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GAIN Report

Global Agricultural Information Network

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Indonesia

Grain and Feed Annual

Indonesia Grain and Feed Annual Report 2019

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Report Highlights:

Corn production is expected to reach 13.3 million tons in 2019/20, as Government incentives to expand production in non-traditional regions continue to yield results. Despite higher corn production, local demand from the feed sector will continue to outpace supply. Price and improved quality have allowed Black Sea wheat to expand beyond the feed sector, capturing market share from higher priced Australian wheat. Abundant government-held rice stocks reduces the likelihood of imports.

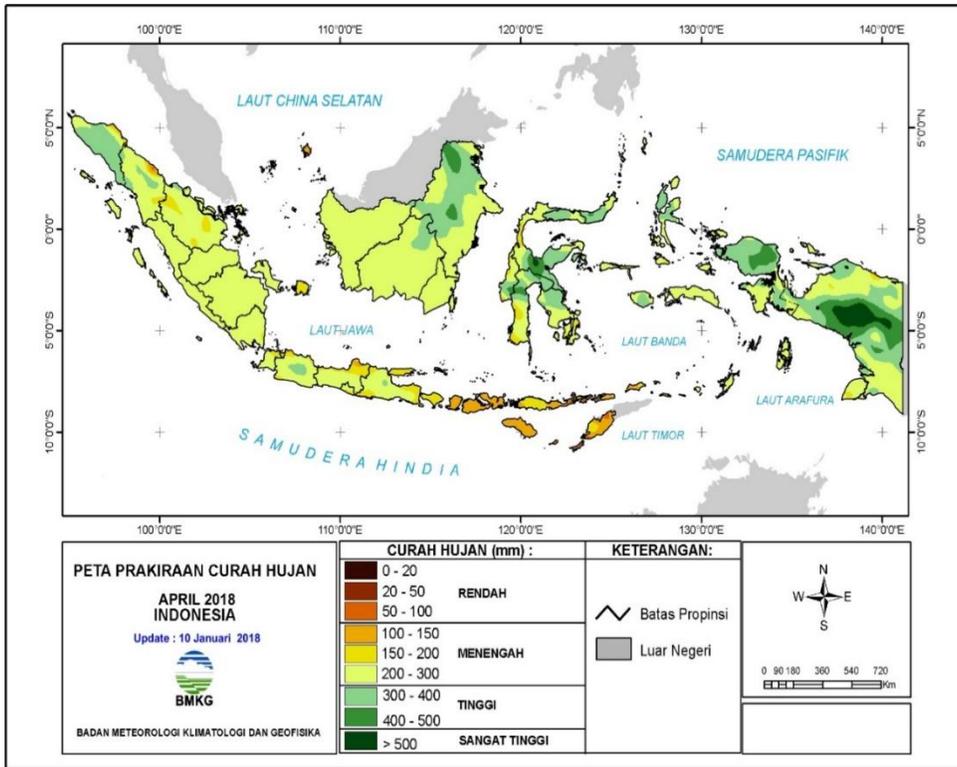
SECTION I. SITUATION AND OUTLOOK

The Indonesian Meteorology, Climatology, and Geophysics Agency (*BMKG, Badan Meteorologi, Klimatologi, dan Geofisika*) reported on March 6, 2019 that:

1. As of the end of February 2019, the rainy season had arrived throughout Indonesia.
2. A weak El Nino is occurring in the Equatorial Pacific Ocean. This weak El Nino is forecast to continue through July 2019. Historically, a weak El Nino will have insignificant impact on Indonesia's weather conditions.
3. The dry season is forecast to begin in April 2019 in some areas of Java, Bali, and Nusa Tenggara; in May 2019 for other parts of Java, Sumatera, and Sulawesi; and in June 2019 in Maluku and Papua.
4. Compared to the 30 year average, rainfall intensity is forecast to be average in 63 percent of Indonesia's area, below average in 24 percent, and higher than average in 13.4 percent.
5. The peak dry season will occur in August – September 2019.

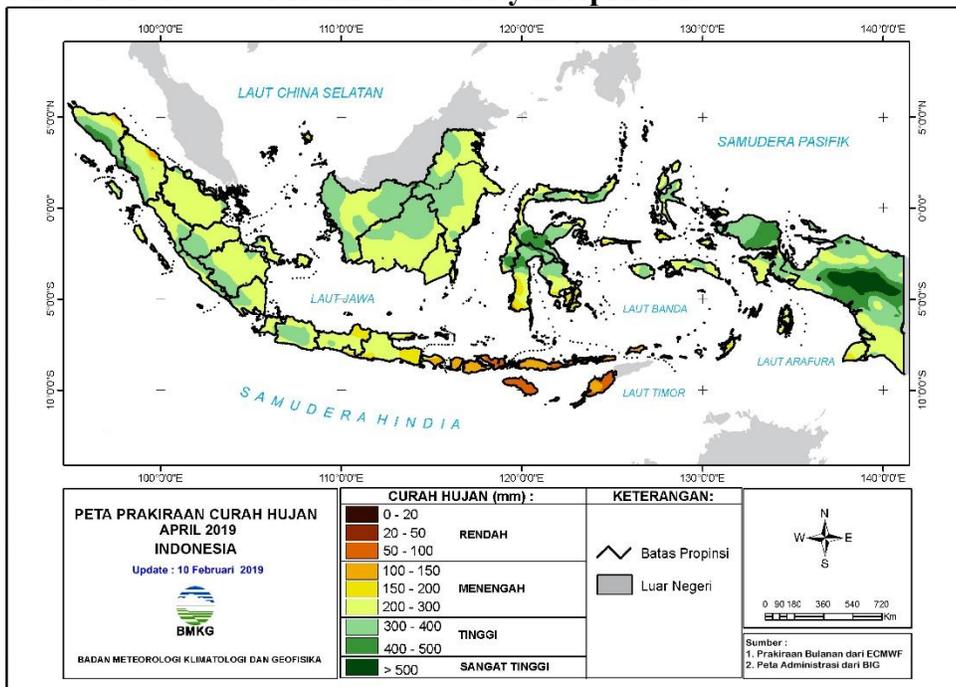
Farmers in the main rice and corn production areas of Central Java, East Java, South Sulawesi, and North Sulawesi, report that rainfall in February and March 2019 was less than during the same period in 2018. If the drier conditions continue, some farmers may have an opportunity to increase 2018/19 corn production on rain-fed low land areas by switching from paddy to corn during the second crop cycle of March to June 2019. However, opportunity to increase rice production may still be achieved by increasing cropping intensity on irrigated areas.

Chart 1. Forecast of Rainfall Intensity in April 2018



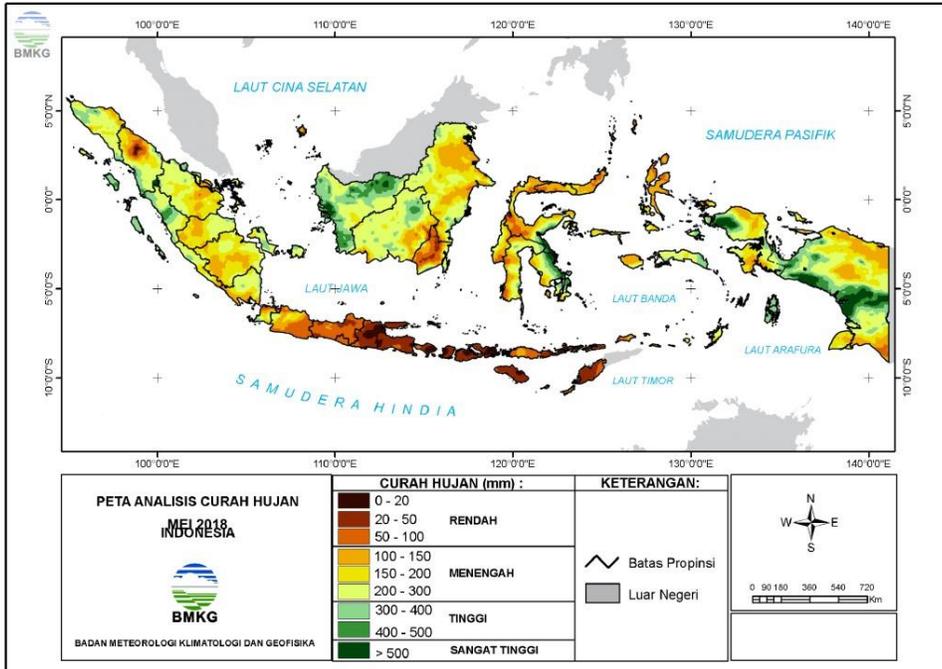
Source: BMKG

Chart 2. Forecast of Rainfall Intensity in April 2019



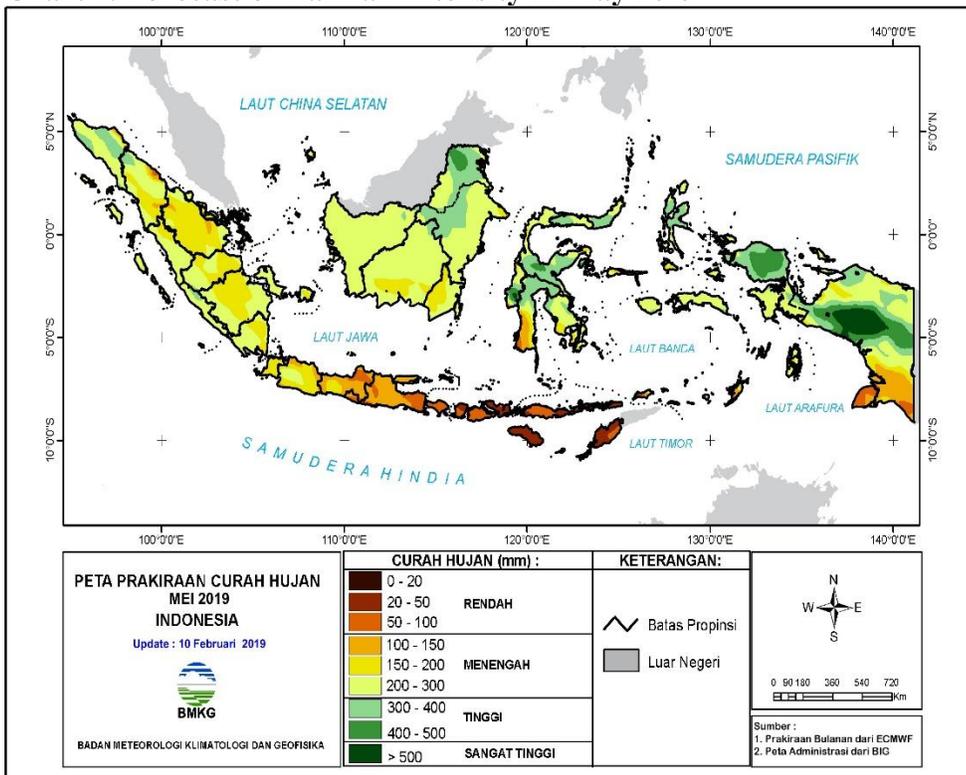
Source: BMKG

Chart 3. Forecast of Rainfall Intensity in May 2018



Source: BMKG

Chart 4. Forecast of Rainfall Intensity in May 2019



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 for Indonesia's water conservation policies 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.

Water levels at West Java reservoirs are normal as of March 18, 2019.

Table 1. Water Elevation at West Java Water Reservoirs, March 18, 2019.

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	96.86	n/a	3.13	n/a	87.50	Normal
2.	Cirata	209.52	160.87	215.07	n/a	5.55	n/a	206.00	Normal
3.	Saguling	631.50	138.97	638.27	n/a	6.77	n/a	625.00	Normal

Source: Indonesian Min. of Public Works, Perum Jasa Tirta II (March 18, 2019), processed by FAS/Jakarta.

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

Wheat

Despite increased corn production, feed mills will continue to use significant quantities of imported feed wheat. In line with increased corn production, 2018/19 feed mills' demand for wheat will decline to 2 million tons. Wheat used for feed is forecast to rebound to 2.2 million tons in 2019/20 as overall feed production rises. Total wheat imports for 2018/19 are expected to increase to 11.15 million tons and forecast to reach 11.3 million tons in 2019/20. FSI wheat use is forecast upwards to 8.9 million tons in 2018/19 and 9 million in 2019/20 due to higher consumer demand in the high end bakery sector and population growth.

Corn

Government efforts to increase corn production by establishing a minimum selling price and by providing subsidized seed and fertilizer have increased harvested area. The 2017/18 corn harvested area is revised to 3.65 million hectares to reflect increases in non-traditional corn producing area such as North Sulawesi. Harvested area is forecast to reach 3.7 million hectares in 2018/19 and further expand to 3.9 million hectares in 2019/20 as farmers consider corn more profitable relative to other crops. Corn import restrictions remain in place for feed use, although due to high prices in late 2018, Indonesia temporarily allowed imports of corn for feed. Corn imports for 2018/19 are expected to reach 850,000 tons.

Rice

Rice production in 2018/19 is revised downward from previous estimate to 37.1 million tons, a result of decreased harvested area from land conversion and farmers motivated by high prices to plant more corn. High BULOG stocks due to changing distribution channels will reduce imports in 2018/19.

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

Continued demand for wheat for feed use and stable flour demand are expected to increase Indonesia's wheat imports to 11.15 million tons in 2018/19. In line with population growth and expected feed production increases, 2019/20 wheat imports are forecast to further increase to 11.3 million tons.

Currently, twenty-eight flour mills operate under twenty-three companies, with a total installed capacity of 11.8 million tons per annum, an increase from 11.5 million tons in 2017/18. Most of the mills are located on Java. Running capacity of the mills reached 80 percent in 2017/18, an increase from 70 percent in 2016/17. The industry is estimated to grow five percent in 2018/19 due to the relatively low price of wheat flour and wheat flour-based foods compared to rice.

Indonesia's wheat imports for feed use are directly tied to the Ministry of Agriculture's (MOA) ban on corn imports for poultry and livestock feed. Domestic corn prices, among the highest in the world, have forced feed mills to source other commodities to meet energy needs in feed rations. Since the policy went into effect in 2015, wheat imports, especially from the Black Sea region, have often filled the needs of feed millers. Despite increased corn production, growth in demand from the feed sector will continue to force feed mills to rely on imported wheat. As a result, post expects flour mills to import approximately 2 million tons of wheat for re-sale to domestic feed mills.

Table 2. Indonesian Wheat Imports by HS Code (2017 – 2018, in MT)

No.	HS Code	Description	2017	2018	Change (%)
1.	1001.19.00	Durum wheat, other than seed	17,841	14,701	(18)

2.	1001.99.12	Wheat grain w/o husk, fit for human consumption	7,244,477	7,726,342	7
3.	1001.99.19	Other wheat, other seed, fit for human consumption	3,928,200	2,304,433	(41)
4.	1001.99.99	Other meslin, not fit for human consumption	204,613	12,857	(94)
5.		Total	11,395,131	10,058,333	(12)

Source: Indonesian Statistics Agency (BPS) and Global Trade Atlas.

The significant expansion of flour mills has led to fierce competition in the market and has become one major factor in determining the source for imports. The surge in wheat imports to replace high-priced domestic corn in feed rations, as well as improved quality of wheat from the Black Sea, have altered the origins of Indonesia's wheat imports. Australia and Ukraine currently dominate the market with 31 and 21 percent market share, respectively. Canada has maintained market share at 16 percent, followed by Russia with 14 percent market share. The growth of Ukrainian wheat imports, along with the sharp increase in Russian imports, has pushed U.S. wheat to fifth largest supplier, although overall market share has remained near 10 percent. Australia's market share is due to the growing noodle industry's preference for Australian standard white wheat, competitive pricing, and Australia's close proximity.

Increased competition from expanding flour mills, import restrictions on corn for feed, and new demand from feed mills for cheaper alternatives to high priced local corn, resulted in many mills turning to lower quality Black Sea wheat. While much of the Black Sea wheat was initially imported for the feed sector, mills are increasingly blending the lower quality wheat with imported wheat from the traditional suppliers. This blend is to meet demand for medium protein flour, which accounts for 50 percent of the total flour market. Beginning in 2015, imports from Ukraine increased significantly. Millers also report that in addition to competitive prices, Ukrainian wheat quality has significantly improved in recent years, allowing for higher rates of blending. Similarly, Russian wheat exports to Indonesia increased by 579 percent in 2017. These increases have come at the expense of Australian wheat, which in addition to price, has had inconsistent supply due to weather related problems. Most flour mills expect to continue sourcing Black Sea wheat in the coming years. Black Sea wheat is expected to contribute to over 40 percent of all Indonesian wheat imports through 2018/19. The trend is expected to have minimal impact on U.S. shipments of wheat, which reached 1.065 million tons in 2017/18.

During the first semester of 2018/19, wheat flour imports declined 3.8 percent to 22,524 tons wheat equivalent, compared to 23,406 tons during the same period of 2017/18. 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 2018/19, with a 99.9 percent market share. Turkey held the largest wheat flour market share (52 percent), followed by Romania (18 percent), and South Korea (12 percent).

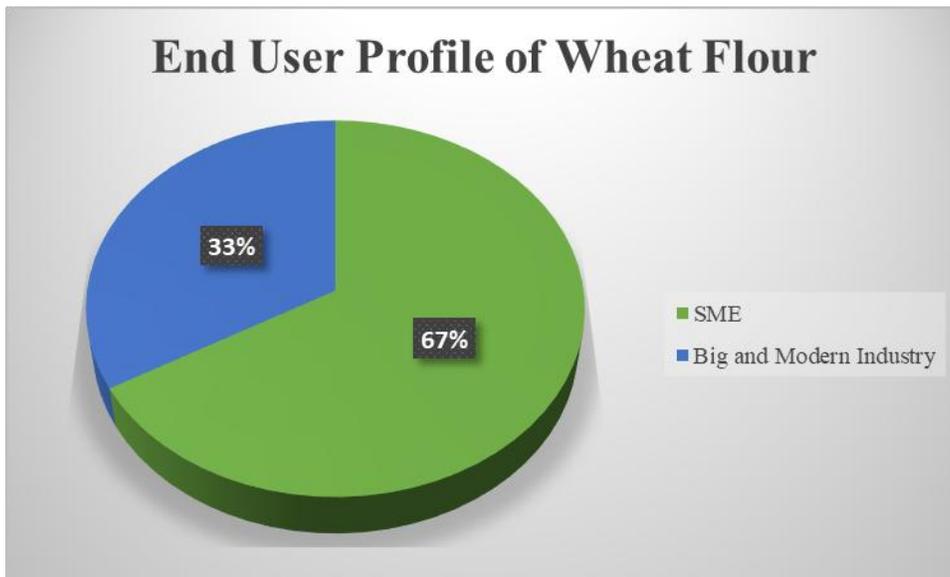
On March 4, 2019 Australia and Indonesia signed the Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA). Among other reductions in tariffs and non-tariff barriers, the agreement provides Australia with a tariff rate quota (TRQ) for 500,000 tons of feed grains (wheat, sorghum and barley) per year, increasing at five percent per annum. Based on continued high production and competitively priced wheat from Ukraine and Russia, the TRQ may not be filled.

Consumption

In line with population and economic growth, human consumption of wheat is estimated to increase to 8.9 million tons in 2018/19 and to 9 million tons in 2019/20. Based on higher corn production, 2018/19 wheat consumption for feed is expected to decline to 2.0 million tons, compared to the 2.1 million tons in 2017/18. Growth in feed milling is expected to increase wheat consumption for feed to 2.2 million tons in 2019/20.

In 2017/18, annual per capita wheat flour consumption reached an estimated 25 kg, an increase from 23 kg per capita 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 and high-end bakeries are also driving demand for wheat-based food products, especially in major cities including Jakarta, Surabaya, Medan, and Bandung.

Chart 5: End User Profile of Wheat Flour



Source: APTINDO.

Two-thirds of Indonesian flour users are considered Small and Medium Enterprise (SME), characterized as traditionally managed, family-owned, and community-oriented business. These include small scale wet noodle makers, street food vendors, low-end bread and bakery businesses, and traditional Indonesian cake makers. The other third are large enterprises, including several publicly-listed companies, with advanced production facilities and professional management. These producers include instant noodle manufacturers, high-end bakeries, and cookie and biscuit manufacturers.

On a per meal basis, instant noodle prices are currently cheaper than rice, and many more lower and middle income consumers substitute instant noodles for breakfast or dinner. The average prices of instant noodle is Rp. 2,600 (\$0.18) per package, while the average prices of medium quality rice per meal is Rp. 4,000 (\$0.28). Modern cafes serving instant noodles are flourishing in urban areas, increasing demand for the noodle industry. The noodle industry consumes 70 percent of Indonesia's

wheat flour. In addition to noodles, more high-end and artisan bakeries are coming online, driving the bakery industry, which already accounts for 20 percent of flour consumption. The remaining 10 percent is consumed by household and commercial biscuit producers.

Flour production costs have increased with higher electricity and labor costs. These costs are compounded by Indonesia's weakening exchange rate. Although the rupiah has recovered from its 52-week low against the U.S. dollar, it remains relatively weak at Rp. 14,242 in March 2019, compared to Rp. 13,756 in March 2018. As a result, the price of popular brand Segi Tiga Biru flour at retail market has increased from Rp. 9,281/kg (\$652/ton) on March 13, 2018 to Rp. 9,917/kg (\$696/ton) on March 18, 2019.

CORN

Production

The 2017/18 harvested area estimate is revised up to 3.65 million hectares to reflect expanded harvested area in North Sulawesi. Farmers have been growing more corn in the area since 2015, when Ministry of Agriculture implemented a program providing subsidized seed, fertilizers, and farming equipment. Additionally, Ministry of Trade regulation no. 96/2018 on Reference Price issued in September 2018, setting the minimum buying price of corn with 15 percent moisture content at the farm level at Rp. 3,150/kg (\$221/ton), has further motivated farmers to grow corn.

Nationally, Java remains the largest corn producing area, contributing 40 percent of national corn production, followed by Sulawesi (24 percent), Sumatera (24 percent), and Nusa Tenggara (10 percent).

As a result of these policies, farmers throughout Indonesia are growing more corn. In Sulawesi farmers report receiving higher margins from corn compared to traditional crops such as coconut or cocoa, leading many to switch to planting corn or to intercrop corn with coconut trees. In 2016/17, farmers in North Sulawesi harvested corn on 150,000 hectares, but that area increase to an estimated 320,000 hectares in 2017/18, and will further increase to 340,000 hectares in 2018/19. Farmers in South Sulawesi are switching from growing teak and cocoa to corn, farmers in Lampung (Sumatra) have begun to favor corn over cassava, and farmers on Java continue to opt to grow corn over soybeans due to higher margins. In addition, anecdotal evidence suggests, farmers in Central Java are switching from rice to corn in rain-fed areas.

Despite the increase in corn plantings, farmers still consider corn as a secondary crop after paddy. The first corn season normally takes place from October to February (49 percent); the second season takes place from March to June (37 percent); and the third runs from July to September (14 percent). As many of the corn growing areas are rain-fed, growing corn during the third crop cycle depends on water availability. Due to less rainfall at the beginning of the 2018/19 first crop cycle, farmers delayed planting corn until November and December 2018. As a result, the main harvest has also been delayed and is ongoing in major producing areas.

Corn prices remain high, with farm level prices ranging from Rp. 3,800/kg (\$267/ton) in East Java, to Rp. 4,500/kg (\$316/ton) in South Sulawesi, compared to Rp. 3,400/kg (\$239/ton) to Rp. 3,700/kg (\$260/ton), respectively during the same period last year. The high prices have led some farmers to

harvest corn earlier, leading to high moisture content that sometimes reaches 35 percent. Prices are expected to decrease as the first crop harvest progresses. No significant pest or disease incidents have been reported during the first corn crop cycle of 2018/19, and local seed companies are producing more downy mildew-resistant seed varieties.

In 2018/19, MOA continues to target corn self-sufficiency by providing subsidized seed and fertilizer covering 3 million hectares. Lack of suitable land for growing corn outside of Java, land conversion to non-agricultural uses on Java, and seed availability will likely become impediments to reaching this goal. In an effort to meet demand from farmers, a major seed company that supplies most of the seed production for the program reportedly will increase production from 35,000 tons in 2018 to 45,000 tons in 2019. However, concerns about seed shortages for the second crop cycle of 2018/19 remain, and some farmers continue to report untimely distribution of the subsidized seed. Hybrid seed corn prices currently range from Rp. 80,000 – Rp. 100,000 per kilogram (\$ 5.62-7.02/kg), an average increase of Rp. 5,000 – Rp. 10,000 per kg (\$0.35-0.7/kg) from last year. Better yield is expected to be achieved due to the area of hybrid corn reaching 70 percent, as well as fewer pest and disease incidents.



Left: Corn intercropped with coconut trees in North Sulawesi,

March 2018.

Right: Early harvested corn with 35% moisture content as typically sold by farmers in South Sulawesi, March 2018.

Consumption

In line with expectations for continued growth in demand for poultry feed and availability from domestic production, 2019/20 corn consumption for feed is forecast to increase to 9.5 million tons compared to 8.9 million tons in 2018/19. Additional installed corn milling capacity is expected to increase consumption for food, seed, and industrial use by 1.3 percent to 3.95 million tons from 3.9 million tons in 2018/19.

The feed mill sector consists of 97 feed mills, with an installed capacity of 25.5 million tons, an increase of 3.2 percent from 24.7 million tons in 2018. Feed mills are running at 80 percent of the total installed capacity. 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	40	25	15	0	5	10	2	5	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, November 2018.

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 gap is often filled by wheat and premixes. To maintain a longer supply of lower priced domestic production during the peak harvest, large feed mills are building more silos, though overall storage capabilities remain in short supply.

The poultry industry consumes approximately 87 percent of domestic animal feed supplies; aquaculture, 8 percent; and cattle and swine, the remaining 6 percent. The Indonesian poultry producers association reported that 2019 broiler production will be stagnant at 3.3 billion head, while layer production is expected at 3.20 million heads per week. In 2017, Indonesian per capita consumption of poultry meat was an estimated 7 kg per capita, relatively low compared to neighboring Malaysia which consumes 46.5 kg/year. Per capita consumption of poultry meat is estimated to increase 4 percent annually. Low per capita consumption of poultry meat provides room for poultry and feed industry expansion. Continuous growth of the middle class is driving higher demand for protein sources in daily diets, and consumer trends are shifting towards more practical, processed chicken products. To respond to the demand, farmers and large scale integrated poultry producers continue producing 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.

Although flock numbers are estimated unchanged, heavier slaughter weights will lead to growth in commercial poultry feed consumption of about 5 percent, or 19.3 million tons in 2018/19 compared to 18.4 million tons in 2017/18.

The corn wet milling industry, with a total capacity of 580,000 tons per annum, remains the primary importer of corn due to higher starch levels from imported dent corn as opposed to locally grown flint corn. Permission to import corn for industrial use is closely monitored by the Ministry of Trade. Furthermore, unlike wheat imports by flour millers that are channeled to feed mills, none of the corn imported for industrial use is diverted to other sectors. Only countries with approved aflatoxin laboratory facilities, such as Brazil, Ukraine, Argentina, and the United States are eligible to export to Indonesia. Corn for food consumption continues to decrease by 6.33 percent per annum, as fewer Indonesians consume corn as a staple food.

Trade

Despite increased domestic production in 2018/19, corn imports are estimated to reach 850,000 tons. When corn prices at farm level reached Rp. 6,200/kg (\$435/ton) in November 2018, GOI instructed state-owned procurement agency BULOG to import corn for distribution to smallholder farmers. Out of the 100,000 tons authorized in the first import tranche, a total of 99,000 tons has arrived in the country and fully distributed to farmers. The small quantity authorized for import in the first tranche did not manage to push down prices. As a result, in January 2019, GOI authorized BULOG to import corn for feed use without any limiting quota through March 31, 2019. The import period is to avoid the imported corn arriving at the same time with the main harvest. BULOG held an open tender to import another 150,000 tons, and to date a total of 40,000 tons of from that tender has arrived in country. Indonesia's tender required corn to have a moisture content of 14 percent or less at time of shipment. The requirement precluded U.S. corn as moisture content often exceeds this level at time of shipment, reaching a lower level only upon arrival. The longer lead time to import corn from the United States also put additional disadvantage to US corn.

Total corn imports from October 2018 through January 2019 reached 287,000 tons, an increase of 121 percent from the same period in 2017/18. During 2017/18, corn imports originated from Argentina (46 percent), Brazil (24 percent), and the United States (28 percent). For the period of October 2018 to January 2019, Indonesia imported from Brazil (60 percent), Argentine (30 percent), and the United States (2 percent)

Domestic corn demand continues to exceed 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. Most of the increased production is occurring in areas far away from feed mills. The transportation cost to deliver corn from these areas to feed manufacturing areas such as Java and Sumatera is often more expensive than exporting the corn to neighboring countries. The Philippines has

been the major market for corn exports, accounting for 99 percent of the 272,000 tons exported in 2017/18. Corn exports are expected to reach 300,000 tons in 2018/19 due to increasing production in areas outside Java and Sumatra. Increasing demand from domestic feed mills is expected to hold 2019/20 exports stable.

RICE, MILLED

Production

Approximately 50 to 55 percent of rice production is in Java, while Sumatera and Sulawesi contribute 20 and 12 percent, respectively. Around 85 percent of rice production comes from 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). The delayed onset of the 2018 rainy season delayed the first crop planting to November and December 2018. The first cycle main harvest is currently ongoing. This harvest, which occurs during rainy season, tends to produce lower yields due to high moisture content. Higher yields are usually achieved during the second and third harvest in the dry season.

The high price of corn in 2018 led some farmers in upland rain-fed areas to switch to corn from paddy. Additionally, some farmers in Central Java report switching from paddy to horticultural crops such as shallot and chili that provide better profit. Significant land conversion to non-agricultural uses on Java continues to occur, with Central Java reportedly losing 250 hectares of paddy area for toll roads and West Java losing 18,700 hectares of paddy field per year for commercial and residential building. Meanwhile, Bali lost approximately 1.13 percent of agricultural land in 2018 due to development. As a result of these conditions, 2018/19 harvested areas is expected to decline to 12.2 million hectares from 12.25 million hectares in 2017/18.

Another challenge facing rice farmers is a change in GOI allocations of subsidized fertilizer. Reduced allocations of subsidized fertilizers in 2019 are likely to contribute to lower than the previously estimated production.

Table 6. Allocation and Maximum Retail Prices of Subsidized Fertilizers.

Type of Fertilizers	2017		2018		2019	
	Volume (MT)	Price (Rp./Kg.)	Volume (MT)	Price (Rp./Kg.)	Volume (MT)	Price (Rp./Kg.)
Urea	4,245,000	1,800	4,100,000	1,800	3,825,000	1,800
SP 36	850,000	2,000	850,000	2,000	779,000	2,000
ZA	960,000	1,400	1,050,000	1,400	996,000	1,400
NPK	2,795,000	2,300	2,550,000	2,300	2,325,000	2,300
Organic	700,000	500	1,000,000	500	948,000	500

Source: Ministry of Agriculture.

Considering the above-mentioned factors, 2018/19 rice production is estimated at 37.1 million tons, a decrease from the previous estimate of 37.3 million tons. Production is forecast to reach 37.4 million tons of milled rice equivalent in 2019/20 due to greater use of high yielding varieties such as Ciherang, Inpari 13, Sinta Nur, and Mekongga. Opportunities to increase production may be also achieved by increasing cropping intensity on irrigated low-land areas on Java and area expansion outside of Java. No significant pest and disease problems have been reported.



Picture: Stages of standing paddy crops in Central Java and South Sulawesi in early March 2019.
Source: FAS Jakarta

Consumption

Rice consumption in 2019/20 is forecast to decline to 38.0 million tons as consumers continue to switch to wheat-flour based products. Per capita rice consumption is declining at about 0.62 percent per annum. Middle and upper-middle income consumers are diversifying their diets to include more western-style foods like bread and pasta and consuming more instant noodles in place of rice-based dishes. The affordability of noodles is another factor in their replacement of rice. A pack of instant noodles costs approximately Rp. 2,600/pack (\$0.18/pack), compared to Rp. 11,500 – 12,850/kg (\$0.8 - \$0.9/kg) for rice or around Rp. 4,000 (\$0.28)/meal. Including outside of home consumption, Post estimates 2018/19 rice consumption at 128 kg per capita. Indonesian data on per capita consumption can vary widely depending on whether only household consumption is considered as well as displacement estimates for increasing wheat-flour based food consumption. Lower consumption numbers may also be quoted in reference to rice production meeting domestic demand.

Policy

GOI maintains a government purchasing price (*Harga Pembelian Pemerintah, HPP*) for paddy and rice 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 7. Indonesia: Government Purchasing Price for Paddy and Rice 2012-Present

		Inpres 2012			Inpres 2015		
Quality Requirement		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

Farm-level wet paddy prices in February 2019 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), well above the government purchasing price.

In 2017/18, BULOG distributed a total of 1.2 million tons of rice under the *rastra* (rice for the poor program) and the Non-Cash Food Aid (*BPNT, Bantuan Pangan Non Tunai*) to 15.5 million families. Each family under the regular *rastra* program receives 10 kg of rice for free. Under BPNT, GOI deposits a total value of Rp. 110,000 (\$8.20) per month onto a purchasing card that can be used to buy rice commercially. 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, lack of proper oversight has led to reports of inappropriate use of the cards, such as beneficiaries buying non-essentials. For 2019, GOI has reduced the allocation for *rastra* rice to 230,000 tons, which will be distributed through April 2019, compared to the total distribution of 1.2 million tons in 2018. With the reduction, BULOG loses its main channel for distributing stocks. To prevent losses from deteriorating quality of the rice, BULOG has been forced to sell rice through commercial channels and compete with more experienced traders in the market. The change from direct distribution to commercial competitor has not been without challenges. Based on these factors, BULOG's stock level is estimated to remain high throughout 2019.

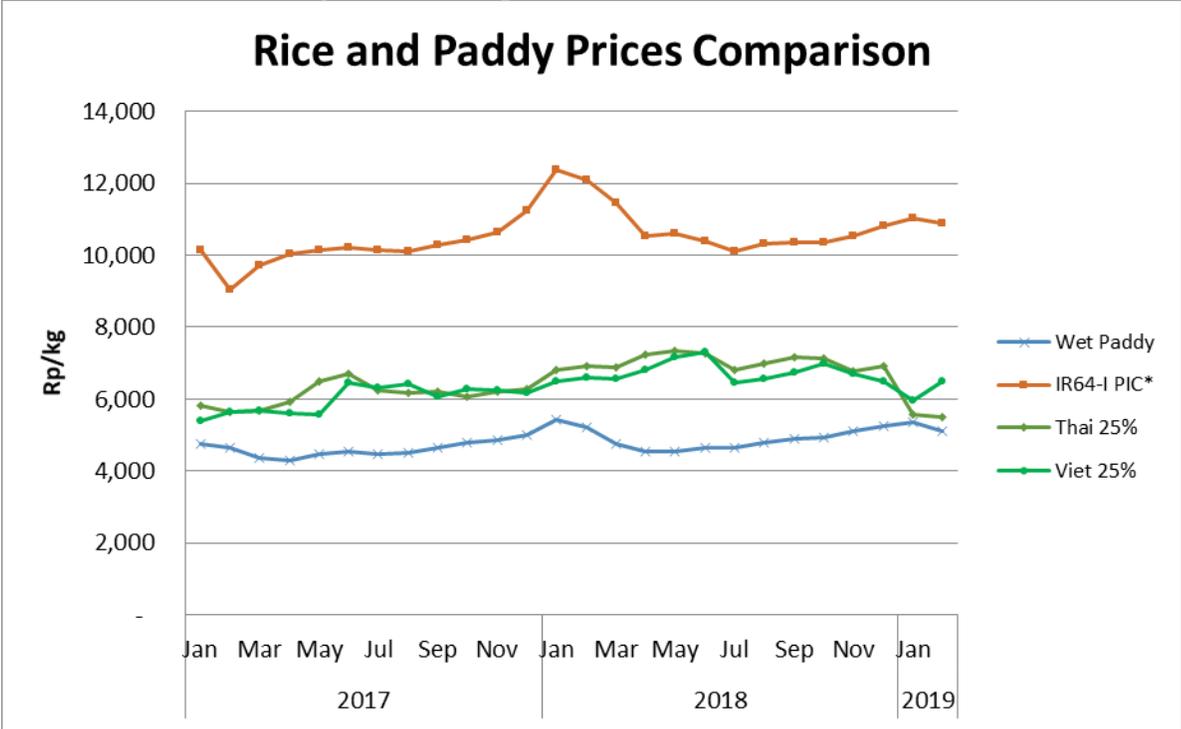
In addition to establishing a fixed price for government procurement, MOT's regulation on "Maximum Retail Prices (MRP) of Rice" in August 24, 2017, ([ID1731](#)) caps the retail price of medium quality rice at an average of Rp. 9,450/kg (\$348/ton) and premium quality rice at an average of Rp. 12,800/kg (\$899/ton). Following a stipulation in the regulation, Indonesian Police formed the so-called "*Satgas Pangan*" or Food Task Force, to enforce the regulation and to maintain a stable price of rice and other staple commodities. The enforcement of MRP has led to serious market distortions in the rice market. A revised MOT regulation (96/2018) attempted to address these issues by removing rice from the MRP requirement; however, many retailers still maintain the prices for fear of running afoul of the task force.

Facing high paddy prices, the retail 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. To make

any margin, millers must produce premium quality rice over medium quality. The reduced production of medium quality rice, which is occurring at the same time with the reduced allocation of the *rastra* program, is creating strong demand for medium quality rice among low income consumers in commercial markets. Although an increased supply of premium quality rice to the market has managed to slightly decrease prices of rice at the wholesale market from Rp. 13,825 (\$971/ton) in early March to Rp. 13,600 (\$955/ton) as of March 20, 2019, rice prices remain stubbornly high. Medium quality rice prices at the wholesale market have also remained high, slightly declining from Rp. 10,800/kg (\$ 758/ton) in early March to Rp.10,625/kg (\$746/ton) on March 20, 2019.

BULOG normally meets 60 percent of its procurement target by June of each year. As of March 20, 2019 BULOG had procured a total of 25,000 tons of milled rice equivalent. The domestic procurement realization is far below BULOG’s procurement of 93,000 tons the previous year.

Chart 6. Rice and Paddy Prices Comparison



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

Trade

In 2018, GOI authorized BULOG to import a total of 2.0 million tons of rice in an effort to rebuild stocks that had fallen to 650,000 tons in March 2018, far below the “secure level” of 1.5 – 2.0 million tons. A total of 1.8 million tons of the authorized amount were imported. Combined with stocks from domestic procurement, BULOG’s 2018 ending stock was approximately 2.1 million tons. BULOG has set its procurement target for 2019 at 1.8 million tons in 2019. As of March 20, 2019, BULOG has procured a total of 25,000 tons of milled rice equivalent domestically.

BULOG is required to maintain a minimum year-end stock level of 1.5 - 2 million tons. Indonesian regulations restrict rice imports one month prior to, during, and two months after the main harvest period. Indonesian regulation no. 1/2018 permits BULOG to import rice with 5 to 25 percent broken grains; while private companies and other state-owned companies can import specialty rice (jasmine rice, basmati rice, sushi rice, glutinous rice, rice for diabetics and rice seed, for example). The purpose of 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 2017/18, Indonesia imported rice from Thailand (33 percent), Vietnam (33 percent), India (15 percent), and Pakistan (13 percent).

Assuming BULOG will be able to achieve the procurement target for the year and will distribute the same volume of rice for market operations as last year, BULOG’s ending stocks will reach approximately 3million tons. This level of stocks reduces the likeliness for Indonesia to import medium quality rice in 2018/19. Therefore, 2018/19 rice imports are estimated at 500,000 tons, consisting mainly of the specialty rice. In line with the forecasted economic growth, 2019/20 imports are forecast to increase to 510,000 tons.

PSD TABLES

Table 8. PSD: WHEAT

Wheat Market Begin Year	2017/2018		2018/2019		2019/2020	
	Jul 2017		Jul 2018		Jul 2019	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	1862	1862	1515	1515	0	1465
Production	0	0	0	0	0	0
MY Imports	10516	10516	10000	11150	0	11300
TY Imports	10516	10516	10000	11150	0	11300
TY Imp. from U.S.	1066	1066	0	0	0	0
Total Supply	12378	12378	11515	12665	0	12765
MY Exports	263	263	300	300	0	310
TY Exports	263	263	300	300	0	310

Feed and Residual	2100	2100	1600	2000	0	2200
FSI Consumption	8500	8500	8600	8900	0	9000
Total Consumption	10600	10600	10200	10900	0	11200
Ending Stocks	1515	1515	1015	1465	0	1255
Total Distribution	12378	12378	11515	12665	0	12765
Yield	0	0	0	0	0	0

(1000 HA) ,(1000 MT) ,(MT/HA)

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

Table 9. PSD: CORN

Corn Market Begin Year	2017/2018		2018/2019		2019/2020	
	Oct 2017		Oct 2018		Oct 2019	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	3450	3650	3500	3700	0	3900
Beginning Stocks	1035	1035	593	863	0	1113
Production	11400	11900	11900	12600	0	13300
MY Imports	530	550	600	850	0	550
TY Imports	530	550	600	850	0	550
TY Imp. from U.S.	150	147	0	160	0	0
Total Supply	12965	13485	13093	14313	0	14963
MY Exports	272	272	50	300	0	300
TY Exports	272	272	50	300	0	300
Feed and Residual	8300	8500	8600	9000	0	9500
FSI Consumption	3800	3850	3900	3900	0	3950
Total Consumption	12100	12350	12500	12900	0	13450
Ending Stocks	593	863	543	1113	0	1213
Total Distribution	12965	13485	13093	14313	0	14963
Yield	3.3043	3.2603	3.4	3.4054	0	3.4103

(1000 HA) ,(1000 MT) ,(MT/HA)

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

Table 10. PSD: RICE, MILLED

Rice, Milled Market Begin Year	2017/2018		2018/2019		2019/2020	
	Jan 2018		Jan 2019		Jan 2020	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	12250	12250	12240	12200	0	12250

Beginning Stocks	2915	2915	4113	4113	0	3610
Milled Production	37000	37000	37300	37100	0	37400
Rough Production	58268	58268	58740	58425	0	58898
Milling Rate (.9999)	6350	6350	6350	6350	0	6350
MY Imports	2300	2300	800	500	0	510
TY Imports	2300	2300	800	500	0	510
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	42215	42215	42213	41713	0	41520
MY Exports	2	2	2	3	0	3
TY Exports	2	2	2	3	0	3
Consumption and Residual	38100	38100	38100	38100	0	38000
Ending Stocks	4113	4113	4111	3610	0	3517
Total Distribution	42215	42215	42213	41713	0	41520
Yield (Rough)	4.7566	4.7566	4.799	4.7889	0	4.808

(1000 HA) ,(1000 MT) ,(MT/HA)

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

Table 11. 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 12. Exchange Rate

Ye ar	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
201 7	13,3 43	13,34 7	13,32 1	13,3 27	13,3 21	13,3 19	13,3 23	13,3 51	13,4 92	13,5 72	13,5 14	13,5 48
201 8	13,4 13	13,70 7	13,75 6	13,8 77	13,9 51	14,4 04	14,4 13	14,7 11	14,9 29	15,2 27	14,3 39	14,4 81
201 9	14,1 88	14,07 9	14, 242									

Source: Bank of Indonesia

Note: Exchange rate is Rp. 14,242/USD 1, as of March 18, 2018.