

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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Indonesia

Grain and Feed Annual

Indonesia Grain and Feed Annual Report 2018

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Report Highlights:

Rice production in 2018/19 is forecast to increase only slightly, and low stocks and high prices will continue to require rice imports. Similarly, corn production is forecast to increase slightly as well, but imported feed quality wheat will still be needed to supplement insufficient domestic corn supplies. Indonesia will remain an important market for U.S. wheat.

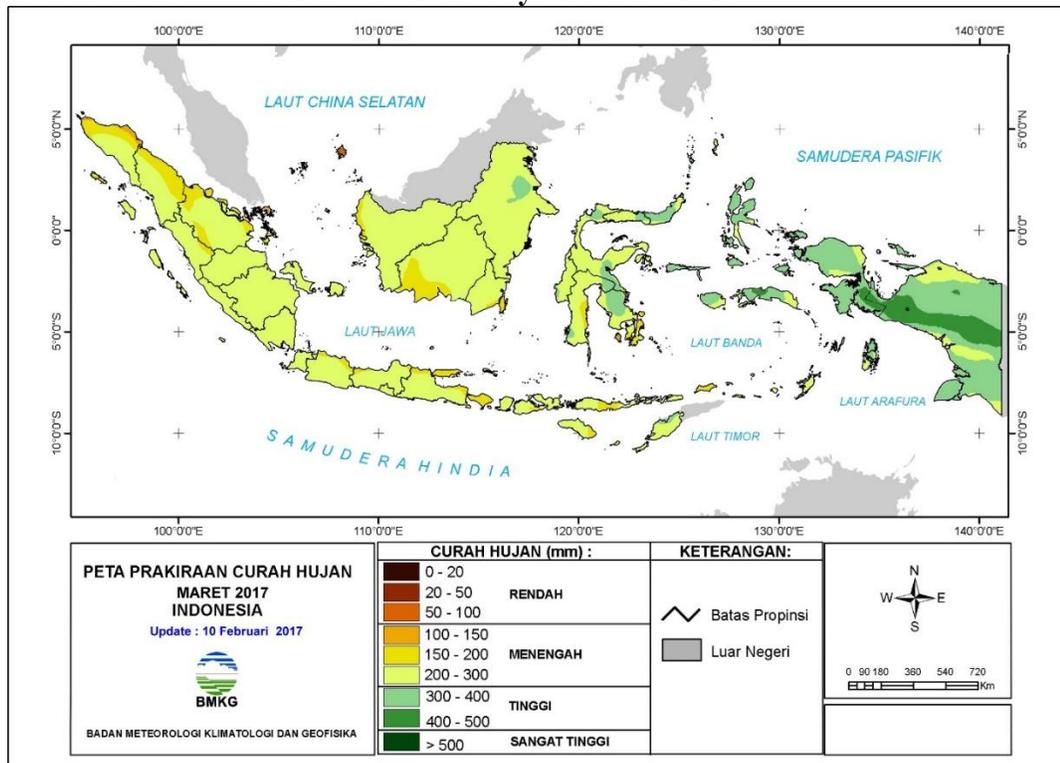
SECTION I. SITUATION AND OUTLOOK

The Indonesian Meteorology, Climatology, and Geophysics Agency (*BMKG, Badan Meteorologi, Klimatologi, dan Geofisika*) on March 15, 2018 reported that:

1. According to conditions in the Equatorial Pacific at the end February 2018, a-weak La Nina with a tendency to turn colder is predicted to continue until May 2018 and will lead to neutral conditions in June-July 2018. Therefore, it is likely that the beginning of 2018 dry season in Indonesia will not be significantly affected by El Nino/La Nina conditions.
2. The onset of dry season will arrive in April, May and June 2018 for various parts of Indonesia, with the peak of the dry season to occur in August through September 2018.
3. Compared to the 30 year average, the onset of 2018 dry season will arrive later than normal in 53 percent of Indonesia and will arrive during the normal time in 35 percent.
4. Rainfall intensity will be average in 57 percent of Indonesia and will be higher than average in 37 percent.

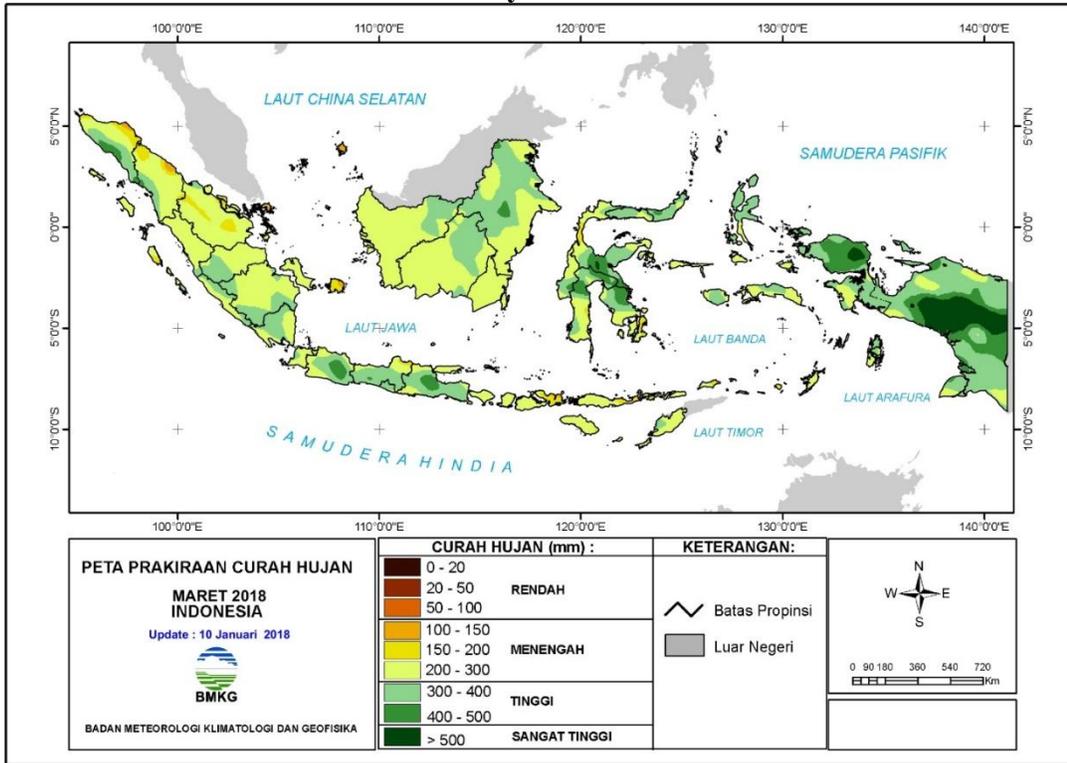
Should the prediction of a weak La Nina during the second crop cycle and later arrival of the dry season onset materialize, Indonesia may have an opportunity to increase 2017/18 paddy production as farmers on rain-fed low land area may switch to paddy from corn during the second crop cycle of March to June 2018. There is also an opportunity to increase rice production due to the potential increase of cropping intensity on irrigated area.

Chart 1. Forecast of Rainfall Intensity in March 2017



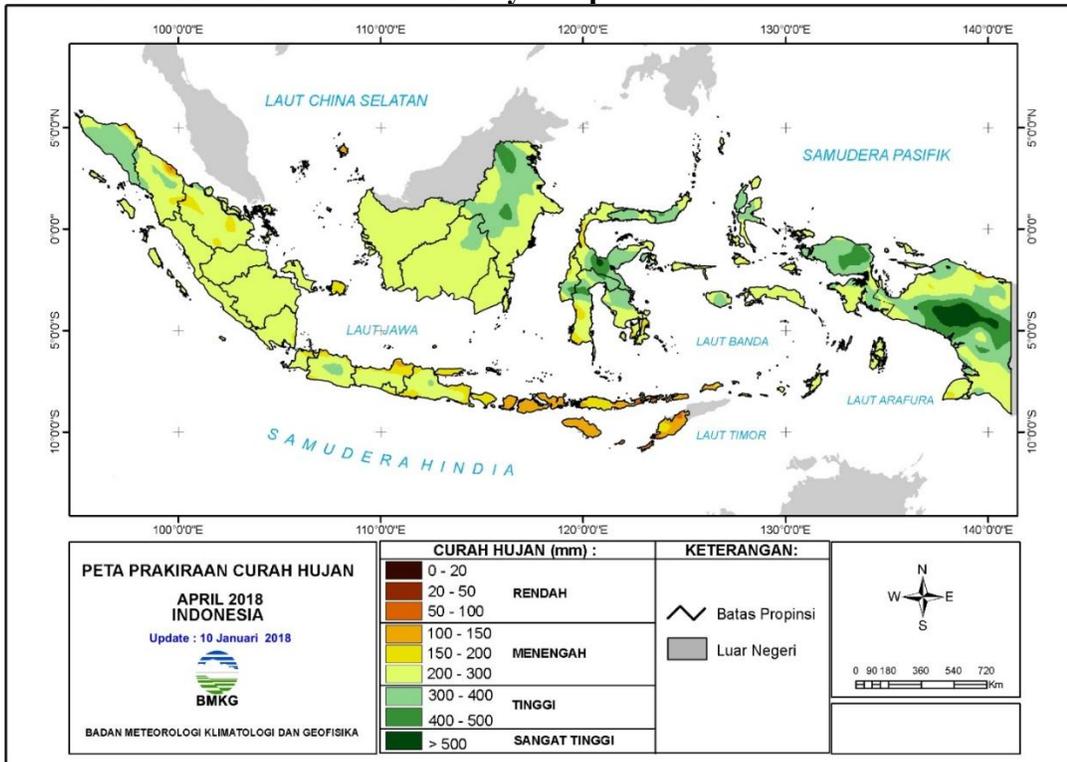
Source: BMKG

Chart 2. Forecast of Rainfall Intensity in March 2018



Source: BMKG

Chart 3. Forecast of Rainfall Intensity in April 2018



Source: BMKG

Indonesia is divided into 90 River Area Units (*Satuan Wilayah Sungai, SWS*) consisting of 5,000 river basin areas (*Daerah Aliran Sungai, DAS*). Water Resources Law No. 7/2004 states that the primary objective of Indonesia's water conservation policy is to ensure enough water for agriculture. The Government of Indonesia (GOI) and provincial governments are responsible for primary and secondary irrigation development, while farmer groups are responsible for tertiary irrigation development and improvement. According to the Indonesian Ministry of Public Works (MPW), approximately 84 percent of Indonesian harvested rice area was irrigated, while the remaining 16 percent was rain fed.

The following table shows water levels at West Java as of March 15, 2018:

Table 1. Water Elevation at West Java Water Reservoirs, March 15, 2018.

No.	Reservoir	Elevation & Volume				Elevation Deviation (m)	Vol. Deviation (mil.m ³)	Drought Prep. Elev. (m)	Status
		Target		Observed					
		Elev. (m)	Vol. (mil.m ³)	Elev. (m)	Vol. (mil.m ³)				
1.	Jatiluhur	93.73	360.62	102.06	n/a	8.33	n/a	87.50	Normal
2.	Cirata	209.52	160.87	214.74	n/a	5.22	n/a	206.00	Normal
3.	Saguling	631.50	138.97	639.84	n/a	8.31	n/a	625.00	Normal

Source: Indonesian Min. of Public Works, Perum Jasa Tirta II (March 15, 2018), processed by FAS/Jakarta.

Note: "Deficit" indicates water levels lower than target, but above drought condition levels

Wheat

With expectations for higher 2018/19 corn production reducing feed mills' demand for wheat, 2018/19 wheat imports are forecast to slightly decline to 12.3 million tons. Similarly, 2018/19 wheat consumption for feed is expected to decline to 2.0 million tons from 3.2 million tons in 2017/18. The significant increase in wheat imports and wheat consumption in 2017/18 is due to GOI's corn import restrictions. FSI wheat use is forecast to continue growing to 9.3 million tons in 2018/19, in line with higher demand from the high end bakery sector and population growth.

Corn

Favorable growing conditions during the second crop cycle of 2018/19 are forecast to marginally increase area harvested to 3.5 million hectares. Compared to 2016/17, 2017/18 harvested area is forecast to decline to 3.45 million hectares as better rainfall during the second crop cycle of 2017/18 provides more opportunity for farmers to switch to paddy from corn. However, 2017/18 corn production is estimated to slightly increase due to better yield gained from better quality seed. Corn import restrictions remain in place for feed use. However, with the entrance of a new player in corn wet milling, 2018/19 corn imports are forecast to marginally increase to 600,000 tons.

Rice

Rice production in 2018/19 is forecast to increase to 37.3 million tons milled rice due to better yield from less pest and disease incidents and larger harvested area. Second crop paddy is currently ongoing with larger harvested area expected due to some corn area switching to paddy. The Ministry of Trade authorized 500,000 tons of imports for 2017/18; however, as of March 15, 2018, the National Logistics Agency (BULOG) only imported about 261,000 tons from Vietnam and Thailand. GOI extended the importing period through June 2018 to allow BULOG to fulfill the authorized volume, and total commitments are approaching 500,000 tons. Considering GOI's anti-import policy and forecast for increased production, 2018/19 rice imports are forecast to decline to 800,000 tons.

WHEAT

Production

Indonesia is fully reliant on wheat imports to fulfill demand for wheat flour-based food and as an ingredient for poultry and livestock feed.

Trade

Currently, twenty-seven flour mills operate under twenty-five companies, with a total installed capacity of 11.5 million tons per annum, an increase from 11.4 million tons in 2016/17. Most of the mills are located on Java. Running capacity of the mills reached 70 percent in 2016/17. The industry is estimated to grow five percent in 2017/18 due to relatively lower prices of wheat flour and wheat flour-based food compared to rice.

The Ministry of Agriculture (MOA) is expected to continue to ban corn imports for poultry and livestock feed. MOA forces feed mills to buy domestic corn, which is among the highest priced in the world, to meet energy needs in feed rations. Unlike like in 2016 when the corn import restrictions led to a surge of feed grade wheat imports, in 2017 MOA "unofficially" regulated imports of feed grade wheat by feed mills. There is no written regulation related to the import restriction; however, MOA enforces restrictions by refusing to issue import recommendations for feed wheat. For 2017/18, MOA only allowed feed mills to import a total of 200,000 tons of feed grade wheat. Approximately 186,000 tons were allocated for feed mills at the end of 2017. However, during 2017/18, buyers will import about another 3 million tons as wheat for flour milling, but then sell it to feed mills for livestock and poultry feed.

Table 2. Indonesian Wheat Imports by HS Code (2016 – 2017, in MT)

No.	HS Code	Description	2016	2017	Change (%)
1.	1001.19.00	Durum wheat, other than seed	390,543	52,905	(86)
2.	1001.99.12	Wheat grain w/o husk, fit for human consumption	6,879,927	7,290,868	6
3.	1001.99.19	Other wheat, other seed, fit for human consumption	1,453,258	3,928,201	170
4.	1001.99.99	Other meslin, not fit for human consumption	1,810,944	204,613	(89)

5.		Total	10,534,672	11,476,588	9
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Source: Indonesian Statistics Agency (BPS).

With expectations for higher domestic corn supplies, and stable flour demand, wheat imports are forecast to decrease slightly in 2018/19. Nonetheless, to circumvent the corn import ban, local importers are still expected to import 2 million tons of wheat for feed use.

The surge in wheat imports to replace high-priced domestic corn has altered the origins of Indonesia's wheat imports. Australia and Ukraine currently dominate the market with 30 and 29 percent market share, respectively. Russia (14percent) took over Canada (13percent) as the third largest supplier. Australia's majority market share is due to the noodle industry's preference for Australian standard white wheat, price, and Australia's close proximity. Ukraine is expected to supply approximately 1.8 million tons, mostly feed quality grade wheat, through the end of 2018. The United States remains the fifth largest wheat supplier with 12 percent market share. U.S. wheat exports to Indonesia in 2017/18 are expected to surpass one million tons.

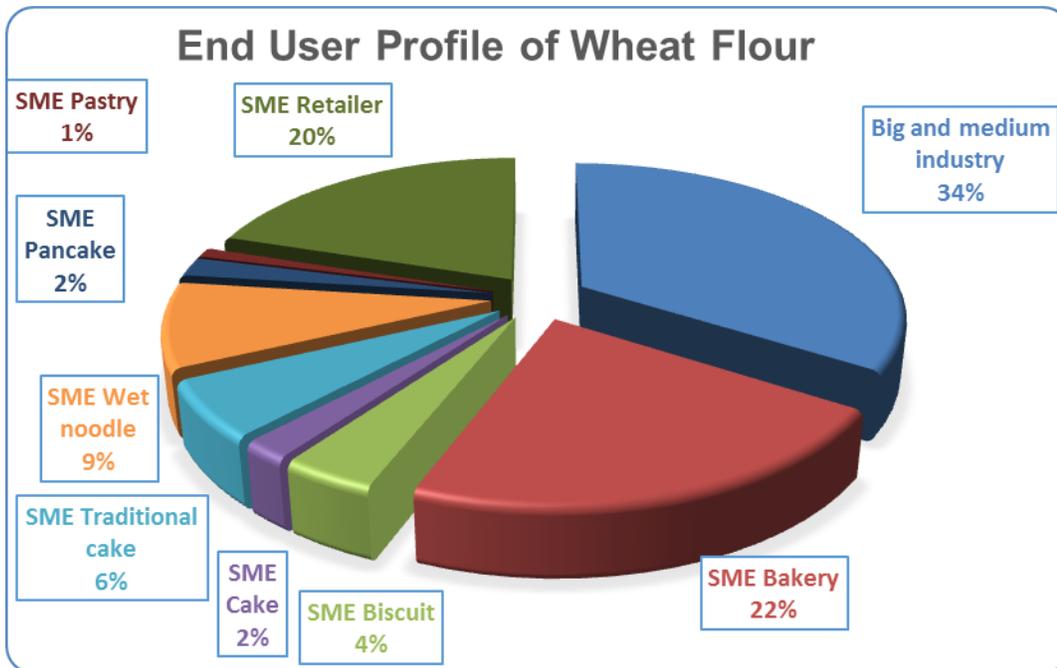
During the first semester of 2017/18, wheat flour imports declined 58 percent to 21,900 tons wheat equivalent, compared to 52,085 tons during the same period of 2016/17. The decline was mainly due to the continued weakness of rupiah against the U.S. dollar. Domestic flour will continue to dominate the market throughout 2017/18 with a 98.9 percent market share. Turkey held the largest wheat flour market share (39 percent), followed by the Romania (27 percent), South Korea (12 percent), and Canada (10 percent).

Consumption

In 2017/18, FSI wheat consumption is estimated to increase to 8.9 million tons. In line with population and economic growth, human consumption 2018/19 is then forecast to further increase to 9.3 million tons.

About 66 percent of local mills' customers are small and medium sized wheat-food producers. These include small scale wet noodle makers, street food vendors, low end bread and bakery businesses, and traditional Indonesian cake makers. Instant noodle manufacturers, middle and upper end bakeries, and cookie and biscuit manufacturers share the other 34 percent of the market.

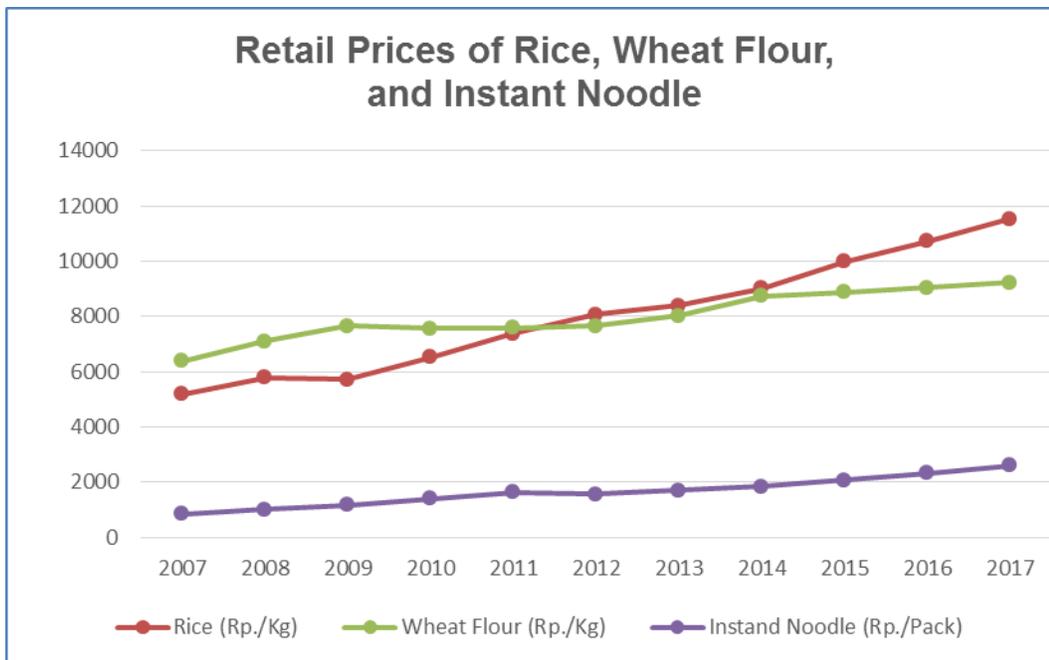
Chart 4.End User Profile of Wheat Flour.



Source: APTINDO.

Instant noodle prices are currently cheaper than rice, and many more lower and middle income consumers substitute instant noodles for breakfast or dinner. The noodle industry continues to grow rapidly, consuming 70 percent of Indonesia's wheat flour. Bakery industry consumption follows with 20 percent of flour, while household and commercial biscuit producers each consume 10 percent, respectively.

Chart 5. Comparison of Retail Prices of Rice, Wheat Flour and Instant Noodle.



Source: Ministry of Trade, APTINDO.

Flour production costs have increased with higher electricity and labor costs. This is exacerbated by the rupiah's weakening exchange rate against the U.S. dollar, valued at an average of Rp. 13,765 in March 2018, compared to Rp. 13,393/\$1 on March 10, 2017. As a result, the price of Segi Tiga Biru flour at retail markets has increased from Rp. 8,364/kg (\$607 /MT) in December 2017 to Rp. 9,281/kg (\$674/MT) on March 13, 2018.

In 2016/17, annual per capita wheat flour consumption reached an estimated 23 kg, an increase from 22.4 kg per capita per during 2015/16. Relatively stable macro-economic conditions have allowed middle and upper-middle income consumers to diversify their diets to include more western-style foods like bread and pasta. Rather than eating rice three times daily, many Indonesians have switched to eating bread or noodles for breakfast. Restaurants are also driving demand for wheat-based food products. The number of high-end bakeries is also growing, mainly in major cities including Jakarta, Surabaya, Medan, and Bandung.

With expectations for higher corn production, 2018/19 wheat consumption for feed is expected to decline to 2.0 million tons, compared to the estimate of 3.2 million tons in 2017/18.

CORN

Production

Following a slight decline in 2017/18, corn harvested area is forecast to increase to 3.5 million hectares, supported by MOA's government seed and fertilizer subsidy program. Increased use of disease resistant and higher yielding hybrid corn seed is forecast to increase 2018/19 corn production to 11.95 million tons.

Corn is a secondary crops after paddy. Indonesia's first corn season normally takes place from November to February (49 percent). The second season takes place from March to June (37 percent), while the third runs from July to September (14 percent).

**CORN AND RICE CROPPING PATTERN
IN INDONESIAN MAJOR CORN AND RICE PRODUCING AREAS**

Area and Description	Month											
	S	O	N	D	J	F	M	A	M	J	J	A
North Sumatera			Rice/Corn					Corn/Other*				
Lampung: Pattern 1			Rice/Corn				Corn					
Pattern 2			Corn			Cassava/Other*						
Java: Irrigated and Lowlands			Rice					Corn/Other*				
Java: Dry Lands: Pattern 1			Rice/Corn				Chili/Other*					
Pattern 2			Rice/Corn			Cassava/Other*						
West Nusa Tenggara			Corn			Other*/Fallow						
South Sulawesi: Irrigated and Rainfed			Corn				Rice					
South Sulawesi: Dry Lands			Rice/Corn			Corn				Cotton/Other		
			Corn									

Source: CIMT Maize in Indonesia, 2004 modified by FAS Jakarta

Other*: Other secondary crops such as cassava, mung bean, peanut, soybean, sweet potato.

No significant pest or disease incidents were reported during the first corn crop cycle of 2017/18. With the arrival of La Nina weather during the second crop cycle of 2017/18, farmers on lowland and upland rain-fed areas were able to plant 2017/18 first crop cycle on time.

MOA continues to target corn self-sufficiency in 2017/18 by increasing corn planted area by another one million hectares from their 3 million hectare target in 2016/17. However, this area target is unrealistic as neither sufficient land nor seed is available to meet this goal. Reportedly, seed producers have yet to rejuvenate stock following an expansion in sales in 2016/17. Concerns about seed shortages for the second crop cycle of 2017/18 are rising. Hybrid seed corn prices currently range from Rp. 75,000 – Rp. 100,000 per kilogram (\$ 5.45-7.26/kg), an average increase of Rp. 5,000 – Rp. 10,000 per kg (\$363-726/ton) since last year. Seed supply is expected to resume after the second harvest in June 2018. Better yield is expected to be achieved due to the area of hybrid corn reaching 55 percent and less pest and disease incidents.

Meanwhile, in some areas, a combination of factors is causing farmers to switch from corn to other crops. Available water from rainfall will encourage farmers to grow paddy. Some farmers on low land areas in Central Java and East Java are switching from corn to paddy during the second crop cycle, while farmers in Lampung are reportedly switching to cassava from corn. Corn prices at farm level during the 2017/18 first harvest were as low as Rp. 1,800 – 2,000/kg (\$131 – 145/ton), compared to prices as high as Rp. 4,300/kg (\$312/ton) the previous year. The low prices discouraged farmers from growing corn. Meanwhile, cassava prices in Lampung increased from Rp. 250 – 300/kg (\$18 - 22/ton) to Rp. 1,200/kg (\$87/ton) in recent months. Less inputs for growing cassava also leads to farmers favoring that crop. Southern parts of Sumatera contribute approximately 10 percent of the total national corn production.

MOA is in cooperation with a state owned company under the Ministry of Environment and Forestry, Perhutani, to encourage farmers to grow food crops on areas under their authority. MOA expects that farmers can grow corn on a total of 551,540 hectares of Perhutani area in 2017/18, although this reported data has not been confirmed. Farmers on Java continued to take advantage of Perhutani land to expand production during the first and second crops cycle of 2017/18.



Left: Corn in Lampung March 2018, Right: Corn in West Java March 2018



Left: Corn in Lampung planted under

unproductive palm oil trees. Right: Framers are planting corn in Lampung currently.

Consumption

In line with expectations for continued growth in demand for poultry feed, 2018/19 corn consumption for feed is forecast to increase to 8.5 million tons compared to 8.0 million tons in 2017/18. Meanwhile, with more installed corn milling capacity, consumption for food, seed, and industrial use is forecast to increase by 8.3 percent to 3.9 million tons.

The feed mill sector consists of 97 feed mills, with an installed capacity of 24.7 million tons, which is operating at about 70 percent. Approximately 69 mills are located on Java.

Table 3. Indonesian Feed Mills Capacity (Including Aquaculture)

Area	Plants	Capacity (MMT/year)
North and West Sumatera	12	2.78
Southern Sumatera and Lampung	6	1.44
West Java and Jakarta	34	8.82
Central Java	10	2.24
East Java	25	7.055
Kalimantan	3	800
Sulawesi	7	1.545
Total	97	24.68

Source: Indonesian Feed Producers Association (*Asosiasi Produsen Pakan Indonesia, APPI*), 2018.

Table 4. Average Composition of Feed Formulation (In percent).

Animal Species	Corn	Soybean Meal	Rice Bran	Wheat Pollard	Animal By Products	CGM	Palm Kernel Meal	Palm Oil	DDGS
Broiler	50-60	20-30	6	0	5	0	2	4	0
Layer	50	20	10	0	5	3	3	2	4
Poultry Breeder	50-55	20-22	13	5	0	1-2		2-3	1
Swine	40-42	15	18	15	5-6	0	8	1-2	0
Aquaculture	0	30-40	13-14	20	5-6	3	2	2	7
Dairy Cattle	0	0	23-25	15	0	0	10	0	5

Source: APPI, processed by US Grains Council.

Rising domestic corn prices have reduced feed mills' profit margins. In addition, difficulties in meeting demand for energy sources in feed due to domestic corn supply shortages and high prices reduced the amount of corn in feed rations to 30 - 40 percent, compared to 50-60 percent in 2016.

The poultry industry consumes approximately 87 percent of domestic animal feed supplies; aquaculture, 8 percent; and cattle and swine, the remaining 6 percent. Despite GOI intention to reduce poultry population by culling poultry DOC (Day Old Chicks), weak enforcement of the regulation means the poultry population in 2017/18 will be about the same as in 2016/17. On the other hand, continuous growth of the middle class will drive higher demand for protein sources in daily diets. Consumer preference for more practical, processed chicken meat has led broiler growers to produce heavier birds, resulting in a longer growing period and more feed consumption.

Table 5. Forecast of Poultry Population and Harvest Days

Poultry	2017	2018
Breeder	24.8	20
Broiler	3,500	3,200
Layer	200	218
Growing Days	28-30	32-35

Source: Indonesian Feed Mills Association (GPMT), 2018.

Note: Population in millions of birds.

So, while flock numbers are estimated to be unchanged, heavier slaughter weights is expected to lead to 5 percent growth in commercial poultry feed consumption, reaching 18.4 million tons in 2017/18, compared to 17.5 million tons in 2016/17.

MOA restricts both corn and corn substitute imports, so feed mills must rely on locally-stored corn for their needs. As a result, large feed mills are building more silos.

A new player in corn wet milling has been operational since April 2017. The new mill produces corn starch, corn gluten meal, glucose, and fructose for the domestic market. The new mill's installed capacity of 250,000 tons per annum gives addition to the existing corn wet mill capacity of approximately 330,000 tons per annum. Unlike feed mills, which prefer flint corn with high fat and protein content, wet mills favor dent corn with higher starch content.

Physical properties

DENT CORN (import USA/Argentine/Brazil)	FLINT CORN (local)
	
100 kernels = 37 gram → Bigger size per kernel	100 kernels = 28 gram → Smaller size per kernel
Pale more white color → Higher starch content	Bright yellow color → higher protein content
Softer: shorter steeping time → Lower production cost	Harder: need longer steeping time. → Higher production cost for CWM

Nutritional value

Parameters	Flint corn (local ex Makasar)	Dent Corn (Import ex USA)
Moisture content	13.14%	13.76%
Ash content	1.01%	0.92%
Fat content	3.32%	2.81%
Protein content	8.36%	4.99%
Fiber	3.45%	0.40%
Starch by titration (luff schoorl)	66.52%	69.63%
Starch total (proximate)	70.73%	77.13%
Aflatoxin total	68.56 ppm	Not detected

Flint (local) corn has higher protein content: suitable for feedmill
Dent (import) corn: has higher starch content: suitable for corn wet milling which mainly to produce starch

Above pictures: comparison of dent vs flint corn.

Indonesia does not produce dent corn. While restricting

imports of corn for feed use by feed mills, GOI allows the private sector to import corn for industrial use. However, only countries with approved aflatoxin laboratory facilities, such as Brazil, Ukraine,

Argentina, and the United States are eligible to export to Indonesia. Corn for human consumption is decreasing by 6.33 percent per annum, as fewer Indonesians consume corn as staple food.

Trade

In 2018/19, corn imports are forecast to increase to 600,000 tons, compared to 500,000 tons estimated in 2017/18, reflecting higher demand from wet mills. As of February 2018, MOT issued a Letter of Import Approval (SPI) to private companies to import 171,000 tons of corn for industrial use. During 2017/18, corn imports have originated from the United States (56 percent), Argentina (21 percent) and Brazil (17 percent).

Domestic corn demand exceeds supply. Domestic production, while increasing, faces challenges due to inconsistent seasonal supplies, inadequate storage and drying facilities, infrastructure bottlenecks, and poor post-harvest management resulting in high moisture content and high aflatoxin levels. Strong domestic demand will bring down 2018/19 corn exports to 10,000 tons compared to 50,000 tons in 2017/18. Recently reported corn exports came from producing areas, where transportation costs to the Philippines or Malaysia are more favorable than to feed mills on Java or Sumatra.

On January 10, 2018 the Minister of Trade issued regulation 21/2018 on Corn Imports. The new regulation revokes regulation 20/2016 on the same matter. The regulation stated that corn can be imported to fulfill food, feed, and industrial raw material demand, and that this demand will be determined through an Inter-ministerial coordination meeting. Regulation 20/2016 also established state-owned trading company BULOG as the sole importer of feed corn, while any private company holding a producer importer identification number (*API-P, Angka Pengenal Importir Produser*) can import corn for food or industrial raw materials. BULOG may now also import corn for food. To import, BULOG must still obtain import approval from the Minister of Trade. The new regulation does not require BULOG to obtain an import recommendation from MOA. Before importing corn, private companies must also obtain import approval from the Ministry of Trade. MOT will issue import approvals at the beginning of each semester.

RICE, MILLED

Production

In 2018/19, production is forecast to increase to 37.3 million tons of milled rice equivalent due to more use of high yielding varieties such as Ciherang, Inpari 13, Sinta Nur, and Mekongga by farmers on both Java and outside of Java.

Approximately 50 to 55 percent of rice production is in Java, while Sumatera and Sulawesi contribute 20 and 12 percent, respectively. Around 85 to 90 percent of rice production comes from the irrigated paddy fields. Typically, irrigated farms are planted to paddy during the first and second crop cycles (October – February and March – June), and followed by paddy or secondary crops such as corn, mung bean, soybean, peanut, or sweet potato during the third crop cycle (July – October).

Unlike in 2016/17 when first paddy crop plantings were delayed due to the late (December) arrival of the rainy season, first crop cycle of 2017/18 started on time during October – November 2017. The first main harvest is ongoing in most of the producing areas. Due to available water from rainfall, some farmers on low land rain-fed areas who normally grow secondary crops (corn, soybeans, or mung beans) will continue growing paddy during the second crop cycle of 2017/18.



Picture: Quality of paddy harvested in East Java in late February 2018.

Source: FAS Jakarta

Trade

To stabilize prices and rebuild stocks, BULOG will need to import more, and the 2017/18 import forecast is raised to 1.3 million tons. In 2018/19, imports are forecast to remain robust at 800,000 tons, as domestic supplies will still be insufficient.

BULOG has set its procurement target at 2.7 million tons of milled rice equivalent for 2017/18, but as of March 2018, BULOG held only about 650,000 tons.

GOI maintains a government purchasing price (*Harga Pembelian Pemerintah, HPP*) for paddy and rice at the same level as stated in Presidential Instruction No. 5/2015 stipulated on March 17, 2015. BULOG can only buy paddy or rice from farmers when the market price is lower than or equal to the HPP. According to presidential instructions, BULOG can buy paddy or rice that meets the following criteria and HPP:

Table 6. Indonesia: Government Purchasing Price for Paddy and Rice 2012-Present

Quality Requirement		Inpres 2012			Inpres 2015		
		Wet Paddy	Dry Paddy	Rice	Wet Paddy	Dry Paddy	Rice
Moisture Content	Max	25%	14%	14%	25%	14%	14%
Empty Husks/Dirt	Max	10%	3%	-	10%	3%	-
Broken	Max	-	-	20%	-	-	20%
Price at farmer's level		Rp. 3,300	-	-	Rp. 3,700	-	-
Price at mill's level		Rp. 3,350	Rp. 4,150	-	Rp. 3,750	Rp. 4,600	-
Price at Bulog warehouse		-	Rp. 4,200	Rp. 6,600	-	Rp. 4,650	Rp. 7,300

Source: Presidential Instruction No. 5/2015

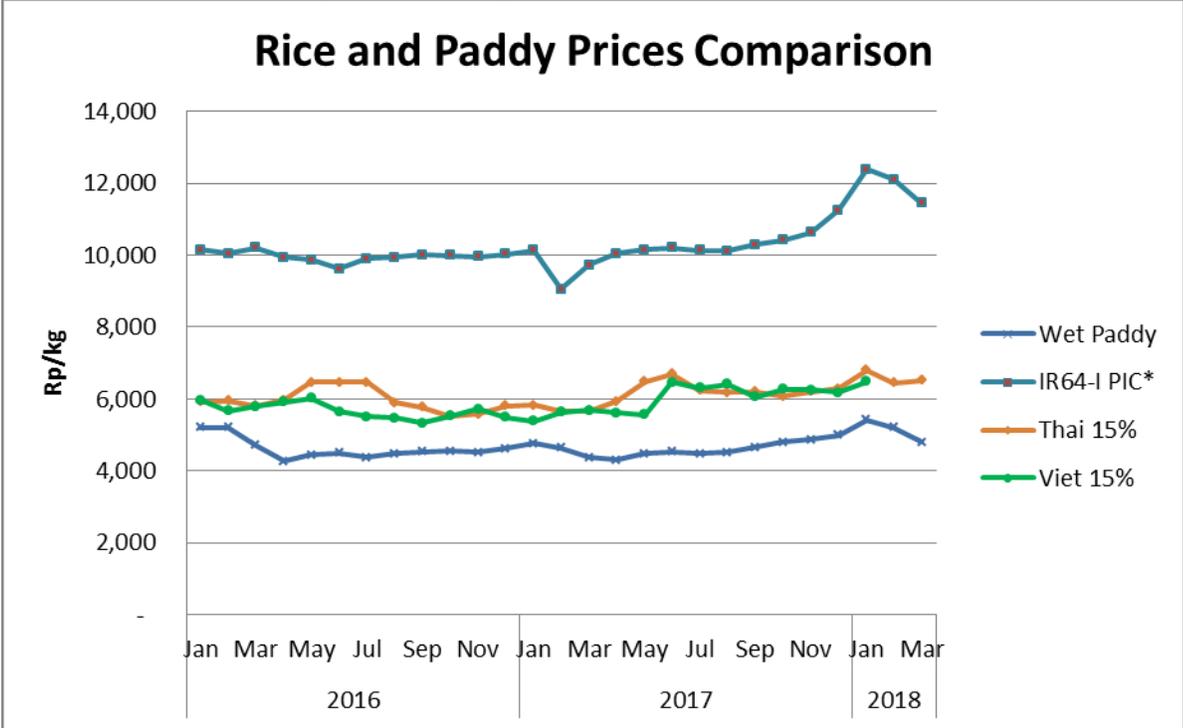
However, in February 2018, to provide BULOG more opportunity to procure paddy and rice, GOI allowed BULOG to buy paddy and rice at prices up to 20 percent above the HPP. The procurement price flexibility was to be valid until April 2018, which will be the end of the main harvest period. However, reportedly GOI has reduced the flexibility to only 10 percent. Farm-level wet paddy prices in February 2018 ranged from Rp. 4,600 - 5,300/kg (\$334 – 385/ton), while dry paddy prices ranged from Rp. 5,400 – 5,900/kg (\$392 – 428/ton). Those prices were above the government purchasing price, including the 20 percent addition.

MOT's regulation on "Maximum Retail Prices (MRP) of Rice" in August 24, 2017, (ID1731) has been counter-productive and has led to market distortions. With the increase in paddy prices, the ceiling prices set by MOT have squeezed margins and limited the opportunities for small and medium rice mills to profit from producing medium quality rice. Millers' preference to produce premium quality rice over medium quality to gain margin has prevented prices of paddy and rice from decreasing, even during the main harvest period. More supply of premium quality rice to the market has managed to slightly decrease prices from Rp. 13,025 (\$946/ton) in early March to Rp. 12,375 (\$899/ton) as of March 15, 2018. Meanwhile, prices of both premium quality rice and medium quality rice at the wholesale market

have been relatively stagnant at Rp. 12,625 to 12,375/kg (\$ 917 – 899/ton) and Rp. 11,475 to 11,425/kg (\$833 – 830/ton), respectively, during March 2018.

BULOG normally meets 60 percent of its procurement target by June of each year. As of March 15, 2018, BULOG had procured a total of 93,000 tons of milled rice equivalent. The domestic procurement realization is far below BULOG’s procurement of 190,000 tons the previous year.

Chart 6. Rice and Paddy Prices Comparison



Source: BPS, Cipinang rice wholesale market, USDA GAIN reports, processed by FAS/Jakarta.

BULOG is required to maintain a minimum year-end stock level of 2 million tons. Indonesian regulations restrict rice imports one month prior to, during, and two months after the main harvest period. Indonesian regulation no. 103/2015 only permits BULOG to import medium quality rice with a maximum 25 percent broken grains; while private companies can import specialty rice (jasmine rice, basmati rice, sushi rice, rice for diabetics and rice seed, for example). The purpose of medium quality rice imports by BULOG is to maintain rice price stability, to overcome post disaster circumstances, and to distribute to the poor and food-insecure. According to the regulation, GOI may decide to authorize BULOG to import medium quality rice after considering BULOG stock levels, disparity between the average rice prices and government purchasing price, and national rice surplus estimate. Private sector companies holding a producer importer identification number can import specialty rice once an import approval from Ministry of Trade is obtained. The import permit is valid for six months in the current year. During 2016/17, Indonesia imported rice from Thailand (44 percent), Myanmar (18 percent), Singapore (16 percent) and India (10 percent).

Faced with rising prices prior to the main harvest and BULOG’s insufficient stocks, on January 11, 2018, MOT instructed BULOG to import 500,000 tons of rice. As of March 2018, only 261,000 tons of

the allocated rice had arrived. To continue strengthening BULOG's stock, GOI extended the period BULOG can import the rice through June 2018. As of end-March 2018, BULOG has commitments to import the full 500,000 tons. With the arrival of the imported rice and domestic procurement realization, BULOG stocks were 650,000 tons at end March 2018. This is still far below what GOI considers to be the minimum secure level of 1.5 to 2 million tons. In addition to the 500,000 tons already allocated for import, another 500,000 tons are expected to be imported to replenish stocks.

Consumption

Rice consumption in 2018/19 is forecast to decline to 37.0 million tons as consumers continue to switch to wheat-flour based products.

In 2016/17, BULOG distributed a total of 2.355 million tons of milled rice to 15.5 million families under the rice for the poor (*rastra*) program. GOI will continue the *rastra* program in addition to non-cash food aid (*Bantuan Pangan Non Tunai, BPNT*) initialized in 2016. BULOG will continue to be the implementer of both programs. In 2017/18, BULOG will distribute *rastra* and BPNT to a total of 15.5 million families. Every family under the regular *rastra* program will receive 10 kg of rice for free. Under BPNT, GOI will deposit a total value of Rp. 110,000 (\$8.20) into each card. The card recipients who reside in 44 pilot project cities can swipe the card at selected stores and receive 10 kg of rice and 2 kg of sugar. However, with a total allocation of 948,000 tons of rice to be distributed under *rastra*, not every family will receive *rastra* every month. The distribution of *rastra* in each province depends on GOI instruction to BULOG.

Per capita rice consumption is declining about 1.62 percent per annum. The decline in rice consumption is partly offset by increasing consumption of wheat flour-based foods. Relatively stable macro-economic conditions have also allowed middle and upper-middle income consumers to diversify their diets to include more western-style foods like bread and pasta. Rather than eating rice three daily meals, many Indonesians have switched to eating bread or noodles for breakfast. Consumers usually have a pack of instant noodles during one meal, which is equal to about 110 grams of rice. Practicality and no requirement to have additional dishes to put into the noodles, drives consumers to substitute rice with instant noodles, despite higher prices per gram. The price of a pack of instant noodle is approximately Rp. 2,600/pack (\$0.19/pack), compared to Rp. 11,500 – 12,850/kg (\$0.7 - \$0.93/kg) for rice. Restaurants are also driving demand for wheat-based food products.

PSD TABLES

Table 7. PSD: WHEAT

Wheat Market Begin Year	2016/2017		2017/2018		2018/2019	
	Jul 2016		Jul 2017		Jul 2018	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	1990	1990	1862	1862	0	1962
Production	0	0	0	0	0	0
Imports	10176	10176	12500	12500	0	12300
TY Imports	10176	10176	12500	12500	0	12300
TY Imp. from U.S.	1184	1184	0	0	0	0
Total Supply	12166	12166	14362	14362	0	14262
Exports	304	304	300	300	0	320
TY Exports	304	304	300	300	0	320
Feed and Residual	1800	1800	2500	3200	0	2000
FSI Consumption	8200	8200	8800	8900	0	9300
Total Consumption	10000	10000	11300	12100	0	11300
Ending Stocks	1862	1862	2762	1962	0	2642
Total Distribution	12166	12166	14362	14362	0	14262

Note: Figures in the "New Post" columns are not USDA Official figures.

Table 8. PSD: CORN

Corn Market Begin Year	2016/2017		2017/2018		2018/2019	
	Oct 2016		Oct 2017		Oct 2018	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	3400	3400	3500	3450	0	3500
Beginning Stocks	1823	1823	1039	1038	0	988
Production	10900	10900	11350	11400	0	11950
Imports	626	620	500	500	0	600
TY Imports	626	620	500	500	0	600
TY Imp. from U.S.	355	355	0	300	0	0
Total Supply	13349	13343	12889	12938	0	13538
Exports	10	5	10	50	0	10
TY Exports	10	5	10	50	0	10
Feed and Residual	8500	8500	8600	8000	0	8500
FSI Consumption	3800	3800	3600	3900	0	3900
Total Consumption	12300	12300	12200	11900	0	12400
Ending Stocks	1039	1038	679	988	0	1128
Total Distribution	13349	13343	12889	12938	0	13538
Yield	3.2059	3.2059	3.2429	3.3043	0	3.4143

Note: Figures in the "New Post" columns are not USDA Official figures.

Table 9. PSD: RICE, MILLED

Rice, Milled Market Begin Year Indonesia	2016/2017		2017/2018		2018/2019	
	Jan 2017		Jan 2018		Jan 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	12240	12240	12200	12250	0	12240
Beginning Stocks	3509	3509	3165	3165	0	4155
Milled Production	36858	36858	37000	37000	0	37300
Rough Production	58505	58505	58268	58268	0	58740
Milling Rate (.9999)	6300	6300	6350	6350	0	6350
MY Imports	300	300	800	1300	0	800
TY Imports	300	300	800	1300	0	800
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	40667	40667	40965	41465	0	42255
MY Exports	2	2	2	10	0	6
TY Exports	2	2	2	10	0	6
Consumption and Residual	37500	37500	37400	37300	0	37000
Ending Stocks	3165	3165	3563	4155	0	5249
Total Distribution	40667	40667	40965	41465	0	42255
Yield (Rough)	4.7798	4.7798	4.7761	4.7566	0	4.799

Note: Figures in the "New Post" columns are not USDA Official figures.

Table 10 . Harmonized Tariff Nomenclature

No.	HS Code	Description	Import Duty	
			New	Old
1.	1001	Wheat and Meslin		
		- Durum wheat		
2.	1001.11.00	-- Seed	0.0	0.0
3.	1001.19.00	-- Other	0.0	0.0
		- Other		
4.	1001.91.00	-- Seed	0.0	0.0
5.	1001.99	-- Other		
		---Fit for human consumption		
6.	1001.99.11	---- Meslin	5.0	5.0
7.	1001.99.12	---- Wheat grain without husk	0.0	0.0
8.	1001.99.19	---- Other	0.0	0.0
		--- Other		
9.	1001.99.91	----Meslin	5.0	5.0
10.	1001.99.99	---- Other	5.0	5.0
	1005	Maize		
11.	1005.10.00	- Seed	0.0	0.0
	1005.90	- Other		
12.	1005.90.10	-- Popcorn	5.0	5.0
13.	1005.90.90	--Other	5.0	5.0
	1006	Rice		
	1006.10	- Rice in the husk		
14.	1006.10.10	-- Suitable for sowing	Rp. 450/kg	Rp. 450/kg

	1006.10.90	-- Other		
	1006.20	- Husked (brown) rice		
15.	1006.20.10	-- Thai Hom Mali	Rp. 450/kg	Rp. 450/kg
16.	1006.20.90	-- Other	Rp. 450/kg	Rp. 450/kg
	1006.30	- Semi-milled or wholly milled rice, whether or not polished or glazed:		
17.	1006.30.30	--Glutinous rice	Rp. 450/kg	Rp. 450/kg
18.	1006.30.40	-- Thai Hom Mali	Rp. 450/kg	Rp. 450/kg
		-- Other		
19.	1006.30.91	--- Parboiled rice	Rp. 450/kg	Rp. 450/kg
20.	1006.30.99	--- Other	Rp. 450/kg	Rp. 450/kg
	1006.40	- Broken rice		
21.	1006.40.10	-- Of a kind used for animal feed	Rp. 450/kg	Rp. 450/kg
22.	1006.40.90	-- Other	Rp. 450/kg	Rp. 450/kg
	1101	Wheat or meslin flour		
		- Wheat flour		
23.	1101.00.11	-- Fortified	10.0	5.0
24.	1101.00.19	-- Other	5.0	5.0
25.	1101.00.20	- Meslin Flour	5.0	5.0
	1103	Cereal, groats, meal, and pellets		
		- Groats and meals		
26.	1103.11.00	-- Of wheat	5.0	5.0
27.	1103.13.00	-- Of maize	5.0	5.0
	2303	Residues of starch manufacture and similar residues, beet pulp, bagasse, and other waste of sugar manufacture, brewing or distilling dregs and waste, whether or not in the form of pellets.		
28.	2303.30.00	- Brewing or distilling dregs and waste	5.0	5.0

Table 11. Exchange Rate

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	13,846	13,395	13,276	13,204	13,615	13,180	13,094	13,300	12,998	13,051	13,563	13,436
2017	13,343	13,347	13,321	13,327	13,321	13,319	13,323	13,351	13,492	13,572	13,514	13,558
2018	13,413	13,665	13,765									

Note: Exchange rate is Rp. 13,765/USD 1, as of March 16, 2018.