and other business entities (Article 4).

The regulation in Article 5 states that supports from the government and regional government can be financial or capital assistance for business development. Financial or capital assistance is given to farmers through farmer groups or collective farmers groups. Financial or capital assistance are sourced from the Indonesian Budget (APBN) and/or Regional Government budget (APBD) in accordance with the provisions of laws and regulations. Further provisions on the terms and procedures for granting financial or capital assistance should be regulated by Ministerial Regulation.

Another regulation related to access to credit in the dairy industry has been issued by Ministry of Agriculture Number 33/Permentan/PK.450/7/2018 which revise Regulation of

Minister of Agriculture Number 30/Permentan/PK.450/7/2018 about Milk Supply and Distribution (Revising Regulation of Minister of Agriculture Number 26/Permentan/PK.450/7/2017) in Article 32. It regulates that capital or financing partnerships be done through a) facilitation of business capital with affordable interest; and/or b) guarantee to obtain business credit.

In order to increase livestock business partnership, the central government has been issued Law No. 11 of 2020 on Job Creation (Revising Law Number 41 of 2014). Based on Article 31, farmers can conduct business partnerships in the field of cattle farming based on mutual agreement, strengthening, benefits, respect, responsibility, dependency, and justice. A business partnership can be done: a) Inter-farmers; b) between farmers and livestock companies; c) between farmers and companies in other sectors; and d) between the livestock companies and the Government or the Regional Government in accordance with its authority. Business partnerships can be: a) provision of production facilities; b) production; c) marketing; and d) capital or financing. Government and Local Government in accordance with their authority to guide/coach business partnership. Based on Article 37 of the processing industry states that the central government and regional governments in accordance with their respective authorities based on the norms, standards, procedures, and criteria set by the Central Government shall foster and facilitate the development of the Animal Product processing industry.

The above regulations are in accordance with the Agriculture Minister Number 13/Permentan/PK.240/5/2017 about Livestock Business Partnership. Based on the regulation in Article 11 regulates the implementation of business partnership. Partnership agreements shall be done in the form of a written agreement at least containing: a) types of Livestock, types of animal products, and/or types of production facilities cooperation; b) rights and obligations; c) stipulation of quality standards; d) market price; e) marketing guarantees; f) sharing of profits and business risks; g) capital and/or financing; h) payment mechanism; i) duration; and j) dispute resolution. Partnership agreements must be recognized by the local government as a fostering of business partnerships.

## **2.5. Importation Regulation of Live Dairy Cattle, Embryo, and Cement**

### **2.5.1 Law and Regulation of Dairy Cattle Importation**

Imports of live cattle are regulated in a number of government laws and regulations, ministerial regulations, and the Decrees of Head of Quarantine. The Minister of Trade (MOT) regulation on the importation of live cattle of large ruminants, both feeder cattle and breeder

cattle (heifers), is primarily intended to facilitate beef cattle fattening (feedlot) establishment to increase beef production. However, no government or Ministerial regulation explicitly regulates the importation of live dairy cattle/cows. The MOT regulates the importation of animal and animal products. Relevant laws and regulations on live cattle importation, including live dairy cattle/cows, and related regulations are presented in the appendix (Annex 1).

In October 2016, the Minister of Agriculture and Minister of Trade agreed on new rules for importing cattle, including heifers and feeder cattle, for private importers and cooperatives. The two ministers agreed that cattle import regulations for private importers must comply with the 1:5 provisions for imports of feeder and brood cattle. They also agreed on the rules for importing cattle by farm cooperatives with the import provisions of 1:10, meaning that for every import of 10 cows, 1 of which must be a breeder cattle. The main reason is to increase the cattle population to reduce feeder cattle import in the long run to realize the target of beef self-sufficiency<sup>6</sup>.

The live cattle import policy, both feeder and breeder cattle, has triggered pro-cons, at least between feedlots entrepreneurs and smallholder cattle farmers. The Government's policy to reduce live cattle imports is encouraging news for smallholder cattle farmers, as local cattle and beef prices will increase and benefit them. On the other hand, this policy will undoubtedly be a disaster for feeder cattle importers and beef cattle fatteners (feedlots). The number of imported feeder cattle will undoubtedly fall, and feedlots' profits will decline. As a result, there is a power struggle between local cattle farmers, generally smallholders, with importers of live beef cattle, beef, and feedlots, whom breeders from exporting countries support. The position of the Indonesian Government is sandwiched between the interests of local cattle farmers, importers and feedlots, and beef consumers.

Four companies get the most feeder cattle imports next year. The four companies are *PT Great Giant Livestock*, *PT Santosa Agrindo*, *PT Austrasia Stockfeed*, and *PT Agro Giri Perkasa*. Each company has the right to import 10000-14,000 head of feeder cattle. The Director-General of Livestock and Animal Health at the Ministry of Agriculture said the high price of meat was due to the high price of imported feeder cattle. January 2015, the price of live weight reached USD 3.05 per kilogram.

In 2019, the Ministry of Agriculture was trying to loosen the rules for importing feeder cattle which are burdensome for feedlots. Previously, imports of five feeder cattle (calves) were

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<sup>6</sup> <https://www.sapibagus.com/dua-kebijakan-pemerintah-sapi-indukan-impor>

required to import one breeder cow (heifer). In the new regulation, the revised ratio changed to 10:1. However, the easing is considered the same and does not solve the problem<sup>7</sup>.

Not surprisingly, since it was implemented in 2017, the realization of imported feeder cattle has fallen by half. During 2017-2018, the Ministry of Agriculture recorded the realization of imported feeder cattle of 776,976 heads. In fact, the import approval (PI) of feeder cattle issued by the Ministry of Trade in the past two years has reached 1.7 million heads. Worse yet, breeder cattle (heifers) imports during that period only reached 21,145, or far from the targeted figure of 155,395. The Indonesian Beef Cattle Farming Association (GAPUSPINDO) chairman had urged the government to relax its feeder cattle import policy. If not, it was feared that feedlots would go out of business. Similarly, smallholder dairy farms would also face obstacles in increasing the dairy cattle population, productivity, and quality of fresh milk production.

According to DG Livestock and Animal Health (PKH), the government seemed to have heard this insistence. The revised draft of the Ministry of Agriculture had been completed, but unfortunately, this revision did not meet GAPUSPINDO's expectations. The government only changed the volume of the ratio of feeder to imported breeder cows, from 5:1 to 10:1. This means that the import of 10 feeder cows is required to import one breeder cow.

Feedlot entrepreneurs, such as PT Andini Karya Makmur and PT Kadila Lestari Jaya, consider the revisions to be nonsense and will not work if they simply change the size of the comparison. They considered that regardless of the comparison, it would not work if the concept of feedlots was mixed with breeding. If mixed like that, one of them will die, the fattening or breeding, or even both.

## **2.5.2 Funding Scheme and Regulations on the Importation of Dairy Cattle.**

So far, there is no specific government funding scheme or regulation on heifer (dairy cow) importation. However, there was a decree of Coordinating Minister of Economic Affairs-CMEA Number 9/2016, administering the so-call People's Business Credit scheme (Kredit Usaha Rakyat-KUR), which can support and facilitate heifer importation as well as of dairy farming business. This decree was amended in November 2017 to become a new CMEA Number 11/2017 and effectively implemented on January 1, 2018.

It was worth mentioning other initiatives that are closely related to effort in increasing dairy cattle population and heifer importation, namely: (i) Indonesia-Australia Commercial

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<sup>7</sup> <http://agroindonesia.co.id/2019/04/revisi-aturan-importor-sapi-bakalan>

Cattle Breeding (IACCB) Program, and (ii) Stakeholders' Partnership in the Dairy sector (PISAgro-Dairy Working Group, ongoing IPS-Dairy Cooperatives partnerships). IACCB is not directly related to dairy cattle as it is aimed at establishing a breeding scheme to increase the beef cattle population in the country.

The IACCB commenced in February 2016 is a program established under the Indonesia-Australia Partnership on Food Security in the Red Meat and Cattle Sector. The three-year \$8 million IACCB project aims to pilot different breeding partnership models and investment opportunities with private sector partners to assess commercially sustainable approaches. Funding for this program is provided from the \$60million contribution towards the Partnership by the Australian Government, with co-contributions from included project Partners. The IACCB's key focus is to support the commercialization of cattle breeding in Indonesia by supporting selected partners and their breeding system. This support comes in the form of a management partnership, aims to improve the partner's capacity and capability in commercially sustainable production and business practices. The outcomes of this program will be changes to cattle breeding and farm management practices. This encourages partners to further invest in expanding their cattle breeding business beyond the pilot phase, which will lead to further expansion in the Indonesian cattle breeding sector, including the dairy cattle<sup>8</sup>.

The Partnership for Indonesia's Sustainable Agriculture (PISAgro) is a collaborative platform between the Indonesian government, the public, and the private sector to support the Government of Indonesia's ambition to increase agriculture productivity sustainably as part of the effort to develop food security. The PISAgro was founded in June 2011 at the World Economic Forum on East Asia in Jakarta and was officially operational in 2012. The Coordinating Ministry for Economy, Ministry of Agriculture, and Ministry of Trade fully support the partnership. PISAgro 2020 Visions are, among others, a 20% increase in the production of selected commodities, including milk and dairy products, and a 20% increase in the welfare of farmers. The partnerships of Dairy PISAgro involves Nestlé Indonesia, Cargill Indonesia, Brawijaya University, ARISA, Singosari Artificial Insemination Institute, INVIVO Indonesia, and 25 dairy/milk cooperatives<sup>9</sup>.

Dairy farming development plans are contained in the National Dairy Industry Development Blueprint in 2014-2025. Unfortunately, until now, the plans have yet to be realized. There have been no special programs supported by adequate funding for the

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<sup>8</sup> <http://iaccbp.org>.

<sup>9</sup> <http://www.pisagro.org>

development of smallholder dairy farms undertaken by the Ministry of Agriculture. In fact, during the 2015-2019 period, the Ministry of Agriculture focused on increasing rice, corn, and soybean production, as well known as the *Pajale* program. Implementation of the Blueprint is slightly visible with the significant increase in imports of heifer and increase in investment of large-scale or mega-dairy farms, as undertaken by PT Greenfields, Cimori, and Nestle Indonesia. In the future, more consistent policies and efforts are needed to support the development of smallholder dairy farming.

In contrast to the import of beef cattle, which involves a debate between feeder cattle and breeders, the import of dairy cattle is more constrained by the availability of heifers and the relatively high price due to high world import demand. The price of dairy cows (heifer) reached 40 million per head in 2016. This price was too high for farmers to afford. The Government's desire to increase imports heifers is constrained by the limited supply of heifers in the country of import origin. Table 10 presents the number of imported heifers during the 2016-2018 period.

Table 10. Indonesia's Import of Heifer 2016-2018 (Heads)

No	Importers	Heifer Breeds	Proposed number imported (heads)	Number imported (heads)	Country of import origin	Province of Destination	Date
<b>2016</b>							
1	PT. Nusantara Agri Sejati	FH	650		Australia	Sukabumi, W Java	04-Oct-16
2	PT. Raffles Pacific Harvest	FH	600	400	Australia	Garut, W Java	18-Oct-16
<b>Total</b>			<b>1,250</b>	<b>400</b>			
<b>2017</b>							
1	PT. Raffles Pacific Harvest	FH	200	197	Australia	Garut, W Java	16-Mar-17
2	PT. Greenfields Indonesia	FH	2,150	2,123	Australia	Malang, E Java	23-Aug-17
3	PT. Citra Agro Buana Sejahtera	Anglo Nubian	7		Australia	Garut, W Java	24-Nov-17
		British Alpine	7				
		Saanen	11				
4	PT. Greenfields Indonesia	Jersey	2,450	700	Australia	Blitar, E Java	08-Dec-17
<b>Total</b>			<b>4,825</b>	<b>3,020</b>			
<b>2018</b>							
1	PT. Greenfields Indonesia	Jersey	2,450	1,050	Australia	Blitar, E Java	12-Feb-18
2	PT. Raffles Pacific Harvest	FH	200		Australia	Garut, W Java	12-Mar-18
3	PT. Usahatani Lestari	FH	5		Australia	BIB Lembang, W Java	09-May-18
4	PT. Lunar Chemplast	Awassi Sheep	75	75	Australia	Kediri, E Java	24-May-18
5	PT. Greenfields Indonesia	Jersey	1,000		Australia	Blitar, E Java	06-Jun-18
6	PT. Lunar Chemplast	Anglo Nubian Goat	60	60	Australia	Kediri, E Java	06-Jun-18

No	Importers	Heifer Breeds	Proposed number imported (heads)	Number imported (heads)	Country of import origin	Province of Destination	Date
7	PT. Agrijaya Prima Sukses	FH	600		Australia	Subang, W Java	01-Aug-18
8	PT. Ultra Sumatera Dairy Farm	FH	550		Australia	Karo, N Sumatra	27-Aug-18
<b>Total</b>			<b>4,940</b>	<b>1,185</b>			
<b>Grand Total</b>			<b>11,015</b>	<b>4,605</b>			

Source: DG of Livestock and Animal Health, MOA.

In many of the world's milk-producing countries, dairy farmers generally join cooperatives, including the United States, Switzerland, the Netherlands, and India. The chairman of the National Dairy Council suggested that the government provide subsidies for the procurement of imported dairy cows to improve productivity and quality of fresh milk production. With the current price of imported dairy cattle, around IDR 40 million per head, he said maintenance is not feasible even though there is a people's business credit (KUR) scheme.

For the development of beef cattle, the government issued assistance for thousands of ex-imported beef cattle. Why doesn't the government do it for dairy cows? According to the National Dairy Council chairman, this subsidy policy would be critical to accelerate the growth of efficient small and medium-scale dairy farms. By providing subsidies of around IDR 20 million per head, he argues, dairy farmers can increase the ownership of productive dairy cattle through the KUR scheme. However, this proposal was not accommodated by the government. Many argued that the government's objection to providing subsidies was one of the reasons why the dairy cattle population in Indonesia has been stagnant and even tends to continue to decline. A large number of dairy cattle were slaughtered at a time when beef prices in the domestic market soared<sup>10</sup>.

Again, to strengthen food and nutrition security, in 2020, the Ministry of Agriculture inaugurated a program of 1000 cattle villages in five provinces in Indonesia, namely Lampung, South Sulawesi, East Java, West Nusa Tenggara (NTB), and East Nusa Tenggara (NTT)<sup>11</sup> The main objective is to increase the cattle population to meet the growing demand for beef. Unfortunately, and surprisingly, this program does not include dairy cows to increase national milk production to meet the ever-increasing demand for dairy products. It was reported that

<sup>10</sup> (<https://ekonomi.bisnis.com/read/20191231/99/1185769/penguatan-koperasi-jadi-kunci-pengembangan-produksi-susu-segar>)

<sup>11</sup> (<https://makassar.tribunnews.com/2020/09/26/tahun-2020-kementan-inisiasi-program-pengembangan-1000-desasapi-jawa-timur-nyatakan-siap-dukung>)



Parliament did not fully support this program because it was unclear the strategy and steps to increase the cattle population<sup>12</sup>.

The exclusion of dairy cows is questionable, considering that the government has intensified national programs to combat stunting problems. The development of smallholder dairy farms to increase milk production and increase the availability of fresh milk at affordable prices is an effective way to combat stunting.

The Director of Breeding and Livestock Production of the Ministry of Agriculture stated that throughout 2019, the total importation of dairy cows was 3,420 heads, almost three folds than that of 2018. Large-scale dairy farming companies carried out the importation itself. This was in contrast to the dairy cooperative condition. There were no dairy cooperatives importing heifers because no financing scheme and support facilities were available. There have been suggestions for the government to assign one of the state-owned enterprises or cooperatives to carry out calf enlargement activities. Around 50,000 female dairy calves are born every year, requiring special care to become quality dairy cows. In the hands of farmers with various limitations, these calves cannot grow into productive dairy cows with high productivity.

Indonesia's dairy farms mainly use the Frisian-Holstein breed, the dairy breed since the Dutch colonial era. The dairy breed is becoming more diversified, as one integrated company has been trying out Jersey cows, known to consume less feed, be more resistant to diseases and hot weather, and produce milk with higher fat and protein contents (USDA FAS, 2018). Dairy cattle were all imported from Australia, as the only country with live dairy cattle import protocol with Indonesia. Some local dairies augment their breeding programs with genetics imports from the United States.

### **2.5.3 Regulation on the Importation of Cement and Embryos**

Besides importing heifer and lactating dairy cattle, the government has also encouraged and facilitated the importation of frozen cement and embryos and domestic cement production. The government has also encouraged and facilitated the development of the domestic production of frozen cement and embryos.

The Government regulated the supply and distribution of frozen semen for large ruminants in the MOA Regulation No. 10/2016. As stated in article 4, that (i) provision of frozen

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<sup>12</sup> (<https://www.tribunnews.com/bisnis/2021/01/25/dpr-heran-kementerian-pertanian-tetap-jalankan-program-1000-desa-sapi-padahal-tak-direstui>)

cement for ruminants must prioritize domestic production, (ii) the provision of frozen cement for ruminants from domestic production must be 60% from native livestock and/or local ruminants, and (iii) if frozen cement in the country is not enough, it can be imported. Provision of frozen cement for ruminants from domestic production can be made by breeders/dairy farmers, livestock companies, Government, provincial Government, local Government (regency/city), and universities. Preparation of frozen semen for ruminants is carried out by the Artificial Insemination Center (Balai Iseminasi Buatan).

Institutions that produce frozen cow cement include the Singosari Center for Artificial Insemination (Balai Besar Iseminasi Buatan Singosari) and the Lembang Artificial Insemination Center (Balai Iseminasi Buatan Lembang). These two centers are the Technical Implementation Units of the DG of Livestock and Animal Health of the MOA.

For frozen cement production, Indonesia has claimed itself as a self-sufficient country. The production of frozen cement from BIB Lembang and BBIB Singosari has reached 5 million doses, while domestic demand is only around 3.5-4 million doses per year.

There was a bilateral agreement in 2016 for Indonesia to import Belgian blue embryos from Belgium regarding embryo transfer. This embryo transfer program has been progressing well. Until September 2018, 43 breeds of Belgian Blue cows had been successfully bred, and some of them were delivered in Embryo Transfer Research Station (Balai Embrio Transfer-BET) Cipelang, Bogor, both from artificial insemination and embryo transfer. In September 2018, a fifth calf was born from the embryo transfer in Cepelang. The MOA should replicate the success of the Belgian blue embryo transfer program through bilateral cooperation with Australia and New Zealand to run an embryo transfer program for dairy cattle.

To accelerate the target of increasing the population of cattle (beef) in the country, the Ministry of Agriculture, through Minister of Agriculture Regulation No. 48/Permentan/OT.010/12/2016, stipulates Special Efforts to Accelerate the Increase of Pregnant Cattle (including dairy) and Buffalo Populations (UPSUS SIWAB). This effort was carried out as a part of the manifestation of the government's commitment to achieve beef self-sufficiency targeted by President Joko Widodo in 2026 and to achieve food self-sufficiency of animal origin and, at the same time, improve the welfare of smallholder cattle farmers<sup>13</sup>.

The basic concepts of UPSUS SIWAB activities were divided into two, namely theoretical concepts and operational concepts. From a theoretical perspective, "pregnancy" is a period from fertilization to birth, while "fertilization" is the fusion of sperm and ovum. The

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<sup>13</sup> <https://www.pertanian.go.id/home/?show=news&act=view&id=1775>

success of pregnancy is largely determined by the fertility of sperm and ovum and the reproductive tract that supports their fusion and then attaches to the uterine wall.

Reproductive disorders in beef cattle and buffalo are generally caused by several factors, including anatomical defects of the reproductive tract, functional disorders, infections in reproductive organs, and mismanagement (Ratnawati et al., 2007). In general, reproductive disorders can be cured by improving feed, treatment with antibiotics, giving hormones, giving vitamins and minerals, vaccination, sanitation, and a combination of these factors. Reproductive disorders caused by congenital anatomical defects tend to cause cows to become infertile (Ilham, N, 2017).

Cows that were fed well only needed 1.5 times of mating (S/C), while those fed poorly needed 4.1 times of mating to become pregnant (Talib et al., 2001). Meanwhile, according to Nurjanah et al. (2014), the factors that influence and are positively associated include the frequency of forage administration, the amount of forage given, and the administration of concentrates. It is recommended to give forage four times a day with 35 kg/head supplemented with concentrate to increase the pregnancy rate.

An alternative to natural mating is marriage with IB. Currently, certified national cement production is sufficiently available, even already exported. Frozen cement produced by the National Artificial Insemination Center (BIB) and several Regional Artificial Insemination Centers (BIBD) already have ISO 12075 quality standard certification regarding quality laboratories. ISO 9001 includes laboratories and human resources management, facilities, and others.

Before UPSUS SIWAB was declared in 2017, the Directorate General of PKH had various activities, including developing local livestock. The efforts that had been made are synergistic with UPSUS SIWAB, which uses the IB method of marriage with frozen semen of certain breeds. It is better if the agency that produces frozen semen also produces local cattle and buffalo semen for the needs of the local source of livestock breeds.

Likewise, screening activities for breeding cows and prospective bulls through performance tests should be synergized with the results of calf births from UPSUS SIWAB. It is hoped that the prospective breeder cows and prospective males that are technically netted can be used as basic breeds to be developed in livestock farmer groups and nurseries located at the regional Technical Operational Unit (UPT).

## 2.6. Importation of Dairy Products

### 2.6.1 Laws and Regulations on the Importation of Dairy Products

The government is still restricting milk imports to meet milk needs but keeping small dairy farms operating profitably. Before the 1998 economic crisis, the government tightly restricted the importation of dairy products by implementing sets of policy instruments, including import tariff, import quota, import licensing, and the well-known local content requirement (BUSEP). The BUSEP was the requirement for Milk Processors (IPS) and importers to absorb domestically produced fresh milk. However, this BUSEP policy had to be removed as part of the Indonesian government's agreement with the IMF as stipulated in the IMF Letter of Intent. Since the BUSEP is inconsistent with the WTO rules, reimplementing this policy will almost certainly be sued by exporting countries in the WTO dispute settlement process.

Dairy products are charged a five percent MFN (Most Favoured Nation) import tariff. Besides this MFN tariff, due to the FTA agreement, Indonesia would also implement a preferential import tariff, including a four percent import tariff on dairy products of Australian and New Zealand origin. Table 11 presents Indonesia's import tariff structure for dairy products.

Table 11. Indonesia's Tariff on Dairy Products

Commodity (HS code)	Year		
	2018	2019	2020
<b>Australia &amp; New Zealand (under AANZ FTA)</b>			
Milk and cream, concentrated not containing added sugar or other sweetening matter, in powder, granules or other solid forms, of a fat content, by weight, not exceeding 1.5% (0402.10)	4%	4%	0%
Milk and cream, concentrated not containing added sugar or other sweetening matter, in containers of a gross weight of 20 kg or more (0402.21.20)	4%	0%	0%
Milk and cream, concentrated not containing added sugar or other sweetening matter, other (0402.21.90)	4%	4%	0%
Whey and modified whey, whether or not concentrated or containing added sugar or other sweetening matter (0404.10)	0%	0%	0%
Anhydrous butterfat (0405.90)	0%	0%	0%
Lactose and lactose syrup, containing by weight 99% or more lactose, expressed as anhydrous lactose, calculated on the dry matter (1702.11)	0%	0%	0%
<b>United States of America</b>			
Milk and cream, concentrated not containing added sugar or other sweetening matter, in powder, granules or other solid forms, of a fat content, by weight, not exceeding 1.5% (0402.10)	5%	5%	5%
Milk and cream, concentrated not containing added sugar or other sweetening matter, in containers of a gross weight of 20 kg or more (0402.21.20)	5%	5%	5%
Milk and cream, concentrated not containing added sugar or other sweetening matter, other (0402.21.90)	5%	5%	5%
Whey and modified whey, whether or not concentrated or containing added sugar or other sweetening matter (0404.10)	5%	5%	5%
Anhydrous butterfat (0405.90)	5%	5%	5%

Commodity (HS code)	Year		
	2018	2019	2020
Lactose and lactose syrup, containing by weight 99% or more lactose, expressed as anhydrous lactose, calculated on the dry matter (1702.11)	5%	5%	5%

Source: USDA FAS, 2018

The ASEAN – Australia - New Zealand Free Trade Agreement (AANZFTA) would eliminate Oceania’s SMP import tariff in 2020. Australia and Indonesia announced the substantive conclusion of negotiations on the Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA) on 31 August 2018. After it’s ratified, the IA-CEPA provides preferential access for some Australian agricultural products, including the elimination or reduction of tariffs on several dairy products beginning in 2019. This would make Australian dairy product origin cheaper than other import origins.

Although not directly related to dairy products, Indonesia lost in the dispute settlement process at the WTO regarding the import policies on livestock and livestock products and horticultural products. Indonesia was sued by New Zealand (DS 477) and the United States (DS 478) because these import policies hurt the export interests of the two countries. The DSB Panel (DS477 / DS478) ruled that import policies implemented by the Indonesian government, including 4 Agricultural Laws, were deemed inconsistent with the prevailing WTO rules. Indonesia appealed, but the decision of the WTO Appellate Body (AB) was the same as the rule of the Panel, namely Indonesia's policies (laws and regulations) violate WTO rules. This decision forced the Indonesian government to revise the relevant Ministerial regulations and amend the four laws in which the process is still ongoing.

The importation of dairy products (milk and milk products) is regulated in several government acts and regulations, ministerial regulations, and the Decrees of Head of Quarantine. The import policy on dairy products consists of several measures, including restriction on timing and volume of milk imports, import tariffs, non-automatic import licensing, a requirement to get import permit and recommendation, quarantine regulations, and restrictions on the ports of entry. Several government regulations on the importation of dairy products, both Minister of Trade (MOT) and Minister of Agriculture (MOA) regulations, are presented in the appendix (Annex 1).

Under its primary duties and functions, the minister of trade regulates trades of goods and services. However, trade regulations for some agricultural commodities require a recommendation from the Ministry of Agriculture. The following briefly describes the

regulations of the minister of trade and the minister of agriculture regarding the importations of animals and animal products, including milk and dairy products.

The provisions for the export and import of animals and animal products, as stated in the MOT Regulation No. 29/2019 of the Article 10, that import can only be carried out by: (a) importer holding valid Business Identification Number (NIB) as an Import Identification Number (API); (b) Social Institutions; and (c) Representatives of Foreign Countries/International Institutions. Social Institutions as referred to in letter (b) must be a business entity or legal entity established under Indonesian law and domiciled in Indonesia, while the Representatives of Foreign Countries/International Institutions as referred in letter (c) must domicile in Indonesia. They can import Animals and Products Animals as listed in Appendix II, Appendix III, and Appendix IV which are part and inseparable of this Ministerial Regulation.

Import of Animal and Animal Products can only be carried out after obtaining Import Approval from the Minister of Trade. The Minister delegates the authority to issue Import Approval to the Director General, and the DG then gives the issuance mandate Import Approval to the Director of Imports. In order to obtain an Approval for the Import of Animals and Animal Products, the Importer holding the NIB that acts as an API, must submit an application electronically to Director General through the Director of Imports with the following attachments: (a) Certificate of Business Establishment and its amendments; (b) NIB that acts as an API; (c) proof of mastery of the place of maintenance and cages for import of breeds and breeder cattle, (d) proof of mastery of storage refrigerated (cold storage) and proof of mastery refrigerated transportation means for product import, except for meat import processed ready for distribution that does not require cold storage facilities; (e) a statement stating that (f) Recommendation from the Minister of Agriculture or officials appointed by the Minister of Agriculture.

The MOT 29/2019 regulated the importation of the following milk and milk products (HS code): milk and milk heads, concentrated or containing added sugar or sweetener (0402); Buttermilk, condensed milk and concentrated milk, yogurt, kefir and fermented milk and cream or other pickled, concentrated or containing additional sugar or other sweetening ingredients (0403); Whey, concentrated or containing added sugar or other sweetening matter or not, product consists of natural milk as the main element, contains added sugar, other sweeteners or not (0404); Butter and other fats and oils obtained from milk, and dairy spreads (0405); Cheese and milk curd (0406);

The MOT Regulation No 72/2019 is the regulation regarding the amendments to MOT Regulation No. 29/2019 the provisions for export and import of animals and animal products. In addition to attaching the requirements, stipulated in article 13, MOT No 29/2019, importers must also attach: (a) Recommendation from the Minister of Agriculture or official appointed by the Minister of Agriculture on the Import of Animal Species and Products Animals as listed in Appendix II and Appendix III which are integral part of this Regulations; or (b) Recommendation from the Head of the Supervisory Board Medicine and Food or appointed official and Recommendation from the Minister of Agriculture or official appointed by the Minister of Agriculture.

The MOT Regulation No 20/2021 is the newest import policy and regulation. Policies and regulations in the field of import as referred to in article (1) is implemented by the Minister of Trade in the form of: (a) Registered Importer (IT); (b) Importers Producers (IP); (c) Import Approval; (d) authority; (e) Importer requirements; (f) procedures for applying for an Import permit; (g) issuance of Import permit; (h) determination of Import restricted goods; (i) Verification or Technical Tracing; (j) determination of place of entry of Goods; (k) Importer's obligations; (l) prohibition for Importers; (m) penalty; and (n) supervision.

The MOT 20/2021 requires: (1) importers to have a valid Business Identification Number (NIB) that acts as an Import Identification Number (API); (2) API consists of (a) General Importer Identification Number (API-U) and (b) Producer Importer Identification Number (API-P); (3) Importers can only choose the applicable NIB as API-U or NIB which acts as API-P; (4) NIB that applies as API-U is only given to importers who import goods specified for trading purposes; (5) NIB that applies as API-P as follows is only given to importers who import goods to be used as capital goods, raw materials, Auxiliary Materials, and/or materials to support the production process; (6) The imported goods of the API-P is prohibited to be traded or transferred to another party; (7) The prohibition provisions is exempted for the remaining raw and auxiliary materials in accordance with the provisions of the legislation.

Besides issuing recommendations regarding the importation of animal and animal products (including dairy products), the Minister of Agriculture has also issued regulations on the supply and distribution of milk and promoting partnerships in the dairy industry. These regulations aim to strengthen and facilitate the development of the dairy industry in Indonesia inclusively, involving all large and small business actors, including smallholder dairy farmers, in a mutually beneficial manner.

In July 2017, the MOA issued a new MOA No 26/2017 regarding Milk Supply and Distribution that obliges milk processors to engage “partnerships” with local milk producers, particularly smallholder dairy farmers (USDA FAS, 2018). Through these partnerships, processors are obliged to procure an “appropriate” amount of fresh milk produced by dairy farmers. MOA’s Directorate General of Livestock and Animal Health Services (DGLAHS) will determine how much needs to be procured based on processors’ capacity and the local area’s milk production. However, it is unclear how this calculation will be made, leading to a great deal of concern among dairy processors. Reportedly, DGLAHS is developing a standard operating procedure for this determination, which was to be issued before the end of October 2017.

Other provisions in the regulation require dairy product importers to fund activities to promote milk consumption and/or invest in the local dairy sector at the farm level. Furthermore, the regulation stipulates that business handling dairy products must have their milk processing unit within three years. While most processors already procure fresh milk locally, they also need to import significant quantities of powder. In addition, numerous local companies import powders and then resell them to local food manufacturers. Finally, another group of companies import value-added processed dairy products (e.g., cheeses, yogurt) and then sell to the retail and/or foodservice sectors. As a condition for obtaining import permits, this new regulation will require all these businesses to establish one of the types of “partnerships” with the group of dairy farms and/or dairy cooperatives. Due to limited local milk production and tight competition in procuring local milk, importers may have difficulties complying with the new regulation, failing to obtain MOA’s import recommendation (USDA FAS, 2018).

This MOA regulation, even before it was officially issued, has been questioned by Indonesian trading partners, especially the United States and New Zealand. The contentious articles are related to the obligation to engage partnerships, including, among others, in the form of the requirements to procure fresh milk produced by dairy farmers. Under the pressure by trading partners, the MOA regulation No.26 2017 was finally revised twice, became MOA Regulation No. 30 2018 for the first revision and became MOA Regulation No. 33 of 2018 for the second revision.

In the first revision, partnership agreements are no longer compulsory. The clause stating that MOA will consider the partnerships when issuing import recommendations was eliminated. Also, the penalty of withholding import recommendations for one year for failing to comply with the partnership requirement was removed. The second revision eliminates any notion regarding compulsory partnerships, deletes mandatory reporting requirements, removes



all remaining sanctions associated with non-compliance, and deletes the clause stating that dairy processors must establish their plants that only procure milk locally.

The potential to be sued by trading partners is the obligation to procure local milk (local content obligation) because the WTO rules prohibit it. In contrast, the obligation to carry out partnerships is not regulated and not prohibited in the WTO rules. Unfortunately, the article on the obligation to engage in mutually beneficial partnerships was also removed in the revised regulation. The word partnership, which has become a keyword that is promoted in international organizations, including the UN, seems to be forbidden to be promoted in Indonesia. Supposedly, the Ministerial regulation requiring a mutually beneficial partnership must not be accompanied by an obligation to absorb domestically produced fresh milk. In other words, even if a milk processor (IPS) is willing to purchase milk produced by farmers, it must be done voluntarily based on mutual need and benefit rather than as a binding obligation.

Following these revisions, in late August 2018, DGLAHS announced that it had received 99 proposals from 30 dairy processors and 88 importers worth US\$51.8 million. In response to criticism from dairy producer organizations for cancelling the local purchase obligation, MOA stated that they would continue to “encourage” dairy processors to form partnerships to buy local milk, invest in dairy production, and promote local fluid milk consumption.

Some importers were concerned that MOA might still have an implicit requirement that importers demonstrate they support the local dairy industry to obtain a permit to import dairy products. Likewise, while most dairy processors already held partnerships with dairy farmers and cooperatives long before it was required, many took a wait-and-see attitude regarding providing official partnership agreements. It was expected that many importers and local dairy processors would continue to undertake partnership agreements to ensure access to imports.

Partnerships between milk processors and smallholder dairy farmers through dairy farmers groups and cooperatives in West and East Java have developed and progressed well, and some have recorded successful outcomes. Partnerships between Frisian Flag Indonesia (FFI) and dairy farmers, members of the South Bandung Dairy Farmers Cooperative (KPBS), have been carried out, including through the implementation of the Farmers to Farmers (F2F) program, the establishment of an automatic milk collection point (AMCP) and a contract to purchase fresh milk produced by farmers. The latter is a voluntary partnership that needs and benefits each other.

This FFI-KPBS partnership has successfully increased the enthusiasm of smallholder dairy farmers to implement good practices to increase the productivity and quality of fresh

milk. The data shows that the quality of fresh milk deposited by AMCP members is higher than fresh milk that farmers deposit to non-AMCP. Through the F2F program, farmers were introduced to various techniques for raising livestock, feeding, and milking to improve the quality and productivity of fresh milk produced. The existence of AMCP, which measures the quality of dairy farmers individually rather than collectively, has been able to stimulate farmers to apply better techniques and management practices. Farmers who produce high-quality milk will receive a price incentive, while farmers with low-quality milk get a price penalty. Dairy farmers, KPBS and FFI, benefit from the established partnership. The construction of AMCP continues, and at present, four AMCPs have been built in the KPBS area.

The world's major dairy exporters have successfully developed an inclusive value-chain dairy industry by first developing national dairy cooperatives and then encouraging multi-stakeholder partnerships, supported by consistent legislations and regulations in the country. Giant dairy cooperatives such as the Dairy Giant Friesland Campina of Netherland, the Dairy Cooperative of America, the Dairy Giant Fonterra of New Zealand, and the Burnett Dairy Cooperative of Switzerland are the main pillar of the world's giant dairy industries.

The question is whether dairy cooperatives in Indonesia, such as KPBS and KPGS in Java, can continue to grow as dominant players in the national dairy industry? Another big question is whether the Association of Dairy Cooperatives (GKSI), together with all its member dairy cooperatives, can grow into giant dairy cooperatives like those in the Netherlands, America, New Zealand, and Switzerland? What roles should the government take, and what kind of regulations are needed?

Another example of multi-stakeholder partnership to learn is the success story of the establishment of J-Milk in Japan. J-MILK, or Japan-Milk, is a multi-stakeholder partnership in the dairy industry in Japan. J-Milk is based on a national goal to provide fresh milk produced in the country to meet the needs of "fresh milk" nationwide. The Government and the Japanese are convinced that the culture of drinking and consuming fresh milk products is critical and must be of national interest. Fresh milk must be available and affordable by the people of Japan, not "reconstituted" milk from imported SMP and FMP. The Japanese Government and nation believe that fostering a dairy farming culture is very important for the survival and progress of the nation<sup>14</sup>. That underlined the birth of J-Milk and became the implementing organization of the milk industry in Japan.

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<sup>14</sup> <http://www.j-milk.jp/en>

The availability of fresh milk, not powdered milk or UHT milk that uses the "reconstituted" process from powder milk (SMP and WMP), is needed by a nation like Japan. Because of its perishable and bulky nature, pure fresh milk is not traded globally but only traded in a limited way between European economic countries. Therefore, encouraging and facilitating the development of dairy farming in a country is an important step to improving the nation's human resources quality. The steps taken by the Japanese Government by encouraging and facilitating the establishment of J-Milk, may serve as an example and be taken as a lesson for Indonesia. The question, again, is how should the Indonesian Government promote multi-stakeholder partnership in the dairy sector in Indonesia to achieve a success story like in Japan and other countries?

### 2.6.2 Indonesia's Dairy Product Imports

Fuelled by a dynamic food processing industry and overall demand growth, total dairy consumption was forecast to increase 5 percent in 2019, reaching 4.08 million tons. Approximately 56 percent of consumption was in liquid fresh milk, UHT milk, flavoured/fermented milk, condensed milk, and cream. Consumption of these fluid milk products was forecast to increase to 2.4 million tons in 2019. The dairy processors use the majority of imported SMP to recombine with local milk and other imported ingredients to form reconstituted milk. Only a few large processors produce and sell fresh pasteurized milk, while most others produce and sell reconstituted milk, which is generally cheaper. SMP is also used in powdered milk beverage products and food manufacturing ingredients (USDA FAS, 2019). As domestic fresh milk failed to meet the needs of the processing industry in terms of both quantity and quality, a large amount of milk used by local industries up to now was imported. Imports were in powder and mainly sourced from New Zealand, Australia, and the US.

Table 12. Import of Selected Dairy Products 2010-2021 (thousand tons)

Year	SMP	WMP
2010	119	50
2011	127	52
2012	137	56
2013	154	57
2014	152	53
2015	151	51
2016	173	42
2017	149	39
2018	150	46
2019	155	50
2020	207	51

Year	SMP	WMP
2021	214	71
Average	157	52
Growth 2018-21 (% p.a)	13,4	16,6
Growth 2019-21 (% p.a)	18,5	20,6
Growth 2010-21 (% p.a)	6,1	4,2

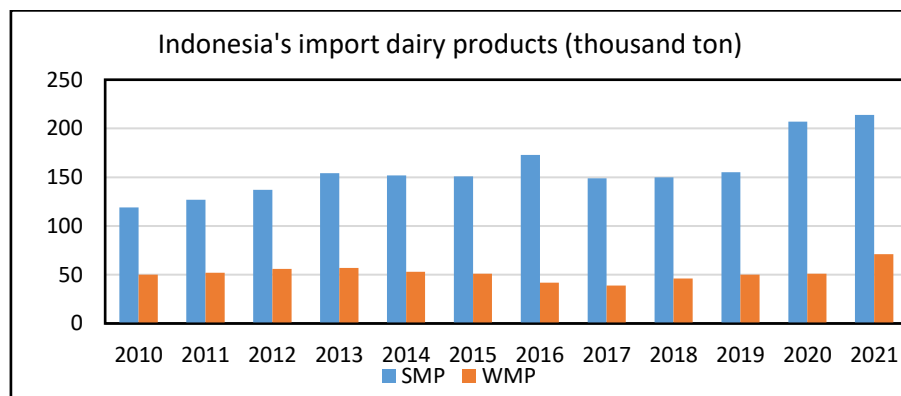
Source: USDA FAS, 2011;2013;2015;2016;2018; 2019; 2020; 2021;

Notes:

SMP: Skim Milk Powder

WHP: Whole Milk Powder

Table 12 and Figure 5 show that Indonesia's imports of SMP and WMP during the 2010-2021 period were slightly increasing, at the annual growth rates of 6.1 percent for SMP and 4.2 percent for WMP. However, the devaluation of the Indonesian Rupiah in the period 2013-2017 made it more expensive to import milk. In addition, there was the bureaucratic burden of importing food products to Indonesia, which included sanitary and health certificates and tests from various government agencies and a halal certificate. Imports of SMP and WMP during 2013-2017 declined from 154,000 tons to 149,000 tons for SMP and from 57,000 tons to 39,000 tons for WMP. Interestingly, at the beginning of and during the Covid-19 pandemic (2019-2021), imports increased at 18.5 percent for SMP and 20.6 percent for WMP (USDA FAS, 2020; USDA FAS, 2021).



Source: USDA FAS, 2011-2018

Notes: SMP (Skim Milk Powder); WHP (Whole Milk Powder)

Figure 5. Indonesia's import of selected dairy products (thousand ton)

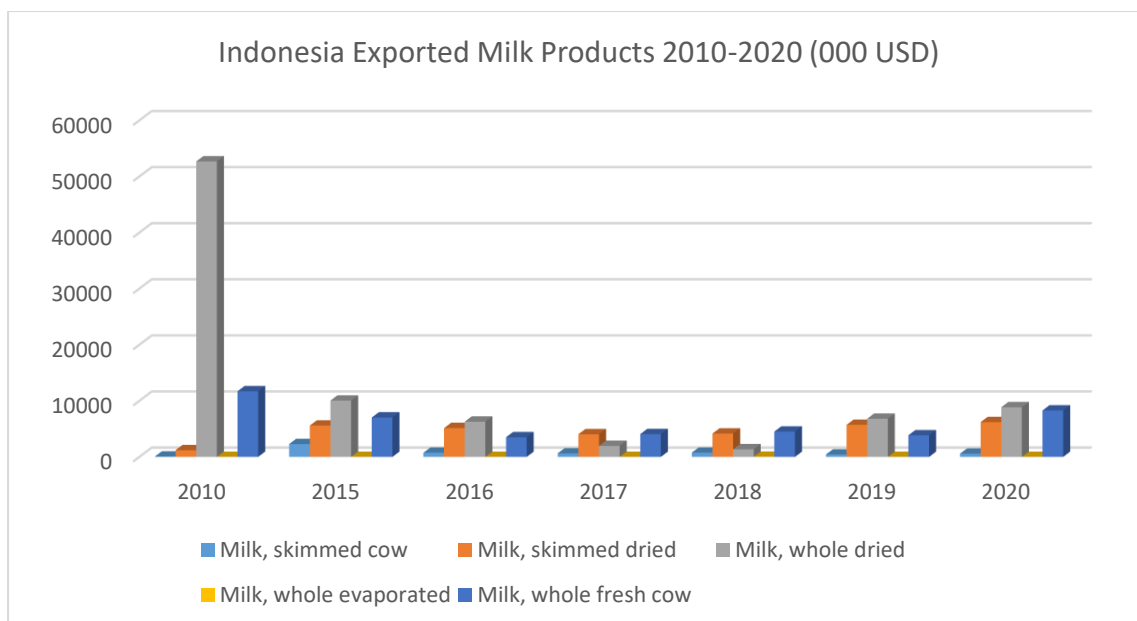
As a comparison, Table 13 presents trade values of Indonesia's dairy products according to the FAO database (FAO-Trade Data). The Data shows that during the period 2010-2020, Indonesia's imports of dairy products continued to increase from 624 million USD to 702 million.

Table 13. Indonesia's Imported-Exported Milk Products 1990-2016 (US\$ 000)

		2010	2015	2016	2017	2018	2019	2020
<b>Milk, skimmed cow</b>	Import	4536	34	68	397	98	197	104
	Export	61	2287	747	620	752	426	578
	X-M	-4475	2253	679	223	654	229	474
<b>Milk, skimmed dried</b>	Import	405153	386209	326722	328443	322766	441747	541583
	Export	1192	5586	5142	4038	4164	5710	6195
	X-M	-403961	-380623	-321580	-324405	-318602	-436037	-535388
<b>Milk, whole dried</b>	Import	213105	117718	118123	134850	172384	167380	158070
	Export	52684	10038	6282	1960	1362	6805	8852
	X-M	-160421	-107680	-111841	-132890	-171022	-160575	-149218
<b>Milk, whole evaporated</b>	Import	124	548	809	882	975	1819	976
	Export	2	0	0	0	23	2	0
	X-M	-122	-548	-809	-882	-952	-1817	-976
<b>Milk, whole fresh cow</b>	Import	699	81	155	257	395	562	1548
	Export	11694	7026	3504	4069	4512	3856	8286
	X-M	10995	6945	3349	3812	4117	3294	6738
<b>Total milk</b>	Import	623617	504590	445877	464829	496618	611705	702281
	Export	65633	24937	15675	10687	10813	16799	23911
	X-M	-557984	-479653	-430202	-454142	-485805	-594906	-678370

Source: FAOStat-Trade data (<http://www.fao.org>)

As described before, SMP and WMP dominated Indonesia's import values of dairy products, which amounted to 542 million USD for SMP and 158 million USD for WMP in 2020. During the 2010-2020 period, Indonesia has exported several dairy products, but the total export values were much smaller than the import values. Consequently, Indonesia experienced a huge trade deficit in dairy products. Figure 6 present Indonesia's import and export values of dairy products, respectively.



Source: FAOStat- Trade data (<http://www.fao.org>)

Figure 6. Value of Indonesia Imported and Exported Milk 2010-2020 (000 USD)

### 2.6.3 Policy Perspective: Import Restriction, Nominal Rates of Protection, and Quota Rent

Excessive protections and alignments towards smallholder dairy farmers, as stated in MOA Regulation No 26/2017, are inappropriate, as they are not solving the problem but rather creating new problems and market uncertainty. It is nothing wrong to require milk processors to build a partnership with dairy farmers and dairy cooperatives, and no WTO rules prohibit such a requirement. However, an obligation to procure locally produced milk as a requirement to get import permission is inconsistent with WTO rules, and hence it is prohibitive. Since milk processors and importers strongly opposed it, the Ministry of Agriculture finally revised MOA Regulation No. 26 2017, particularly after being questioned by several exporting countries, such as Australia, New Zealand, and the United States. The government revised MOA Regulation No. 26/2017 twice to become MOA Regulation No. 30/2018 and MOA No. 33/2018.

Apart from its inconsistency with WTO rules, the obligation to absorb fresh milk is unnecessary, considering that milk processors and other consumers have absorbed all fresh milk produced in the country. This new policy only creates unhealthy competition between importers, new milk processors, and old milk processors who already have long-term contracts with dairy farmers' cooperatives. This policy also creates a great deal of uncertainty for importers to import milk.

In addition, excessive import restrictions in a shortage of milk supply and increasing demand will only trigger a surge in milk prices in the domestic market. This situation will cause a huge price gap between import parity prices and the actual retail prices. This huge price difference, known as import quota rent, is only enjoyed by milk importers at the expense of milk consumers and the national economy. As an illustration, Table 14 presents the result of calculating the import parity price and the retail price of milk powder in Indonesia in 2017.

Table 14. Import Parity and Retail Prices of Whole Milk Powder (WMP) 2010-2017

<b>Description</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
FOB (US\$/kg)	3.514	4.018	3.358	4.745	3.868	2.509	2.457	3.179
CIF (FOB+ F&I cost (\$100/ton))	3.614	4.118	3.458	4.845	3.968	2.609	2.557	3.279
X-rates (Rp/\$)	8,991	9,068	9,670	12,189	12,440	13,795	13,436	13,548
CIF (Rp/kg)	31,594	36,435	32,472	57,837	48,118	34,612	33,012	43,069
Import tariff (5%)	1,580	1,822	1,624	2,892	2,406	1,731	1,651	2,153
Landed prices (Rp/kg)	33,174	38,257	34,095	60,729	50,524	36,342	34,663	45,223
PPH or VAT (2,5%)	829	956	852	1,518	1,263	909	867	1,131
Handling cost and losses (5%)	1,700	1,961	1,747	3,112	2,589	1,863	1,776	2,318
Importer's profit (2,5%)	832	960	855	1,524	1,268	912	870	1,135
Margin profit of distributor (2,5%)	811	935	833	1,484	1,235	888	847	1,105
Margin profit of retailer (2,5%)	810	934	833	1,483	1,234	887	846	1,104
Import parity at retailer (Rp/kg)	38,157	44,003	39,217	69,850	58,112	41,801	39,869	52,015
Retail Price of WMP (Rp/Kg)	66,214	66,844	70,039	75,705	93,969	102,246	103,228	104,464
Quota rent (Rp/Kg)	28,057	22,841	30,822	5,855	35,857	60,445	63,359	52,449

Source: Author's calculation

Data show that fluctuations in domestic retail prices are not in line with fluctuations of prices in the world markets. The difference in fluctuation patterns is probably caused by the import restriction so that the domestic milk market is less integrated with the world milk market. Interestingly, the decline in the price of milk powder in the world market was not followed by a fall in domestic prices, but instead, the domestic market prices continued to rise. Quota rent was positively correlated with domestic market price but negatively correlated with the world market price. The lower the price in the world market, the higher is the quota rent enjoyed mainly by importers. Given the WMP import in 2017 of 39,000 tons and the quota rent

of Rp52,449/kg, the total quota rent enjoyed by importers amounted to Rp2.0 trillion or 151 million USD.

The domestic and parity price ratio is a nominal protection rate, which measures nominal protection enjoyed by domestic WMP producers. Nominal Rate of Protection (NPR) is a simple measure of the level of protection or price incentives given to producers. Table 15 shows the NPR for WMP fluctuated during the 2010-2017 period, reaching the minimum at 24 percent in 2013 and the maximum at 159 percent in 2016. The protection has increased during the 2013-2017 period. It increased from 24 percent in 2013 to 159 percent in 2016 but declined to 100 percent in 2017.

Table 15. Nominal Protection Rates (NPR) for Fresh Milk derived from Import Parity of WMP

Description	2010	2011	2012	2013	2014	2015	2016	2017
FOB WMP (US\$/kg)	3.51	4.02	3.36	4.75	3.87	2.51	2.46	3.18
CIF (FOB+ F&I cost (\$100/ton))	3.61	4.12	3.46	4.85	3.97	2.61	2.56	3.28
X-rates (Rp/\$)	8,991	9,068	9,670	12,189	12,440	13,795	13,436	13,548
CIF of WMP (Rp/kg)	31,594	36,435	32,472	57,898	48,118	34,612	33,012	43,069
Import tariff (5%)	1,580	1,822	1,624	2,895	2,406	1,731	1,651	2,153
Landed prices (Rp/kg)	33,174	38,257	34,095	60,793	50,524	36,342	34,663	45,223
PPH or VAT (2,5%)	829	956	852	1,520	1,263	909	867	1,131
Handling cost and losses (5%)	1,700	1,961	1,747	3,116	2,589	1,863	1,776	2,318
Importer's profit (2,5%)	832	960	855	1,525	1,268	912	870	1,135
IP price WMP at warehouse (Rp/kg)	36,536	42,134	37,551	66,953	55,644	40,025	38,176	49,805
IP price of fresh milk at warehouse (Rp/kg)	3,654	4,213	3,755	6,695	5,564	4,003	3,818	4,981
Price of fresh milk at warehouse (Rp/kg)	3750	4000	4300	4800	5200	5250	5500	5800
NPR (%)	2.6	-5.1	14.5	-28.3	-6.5	31.2	44.1	16.5

Source: Author's calculation

Notes: Calculation of import parity price of fresh milk using the following technical coefficients: (i) 1 kg WMP requires 8 liters of fresh milk, (ii) the cost of 1 kg FCMP 80 percent is a component of the cost of fresh milk, (iii) transportation and loading and unloading costs are estimated to be 2.5 percent of the border price, (b) This is the average price of fresh milk paid by IPS to GKSI

Erwidodo and Hasan (1992) calculated that the NPR of fresh milk fluctuated during 1985-1991 when the government heavily regulated the dairy industry, including local content obligation. They found, during that period, that the NPR of fresh milk tended to decrease along with a declining price of WMP/SMP in the world market. In 1987 the NPR was 80 percent,



meaning that fresh milk producers enjoyed 80 percent higher domestic prices than import parity prices. However, the NPR decreased to 28 percent in 1990 and dropped to 17 percent in 1991. The results of a similar calculation, as presented in Table 10, show that the NPR for fresh milk during 2010-2017 fluctuated following the world price fluctuation of WMP. The NPR was negative in 2010, 2013, and 2014, meaning that dairy farmers were not protected; they were instead taxed. They enjoyed protection in the 2015-2017 period, with NPR 16-44 percent, much lower than the protection given to milk processors producing WMP.

The above analyses show that the existing dairy import policy has only benefited milk importers and processors at the considerable expense of the economy and milk consumers at large. The analyses also show that the government policy has provided much higher protection (incentives) to milk processors than dairy farmers. The import policy needs to be revised to be fair and pro-dairy farmers. To be more effective in protecting dairy farmers and minimizing quota rent but not violating WTO rules, the government needs to replace the import quota with the tariff equivalent quota policy.

## **2.7. Additional Regulation due to Pandemic Covid-19**

The Covid-19 pandemic is a national disaster that affects economic stability and community productivity as workers and business actors, so it is necessary to make efforts to regulate the provision of tax incentives to support mitigating the impact of the pandemic. In order to handle the impact of the Covid-19 pandemic, it is necessary to extend the time of tax incentives needed during the national economic recovery period by facilitating the use of wider incentives. This is regulated by the government in the Regulation of the Minister of Finance Number 9/PMK.03/2021 which was later revised in the Regulation of the Minister of Finance Number 82/PMK.03/2021. Based on Article 2, the income received or earned by the employee must be withheld by the employer in accordance with the provisions in Article 21 of the Income Tax Law. The Income Tax Article 21 is borne by the Government on the income received by the employee with certain criteria including:

- a. Receive or earn income from an employer who:
  - have a Business Field Classification code
  - has been designated as a KITE Company (obtains Import Ease for Export Purposes); or
  - has obtained Bonded Zone Management Permit, Permit as Business Practitioner of Bonded Zone or PDKB (*Pengusaha Dalam Kawasan Berikat*);

- b. have NPWP; and
- c. during the Tax Period, the person concerned receives or obtains a Gross Income which is fixed and regular which is annualized not more than Rp. 200,000,000.00 (two hundred million rupiah).

The dairy industry that receives this tax incentive is the fresh milk and cream processing industry (business classification code 10510), the powdered milk and condensed milk processing industry (business classification code 10520), the other dairy product processing industry (business classification code 10590), and entrepreneurs who are members of the milk and milk product wholesale trade sector (business classification code 46326).

In addition, there is also a government regulation regarding the relief of import duties on imports of goods and materials to produce goods/services by certain industrial sectors affected by the COVID-19 pandemic in 2021 (The regulation of the Minister of Finance Number 68/PMK.010/21). In this case, certain industries will get relief in the form of Government Borne Import Duty (BM DTP). In article 2, BM DTP can be granted on the import of goods and materials by certain industrial sector companies. Types of goods and materials imported by companies in certain industrial sectors that get BM DTP must meet the following conditions:

- Goods and Materials have not been produced domestically;
- Goods and Materials have been produced domestically but have not met the required specifications; or
- Goods and Materials have been produced domestically but the amount is not sufficient for industrial needs in accordance with the recommendations of the relevant ministries/institutions.

Then, the Goods and Materials that receive BM DTP are not:

- a. Goods and Materials subject to import duty of zero percent;
- b. Goods and Materials subject to imposition of import duty of zero percent based on international agreements or agreements;
- Goods and Materials that are subject to Anti-Dumping Import Duties/Temporary Anti-Dumping Import Duties, Safeguard Measures Import Duties/Temporary Safeguard Measures Import Duties, Compulsory Import Duties, or Retaliatory Import Duties; or
- Goods and Materials intended to be stockpiled in a bonded stockpile.

In this case, the milk processing industry gets a reduction in BM DTP with a budget ceiling of Rp 70 billion. Several types of goods/materials imported by the milk processing industry are included in the HS code (tariff postal code): 04021041 (milk does not contain added sugar or other sweetening ingredients in the form of powder/granules/other solid forms with a fat content of not more than 1.5 percent according to weight); 04021091 (milk containing added sugar or other sweetening matter in the form of powder/granule/another solid form with a fat content of not more than 1.5 percent according to weight); 04022120 (milk does not contain added sugar or other sweetening matter in the form of powder/granule/other solid forms with a fat content of more than 1.5 percent according to weight) a; 04039010 (buttermilk); 04041010 (whey and modified whey); 04051000 (unsalted butter); and 10059090 (maize other than seeds and popcorn with aflatoxin levels  $\leq 20$ ppb).

### 3. AN ANALYSIS OF THE STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT)

This section discusses the results of SWOT analysis for each regulation focused in the study including (1) Dairy Inputs, (2) Price of Domestic and Imported Dairy Products, (3) Investments in the Domestic Industry, (4) Access to Credit, (5) Importation Regulation of Live Dairy Cattle, and (6) Importation of Dairy Products. Specifically, the study team uses SWOT analysis to evaluate the ‘strengths’, ‘weaknesses’, ‘opportunities’, and ‘threats’ involved in the dairy industry in Indonesia. This analysis is simple but provides a powerful tool for sizing up an organization’s resource capabilities and deficiencies, market opportunities, and the external threats to support the future of the organization” (Thompson et al., 2007: 97).

In this study, several stages were implemented in conducting a SWOT analysis. **The first stage** is identifying factors for each component of SWOT (strengths, weaknesses, opportunities, and threats) for each regulation. This stage was conducted by desktop study and the results were discussed to the expert in the dairy industry. The experts provided comments and inputs as the basis for the study team to conduct the revisions. For each policy regulation, the study team came up with four factors in each component of SWOT (Table 16).

Table 16. Number of Factors of SWOT in Each Regulation Focused in the Study

No	Regulations	Strength (S)	Weakness (W)	Opportunity (O)	Threat (T)
1	Dairy inputs	4	4	4	4
2	Price of domestic and imported of dairy products	4	4	4	4
3	Investments in the dairy industry	5	4	4	4
4	Access to credit	4	4	4	4
5	Importation of live dairy cattle and other related inputs	4	4	4	4
6	Importation of dairy products	4	4	4	4

**The second stage** is building SWOT Questionnaire. The draft of the questionnaire was tested on the selected respondents to obtain feedback related to the wording and the flow of the questionnaire. After some revisions, the final questionnaire was transformed into an online version (google form).

**The third stage** is conducting an online survey. There were nine respondents who are the experts which represent academia, industry, and government institutions who participated in the survey. The survey was conducted from October to November 2021.

**The fourth stage** is data analysis. The data collected from the online survey were analyzed and presented in the form of Internal and External Factors Evaluation (IFE) tables and SWOT matrix. The table IFE consists of weight, rating, score, and ranking for each factor for SWOT in each policy regulation. Matrix SWOT can be divided into four quadrants (Figure 7). **Quadrant 1** shows that the industry faces external opportunities and internal strengths. This situation provides benefit the industry/business/company/because the industry only needs to optimize the existing conditions. The strategy that is commonly applied in quadrant 1 is an aggressive growth-oriented strategy (SO strategy). **Quadrant 2** indicates that the industry faces external threats and internal strengths. A proposed strategy in Quadrant 2 is that the industry should use its strengths to overcome challenges and take advantage of long-term opportunities (ST strategy). **Quadrant 3** illustrates that the industry faces external opportunities and internal weaknesses. To deal with such a situation, the industry should minimize the company's internal problems and maximize existing external opportunities (WO strategy). **Quadrant 4** shows that the industry faces external threats and internal weaknesses. The strategy in this quadrant refers to the WT strategy.

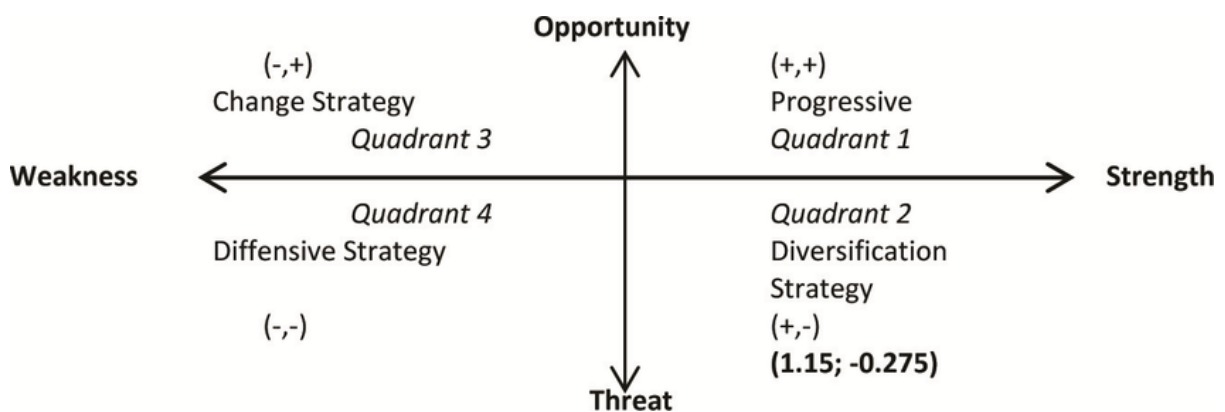


Figure 7. SWOT Analysis Diagram, (Rangkuti, 2016 : 20)

### 3.1. Dairy Inputs

The Internal Factor Evaluation (IFE) matrix for strengths and weaknesses (internal factors) in the dairy input regulation is presented in **Error! Reference source not found.17**. The calculations are based on the calculation of the weights and ratings of each factor. It is found that the average score of the internal evaluation results is 3.436. This average IFE score

is above 2.5, which is concluded that there is an internal strength in the dairy input regulation. This means the regulation can overcome the existing weaknesses by using its strengths. The biggest strength in developing the dairy input regulation is the adaptability of cows to a tropical climate (0.532).

Table 17. Internal Factors SWOT Analysis for Dairy Inputs

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
S	Feed Quality	0.136	3.750	0.508	2
	Feed Availability	0.130	3.625	0.471	3
	Cow adaptability into tropical climate	0.147	3.625	0.532	1
	Land Availability	0.096	3.125	0.300	4
W	Reliance on purchased feed	0.107	2.750	0.295	4
	Inadequate milk farmers competencies (skills & knowledge)	0.130	3.500	0.455	1,2
	Inadequate facilities and infrastructure	0.124	3.375	0.419	3
	Low Animal reproductive performance	0.130	3.500	0.455	1,2
TOTAL		1.000	27.25	3.436	

The Internal Factor Evaluation (IFE) matrix for opportunities and threats (external factors) in the dairy input regulation is shown in Table 18. External Factors SWOT Analysis for Dairy Inputs 18. The average score is 3.237. This average IFE score is above 2.5, which is concluded that there is an external strength in the dairy input regulation. This means the regulation can take advantage of opportunities in responding to the challenges faced. The biggest opportunity in developing the dairy input regulation is feed quality improvement (0.488).

Table 18. External Factors SWOT Analysis for Dairy Inputs

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	Farm Expansion (animal numbers)	0.112	3.500	0.393	4
	Forage Expansion	0.124	3.625	0.450	3
	Inseminator availability	0.154	3.500	0.538	1
	Feed Quality Improvement	0.130	3.750	0.488	2
T	Feed Cost	0.095	2.750	0.260	4
	Cost control issues of farmers	0.118	3.000	0.355	2
	Animal diseases	0.148	2.875	0.425	1
	Inadequate information (price, quality, quantity of feeds)	0.118	2.750	0.325	3
TOTAL		1.000	25.750	3.237	

The results of the SWOT analysis chart show (Figure 8) that the proposed strategy for the dairy input regulation is SO (quadrant 1).

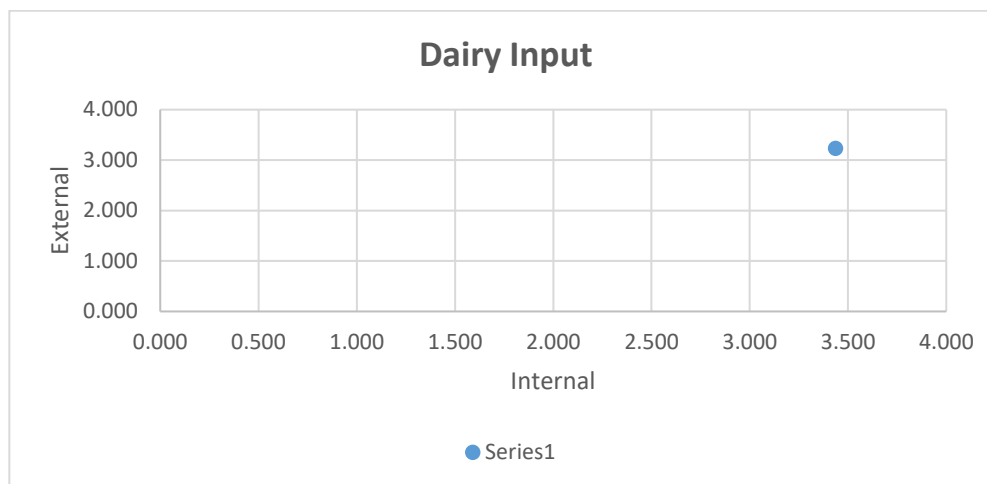


Figure 8. SWOT Analysis Diagram for Dairy Inputs

### 3.2. Price of Domestic and Imported Dairy Products

The Internal Factor Evaluation (IFE) matrix for strengths and weaknesses (internal factors) in the domestic price and imported dairy products regulation is presented in

9. It is found that the average score is 3.513 meaning that the regulation can overcome the existing weaknesses by using its strengths. The biggest strength in developing the regulation is the business partnership between dairy/cooperative farming groups with industry (0.543).

Table 19. Internal Factors SWOT Analysis for Price of Domestic and Imported Dairy Products

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
S	Access to financial resources and capital for the empowerment of breeders	0.112	3.750	0.419	3
	The business partnership between dairy/cooperative farming groups with industry	0.155	3.500	0.543	1
	Financial or capital assistance provided to breeders through breeder groups or collective breeder groups	0.124	3.000	0.373	4
	High-cost economic avoidance is carried out through efficiency in the provision of means of production, cultivation, post-harvest, and marketing or distribution of animals and product products.	0.130	3.625	0.473	2

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
W	Difficulty to transport fresh milk which affects prices at the farmer level.	0.106	3.375	0.356	4
	Inadequate equipment & cooling facilities	0.106	3.750	0.396	3
	Lack of understanding (across-chain) market dynamics, including price signals	0.124	3.500	0.435	2
	Premium prices have not been applied at the breeder level	0.143	3.625	0.518	1
TOTAL		1.000	28.125	3.513	

The Internal Factor Evaluation (IFE) matrix for opportunities and threats (external factors) in the domestic price and imported dairy products regulation is shown in Table 20. The average score is 3.269 showing that there is an external strength in the regulation. This means the regulation can take advantage of opportunities in responding to the threats. The biggest opportunity in developing the regulation is increased income and lifestyle changes due to health awareness (0.488).

Table 20. External Factors SWOT Analysis for Price of Domestic and Imported Dairy Products

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	Products produced (e.g. sweetened condensed milk, processors) can replace non-fresh milk ingredients	0.078	2.000	0.156	4
	Growing future dairy market	0.139	3.625	0.503	3
	Cooperation with industry for premium prices	0.139	3.875	0.538	2
	Increased income and lifestyle changes due to health awareness	0.161	3.750	0.604	1
T	Competitive resilience	0.128	3.250	0.415	2
	Ability to cope with price volatility	0.122	3.500	0.428	1
	The base price of farmers is influenced by international market prices.	0.100	2.250	0.225	4
	The basic price of farmers is affected by cooperative prices.	0.133	3.000	0.400	3
TOTAL		1.000	25.250	3.269	

The results of the SWOT analysis chart in Figure 9 shows that the proposed strategy used is in quadrant 1 namely benefit from external opportunities for development and internal competing strength (SO strategy).



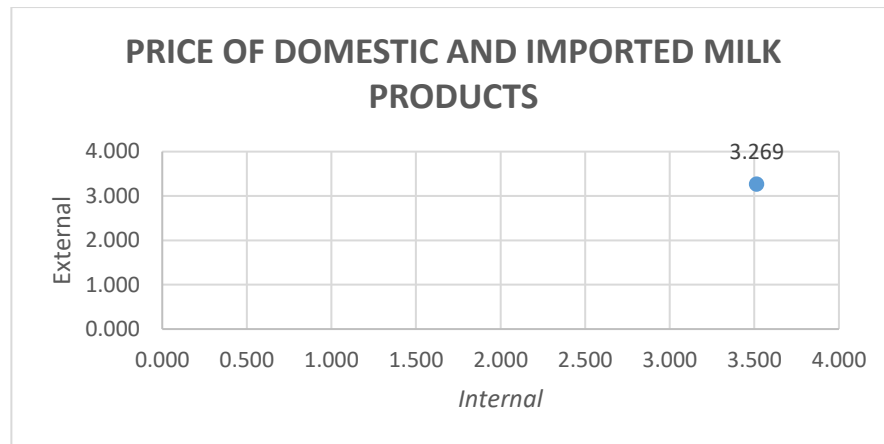


Figure 9. SWOT Analysis Diagram for Price of Domestic and Imported Dairy Products

### 3.3. Investments in The Domestic Industry

The Internal Factor Evaluation (IFE) matrix for strengths and weaknesses (internal factors) in the domestic industry investment strategies is presented in Table 21. The average score is 2.882 meaning that the strategy framework can overcome the existing weaknesses by using its strengths. The biggest strength in developing the domestic and foreign investment in domestic industry is the tax allowance facility for investment (0.528).

Table 21. Internal Factors SWOT Analysis for Investments in The Domestic Industry

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
S	Domestic direct investment & foreign livestock	0.112	3.250	0.363	4
	Restrictions on foreign capital ownership	0.121	3.250	0.394	3
	100% domestic capital	0.136	3.000	0.408	2
	Livestock business partnerships with industry		3.875		
	Tax Allowance Facility for Investment (Reduction in net income, depreciation and accelerated amortization, Income Tax, Loss Compensation)	0.141	3.750	0.528	1
W	Small land ownership	0.083	3.000	0.248	3
	Low milk production	0.068	3.125	0.212	4
	Weak regulation and implementation of the program	0.107	3.25	0.347	2
	Weak skills in managerial business	0.102	3.75	0.382	1
TOTAL		0.869	30.25	2.882	

The Internal Factor Evaluation (IFE) matrix for opportunities and threats (external factors) in the domestic industry investment strategy is shown in Table 22. The average score is 2.759 which shows that there is an external strength in the strategy framework. This means the framework can take advantage of opportunities in responding to the threats. The biggest

opportunity in developing the framework is to develop strategies to inform the development of extension programs (0.529).

Table 22. External Factors SWOT Analysis for Investments in The Domestic Industry

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	Encourage industry advocacy	0.130	3.250	0.422	2
	Collaboration with stakeholders (e.g., PTPN, PERHUTANI) and others related to the use of unused land for the cultivation of animal feed	0.135	3.000	0.405	3
	Develop strategies to inform the development of extension programs	0.146	3.625	0.529	1
	Adopting better management practices/technologies		3.875		
<b>T</b>					
T	Market signals (price, quality, quantity) are often unclear to breeders.	0.086	3.250	0.281	4
	Feed resources (quality & quantity) vary greatly	0.103	3.500	0.359	3
	Dairy farms are dominated by small ranchers	0.130	3.000	0.389	1
	Domestic fresh milk supply does not meet the growing demand for dairy products with short shelf life	0.124	3.000	0.373	2
<b>TOTAL</b>		<b>0.854</b>	<b>26.500</b>	<b>2.759</b>	

The results of the SWOT analysis chart determine the strategies used is in quadrant 1 (Figure 10) namely benefit from external opportunities for development and internal competing strength, thus are in the best position for facing competition (SO strategy).

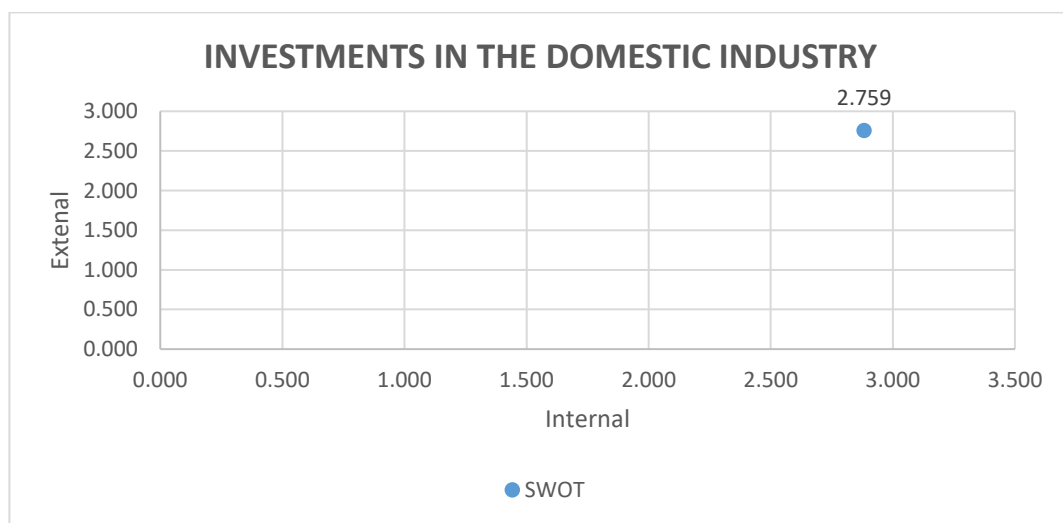


Figure 10. SWOT Analysis Diagram for Investments in the Domestic Industry

### 3.4. Access to Credit for Key Players in the Dairy Industry

The Internal Factor Evaluation (IFE) matrix for strengths and weaknesses (internal factors) in strategic factors to develop key players in the dairy industry is presented in Table 23. The average score is 3.553 showing that the strategies can overcome the existing weaknesses by using their strengths. The biggest strength is the partnership between the processing industry with breeder groups/cooperatives in capital or financing (0.589).

Table 23. Internal Factors SWOT Analysis for Access to Credit for Key Players in The Dairy Industry

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
S	The partnership between processing industry with breeder groups/cooperatives in capital or financing	0.152	3.875	0.589	1
	The partnership between the processing industry and breeders in processing	0.135	3.750	0.504	2
	The partnership between the processing industry and breeders in marketing	0.129	3.625	0.466	3,4
	The partnership between the processing industry and breeders in distribution chain and supply chain	0.129	3.625	0.466	3,4
W	Access to credit is difficult because many farmers do not have collateral to meet bank requirements.	0.129	3.500	0.450	1
	Farmers' perception of credit payment period	0.111	2.875	0.319	4
	Lack of financial management skills of small & medium-sized dairy farmers	0.094	3.500	0.327	3
	Lack of self-sustaining dairy farmers' organizing to increase bank credit opportunities	0.123	3.500	0.430	2
TOTAL		1.000	28.250	3.553	

The Internal Factor Evaluation (IFE) matrix for opportunities and threats (external factors) in the case of strategic factors to develop key players in the dairy industry is shown in Table 24. The average score is 3.423 showing that the strategy framework can take advantage of opportunities in responding to the threats. The biggest opportunity is financial and capital support to farmers to buy dairy cows, equipment, and other dairy inputs through partnerships by central and local governments (0.542).

Table 24. External Factors SWOT Analysis for Access to Credit for Key Players in The Dairy Industry

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	Central and local governments should provide financial and capital support to farmers to buy dairy cows, equipment, and other dairy inputs through partnerships.	0.155	3.500	0.542	1

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	Capital or partnership financing is done through the facilitation of business capital with affordable interest & a guarantee to obtain business credit	0.149	3.250	0.484	3
	The partnership is carried out through the provision of facilities (fields, livestock seedlings, feed, technical training of milk production, equipment, byres repair, technical training of business management, capital access)	0.143	3.750	0.536	2
	Central Government law related to capital or business partnership financing. Breeders can conduct business partnerships in the field of cattle ranching based on mutual agreement, strengthening, mutual benefit, mutual respect, responsibility, dependence, and justice.	0.143	3.375	0.482	4
T	Weak regulation and implementation of programs from governments and financial institutions that are less effective	0.095	3.375	0.321	2
	The limited information that can be accessed by dairy farmers	0.137	3.500	0.479	1
	World Trade Organization (WTO) regulations related to the protection of breeders instead become boomerangs	0.095	3.125	0.298	3
	High interest rates	0.083	3.375	0.281	4
TOTAL		1.000	27.250	3.423	

The results of the SWOT analysis chart indicated that SO strategy (strategy in quadrant 1) should be performed by increasing access of stakeholders along the dairy value chain to the financial institutions (Figure 11).

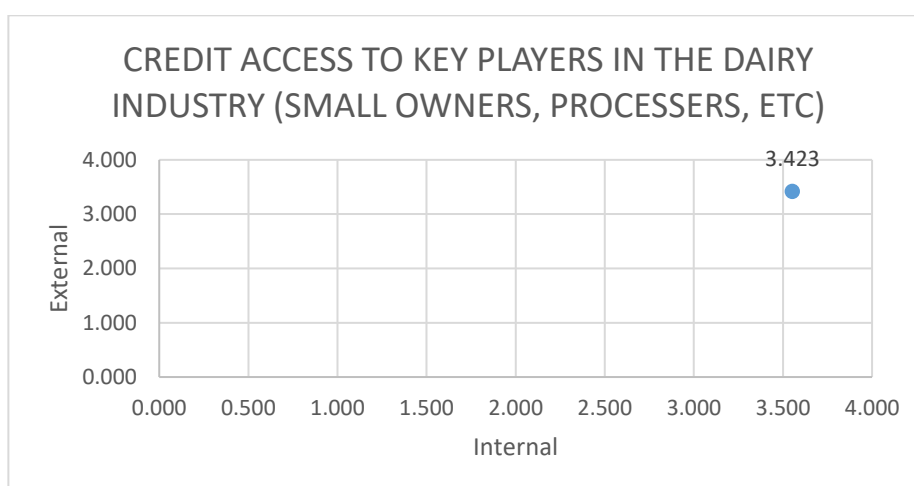


Figure 11. SWOT Analysis Diagram for Access to Credit for Key Players in The Dairy Industry

### 3.5. Importation Regulation of Live Dairy Cattle and Other Related Inputs

The Internal Factor Evaluation (IFE) matrix for strengths and weaknesses (internal factors) in the import regulation strategy is shown in Table 25. The average score is 3.425. This shows that the strategy can overcome the existing weaknesses by using its strengths. The biggest strength is support from the Central and/or Local government to conduct breeding, repair development, and /or nursery business by involving the participation of the community to ensure the availability of seeds and encourage the application of reproductive technology (0.564).

Table 25. Internal Factors SWOT Analysis for Importation Regulation of Live Dairy Cattle, Semen Etc

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
S	The Central Government and/or Local Government in accordance with its authority is obliged to conduct breeding, repair development, and /or nursery business by involving the participation of the community to ensure the availability of seeds and encourage the application of reproductive technology.	0.150	3.750	0.564	1
	Every seed in circulation must have a seed certificate that contains information about the genealogy and characteristics of its advantages. Seed certificates are issued by seed certification bodies accredited or appointed by the relevant Minister	0.145	3.625	0.524	3
	Seed imports can be made to a) improve the quality and genetic diversity; b) develop science and technology; c) address the shortage of seeds in the country; and d) meet research and development needs	0.150	3.625	0.545	2
	Export of seeds from domestic to abroad can be done if domestic needs have been met and the sustainability of local livestock has been guaranteed.	0.139	3.250	0.451	4
W	Large ruminant import permits are hard to come by breeders	0.127	3.000	0.382	1
	Import requirements are difficult to achieve by breeders	0.110	3.125	0.343	3
	Low level of knowledge of breeders on the regulation of the import of cattle, seeds, etc.	0.098	3.500	0.344	2
	Increase in input costs	0.081	3.375	0.273	4
TOTAL		1.000	27.250	3.425	

The Internal Factor Evaluation (IFE) matrix for opportunities and threats (external factors) in the import regulation strategy is shown in Table 26. 26. The average score is 3.559 showing that the framework can take advantage of opportunities in responding to the threats.

The biggest opportunity in the import regulation strategy is to increase the commercial profits and viability of *Small Holder Dairies* (0.570) and support refrigeration/frozen product chain development (0.570).

Table 26. External Factors SWOT Analysis for Importation Regulation of Live Dairy Cattle, Semen Etc

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	Increase the commercial profits and viability of <i>Small Holder Dairies</i> (SHD)	0.147	3.875	0.570	3,4
	SHD processor price and supply policy (to encourage livestock growth and improve milk quality)	0.153	3.750	0.574	2
	Product development and marketing support policy for KUD or SHD	0.153	3.875	0.593	1
	Support for refrigeration/frozen product chain development	0.147	3.875	0.570	3,4
T	Animal welfare issues	0.094	3.25	0.306	2
	Lack of socialization from the government related to import regulations for cattle, seeds, etc.	0.112	3.375	0.377	1
	Barriers to the import quota of cattle, seeds, etc.	0.100	2.875	0.288	3
	Congenital diseases of the importing country	0.094	3.000	0.282	4
TOTAL		1.000	27.875	3.559	

The results of the SWOT analysis chart (Figure 12) show that the proposed strategy is in quadrant 1 namely benefit from external opportunities for development and internal competing strength (SO strategy).

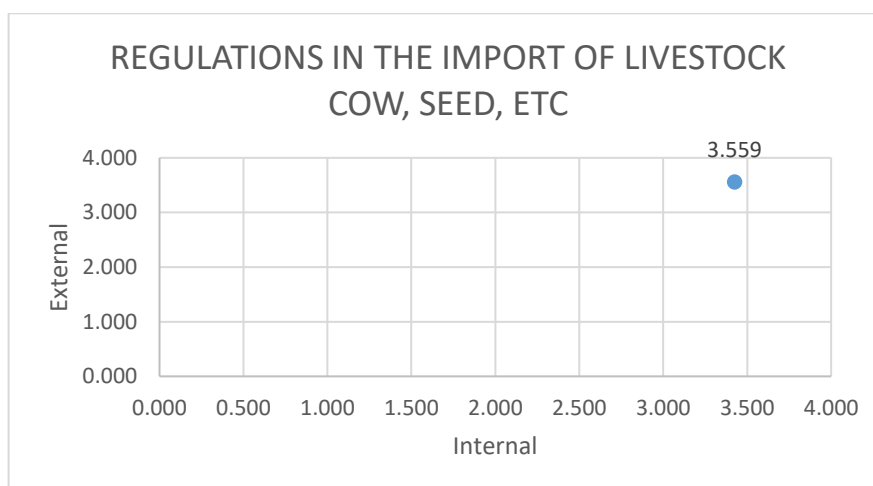


Figure 12. SWOT Analysis Diagram for Importation Regulation of Live Dairy Cattle, Semen Etc

### 3.6. Importation of Dairy Products

The Internal Factor Evaluation (IFE) matrix for strengths and weaknesses (internal factors) in the dairy products import regulation is shown in Table 27. The average score is 3.579 indicating that the regulation can overcome the existing weaknesses by using its strengths. The biggest strength is developing the need for a letter of recommendation from the Ministry of Agriculture (Ministry of Agriculture) and a technical verification process by a designated surveyor if a businessman wants to import the dairy products (0.530).

Table 27. Internal Factors SWOT Analysis for Importation of Dairy Products

Strength (S) and Weakness (W)		Weight (a)	Rating (b)	Score (a x b)	Ranking
S	Dairy food products imported in retail packaging must be registered with the Indonesian Food and Drug Supervisory Agency (BPOM).	0.126	3.750	0.473	4
	The import of dairy products requires a letter of recommendation from the Ministry of Agriculture (Ministry of Agriculture) and must go through a technical verification process by a designated surveyor.	0.141	3.750	0.530	2
	Importers/brand owners need to apply for "establishment approval" from the Ministry of Agriculture	0.141	3.875	0.548	1
	10% value added tax applied to imports	0.136	3.500	0.477	3
W	Products in bulk packaging for further processing cannot register	0.106	3.625	0.384	3
	Increase in input costs	0.086	3.250	0.279	4
	Regulation of dairy imports in Indonesia contributes less to the domestic dairy industry	0.131	3.375	0.443	1,2
	Import requirements are difficult to meet for the local dairy processing industry	0.131	3.375	0.443	1,2
TOTAL		1.000	28.500	3.579	

The Internal Factor Evaluation (IFE) matrix for opportunities and threats (external factors) in the dairy products import regulation is shown in **Error! Reference source not found.8**. The average score is 3.530 showing that the regulation can take advantage of opportunities in responding to the threats. The biggest opportunity in developing the regulation is a significant increase in demand for dairy products (0.533).

Table 28. External Factors SWOT Analysis for Importation of Dairy Products

Opportunity (O) and Threat (T)		Weight (a)	Rating (b)	Score (a x b)	Ranking
O	A significant increase in demand for dairy products. Domestic milk consumption per capita reached 11.8 liters in 2017, since 2015 demand has continued to increase by 5% per year and is expected to continue that trend.	0.142	3.750	0.533	1
	National dairy needs exceed national milk production	0.142	3.625	0.515	2,3
	The real price of domestic milk has a positive and significant effect on the volume of milk imports.	0.142	3.625	0.515	2,3
	The fulfillment of milk demand in Indonesia towards milk supply	0.105	3.750	0.395	4
T	Food safety reputation such as unmonitored labeling (fresh dairy products vs UHT milk/ reconstitution)	0.126	3.750	0.474	1
	Freedom of import of milk and milk powder	0.121	3.250	0.393	2
	Price increases (inflation) in dairy products	0.111	3.500	0.387	3
	Pandemic crisis covid-19	0.111	2.875	0.318	4
TOTAL		1.000	28.125	3.530	

The results of the SWOT analysis chart in Figure 13 show that the proposed strategy is in quadrant 1 namely benefit from external opportunities for development and internal competing strength (SO strategy).

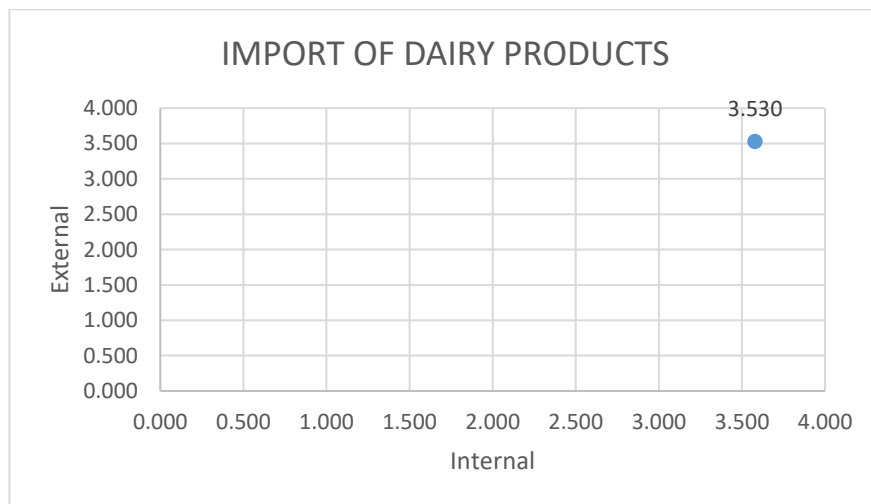


Figure 13. SWOT Analysis Diagram for Importation of Dairy Products



#### **4. PROSPECTS & FUTURE OPPORTUNITIES FOR FUTURE GROWTH**

Indonesia's agriculture industry specifically the dairy industry is growing rapidly along with Indonesia's milk consumption. The consumption of milk and dairy products continues to increase rapidly in Indonesia, creating an attractive market for local producers. Indonesians' growing appetite for milk and its derivatives bodes well for dairy consumption going forward. The country's large market potential and westernizing diets in the fast-growing Southeast Asian region could make Indonesia an attractive hub for dairy manufacturing, provided that sufficient raw materials can be sourced from local dairy farms. Dairy production in Indonesia is occupied with smallholder dairy farmers and megafarms, even though smallholder dairy farmers in Indonesia continue to play an outsized role in Indonesia's milk production. Averaging just three cows per farmer with less than 10 liters average daily production per head, these farmers still account for 77 percent of Indonesia's fresh milk production. By contrast, Indonesia's modern dairy farms, which account for 23 percent of production, can reach daily yields exceeding 20 liters per animal through superior genetics, feed, and livestock practices. These integrated producers also benefit from shorter calving intervals of 13-14 months, compared with 18-20 months among smallholder farmers (USDA, 2020). The widening gap between national farm output and dairy consumption reflects poor agricultural productivity but also points to upstream business prospects.

Almost all Indonesian milk originates on the Island of Java, the country's main island in terms of population and economic activity. East Java has seen particularly fast growth in the number of milk cows and the dairy industry in recent years. Domestic milk production is dominated by smallholders who usually own no more than five cows and are members of dairy cooperatives. The latter collect the milk and sell it to processing companies.

The small-scale and often poor equipment of local dairy farms is partly to blame for a low degree of efficiency and inferior milk quality by international comparison. Also, farmers tend to apply sub-optimal production methods for the feeding and nutrition of the cows and use domestic cattle breeds that produce inferior yields. Upgrading farm equipment and importing high-yielding dairy cows are ways to address the situation, and the government supports such measures through several regulations aimed to boost domestic production in the name of food security.

Based on the evaluation of regulations in the six areas, the proposed strategies have already been concluded by implementing a SWOT analysis. The summary of the most important factors in each component of SWOT and the proposed strategy is presented in Table 29. The strategy proposed for each regulation is SO strategy indicating that the regulation provides benefit for the stakeholders in the value chain of the dairy industry, but they need to optimize several factors based on the existing conditions.

Table 29. The Most Important Factors in Each Component of SWOT Analysis and The Proposed Strategy

<b>Regulation</b>	<b>Strength (S)</b>	<b>Weakness (W)</b>	<b>Opportunity (O)</b>	<b>Threat (T)</b>	<b>Strategy</b>
Dairy inputs	Cow adaptability into the tropical climate	Inadequate milk farmers competencies (skills & knowledge)	Inseminator availability	Animal diseases	SO
Price of domestic and imported of dairy products	The business partnership between dairy/cooperative farming groups with industry	Premium prices have not been applied at the breeder level	Increased income and lifestyle changes due to health awareness	Ability to cope with price volatility	SO
Investments in the dairy industry	Tax Allowance Facility for Investment (Reduction in net income, depreciation and accelerated amortization, Income Tax, Loss Compensation)	Weak skills in managerial business	Develop strategies to inform the development of extension programs	Dairy farms are dominated by small ranchers	SO
Access to credit	The partnership between processing industry with farmers groups/cooperatives in capital or financing	Access to credit is difficult because many ranchers do not have collateral to meet bank requirements.	Central and local governments should provide financial and capital support to farmers to buy dairy cows, equipment, and other dairy inputs	The limited information that can be accessed by dairy farmers	SO

<b>Regulation</b>	<b>Strength (S)</b>	<b>Weakness (W)</b>	<b>Opportunity (O)</b>	<b>Threat (T)</b>	<b>Strategy</b>
			through partnerships.		
Importation of live dairy cattle and other related inputs	The Central Government and/or Local Government in accordance with its authority is obliged to conduct breeding, repair development, and /or nursery business by involving the participation of the community to ensure the availability of seeds and encourage the application of reproductive technology.	Large ruminant import permits are hard to come by breeders	Product development and marketing support policy for KUD or SHD	Lack of socialization from the government related to import regulations for cattle, seeds, etc.	SO
Importation of dairy products	Importers/brand owners need to apply for "establishment approval" from the Ministry of Agriculture	Regulation of dairy imports in Indonesia contributes less to the domestic dairy industry	A significant increase in demand for dairy products. Domestic milk consumption per capita reached 11.8 liters in 2017, since 2015 demand has continued to increase by 5% per year and is expected to continue that trend.	Food safety reputation such as unmonitored labeling (fresh dairy products vs UHT milk/reconstitution)	SO

**Dairy inputs.** A progressive policy strategy should be implemented in this regulation since particularly by increasing the procurement of refrigeration facilities at all levels. High-quality fresh milk is important for the processing milk industry. At the farmer scale, it can be in the form of milk cans that have a cooling system, as well as special closed shelters that have cold storage, so that milk deposits can be directly channeled to the cooling truck without having

to directly come into contact with outside air or heat. Besides the cooling system, the selection of seeds at the breeder level (there is continuous recording, not selling productive females), at the cooperative level (recording, quality parent procurement programs in collaboration with industry and government), at the government level (importation of superior semen, national data collection of seeds for selection) should also be implemented. From the aspect of cultivation, the strategy should focus on the provision of forage land for fodder, concentrate feed, fermented feed through the utilization of land potential outside Java. This can also be done by increasing the competence of farmers related to cultivation techniques and farming practices

**Price of domestic and imported dairy products.** A progressive policy strategy in this aspect might include increasing the promotion of dairy products, producing premium dairy products, shortening the sales chain as well as having your own restaurant or cafe such as KPSBU Lembang, and providing added value to dairy products by producing their own products for the SME industry, as well as dairy farmer skill development on digital marketing.

**Investments in the dairy industry.** As mentioned above that the strategy is SO, it can also be said that by attracting more investment, it is expected that the investment can also benefit the upstream value chain actors by improving extension programs for farmers. A progressive policy strategy could include tax allowance facility for investment, simplify administration aspect, eliminate unnecessary costs, and create stable economic and political situations in Indonesia. These efforts will attract more investors to invest in Indonesia.

**Access to credit.** A progressive policy strategy could include support from industry through dairy development partnership programs, such as livestock procurement, equipment procurement, exclusive policies from the government for low-interest loans, and cooperation with banks or other financial institutions. Besides, it is also important to improve the knowledge and competence of dairy farmers related to financial records.

**Importation Regulation of Live Dairy Cattle and Other Inputs.** A progressive policy strategy could include increasing the government's role in foreign trade policy, such as in the World Trade Organization (WTO) related to the regulations of the protection of farmers which have become a boomerang for Indonesia, and negotiations with import policymakers in the international agencies and trade partner countries. It is also important to provide training related to the importance of animal welfare for dairy farmers, cooperatives, and related institutions. Government policies related to feeding import regulations and animal welfare, use

of forage land in collaboration with relevant agencies (e.g. Perhutani) should also be evaluated. Optimization of land outside Java for feed production centers and promotion of livestock products by showing the production process to the community can also be focused on.

**Import of dairy products.** A progressive policy strategy could include the increase of the government roles in strengthening the domestic powdered milk market through policies that can provide incentives for the processing milk industry (Industri Pengelohan Susu-IPS) to be able to produce domestic powdered milk. Government policies that have been issued to increase domestic milk competitiveness include the development of post-harvest facilities, fostering partnerships between IPS and farmers and/or cooperatives, provision of income tax facilities in the investment of dairy industries and livestock, and provision of Business Credit schemes Cow breeding (KUPS). Regulation of the Minister of Agriculture 2017 requires businesses that produce processed milk (IPS) to have a processing unit within 3 years after this Regulation of the Minister of Agriculture applies. For importers that cannot produce processed milk, they are required to establish partnerships with relevant actors along the dairy values chain in the form of production facilities and capital for dairy farmers.

The powdered milk industry in Indonesia has a great opportunity in the effort to supply powdered milk products to 255 million Indonesians, whose current average consumption has only reached 0.018 kg/capita/year (Ministry of Agriculture 2016). In addition, AIPS projects that the processing industry based on cow's milk will grow between 6.8-7.0%, with the value of the sales of the cow's milk processing industry reaching Rp. 31 trillion. Furthermore, AIPS stated that the people's purchasing power, availability of raw materials, and government regulations are the main pillars of the growth of milk production.

Government policy on trade is the factor that determines the competitiveness of domestic powdered milk. In the future, the government needs to make policies especially providing incentives to stimulate IPS to produce powdered milk that can compete with imported products. The IPS has an important actor who contributed to milk production in Indonesia. Therefore, it is important to increase the partnership between IPS and farmers. In addition to accommodating fresh milk products from farmers, IPS needs to develop various programs to increase production, productivity, and quality of milk produced by farmer groups as suppliers of raw materials. At the macro-level government must be able to maintain the real exchange rate and reduce the real price of powdered milk by focusing on cost efficiency in the upstream

sector. Providing tax incentives to IPS who want to develop dairy farming domestically is also important to attract more investment in the dairy sector.

## 5. CONCLUSION AND RECOMMENDATIONS

### 5.1. Conclusions

- This report has discussed several regulations issued by the Government of Indonesia (GOI) related to (1) Dairy Inputs, (2) Price of Domestic and Imported Dairy Products, (3) Investments in the Domestic Industry, (4) Access to Credit, (5) Importation Regulation of Live Dairy Cattle, and (6) Importation of Dairy Products.
- The domestic prices of fresh milk and sweetened condense milk have practically not changed in 2010-2021, both in nominal and real prices. In contrast, the price of powdered milk continued to increase during the 2010-2020 period, soared in 2014, and has continued to increase since then. The increase in the price of powdered milk was triggered by the increase in prices of dairy products on the world market, which were imported as raw materials for powdered milk.
- In contrast, the world market prices of milk and milk products have always been volatile. The dynamics of production in the major dairy exporting countries and consumption in the world's major importing countries determine the volatility of the world market prices of dairy products. The main exporting countries of dairy products include New Zealand, Germany, the USA, Netherland, France, Belgium, and Australia. Meanwhile, the top five dairy importing countries in 2019 include China, Germany, Belgium, Netherlands, dan Italy. Indonesia was the top 9th world importing country of dairy products.
- Surprisingly, global milk production has increased at the start and during the Covid-19 pandemic driven by output increases in all geographical regions, except in Africa, where production remained stable. Milk volume increases were highest in Asia, followed by Europe, the Americas, Oceania, Central America, and the Caribbean.
- The increase in milk production in several countries during the Covid-19 pandemic cannot be separated from the role of the government. In the European Union, yield improvements, a slight increase in dairy cattle numbers, and robust internal and foreign demand were behind the production increases. The European Union COVID-19 livestock assistance program helped stabilize farm-gate prices, encouraging high milk deliveries. In Japan, price support to farmers under government COVID-19 assistance, ensured domestic market stability and dairy production growth. COVID-19 livestock and dairy assistance in next exporting countries helped sustain internal demand and production.

- In dairy importing countries, COVID-19 related lockdowns and social distancing measures led to market disruptions; transport bottlenecks, especially port congestion and delays in cargo handling, also made importing more difficult, contributing importers to delay their purchases. In some exporting countries, reduced milk and milk products, especially fresh milk, led producers to divert higher milk volumes into powder manufacturing.
- The declining trend of the world dairy price index in the last three years primarily reflected reduced import demand due to widespread economic downturns in many dairy importing countries and increased dairy product availabilities in exporting countries. When the pandemic is over, and import demand for dairy products returns to normal, world prices of dairy products are expected to increase again.
- Imports of live cattle are regulated in a number of government laws and regulations, ministerial regulations, and the Decrees of Head of Quarantine. The Minister of Trade (MOT) regulation on the importation of live cattle of large ruminants, both feeder cattle and breeder cattle, is primarily intended to facilitate beef cattle fattening (feedlot) establishment to increase beef production. There is no Government or Ministerial regulation explicitly regulates the importation of heifer and live dairy cattle/cows.
- Indonesia's dairy farms mainly use the Frisian-Holstein breed, the dairy breed since the Dutch colonial era. Dairy cattle, both heifer and lactating cows, were mainly imported from Australia, as the only country with live dairy cattle import protocol with Indonesia. One integrated company has been trying out Jersey cows, known to consume less feed, be more resistant to diseases and hot weather, and produce milk with higher fat and protein contents. Some local dairies augment their breeding programs with genetics imports from the United States.
- The government is still restricting milk imports to meet milk needs but keeping small dairy farms operating profitably. The importation of dairy products (milk and milk products) is regulated in several government acts and regulations, ministerial regulations, and the Decrees of Head of Quarantine. The import policy on dairy products consists of several measures, including restriction on timing and volume of milk imports, import tariffs, non-automatic import licensing, a requirement to get import permit and recommendation, quarantine regulations, and restrictions on the ports of entry. Besides the MFN tariff, Indonesia also implements a preferential import tariff, including a zero percent import tariff on Australian and New Zealand dairy products.



- Dairy product imports of Indonesia during the 2010-2021 period were fluctuating, but slightly in an increasing trend, at the annual growth rates of 6.1 percent for SMP and 4.2 percent for WMP. The devaluation of the Indonesian Rupiah in the period 2013-2017 made it more expensive to import milk. In addition, there was the bureaucratic burden of importing food products to Indonesia, which included sanitary and health certificates and tests from various government agencies and a halal certificate. Imports of SMP and WMP during 2013-2017 declined. Interestingly, at the beginning of and during the Covid-19 pandemic, imports increased at 18.5 percent for SMP and 20.6 percent for WMP.
- During the period 2010-2020, the value of Indonesia's imports of dairy products continued to increase from 624 million USD to 702 million. The SMP and WMP dominated Indonesia's import values, which amounted to 542 million USD for SMP and 158 million USD for WMP in 2020. During the 2010-2020 period, Indonesia has exported several dairy products, but the total export values were much smaller than the import values.
- The existing dairy import policy has only benefited milk importers and processors at the considerable expense of the economy and milk consumers at large. The analyses also show that the government policy has provided much higher protection (incentives) to milk processors than those given to dairy farmers. The import policy needs to be revised to be fair and pro-dairy farmers.
- By using SWOT analysis, the strengths, weaknesses, opportunities, and threats in each regulation are discussed particularly to support the development of sustainable, profitable, and smallholder-inclusive dairy supply chains.
- Several regulations have been issued by the GOI related to the dairy industry in Indonesia before and during pandemic Covid 19. However, there is still a lack of regulation implementation and synchronization at the national and regional levels. As such, Central and Regional Government policies should be synergized with each other and be coordinated with the relevant stakeholders in the implementation of the regulations. A special review on the dairy regional mapping for milk self-sufficiency policy is needed. It is also important for the government to continue several programs aimed to increase awareness of people drinking milk, such as a drinking program for children in the school. Based on SWOT analysis, the proposed strategies for all the regulations are Strength-Opportunities (SO). This means that all regulations could provide benefits for the stakeholders in the value chain of the dairy industry, however, they also need to optimize the several factors.

## 5.2. Recommendations

- Indonesia has become one of the world's largest dairy importers. Considering that there are still many constraints and obstacles to developing smallholder dairy farms, the huge supply deficit can only be reduced quickly only if the government simultaneously support and facilitate the development of dairy farming, accelerate investment in the development of dairy farming as well as the milk processing.
- Policies and programs for developing smallholder dairy farms are critically important. The government needs to concretely facilitate the development of smallholder dairy farming, both in Java and outside Java.
- For the regulations related to **dairy inputs** since the high quality of fresh milk is important for the processing milk industry, the consistent policies and programs are needed for this purpose, such as programs that can ensure the availability of easily accessible technology, affordable feed and medicines, heifers and breeder cows, and other cost-reducing technologies in dairy farming. The procurement of refrigeration facilities at the farmer and cooperative levels is also important. The selection of seeds at the breeder level, quality parent procurement, importation of superior semen, and recording of national data collection of seeds for selection purposes should also be implemented. From the aspect of cultivation, the strategy should focus on the provision of forage land for fodder, concentrate feed, fermented feed through the utilization of land potential.
- For the regulation related to **the price of domestic and imported dairy products**, a progressive policy strategy should include increasing the promotion of dairy products, producing premium dairy products, shortening the sales chain through digital marketing, and increasing the added value of dairy products.
- A progressive policy strategy related to **access to credit** could include the effort to improve the knowledge and competence of dairy farmers related to a financial record, support from industry through dairy development partnership programs, and special interest rate for farmers/cooperatives or other investors interested in developing dairy industry in Indonesia.
- Policies and programs for developing smallholder dairy farms are critically important. The government needs to concretely facilitate the development of smallholder dairy farming, both in Java and outside Java. Consistent policies and programs are needed for this purpose, such as programs that can ensure the availability of easily accessible technology, affordable feed and medicines, heifers and breeder cows, and other cost-reducing technologies in dairy farming.

- On the development programs for dairy farming, the government should support and facilitate the development of smallholder, medium and large scale, and mega dairy farms simultaneously. Large-scale and mega dairy farms must be directed outside Java, while small and medium scale can still be carried out in Java in agroecologically suitable areas. Only in this way can Indonesia meet the growing demand for national dairy products and at the same time reduce dependence on imports.
- Government regulations should be directed to promote and support mutually beneficial multi-stakeholder partnerships, particularly between smallholders and milk processors, in order to increase productivity and improve quality of fresh milk. The business partnership programs between large-scale and small-scale livestock need to be encouraged and facilitated to realize an inclusive growth of the industry. Dairy business players must view partnership as a necessity not an obligatory.
- A progressive policy strategy related to **investments in the dairy industry** could include tax allowance facilities for investors, simplify administration aspects, eliminate unnecessary costs, and create stable economic and political situations in Indonesia.
- Upstream investment is urgently needed to fill the milk supply gap and thereby support Indonesia's dairy industries. To do this, restrictions on investment must be reduced and, if politically possible, removed. Although marked by strong pro-cons and public dispute, the political decision to finally issue a job creation law (UU Cipta-Kerja) in 2021 was the right step.
- Investment opportunities lie in scaling up production, introducing modern technology and improving dairy farming methods. Greater capacity in cold storage and transportation is also needed to transport dairy products across the archipelago. Teaming up with local dairy cooperatives, which have established sourcing and distribution networks, will generally be the easiest way for foreign companies to enter the market and get access to farmers. As they need to boost their efficiency to compete with imported milk, local farmers should be interested in cooperation that can help them become more competitive. It is a mutually beneficial partnership.
- A progressive policy strategy in the area of **importation regulation of live dairy Cattle and other inputs** could include the increase of the government's role in foreign trade policy, particularly s in the World Trade Organization (WTO) related to the regulations of the protection of breeders, and negotiations with import policymakers in the international agencies and trade partner countries. It is also important to provide training related to the

importance of animal welfare for dairy farmers, cooperatives, and related institutions to avoid conflict with animal care organizations at national and international levels.

- A progressive policy strategy related to **dairy product** importation could include the increase of the government roles in strengthening the domestic powdered milk market through policies that can provide incentives for the processing milk industry (Industri Pengelohan Susu-IPS) to be able to produce domestic powdered milk that can compete with imported product. Regulation of the Minister of Agriculture 2017 requires businesses that produce processed milk (IPS) to have a processing unit within 3 years after this Regulation of the Minister of Agriculture applies should also be monitored related to the implementation. For importers that cannot produce processed milk, they are required to establish partnerships with relevant actors along the dairy values chain in the form of production facilities and capital for dairy farmers.
- Import policy is needed to support the development of dairy farms and dairy industry and safeguard them from unfair trading. The import policy, however, should use measures and instruments consistent with WTO rules and should not be too restrictive and burdensome in order to minimize rent seeking behaviour and moral hazard. To be more effective in protecting dairy farmers and minimizing quota rent but not violating WTO rules, the government needs to replace “the import quota” policy with the tariff equivalent quota policy.

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## APPENDIX

### Annex 1. Policies and Regulations Related to Dairy Industry in Indonesia

No	Regulation	Description
1	<p><b>Law of the Republic of Indonesia No. 11 of 2020 on Job Creation (Revising Law Number 41 of 2014 and Law Number 18 of 2009)</b></p>	<ul style="list-style-type: none"> <li>• <b>Article 13: The provision and development of seeds is carried out by prioritizing domestic production.</b> <ul style="list-style-type: none"> <li>- The Government and/or the Regional Government in accordance with its authority are obliged to undertake to breed, development of seeding, and/or breeding business by involving the participation of the community to ensure the availability of seeds and by encouraging the application of reproductive technology.</li> <li>- Every seed in circulation shall have a seed certificate containing information about the pedigree and its superiority features. Seed certificates are issued by an accredited seed certification institution.</li> </ul> </li> <li>• <b>Article 15: Importation of seeds</b> <ul style="list-style-type: none"> <li>- Seed importation can be done to a) improve genetic quality and diversity; b) develop science and technology; c) overcome the shortage of seed in the country; and d) meet research and development needs.</li> <li>- Every person who imports seeds is required to fulfill Business Licensing from the Government. Further provisions regarding Business Licensing as regulated in other regulations</li> </ul> </li> <li>• <b>Article 16: Exportation of seeds</b> <ul style="list-style-type: none"> <li>- Seed exportation from a domestic to a foreign country can be done if the domestic requirement has been fulfilled and the preservation of local Livestock has been guaranteed.</li> <li>- Every person who exports seeds is required to fulfill Business Licensing from the Government. Further provisions regarding Business Licensing as regulated in other regulations</li> </ul> </li> <li>• <b>Article 18: Availability of seeds</b> <ul style="list-style-type: none"> <li>- In order to meet the availability of seedlings, productive female ruminants are selected for breeding, whereas unproductive female ruminants are removed to be cut.</li> <li>- Local Government in accordance with the authority to provide funds to collect livestock (productive female ruminants) issued by the community and accommodate the livestock in the</li> </ul> </li> </ul>



No	Regulation	Description
		<p>technical implementation unit in the area for the breeding purposes and provision of productive female ruminants in the area.</p> <ul style="list-style-type: none"> <li>• <b>Article 31: Business partnership</b> <ul style="list-style-type: none"> <li>- Farmers can conduct business partnerships in the field of cattle farming based on mutual agreement, strengthening, benefits, respect, responsibility, dependency, and justice.</li> <li>- A business partnership can be done: a) Inter-farmers; b) between farmers and livestock companies; c) between farmers and companies in other sectors; and d) between the livestock companies and the Government or the Regional Government in accordance with its authority.</li> <li>- Business partnerships can be: a) provision of production facilities; b) production; c) marketing; and d) capital or financing.</li> <li>- Government and Local Government in accordance with their authority to guide/coach business partnership.</li> </ul> </li> <li>• <b>Article 36A: Export Ruminantia</b> <ul style="list-style-type: none"> <li>- Exporting of Livestock and Animal products from the territory of the Republic of Indonesia to overseas can be done if the production and supply in the country has met the needs of public consumption.</li> </ul> </li> <li>• <b>Article 36B: Import ruminantia</b> <ul style="list-style-type: none"> <li>- Importation of Livestock and Animal Products from abroad into Indonesia is carried out to meet the needs by taking into account the interests of breeders.</li> <li>- Everyone who imports Livestock must fulfill a Business License from the Central Government.</li> <li>- Import of Livestock from abroad must: <ul style="list-style-type: none"> <li>a. meet the technical requirements of Animal Health;</li> <li>b. free from Infectious Animal Diseases required by the Veterinary Authority; and</li> <li>c. comply with the provisions of the legislation in the field of animal quarantine.</li> </ul> </li> </ul> </li> <li>• <b>Article 36C: Import ruminantia</b> <ul style="list-style-type: none"> <li>- The importation of Parent Ruminant Livestock into the territory of the Republic of Indonesia may originate from a country that has met the requirements and procedures for its entry.</li> <li>- The requirements and procedures for the importation of Parent Ruminant Livestock from abroad into the territory of the Republic of Indonesia are determined based on risk analysis in the field of Animal Health by the Veterinary Authority.</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>- Importation of Parent Ruminant Livestock originating from a country must first:               <ul style="list-style-type: none"> <li>a) declared free of Communicable Animal Diseases by the Veterinary Authority of the country of origin in accordance with the provisions stipulated by the world animal health agency and recognized by the Indonesian Veterinary Authority;</li> <li>b) strengthening the domestic surveillance system and implementation; and</li> <li>c) specified entry point.</li> </ul> </li> <li>- Every person who imports ruminant broodstock is required to fulfill a business license from the Central Government.</li> <li>• <b>Article 37: Processing Industry</b> <ul style="list-style-type: none"> <li>- The Central Government and Regional Governments in accordance with their respective authorities based on the norms, standards, procedures, and criteria set by the Central Government shall foster and facilitate the development of the Animal Product processing industry.</li> </ul> </li> <li>• <b>Article 58: Animal product</b> <ul style="list-style-type: none"> <li>- In order to ensure safety, healthy, intact, and halal animal products in the required, the Government and the Regional Government in accordance with its authority is obliged to carry out supervision, inspection, product testing, standardization, certification, and registration of animal products.</li> <li>- Supervision, inspection, and testing of animal products are respectively carried out at the site of production, at the time of cutting, storage, collection, at fresh times, prior to preservation, and at the time of circulation after preservation.</li> <li>- Animal products produced in and/or imported in Indonesia for circulation shall be accompanied by: a) veterinary certificate; and b) halal certificate for the required animal products.</li> </ul> </li> <li>• <b>Article 59: Importation Animal Products</b> <ul style="list-style-type: none"> <li>- Everyone who will import Animal Products into the territory of the Republic of Indonesia must fulfill the Business License from the Central Government.</li> </ul> </li> </ul> <p>Requirements and procedures for importing Animal Products from abroad into the territory of the Republic of Indonesia refer to the provisions based on risk analysis in the field of Animal Health and</p>

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		Veterinary Public Health. Further provisions regarding Business Licensing are regulated in other regulations.
2	<b>Central Government Law Number 78 of 2019 about Tax Allowance Facility for Investment in Certain Business and/or in Certain Regions (Replacing Law Number 9 of 2016)</b>	<ul style="list-style-type: none"> <li>• There are some dairy cattle breeding and cultivation and milk processing industries related to this regulation: <ul style="list-style-type: none"> <li>- <b>Annex 1 No 14: Dairy cattle breeding and cultivation (KBLI 01412)</b> This group includes livestock businesses that organize dairy cow breeding, to produce dairy cattle breeds, semen, and embryos and farms that organize dairy cow cultivation to produce milk. The requirements are doing partnerships with farmers in cattle farming business at least 10 of the cage capacity and integrated and/or partnerships with fresh milk and cream processing industries (KBLI 10510).</li> <li>- <b>Annex 1 No 51: Fresh milk and cream processing industry (KBLI 10510)</b> This group includes the business of processing fresh liquid milk, pasteurized, sterilized, homogenized, and/or ultra heating (UHT) milk and the cream processing industry of fresh liquid milk, pasteurization, sterilization, and homogenization.</li> <li>- <b>Annex 1 No 60: Baby Food (KBLI: 10791)</b> Covering the business: making baby food, such as infant formula, advanced milk, and other advanced foods, baby food, and foods containing homogenized ingredients.</li> </ul> </li> <li>• To encourage direct investment, both in terms of economic growth, development of the business sector, legal certainty to improve the business climate that is more conducive to direct investment activities in certain business fields and/or in certain areas that receive high priority on a scale national level, as well as equitable distribution and acceleration of development for certain business fields and/or in certain regions.</li> <li>• <b>Tax Allowance Facility:</b> <ul style="list-style-type: none"> <li>- Net income deduction of 30% charged for 6 years each at 5%/year,</li> <li>- Depreciation and amortization are accelerated,</li> <li>- Income Tax of 10% on dividends paid to overseas taxpayers or lower rates if there is a Tax Treaty, and</li> <li>- Compensation for losses longer than 5 years but not more than 10 years.</li> </ul> </li> </ul>

No	Regulation	Description
3	<b>Law Number 6 of 2013 about Farmers Empowerment</b>	<ul style="list-style-type: none"> <li>● <b>Chapter II Part 1: Access to Financial and Capital Sources</b></li> <li>● <b>Article 4:</b> <ul style="list-style-type: none"> <li>- Financial and capital sources for farmers' empowerment can come from the government and local governments. Besides that, it can also come from the community, banking institutions, and other financial institutions non-bank, and other business entities.</li> </ul> </li> <li>● <b>Article 5:</b> <ul style="list-style-type: none"> <li>- Supports from the government and regional government can be financial or capital assistance for business development.</li> <li>- Financial or capital assistance is given to farmers through farmer groups or collective farmers groups.</li> <li>- Financial or capital assistance are sourced from the Indonesian Budget (APBN) and/or Regional Government budget (APBD) in accordance with the provisions of laws and regulations. Further provisions on the terms and procedures for granting financial or capital assistance should be regulated by Ministerial Regulation.</li> </ul> </li> <li>● <b>Chapter III Part 1: Livestock and Animal Health Service</b></li> <li>● <b>Article 10:</b> <ul style="list-style-type: none"> <li>- Livestock Services consists of: a) provision and management of common grazing land; b) provision of superior seeds; c) rescue of productive female ruminants; and d) provision of artificial insemination post.</li> </ul> </li> <li>● <b>Chapter IV Part 1: Avoidance of high-cost economy</b></li> <li>● <b>Article 16-17:</b> <ul style="list-style-type: none"> <li>- Avoidance of high-cost economy shall be effected through efficiency in the provision of production facilities, cultivation, postharvest, and marketing or distribution of animals and animal products.</li> <li>- In facilitating the program, government and local government in accordance with their authorities to provide facilities for: a) good cultivation of livestock; b) harvesting and post-harvest activities of livestock products through the provision of slaughterhouses, dairy, meat, and eggs processing industries; c) distribution and marketing activities of livestock products through the provision of conveyance, animal markets, livestock collecting place, and</li> </ul> </li> </ul>

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		<p>refrigeration installations; and d) storage of animal and fodder products through the provision of warehouses and/or refrigerated warehouses.</p> <ul style="list-style-type: none"> <li>• <b>Chapter V: Partnership development in increasing synergy between livestock businessman</b></li> <li>• <b>Article 19:</b></li> </ul> <p>To increase the income of farmers, synergy, and business competitiveness, it is necessary to do business partnerships: a) between farmers; b) between farmers and livestock companies; and c) between breeders and companies in other sectors. Business partnerships can be performed at least in the form of a) revenue sharing; b) lease; or c) the plasma core.</p>
4	<p><b>President Decree Number 49 of 2021 revise some of the regulations in the President Decree Number 10 of 2021 about the list of business sectors in investment (Replacing the President Decree Number 44 of 2016)</b></p>	<ul style="list-style-type: none"> <li>• <b>There are dairy cattle breeding and cultivation, also milk processing industries related in this regulation that include in priority open business fields</b></li> <li>- <b>Fiscal incentive in income tax for investment in certain business fields and or in certain areas (tax allowance):</b></li> <li><b>a. Annex 1 No 14: Dairy cattle breeding and cultivation (KBLI 01412)</b></li> </ul> <p>This group includes livestock businesses that organize dairy cow breeding, to produce dairy cattle breeds, semen, and embryos and farms that organize dairy cow cultivation to produce milk. The requirements are doing partnerships with farmers in cattle farming business at least 10% of the cage capacity and integrated and/or partnerships with fresh milk and cream processing industries (KBLI 10510).</p> <ul style="list-style-type: none"> <li><b>b. Annex 1 No 51: Fresh milk and cream processing industry (KBLI 10510)</b></li> </ul> <p>This group includes the business of processing fresh liquid milk, pasteurized, sterilized, homogenized, and/or ultra heating (UHT) milk and the cream processing industry of fresh liquid milk, pasteurization, sterilization, and homogenization.</p> <li>- <b>Fiscal incentive in reduction of corporate income tax for the labor-intensive industry:</b></li> <li><b>Annex 1 No 208: Fresh milk and cream processing industry (KBLI 10510)</b></li> <p>This group includes the business of processing fresh liquid milk, pasteurized, sterilized, homogenized, and/or ultra heating (UHT) milk and the cream processing industry of fresh liquid milk, pasteurization, sterilization, and homogenization. This applies to the related industries in all provinces of Indonesia.</p>

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		<ul style="list-style-type: none"> <li>• <b>There are milk powder and condensed milk processing industries related to this regulation that include business fields allocated for or partnerships with Cooperatives and MSMEs.</b></li> <li>- <b>Annex 2 No 69: Milk powder and condensed milk processing industries (KBLI 10520)</b> This group includes the industrial business of processing milk powder or condensed milk with sweetener or not and the processing industry of milk or cream in solid form. These industries are assigned to do the partnership with MSMEs.</li> </ul>
5	<p><b>Regulation of Minister of Agriculture Number 33/Permentan/PK.450/7/2018 which revise Regulation of Minister of Agriculture Number 30/Permentan/PK.450/7/2018 about Milk Supply and Distribution (Revising Regulation of Minister of Agriculture Number 26/Permentan/PK.450/7/2017)</b></p>	<ul style="list-style-type: none"> <li>• <b>Chapter II Milk Supply</b></li> <li>• <b>Article 4:</b> <ul style="list-style-type: none"> <li>- Improvement of milk productivity can be done through a) improving seed quality; b) provision of fodder; c) improving the quality of fodder and feeding; and d) improving animal raising and health management.</li> </ul> </li> <li>• <b>Article 10:</b> <ul style="list-style-type: none"> <li>- The improvement of cattle population can be done through a) Improvement of birthrate; b) Preventing slaughter on productive female cattle; c) Supply of productive female cattle, and d) Rearing.</li> </ul> </li> <li>• <b>Article 11:</b> <ul style="list-style-type: none"> <li>- The improvement of birthrate is done through the handling of reproduction disturbance and the improvement of reproduction efficiency based on Technical Guidance to Reproduction Optimization and Handling of Reproduction Disturbance on Cattle.</li> </ul> </li> <li>• <b>Article 12:</b> <ul style="list-style-type: none"> <li>- The prevention of slaughter on productive female cattle is based on the terms of the Law.</li> </ul> </li> <li>• <b>Article 13:</b> <ul style="list-style-type: none"> <li>- The supply of productive female cattle is done through the foreign cattle supply into the territory of the Republic of Indonesia.</li> <li>- Supply of productive female cattle can be done by Farmer, Cooperatives, businessmen, and the government.</li> <li>- The supply of foreign cattle into the territory of the Republic of Indonesia is based on the terms of the Law.</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>• <b>Article 14:</b> <ul style="list-style-type: none"> <li>- Rearing activity is done by Farmer, Cooperatives, businessmen, and the government and based on the pasture pattern, intensive, and/or semi-intensive.</li> </ul> </li> <li>• <b>Article 15:</b> <ul style="list-style-type: none"> <li>- The improvement of milk quality is done through a) Providing high-quality fodder with adequate nutritional content to the cattle; b) Preserving cattle's hygiene, shelter sanitation, tools, water, and milker.</li> </ul> </li> <li>• <b>Chapter III Milk Distribution</b></li> <li>• <b>Article 16-17:</b> <ul style="list-style-type: none"> <li>- The milk distribution can be done through a) farmers to cooperatives; b) farmers to a businessman; and c) cooperative to the businessman.</li> <li>- The distributed milk should meet the quality of SNI (Indonesian National Standard).</li> </ul> </li> <li>• <b>Article 21-22:</b> <ul style="list-style-type: none"> <li>- The classification of milk quality is determined by the content: a) fat; b) non-fat dry ingredients; and c) protein.</li> <li>- Microbial contamination rate is determined by microbial contamination (Total Plate Count/TPC).</li> </ul> </li> <li>• <b>Chapter IV Partnership</b></li> <li>• <b>Article 23:</b> <ul style="list-style-type: none"> <li>- Businessman conducts partnership with Breeders, Farmer Group Associations, and/or Cooperatives using domestic fresh milk (SSDN) or mutually beneficial promotions.</li> </ul> </li> <li>• <b>Article 24:</b> <ul style="list-style-type: none"> <li>- Partnerships using domestic fresh milk (SSDN) are carried out for Business Actors who produce processed milk.</li> <li>- Businessmen, who produce processed milk, produce processed milk in their own milk processing unit or cooperate (toll manufacturing) with the businessman who already has a milk processing unit.</li> </ul> </li> <li>• <b>Article 25-27:</b> <ul style="list-style-type: none"> <li>- Utilization of milk based on the suitability of milk production and real production capacity of businessmen.</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>- The suitability of milk production and the real production capacity of the businessman shall be calculated annually no later than November of the previous year and shall be determined by the Directorate General of Livestock and Animal Health.</li> <li>- The calculation of the milk production suitability and the real production capacity of the businessman can be done by the analysis team of supply and demand of milk which is consist of The Coordination Ministry for Economic Affairs, Ministry of Agriculture, Ministry of Trade, Ministry of Industry, Ministry of Cooperatives and SMEs, Statistics Indonesia and higher education institution.</li> <li>• <b>Article 31:</b> <ul style="list-style-type: none"> <li>- Partnership in the provision of production facilities can be done through the provision of equipment and buildings.</li> </ul> </li> <li>• <b>Article 32:</b> <ul style="list-style-type: none"> <li>- Production partnerships can be done through: a) increasing the population of dairy cattle in farmers, joint groups of farmers, and/or cooperatives; b) Rearing facilities; and/or c) enhancement of skills and competence of farmers, a joint group of farmers and/or cooperatives.</li> <li>- Capital or financing partnerships be done through: a) facilitation of business capital with affordable interest; and/or b) guarantee to obtain business credit.</li> </ul> </li> </ul>
6	<p><b>Regulation of The Trade Minister Number 29 of 2019 about Provision of Animal and Animal Products Export &amp; Import (Replacing Regulation Number 59/M-DAG/PER/8/2016 and Regulation Number 05/M-DAG/PER/1/2016)</b></p>	<ul style="list-style-type: none"> <li>• To improve the effectiveness of the implementation of export and import policies of animal and animal products. Some livestock products regulated in this regulation, namely: <ul style="list-style-type: none"> <li>a. Cattle, purebred breeding animals (HS 0102.21.00.00) that is included as the type of livestock whose import and export are regulated</li> <li>b. sweetened condensed milk (HS 04.02); milk powder (HS 0402.10); buttermilk (HS 0403.90.10.00); Yogurt (HS 0403.10); Whey (HS 0404); Dairy spreads (HS 0405); cheese and milk curd (HS 0406) that are included as the type of dairy products whose import is regulated</li> </ul> </li> <li>• <b>Article 3:</b> <ul style="list-style-type: none"> <li>- Animal export can only be done if the needs of seeds, and/or domestic animals are fulfilled and the preservation of local livestock is guaranteed.</li> </ul> </li> <li>• <b>Article 5:</b> <ul style="list-style-type: none"> <li>- To obtain export approval, the exporters must apply electronically (<a href="http://inatrade.kemendag.go.id">http://inatrade.kemendag.go.id</a>) to the Director-General through the Director of Export by</li> </ul> </li> </ul>



No	Regulation	Description
		<p>enclosing: a.) Trading business license or business license in the field of husbandry and animal health; b.) Business Registration Number (NIB); and c.) Recommendation from the Minister of Agriculture or an official appointed by the Minister of Agriculture</p> <ul style="list-style-type: none"> <li>• <b>Article 10</b></li> <li>- Import of animal and animal products can only be done by: <ul style="list-style-type: none"> <li>a. Importer holding NIB that acts as an Identification Number (<i>Angka Pengenal Impor/API</i>);</li> <li>b. Social Institutions; and</li> <li>c. Representatives of Foreign Countries/International Institutions.</li> </ul> </li> <li>• <b>Article 12</b></li> <li>- Import of Animal Species and Animal Products can only be done after obtaining Import Approval from the Minister. The Minister delegates the authority to issue Import Approval to the Director-General. The Director-General mandates the issuance of the Import Approval as to the Director of Import.</li> <li>• <b>Article 13:</b></li> <li>- To obtain import approval, the importers who own NIB (that act as API) must apply electronically (<a href="http://inatrade.kemendag.go.id">http://inatrade.kemendag.go.id</a>) to the Director-General through the Director of Export by enclosing: a) The deed of establishment of the company and its amendments; b) NIB that acts as API; c) Evidence of ownership of the raising animal place; d) Proof of ownership of cold storage and refrigerated transportation; e) Statement letter stating that the slaughter will be carried out at the Slaughterhouse in accordance with the provisions of the laws and regulations; f) Recommendation from the Minister of Agriculture or an official appointed by the Minister of Agriculture, or f) Recommendation from the Head of the National Agency of Drug and Food Control (BPOM) or an officer appointed by the Head of the National Agency of Drug and Food Control (BPOM) and a recommendation from the Minister of Agriculture or an official appointed by the Minister of Agriculture for the import of animal products which still has a risk of spreading zoonosis.</li> </ul>
7	<b>Regulation of The Agriculture Minister Number 49/Permentan/PK.440/10/2016 about Large Ruminants</b>	<ul style="list-style-type: none"> <li>• <b>Article 3:</b></li> <li>- Imports of large ruminant livestock can be done by businessmen, farmer cooperatives, and farmer groups.</li> </ul>

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	<b>Importation (Replace Number 16/Permentan/PK.440/5/2016)</b>	<ul style="list-style-type: none"> <li>• <b>Article 4:</b> <ul style="list-style-type: none"> <li>- Businessmen, farmer cooperatives, and farmer groups who conducted import must obtain an import permit from the Minister of Trade after receiving a recommendation from the Minister of Agriculture.</li> </ul> </li> <li>• <b>Article 5:</b> <ul style="list-style-type: none"> <li>- Imports of large ruminant livestock shall meet the following requirements: a) administration; b) technical animal health; and c) specification of large ruminant livestock.</li> </ul> </li> <li>• <b>Article 11:</b> <ul style="list-style-type: none"> <li>- Country of large ruminants origin shall meet the following requirements: a) free of Mouth and Face Disease (RWC), Rift Valley Fever (RVF), Contagious Bovine Pleuropneumonia, Peste des Petit Ruminant referring to the declaration of World Organization for Animal Health / Office International des Epizooties WOAAH / OIE); b) a negligible or controlled BSE risk status which refers to the declaration of the World Organization for Animal Health / Office International des Epizooties (WOAH / OIE); and c) implement monitoring and surveillance programs residues of antibiotics, hormones, and other substances that endanger the health of animals and humans.</li> </ul> </li> <li>• <b>Article 13:</b> <ul style="list-style-type: none"> <li>- Farm or Registered Premises / Approved Premises shall meet the following requirements: a) originating from the country of origin designated by the Minister; b) no outbreaks of contagious animal diseases are occurring; c) registered as a Farm or Registered Premises / Approved Premises or has been audited by the veterinary authority of the Country of Origin; d) applied biosecurity; e. does not provide fodder containing Meat Bone Meal (MBM) ruminants; f) does not exclude cattle that has not passed through withholding periods of antibiotics and growth hormone; g) apply animal welfare principles; and h) applied good farming practice.</li> </ul> </li> <li>• <b>Article 15:</b> <ul style="list-style-type: none"> <li>- Specifications of large ruminant livestock for cattle (HS 0102.29) are a) average weight maximum 350 kilograms based on Goods Import Declaration (PIB); and b) maximum age of 30 (thirty) months as evidenced by a letter from the origin country.</li> </ul> </li> </ul>

No	Regulation	Description
8	<b>Regulation of The Agriculture Minister Number 13/Permentan/PK.240/5/2017 about Livestock Business Partnership</b>	<ul style="list-style-type: none"> <li>• To improve the scale and efficiency of livestock business, the economic capability of farmers or businessmen, market access, competitiveness, and build a synergy of mutual benefit, and equitable, it is necessary to establish a partnership of livestock business.</li> <li>• <b>Article 2:</b> <ul style="list-style-type: none"> <li>- The types of livestock business that can be in partnership consist of: a) Livestock; b) animal products; and c) production facilities and infrastructure.</li> </ul> </li> <li>• <b>Article 3:</b> <ul style="list-style-type: none"> <li>- Livestock as intended includes cows, buffalo, goats, sheep, chickens, ducks, quail, pigs, and rabbits.</li> <li>- The animal products as intended include eggs, meat, milk, and other dairy products.</li> <li>- Production facilities and infrastructure are implemented from upstream to downstream.</li> </ul> </li> <li>• <b>Article 4:</b> <ul style="list-style-type: none"> <li>- Participants of Livestock Business Partnership include a) farmers; b) farming companies; c) companies in other fields; and d) the government and/or local government.</li> </ul> </li> <li>• <b>Article 6:</b> <ul style="list-style-type: none"> <li>- Livestock Business Partnership can be done through the following patterns: a) core-plasma; b) profit sharing; c) lease; d) general trading; and/or e) subcontracts.</li> </ul> </li> <li>• <b>Article 9:</b> <ul style="list-style-type: none"> <li>- Partnerships between livestock companies and/or companies in other fields with the government and/or regional governments are implemented in order to improve the competitiveness of livestock business through education, training, counseling, apprenticeship, promotion, and/or technology transfer process.</li> </ul> </li> <li>• <b>Article 11:</b> <ul style="list-style-type: none"> <li>- Partnership agreements shall be done in the form of a written agreement at least containing: a) types of Livestock, types of animal products, and/or types of production facilities cooperation; b) rights and obligations; c) stipulation of quality standards; d) market price; e) marketing guarantees; f) sharing of profits and business risks; g) capital and/or financing; h) payment mechanism; i) duration; and j) dispute resolution. Partnership agreements must be recognized by the local government as a fostering of business partnerships.</li> </ul> </li> </ul>

No	Regulation	Description
9	<b>Regulation of the Minister of Finance Number 9/PMK.03/2021 which was later revised in the Regulation of the Minister of Finance Number 82/PMK.03/2021</b>	<ul style="list-style-type: none"> <li>• <b>Article 2</b> The income received or earned by the employee must be withheld by the employer in accordance with the provisions in Article 21 of the Income Tax Law. The Income Tax Article 21 is borne by the Government on the income received by the employee with certain criteria including:               <ol style="list-style-type: none"> <li>a. Receive or earn income from an employer who:                   <ul style="list-style-type: none"> <li>- have a Business Field Classification code</li> <li>- has been designated as a KITE Company (obtains Import Ease for Export Purposes); or</li> <li>- has obtained Bonded Zone Management Permit, Permit as Business Practitioner of Bonded Zone or PDKB (<i>Pengusaha Dalam Kawasan Berikat</i>);</li> </ul> </li> <li>b. have NPWP; and</li> <li>c. during the Tax Period, the person concerned receives or obtains a Gross Income which is fixed and regular which is annualized not more than Rp. 200,000,000.00 (two hundred million rupiah).</li> <li>d. The dairy industry that receives this tax incentive is the fresh milk and cream processing industry (business classification code 10510), the powdered milk and condensed milk processing industry (business classification code 10520), the other dairy product processing industry (business classification code 10590), and entrepreneurs who are members of the milk and milk product wholesale trade sector (business classification code 46326).</li> </ol> </li> </ul>
10	<b>The regulation of the Minister of Finance Number 68/PMK.010/21</b>	<ul style="list-style-type: none"> <li>• Certain industries will get relief in the form of Government Borne Import Duty (BM DTP).</li> <li>• <b>Article 2</b> BM DTP can be granted on the import of goods and materials by certain industrial sector companies. Types of goods and materials imported by companies in certain industrial sectors that get BM DTP must meet the following conditions:               <ul style="list-style-type: none"> <li>- Goods and Materials have not been produced domestically;</li> <li>- Goods and Materials have been produced domestically but have not met the required specifications; or</li> <li>- Goods and Materials have been produced domestically but the amount is not sufficient for industrial needs in accordance with the recommendations of the relevant ministries/institutions.</li> </ul>               Then, the Goods and Materials that receive BM DTP are not:               <ul style="list-style-type: none"> <li>- Goods and Materials subject to import duty of 0% (zero percent);</li> </ul> </li> </ul>

No	Regulation	Description
		<ul style="list-style-type: none"> <li>- Goods and Materials subject to the imposition of import duty of 0% (zero percent) based on international agreements or agreements;</li> <li>- Goods and Materials that are subject to Anti-Dumping Import Duties/Temporary Anti-Dumping Import Duties, Safeguard Measures Import Duties/Temporary Safeguard Measures Import Duties, Compulsory Import Duties, or Retaliatory Import Duties; or</li> <li>- Goods and Materials intended to be stockpiled in a bonded stockpile.</li> <li>- The milk processing industry gets a reduction in BM DTP with a budget ceiling of Rp 70 billion. Several types of goods/materials imported by the milk processing industry are included in the HS code (tariff postal code): 04021041 (milk does not contain added sugar or other sweetening ingredients in the form of powder/granules/other solid forms with a fat content of not more than 1.5% according to weight); 04021091 (milk containing added sugar or other sweetening matter in the form of powder/granule/other solid forms with a fat content of not more than 1.5% according to weight); 04022120 (milk does not contain added sugar or other sweetening matter in the form of powder/granule/other solid forms with a fat content of more than 1.5% according to weight) a; 04039010 (buttermilk); 04041010 (whey and modified whey); 04051000 (unsalted butter); and 10059090 (maize other than seeds and popcorn with aflatoxin levels <math>\leq</math> 20ppb).</li> </ul>
<b>11</b>	Minister of Agriculture (MOA) Regulation No. 41/2019	Importation of large ruminants into the territory of the Republic of Indonesia.
<b>12</b>	Minister of Trade (MOT) Regulation No. 20/2018	Second Amendment to Minister of Trade Regulation Number 59/M-Dag/Per/8/2016 concerning Provisions on Exports and Imports of Animals and Animal Products.
<b>13</b>	MOA Regulation No. 2/PERMENTAN/ PK.440/2/2017	Amendment to the MOA Regulation No. 49/PERMENTAN/Pk.440/10/2016 Concerning Importation of Large Ruminants into the Territory of The Republic of Indonesia
<b>14</b>	MOA Regulation No. 49/PERMENTAN/PK.440/10/2016	Importation of Large Ruminant Livestock into the Territory of the Republic of Indonesia.
<b>15</b>	MOA Regulation No. 48/PERMENTAN/PK.210/10/2016	Special Efforts to Accelerate the Increase of Pregnant Cattle and Buffalo Populations (UPSUS SIWAB).
<b>16</b>	MOA Regulation No. 10/PERMENTAN/PK 210/3/2016	Provision and Distribution of Frozen Cement for Ruminants.
<b>17</b>	MOT Regulation No. 05/M-DAG/Per/1/2016	Provisions on Exports and Imports of Animals and Animal Products.

<b>No</b>	<b>Regulation</b>	<b>Description</b>
<b>18</b>	MOA Regulation No. 16/PERMENTAN/PK.440/5/2016	Importation of Large Ruminant into the Territory of the Republic of Indonesia.
<b>19</b>	MOA Regulation No. 42/PERMENTAN/PP.040/7/2015	Amendment to MOA Regulation No. 108/PERMENTAN/PD.410/9/2014 concerning Importation of calves (feeder cattle), heifers or breeding cattle (parent cattle), and cattle ready to be Slaughtered into the Territory of the Republic of Indonesia.
<b>20</b>	MOA Regulation No. 108/PERMENTAN/PD.410/9/2014	Importation of calves (feeder cattle), heifers or breeding cattle (parent cattle), and cattle ready to be Slaughtered into the Territory of The Republic of Indonesia.
<b>21</b>	MOA Regulation No: 113/PERMENTAN/PD.410/10/2013	Animal Quarantine Measures Against the Importation of calves (feeder cattle), heifers or breeding cattle (parent cattle), and cattle ready to be Slaughtered into the Territory of the Republic of Indonesia.
<b>22</b>	MOA Regulation No. 97/PERMENTAN/PD.410/9/2013	Second Amendment to Minister of Agriculture No 85/PERMENTAN/PD.410/8/2013 concerning Importation of calves (feeder cattle), heifers or breeding Cattle (parent cattle), and Cattle ready to be Slaughtered into the Territory of the Republic of Indonesia.
<b>23</b>	MOA Regulation No. 87/PERMENTAN/PD.410/9/2013	Amendments to the Attachment MOA Reg No. 85/PERMENTAN/PD.410/8/2013 concerning Importation of calves (feeder cattle), heifers or breeding Cattle (parent cattle), and Cattle ready to be Slaughtered into the Territory of the Republic of Indonesia.
<b>24</b>	MOA Regulation No. 85/PERMENTAN/PD.410/8/2013	Importation of calves (feeder cattle), heifers or breeding Cattle (parent cattle), and Cattle ready to be Slaughtered into the Territory of the Republic of Indonesia.
<b>25</b>	MOA Regulation No. 74/PERMENTAN/PD.410/7/2013	the Second Amendment to MOA Reg No. 52/PERMENTAN/OT.140/9/2011 concerning Recommendations for Approval for Importation and Exportation of Livestock into and out of the Territory of the Republic of Indonesia.
<b>26</b>	MOT Regulation No 20/2021	Import policy and regulation
<b>27</b>	MOT Regulation No 72/2019	The amendments to the Minister of Trade Regulation No. 29/2019 the provisions for export and import of animals and animal products
<b>28</b>	MOT Regulation No. 29/2019	Provisions for the export and import of animals and animal products
<b>29</b>	MOA Regulation No. 33/PERMENTAN/PK. 450/7/2018	The second amendments to the Minister of Agriculture Regulation No. 26/PERMENTAN/PK.450/7/2017 concerning Milk Supply and Distribution.
<b>30</b>	MOA Regulation No. 30/PERMENTAN/PK. 450/7/2018	Amendments to the Minister of Agriculture No. 26/PERMENTAN/PK.450/7/2017 concerning Milk Supply and Distribution.

<b>No</b>	<b>Regulation</b>	<b>Description</b>
<b>31</b>	MOA Regulation No. 26/PERMENTAN/PK 450/7/2017	Milk Supply and Distribution.
<b>32</b>	MOA Regulation No. 13/PERMENTAN/PK. 240/5/2017	Livestock Business Partnership.
<b>33</b>	MOT Regulation No. 87/M-DAG/PER/10/2015	Provisions on the Import of Certain Products.
<b>34</b>	MOT Regulation No. 73/M-DAG/PER/10/2014	The Second Amendment to the Regulation of Minister of Trade No. 83/M-DAG/PER/ 12/2012 concerning Provisions on Importing Certain Products.
<b>35</b>	MOT Regulation No 46/M-DAG/PER/8/2013	Import and Export Provision of Animal and Animal Product.

## Annex 2. Questionnaire Used for SWOT Analysis

### QUESTIONNAIRE

Overview of the Regulatory Framework(s) Affecting Milk Production, Dairy Product Quality, Dairy Product Prices, and Trade of Dairy Products

#### General Instructions

The types of questions asked in this questionnaire are:

1. Questions in the form of closed multiple choice and open-ended questions.
2. Respondents are expected to provide a checklist (√) for the choice questions on the most appropriate answer.

#### I. RESPONDEN'S PROFILE

1. Full Name : .....
2. Email : .....
3. Phone Number : .....
4. Institution : .....
5. Position : .....
6. Education : SMP/SMA/D3/S1/S2/S3.....

#### II. PERCEPTION

- 1.1. During this COVID-19 pandemic, what is your perception of the future of milk commodities and the dairy industry in Indonesia?
  - a. Very positive
  - b. Positive
  - c. Neutral
  - d. Negative
  - e. Very Negative
  - f. Uncertain

- 1.2. Please explain your reasons regarding the answer you have chosen

.....  
.....  
.....

2. Question no.2 is only addressed to those who are directly involved in the milk supply chain (breeders, cooperatives, traders, processors/companies).

- 2.1. During this Covid 19 pandemic, what is your perception of the future of the dairy business that you are living now?
  - a. Very positive
  - b. Positive
  - c. Neutral
  - d. Negative
  - e. Very Negative
  - f. Uncertain



2.2. Explain your reasons regarding the answer chosen in point 2.1.

.....

.....

.....

### III. SWOT

Answering instructions:

Performance questions are filled in column (3) to column (6). Fill it by giving a check list (√) on the choices, namely: VB = Very Bad; B = Bad; G = Good; VG = Very Good.

Importance Questions are filled in column (7) to column (10). Fill it by giving a check list (√) on the choice, namely VUI = Very Unimportant; NI = Not Important; I = Important; VI = Very Important.

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
<b>A</b>	<b>DAIRY INPUTS</b>									
A.1	Strength									
A.1.1	Feed Quality									
A.1.2	Feed Availability									
A.1.3	Cow adaptability into tropical climate									
A.1.4	Land Availability									
A.2	Weaknesses									
A.2.1	Reliance on purchased feed									
A.2.2	Inadequate milk farmers competencies (skills & knowledge)									
A.2.3	Inadequate facilities and infrastructure									
A.2.4	Low Animal reproductive performance									
A.3	Opportunities									
A.3.1	Farm Expansion (animal numbers)									
A.3.2	Forage Expansion									
A.3.3	Inseminator availability									
A.3.4	Feed Quality Improvement									
A.4	Threat									
A.4.1	Feed Cost									
A.4.2	Cost control issues of farmers									
A.4.3	Animal diseases									
A.4.4	Inadequate information (price, quality, quantity of feeds)									
<b>B</b>	<b>PRICE OF DOMESTIC AND IMPORTED DAIRY PRODUCTS</b>									
B.1	Strength									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
B.1.1	Access to Financial and Capital Sources for farmer's empowerment									
B.1.2	Business partnership between dairy farmer groups / dairy cooperatives and industries									
B.1.3	Financial or capital assistances given to farmers through farmers group or collective farmers group									
B.1.4	Avoidance of high cost economy shall be affected through efficiency in the provision of production facilities, cultivation, postharvest, and marketing or distribution of animals and animal products									
<b>B.2</b>	<b>Weaknesses</b>									
B.2.1	Very difficult to transport fresh milk affecting farm gate price									
B.2.2	Insufficient cool storage equipment									
B.2.3	Lack of understanding (across chain) of market dynamics, including price signals									
B.2.4	Price premium has not been implemented on farmer's level									
<b>B.3</b>	<b>Opportunities</b>									
B.3.1	Products manufactured (e.g. sweet condensed milk, processors) can substitute non fresh dairy ingredients									
B.3.2	Dairy products future market is growing									
B.3.3	Cooperation with industry for premium price									
B.3.4	Raising income and changing lifestyle due to health consciousness									
<b>B.4</b>	<b>Threat</b>									
B.4.1	Competitive Resilience									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
B.4.2	Ability to cope with volatility									
B.4.3	Farm gate price is linked to international market price									
B.4.4	Farm gate price is influenced by cooperative price									
<b>C</b>	<b>INVESTMENTS IN THE DOMESTIC INDUSTRY, INCLUDING BOTH SMALL-SCALE AND LARGE SCALE AND DOMESTIC FOREIGN INVESTMENT</b>									
C.1	Strength									
C.1.1	Livestock domestic & foreign direct investments									
C.1.2	Restrictions on foreign capital ownership									
C.1.3	Domestic capital 100%									
C.1.4	Livestock business partnership with industry									
C.1.5	Tax Allowance Facility for Investment (Net income deduction, depreciation and amortization are accelerated, Income tax, Compensation for losses)									
C.2	Weaknesses									
C.2.1	Small land holdings									
C.2.2	Low milk production									
C.2.3	Lack in the regulation and program implementation									
C.2.4	Lack of business management skills									
C.3	Opportunities									
C.3.1	Encourage industry advocacy									
C.3.2	Collaboration with stakeholders (ex: PTPN, PERHUTANI), and others to use their unused land to be cultivated with forage									
C.3.3	Develop strategies to inform development of extension programs									
C.3.4	Adoption of improved management practices/ technology									
C.4	Threat									
C.4.1	Market signals (price, quality, quantity) are often not clear for farmers									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
C.4.2	Feed resources (quality & quantity) highly variable									
C.4.3	Dairy Farming dominated by smallholder farmers									
C.4.4	Domestic supply of fresh milk doesn't meet growing demand for short shelf-life dairy products									
<b>D</b>	<b>ACCESS TO CREDIT FOR KEY PLAYERS IN THE DAIRY INDUSTRY (SMALLHOLDERS, PROCESSORS ETC)</b>									
D.1	Strength									
D.1.1	Partnership between processing industries and farmer groups / dairy cooperatives in capital or financing									
D.1.2	Partnership between processing industries and farmers in processing									
D.1.3	Partnership between processing industries and farmers in marketing									
D.1.4	Partnership between processing industries and farmers in distribution and supply chain									
D.2	Weaknesses									
D.2.1	Access to the credit is difficult as many farmers don't have collateral to meet the Bank requirements									
D.2.2	Farmer's perception of Loan repayment period									
D.2.3	Lack of finance management skills of SMR dairy farmers									
D.2.4	Lack of organization by independent dairy farmers to enhance the possibility of bank credit									
D.3	Opportunities									
D.3.1	Central and local government should provide financial and capital supports to farmers to buy dairy cows, equipment, and other dairy inputs through partnership									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
D.3.2	Capital or financing partnerships be done through facilitation of business capital with affordable interest & guarantee to obtain business credit									
D.3.3	Partnership conducted through providing facilities (field, cattle germs, foods, technical training of milk production, equipment, repairing the byres, technical training of business management, access to capital)									
D.3.4	Central Government Law related to capital or financing business partnership. Farmers can conduct business partnership in the field of cattle farming based on mutual agreement, strengthening, beneficial, respect, responsibility, dependency, and justice									
D.4	Threat									
D.4.1	Lack in regulation and program implementation by the government and financial institution									
D.4.2	Minimum information reach SME dairy farmers									
D.4.3	World Trade Organization (WTO) regulation to protect farmers backfired									
D.4.4	Higher rate of Interest									
<b>E</b>	<b>IMPORTATION REGULATION OF LIVE DAIRY CATTLE, SEMEN ETC</b>									
E.1	Strength									
E.1.1	The Government and / or the Regional Government in accordance with its authority are obliged to undertake breeding, development of seeding and / or breeding business by involving the participation of the									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
	community to ensure the availability of seeds and by encouraging the application of reproductive technology									
E.1.2	Every seed in circulation shall have a seed certificate containing information about the pedigree and its superiority features. Seed certificates are issued by an accredited seed certification institution or designated by the Minister									
E.1.3	Seed importation can be done to: a) improve genetic quality and diversity; b) develop science and technology; c) overcome the shortage of seed in the country; and d) meet research and development needs									
E.1.4	Seed exportation from domestic to foreign country can be done if domestic requirement has been fulfilled and the preservation of local Livestock has been guaranteed									
<b>E.2</b>	<b>Weaknesses</b>									
E.2.1	Imports of large ruminant permit is difficult to obtain by the farmers									
E.2.2	Importation requirements are difficult to achieve by the farmers									
E.2.3	Farmer's lack of knowledge on importation regulation of live dairy cattle, semen etc									
E.2.4	Increase in input costs									
<b>E.3</b>	<b>Opportunities</b>									
E.3.1	Improving the profitability and commercial viability of Smallholder dairies (SHD)									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
E.3.2	Processor SHD pricing and supply policy (to promote farm growth and improve milk quality)									
E.3.3	Product and marketing development support policy for KUDs or SHDs									
E.3.4	Support for refrigeration/ cold chain development									
E.4	Threat									
E.4.1	Animal welfare issue									
E.4.2	Government Insufficient information socialization on importation regulation of live dairy cattle, semen etc									
E.4.3	Restriction on importation quota of live dairy cattle, semen etc									
E.4.4	Congenital disease from importing country									
<b>F</b>	<b>IMPORTATION OF DAIRY PRODUCTS</b>									
F.1	Strength									
F.1.1	Imported dairy food products in retail packaging shall be registered with the Indonesian Food & Drug Control Authority (BPOM)									
F.1.2	Dairy product imports require a recommendation letter from the Ministry of Agriculture (MOA) and should go through a technical verification process by an appointed surveyor									
F.1.3	Importer / brand owner needs to apply for the “establishment approval” from MOA									
F.1.4	Value-added tax of 10% is applied for imports									
F.2	Weaknesses									
F.2.1	Products in bulk packaging for further processing may not be subject to registration									
F.2.2	Increase in input costs									

No	Questions	VB	B	G	VG	VUI	NI	I	VI	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
F.2.3	Indonesia's imported dairy products regulation has not benefited the domestic dairy industry									
F.2.4	Importation requirements are difficult to achieve by local processing industries									
<b>F.3</b>	<b>Opportunities</b>									
F.3.1	Significant increase in the demand for dairy products. Domestic milk consumption per capita stood at 11.8 liter in 2017, since 2015 demand has been growing steadily with 5% annually and is expected to continue the trend.									
F.3.2	National dairy product needs exceed national dairy production									
F.3.3	The real price of domestic milk has a positive and significant effect on the volume of milk imports									
F.3.4	Meet the increasing demand in Indonesia for safe milk supply									
<b>F.4</b>	<b>Threat</b>									
F.4.1	Reputation of food safety, such as unmonitored labelling (fresh milk products vs reconstituted / UHT products)									
F.4.2	The liberalization of milk and milk powder imports									
F.4.3	Inflation on dairy products									
F.4.4	Pandemic crisis									

----- Thank You -----





PRESIDEN  
REPUBLIK INDONESIA

**SALINAN**

UNDANG-UNDANG REPUBLIK INDONESIA

NOMOR 11 TAHUN 2020

TENTANG

CIPTA KERJA

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

- Menimbang :
- a. bahwa untuk mewujudkan tujuan pembentukan Pemerintah Negara Indonesia dan mewujudkan masyarakat Indonesia yang sejahtera, adil, dan makmur berdasarkan Pancasila dan Undang-Undang Dasar Negara Republik Indonesia Tahun 1945, Negara perlu melakukan berbagai upaya untuk memenuhi hak warga negara atas pekerjaan dan penghidupan yang layak bagi kemanusiaan melalui cipta kerja;
  - b. bahwa dengan cipta kerja diharapkan mampu menyerap tenaga kerja Indonesia yang seluas-luasnya di tengah persaingan yang semakin kompetitif dan tuntutan globalisasi ekonomi;
  - c. bahwa untuk mendukung cipta kerja diperlukan penyesuaian berbagai aspek pengaturan yang berkaitan dengan kemudahan, perlindungan, dan pemberdayaan koperasi dan usaha mikro, kecil, dan menengah, peningkatan ekosistem investasi, dan percepatan proyek strategis nasional, termasuk peningkatan perlindungan dan kesejahteraan pekerja;
  - d. bahwa pengaturan yang berkaitan dengan kemudahan, perlindungan, dan pemberdayaan koperasi dan usaha mikro, kecil, dan menengah, peningkatan ekosistem investasi, dan percepatan proyek strategis nasional, termasuk peningkatan perlindungan dan kesejahteraan pekerja yang tersebar di berbagai Undang-Undang sektor saat ini belum dapat memenuhi kebutuhan hukum untuk percepatan cipta kerja sehingga perlu dilakukan perubahan;

e. bahwa . . .

SK No 052692 A

**Annex 4. Central Government Law Number 78 of 2019**



PRESIDEN  
REPUBLIK INDONESIA

**SALINAN**

PERATURAN PEMERINTAH REPUBLIK INDONESIA

NOMOR 78 TAHUN 2019

TENTANG

FASILITAS PAJAK PENGHASILAN UNTUK PENANAMAN MODAL  
DI BIDANG-BIDANG USAHA TERTENTU DAN/ATAU  
DI DAERAH-DAERAH TERTENTU

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

- Menimbang : a. bahwa untuk lebih mendorong dan meningkatkan kegiatan penanaman modal langsung, baik dari sisi pertumbuhan ekonomi, berkembangnya sektor usaha, kepastian hukum guna perbaikan iklim usaha yang lebih kondusif bagi kegiatan penanaman modal langsung di bidang-bidang usaha tertentu dan/atau di daerah-daerah tertentu yang mendapat prioritas tinggi dalam skala nasional, serta pemerataan dan percepatan pembangunan bagi bidang-bidang usaha tertentu dan/atau di daerah-daerah tertentu, perlu mengganti Peraturan Pemerintah Nomor 18 Tahun 2015 tentang Fasilitas Pajak Penghasilan untuk Penanaman Modal di Bidang-bidang Usaha Tertentu dan/atau di Daerah-daerah Tertentu yang telah diubah dengan Peraturan Pemerintah Nomor 9 Tahun 2016 tentang



PRESIDEN  
REPUBLIK INDONESIA

PERATURAN PEMERINTAH REPUBLIK INDONESIA

NOMOR 6 TAHUN 2013

TENTANG

PEMBERDAYAAN PETERNAK

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

Menimbang : bahwa untuk melaksanakan ketentuan Pasal 76 ayat (5) Undang-Undang Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan, perlu menetapkan Peraturan Pemerintah tentang Pemberdayaan Peternak;

Mengingat : 1. Pasal 5 ayat (2) Undang-Undang Dasar Negara Republik Indonesia Tahun 1945;  
2. Undang-Undang Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 84, Tambahan Lembaran Negara Republik Indonesia Nomor 5015);

MEMUTUSKAN:

Menetapkan : PERATURAN PEMERINTAH TENTANG PEMBERDAYAAN PETERNAK.

BAB I  
KETENTUAN UMUM

Pasal 1

Dalam Peraturan Pemerintah ini yang dimaksud dengan:

Annex 6. President Decree Number 49 of 2021



PRESIDEN  
REPUBLIK INDONESIA

**SALINAN**

PERATURAN PRESIDEN REPUBLIK INDONESIA

NOMOR 49 TAHUN 2021

TENTANG

PERUBAHAN ATAS PERATURAN PRESIDEN NOMOR 10 TAHUN 2021

TENTANG BIDANG USAHA PENANAMAN MODAL

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

- Menimbang : a. bahwa dalam rangka pembatasan pelaksanaan Penanaman Modal serta pengendalian dan pengawasan minuman yang mengandung alkohol, perlu dilakukan perubahan Peraturan Presiden Nomor 10 Tahun 2021 tentang Bidang Usaha Penanaman Modal;
- b. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a, perlu menetapkan Peraturan Presiden tentang Perubahan Atas Peraturan Presiden Nomor 10 Tahun 2021 tentang Bidang Usaha Penanaman Modal;
- Mengingat : 1. Pasal 4 ayat (1) Undang-Undang Dasar Negara Republik Indonesia Tahun 1945;
2. Undang-Undang Nomor 25 Tahun 2007 tentang Penanaman Modal (Lembaran Negara Republik Indonesia Tahun 2007 Nomor 67, Tambahan Lembaran Negara Republik Indonesia Nomor 4724);

**Annex 7. President Decree Number 10 of 2021**



PRESIDEN  
REPUBLIK INDONESIA

**SALINAN**

**PERATURAN PRESIDEN REPUBLIK INDONESIA**

**NOMOR 10 TAHUN 2021**

**TENTANG**

**BIDANG USAHA PENANAMAN MODAL**

**DENGAN RAHMAT TUHAN YANG MAHA ESA**

**PRESIDEN REPUBLIK INDONESIA,**

- Menimbang** : bahwa untuk melaksanakan ketentuan Pasal 77 dan Pasal 185 huruf b Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja, perlu menetapkan Peraturan Presiden tentang Bidang Usaha Penanaman Modal;
- Mengingat** :
1. Pasal 4 ayat (1) Undang-Undang Dasar Negara Republik Indonesia Tahun 1945;
  2. Undang-Undang Nomor 25 Tahun 2007 tentang Penanaman Modal (Lembaran Negara Republik Indonesia Tahun 2007 Nomor 67, Tambahan Lembaran Negara Republik Indonesia Nomor 4724);
  3. Undang-Undang Nomor 11 Tahun 2020 tentang Cipta Kerja (Lembaran Negara Republik Indonesia Tahun 2020 Nomor 245, Tambahan Lembaran Negara Republik Indonesia Nomor 6573);

## Annex 8. Regulation of Minister of Agriculture Number 33 Year 2018



PERATURAN MENTERI PERTANIAN REPUBLIK INDONESIA  
NOMOR 33/PERMENTAN/PK.450/7/2018  
TENTANG  
PERUBAHAN KEDUA ATAS PERATURAN MENTERI PERTANIAN  
NOMOR 26/PERMENTAN/PK.450/7/2017 TENTANG  
PENYEDIAAN DAN PEREDARAN SUSU

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PERTANIAN REPUBLIK INDONESIA,

- Menimbang : a. bahwa dengan Peraturan Menteri Pertanian Nomor 26/Permentan/PK.450/7/2017 tentang Penyediaan dan Peredaran Susu sebagaimana telah diubah dengan Peraturan Menteri Pertanian Nomor 30/Permentan/PK.450/7/2018 tentang Perubahan atas Peraturan Menteri Pertanian Nomor 26/Permentan/PK.450/7/2017 tentang Penyediaan dan Peredaran Susu, telah diatur kemitraan antara pelaku usaha dengan peternak, gabungan kelompok peternak, dan/atau koperasi;
- b. bahwa untuk menciptakan kesempatan berusaha dan iklim investasi yang kondusif, perlu mengubah Peraturan Menteri Pertanian Nomor 26/Permentan/PK.450/7/2017 tentang Penyediaan dan Peredaran Susu sebagaimana telah diubah dengan Peraturan Menteri Pertanian Nomor 30/

## Annex 9. Regulation of Minister of Agriculture Number 30 Year 2018



PERATURAN MENTERI PERTANIAN REPUBLIK INDONESIA  
NOMOR 30/PERMENTAN/PK.450/7/2018  
TENTANG  
PERUBAHAN ATAS PERATURAN MENTERI PERTANIAN  
NOMOR 26/PERMENTAN/PK.450/7/2017 TENTANG  
PENYEDIAAN DAN PEREDARAN SUSU

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PERTANIAN REPUBLIK INDONESIA,

- Menimbang : a. bahwa dengan Peraturan Menteri Pertanian Nomor 26/Permentan/PK.450/7/2017 tentang Penyediaan dan Peredaran Susu, telah diatur kemitraan antara pelaku usaha dengan peternak, gabungan kelompok peternak, dan/atau koperasi;
- b. bahwa agar kemitraan antara pelaku usaha dengan peternak, gabungan kelompok peternak, dan/atau koperasi lebih efektif dan efisien, perlu mengubah Peraturan Menteri Pertanian Nomor 26/Permentan/PK.450/7/2017 tentang Penyediaan dan Peredaran Susu;
- c. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a dan huruf b, perlu menetapkan Peraturan Menteri Pertanian tentang Perubahan atas Peraturan Menteri Pertanian Nomor 26/Permentan/PK.450/7/2017 tentang Penyediaan dan Peredaran Susu;



**Annex 10. Regulation of Minister of Agriculture Number 26 Year 2017**



**MENTERI PERTANIAN  
REPUBLIK INDONESIA**

**PERATURAN MENTERI PERTANIAN REPUBLIK INDONESIA  
NOMOR 26/PERMENTAN/PK.450/7/2017  
TENTANG  
PENYEDIAAN DAN PEREDARAN SUSU**

**DENGAN RAHMAT TUHAN YANG MAHA ESA**

**MENTERI PERTANIAN REPUBLIK INDONESIA,**

- Menimbang :
- a. bahwa susu segar memiliki kandungan gizi yang masih utuh dan sangat tinggi serta bermanfaat bagi kesehatan dan kecerdasan;
  - b. bahwa dalam rangka memenuhi kebutuhan protein hewani, mewujudkan kemandirian pangan, dan meningkatkan kesejahteraan masyarakat, perlu meningkatkan produksi susu nasional;
  - c. bahwa untuk meningkatkan produksi susu nasional diperlukan sinergi pelaku usaha;
  - d. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a, huruf b, dan huruf c, serta untuk melaksanakan ketentuan Pasal 37 Undang-Undang Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan sebagaimana telah diubah dengan Undang-Undang Nomor 41 Tahun 2014 tentang Perubahan atas Undang-Undang Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan, perlu menetapkan Peraturan Menteri Pertanian tentang Penyediaan dan Peredaran Susu;



## Annex 11. Regulation of The Trade Minister Number 29 of 2019



**MENTERI PERDAGANGAN REPUBLIK INDONESIA**

**PERATURAN MENTERI PERDAGANGAN REPUBLIK INDONESIA  
NOMOR 29 TAHUN 2019  
TENTANG  
KETENTUAN EKSPOR DAN IMPOR HEWAN DAN PRODUK HEWAN**

**DENGAN RAHMAT TUHAN YANG MAHA ESA**

**MENTERI PERDAGANGAN REPUBLIK INDONESIA,**

- Menimbang** : a. bahwa untuk lebih meningkatkan efektivitas pelaksanaan kebijakan ekspor dan impor hewan dan produk hewan, perlu melakukan pengaturan kembali ketentuan ekspor dan impor hewan dan produk hewan;
- b. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a, perlu menetapkan Peraturan Menteri Perdagangan tentang Ketentuan Ekspor dan Impor Hewan dan Produk Hewan;
- Mengingat** : 1. Undang-Undang Nomor 16 Tahun 1992 tentang Karantina Hewan, Ikan dan Tumbuhan (Lembaran Negara Republik Indonesia Tahun 1992 Nomor 56, Tambahan Lembaran Negara Republik Indonesia Nomor 3482);
2. Undang-Undang Nomor 7 Tahun 1994 tentang

## Annex 12. Regulation of Minister of Agriculture Number 49 Year 2016



PERATURAN MENTERI PERTANIAN REPUBLIK INDONESIA  
NOMOR 49/Permentan/PK.440/10/2016  
TENTANG  
PEMASUKAN TERNAK RUMINANSIA BESAR  
KE DALAM WILAYAH NEGARA REPUBLIK INDONESIA

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PERTANIAN REPUBLIK INDONESIA,

- Menimbang : a. bahwa Peraturan Menteri Pertanian Nomor 16/Permentan/PK.440/5/2016 tentang Pemasukan Ternak Ruminansia Besar ke dalam Wilayah Negara Republik Indonesia, dalam pelaksanaannya tidak sesuai dengan perkembangan dan kebutuhan;
- b. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a dan untuk memenuhi ketersediaan daging, mempercepat peningkatan populasi serta optimalisasi pelayanan pemberian rekomendasi pemasukan ternak ruminansia besar, perlu menetapkan Peraturan Menteri Pertanian tentang Pemasukan Ternak Ruminansia Besar ke dalam Wilayah Negara Republik Indonesia;
- Mengingat : 1. Undang-Undang Nomor 16 Tahun 1992 tentang Karantina Hewan, Ikan, dan Tumbuhan (Lembaran Negara Republik Indonesia Tahun 1992 Nomor 56, Tambahan Lembaran Negara Republik Indonesia Nomor 3482);
2. Undang-Undang Nomor 7 Tahun 1994 tentang Pengesahan *Agreement Establishing the World Trade Organization* (Persetujuan Pembentukan Organisasi Perdagangan Dunia) (Lembaran Negara Republik Indonesia Tahun 1994 Nomor 57, Tambahan Lembaran Negara Republik Indonesia Nomor 3564);

**Annex 13. Regulation of Minister of Agriculture Number 13 Year 2017**



PERATURAN MENTERI PERTANIAN REPUBLIK INDONESIA  
NOMOR 13/PERMENTAN/PK.240/5/2017  
TENTANG  
KEMITRAAN USAHA PETERNAKAN

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PERTANIAN REPUBLIK INDONESIA,

- Menimbang :
- a. bahwa kerja sama di bidang usaha pertanian telah diatur dalam Keputusan Menteri Pertanian Nomor 940/Kpts/OT.210/10/1997 tentang Pedoman Kemitraan Usaha Pertanian;
  - b. bahwa dalam rangka meningkatkan skala dan efisiensi usaha peternakan, kemampuan ekonomi peternak atau pelaku usaha, akses pasar, daya saing, dan membangun sinergi saling menguntungkan, serta berkeadilan, perlu ditetapkan kemitraan usaha peternakan;
  - c. bahwa dengan adanya perkembangan kebijakan mengenai kemitraan usaha, dan untuk melaksanakan ketentuan Pasal 31 Undang-Undang Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan sebagaimana telah diubah dengan Undang-Undang Nomor 41 Tahun 2014 tentang Perubahan atas Undang-Undang Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan, Pasal 19 sampai dengan Pasal 22 Peraturan Pemerintah Nomor 6 Tahun 2013 tentang Pemberdayaan Peternak, dan Pasal 21 Peraturan Presiden Nomor 48 Tahun 2013 tentang Budi Daya Hewan Peliharaan, perlu menetapkan Peraturan Menteri Pertanian tentang Kemitraan Usaha Peternakan;

## Annex 14. Regulation of the Minister of Finance Number 9 Year 2021



MENTERI KEUANGAN  
REPUBLIK INDONESIA

**SALINAN**

PERATURAN MENTERI KEUANGAN REPUBLIK INDONESIA

NOMOR 9/PMK.03/2021

TENTANG

INSENTIF PAJAK UNTUK WAJIB PAJAK TERDAMPAK  
PANDEMI *CORONA VIRUS DISEASE* 2019

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI KEUANGAN REPUBLIK INDONESIA,

- Menimbang :
- a. bahwa pandemi *Corona Virus Disease* 2019 merupakan bencana nasional yang mempengaruhi stabilitas ekonomi dan produktivitas masyarakat sebagai pekerja maupun pelaku usaha sehingga perlu dilakukan upaya pengaturan pemberian insentif pajak untuk mendukung penanggulangan dampak *Corona Virus Disease* 2019;
  - b. bahwa untuk melakukan penanganan dampak pandemi *Corona Virus Disease* 2019, perlu dilakukan perpanjangan waktu insentif perpajakan yang diperlukan selama masa pemulihan ekonomi nasional dengan memberikan kemudahan pemanfaatan insentif yang lebih luas;
  - c. bahwa Peraturan Menteri Keuangan Nomor 86/PMK.03/2020 tentang Insentif Pajak untuk Wajib

**Annex 15. Regulation of the Minister of Finance Number 82 Year 2021**



MENTERI KEUANGAN  
REPUBLIK INDONESIA

**SALINAN**

PERATURAN MENTERI KEUANGAN REPUBLIK INDONESIA  
NOMOR 82 /PMK.03/2021  
TENTANG  
PERUBAHAN ATAS PERATURAN MENTERI KEUANGAN  
NOMOR 9/PMK.03/2021 TENTANG INSENTIF PAJAK UNTUK WAJIB PAJAK  
TERDAMPAK PANDEMI *CORONA VIRUS DISEASE* 2019

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI KEUANGAN REPUBLIK INDONESIA,

- Menimbang : a. bahwa untuk penanganan dampak pandemi *Corona Virus Disease* 2019 masih diperlukan pemberian insentif perpajakan, sehingga diperlukan perpanjangan jangka waktu pemberian insentif pajak dengan memperhatikan kapasitas fiskal untuk mendukung program penguatan kesehatan masyarakat dan mempercepat pemulihan ekonomi nasional;
- b. bahwa pemberian insentif perpajakan harus diberikan secara selektif dengan prioritas kepada sektor tertentu yang tertahan dan perlu lebih didukung laju pemulihannya, sehingga dilakukan penyesuaian

**Annex 16. Regulation of the Minister of Finance Number 68 Year 2021**



MENTERI KEUANGAN  
REPUBLIK INDONESIA

**SALINAN**

PERATURAN MENTERI KEUANGAN REPUBLIK INDONESIA

NOMOR 68/PMK.010/2021

TENTANG

BEA MASUK DITANGGUNG PEMERINTAH ATAS IMPOR BARANG DAN BAHAN  
UNTUK MEMPRODUKSI BARANG DAN/ATAU JASA  
OLEH INDUSTRI SEKTOR TERTENTU YANG TERDAMPAK PANDEMI  
*CORONA VIRUS DISEASE 2019 (COVID-19)* TAHUN 2021

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI KEUANGAN REPUBLIK INDONESIA,

- Menimbang :
- a. bahwa pandemi *Corona Virus Disease 2019 (COVID-19)* telah berdampak pada produktivitas sektor industri tertentu, ketersediaan bahan baku industri di dalam negeri, penyerapan tenaga kerja, yang berakibat pada menurunnya pertumbuhan ekonomi dan penerimaan negara, serta stabilitas ekonomi;
  - b. bahwa untuk mempercepat pemulihan ekonomi melalui peningkatan produktivitas sektor industri tertentu, menjamin ketersediaan bahan baku industri di dalam negeri, dan penyerapan tenaga kerja, guna meningkatkan pertumbuhan ekonomi, penerimaan negara, dan stabilitas ekonomi, perlu memberikan insentif fiskal