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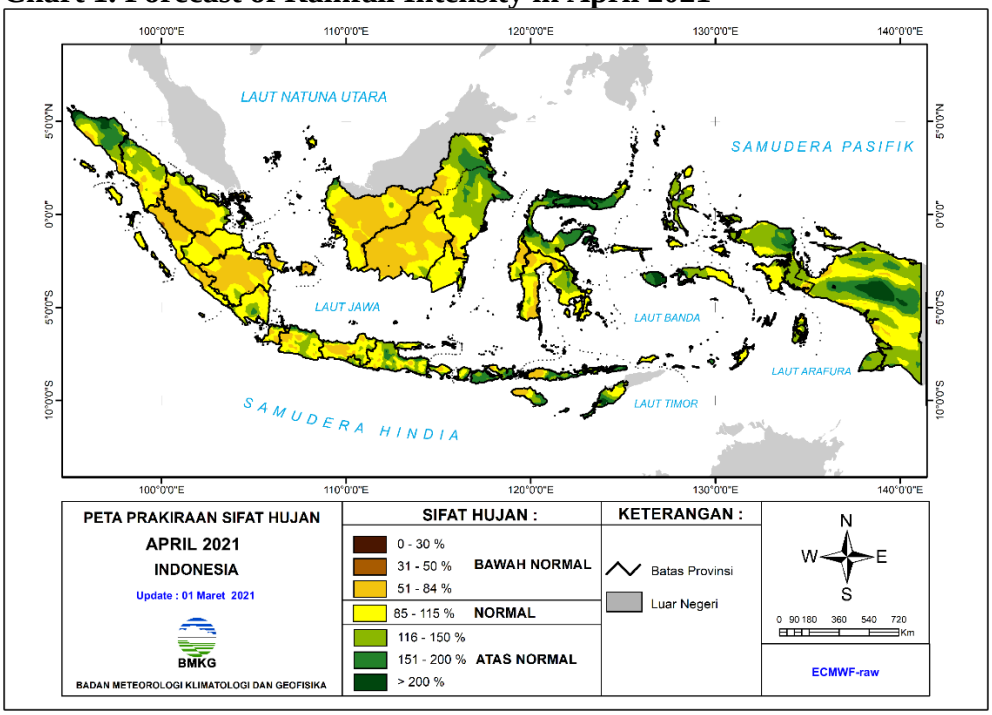
Report Highlights:

Larger harvested area and improved economic conditions are expected to increase corn production in 2021/22 to 12.0 million tons. Higher poultry consumption and comparatively lower prices for local corn are expected to increase corn consumption for feed production and lower demand for imported wheat in the feed sector. The Government of Indonesia (GOI) has announced intentions to import 1 million tons of rice in 2021 to maintain sufficient stock levels and stable prices.

SECTION I. SITUATION AND OUTLOOK

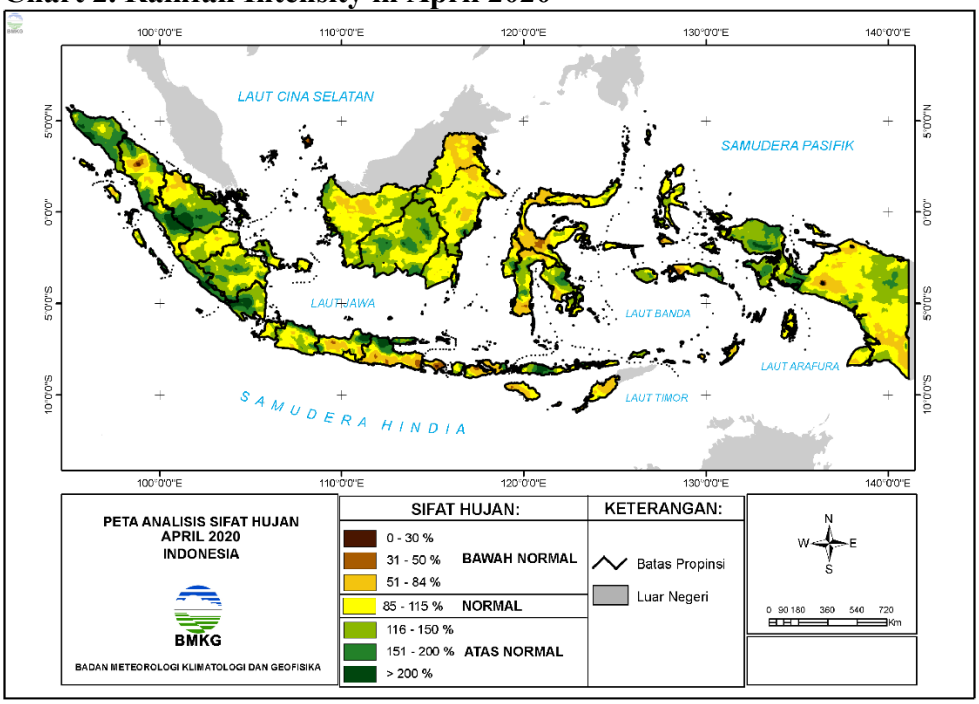
The Indonesian Meteorology, Climatology, and Geophysics Agency (*BMKG, Badan Meteorologi, Klimatologi, dan Geofisika*) estimated in February 2021 that the 2020/21 rainy season, influenced by the global climate phenomenon La Nina, may increase rainfall by up to 40 percent. The La Nina is expected to continue until May 2021. Currently, 96 percent of Indonesia's season zones have entered the rainy season. It is predicted that in March-April 2021, rainfall in most parts of Western Indonesia will still have medium to high intensity (200-500 mm/month), while most of Eastern Indonesia, including Papua and parts of Sulawesi have the potential to receive higher intensity rainfall of more than 500 mm/month. May is expected to be a transition period from the rainy season to the dry season with most areas of Riau, Jambi, South Sumatra, Lampung, Java, Bali, Nusa Tenggara, South Sulawesi and Papua predicted to experience medium to low rainfall (20-150 mm/month) by June-August. The peak of the dry season is expected from September – October, followed by a shift towards another rainy season beginning in November. Unlike recent years, the arrival of the rainy season has allowed farmers to start the first crop cycle of 2020/21 on time in October and November 2020. Water availability from normal reservoir levels and adequate rainfall is expected to encourage most farmers on low-land semi-irrigated area to continue growing paddy rather than secondary crops such as corn or soybean.

Chart 1. Forecast of Rainfall Intensity in April 2021



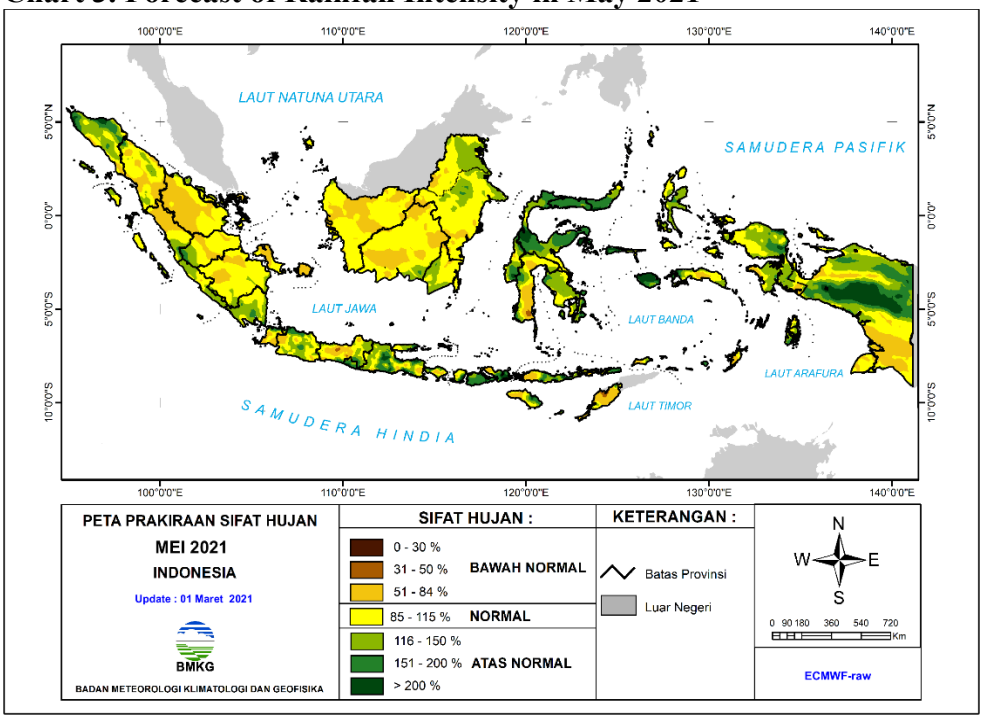
Source: BMKG

Chart 2. Rainfall Intensity in April 2020



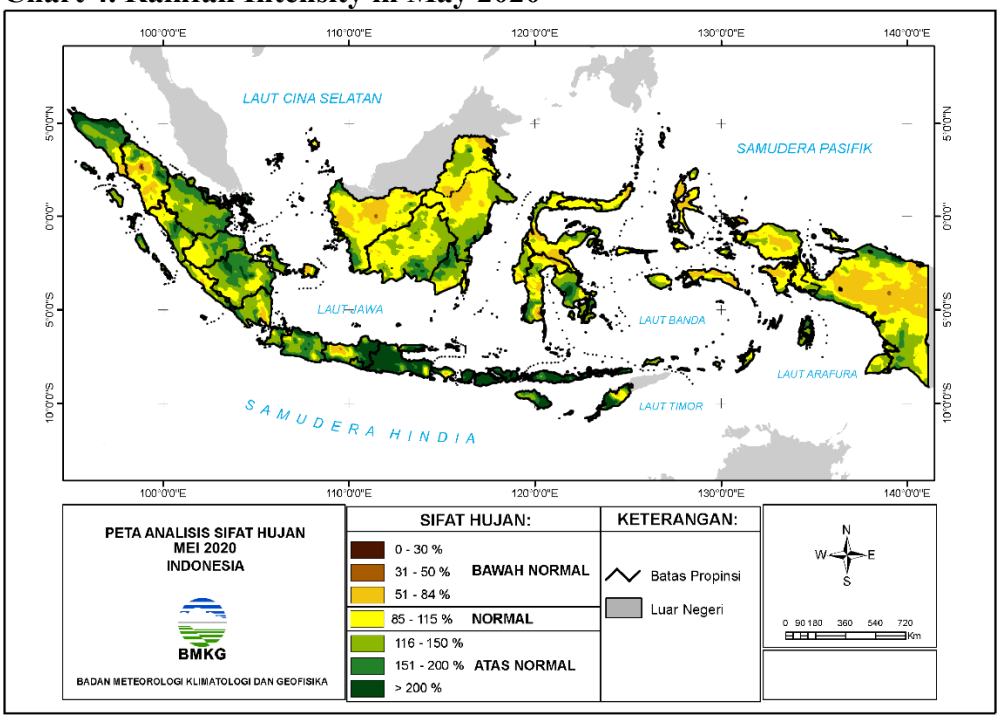
Source: BMKG

Chart 3. Forecast of Rainfall Intensity in May 2021



Source: BMKG

Chart 4. Rainfall Intensity in May 2020



Source: BMKG

According to the Indonesian Ministry of Public Works (MPW), approximately 60 percent of Indonesian harvested rice area is irrigated, while the remaining 40 percent is rain fed. With the arrival of the rainy season, major reservoirs in Java reported normal levels of water elevation. The water volume is expected to be able to supply water for paddy fields close to the reservoirs.

Table 1. Water Elevation at West Java Water Reservoirs, March 16, 2021

No.	Reservoir	Reservoir Volume (Million m^3)	Elevation and Volume				Condition
			Target		Observed		
			Elevation (m)	Volume (Million m^3)	Elevation (m)	Volume (Million m^3)	
1	Jatiluhur	1325.40	95.10	447.62	96.70	n/a	Normal
2	Cirata	668.12	210.61	201.23	211.37	n/a	Normal
3	Saguling	530.75	633.08	159.48	633.55	n/a	Normal

Source: Indonesian Min. of Public Works, (March 22, 2020), processed by FAS/Jakarta.

The Indonesian economy experienced a contraction of -2.1 percent in 2020 as a result of the global pandemic. Since the second quarter of 2020, Indonesia's economy has begun to gradually recover with growth in 2021 now forecast to reach 4.9 percent. The agricultural sector maintained positive growth throughout 2020 on strong consumer demand for staple commodities and a growing food processing sector. The Government of Indonesia (GOI) continues to impose various measures intended to slow the spread of COVID-19, including limiting travel, social distancing and banning large gatherings, however positive cases have continued to rise. Indonesia began its vaccination program in January 2021. As of

March 18, 4.8 million people had received first dose vaccinations and 1.9 million had received second doses.

SUMMARY

Wheat

Wheat imports in 2021/22 are forecast to reach 10.4 million tons on greater food industry demand. Wheat imports for 2020/21 are expected to decline to 10.0 million tons, reflecting slower growth in food consumption as a result of the COVID-19 pandemic and less competitive prices compared to local corn for feed use. Wheat consumption by feed mills for 2020/21 is expected to decline from 1.8 million tons in 2019/20 to 1.3 million tons in 2020/21. Wheat for feed use is expected to decline further to 1.0 million tons in 2021/22.

Corn

Corn production is expected to decline to 11.6 million tons from the previous estimate of 12.1 million tons in 2020/21, due to lower harvested areas. Despite higher prices for corn in international markets, imports are expected to reach 900,000 tons in 2020/21 and 1.3 million tons in 2021/22 based on increased wet milling capacity.

Rice

Harvested area for 2020/21 is expected to reach 11.8 million hectares as heavy rainfall will provide more farmers with the opportunity to grow paddy during the second crop cycle. Rice production is forecast lower at 34.2 million tons for 2020/21 based weather related impact on yields. Stable area and an end of the La Nina weather pattern is expected to increase production in 2021/22 to 35.3 million tons. Low stock levels at BULOG warehouses at the end of 2020 have led officials to announce plans to import 1 million tons of rice in 2021 to shore up depleted reserves.

WHEAT

Production

Indonesia does not produce wheat domestically and is fully reliant on wheat imports to fulfill demand for wheat flour-based food and as an ingredient for poultry, aquaculture, and livestock feed.

Trade

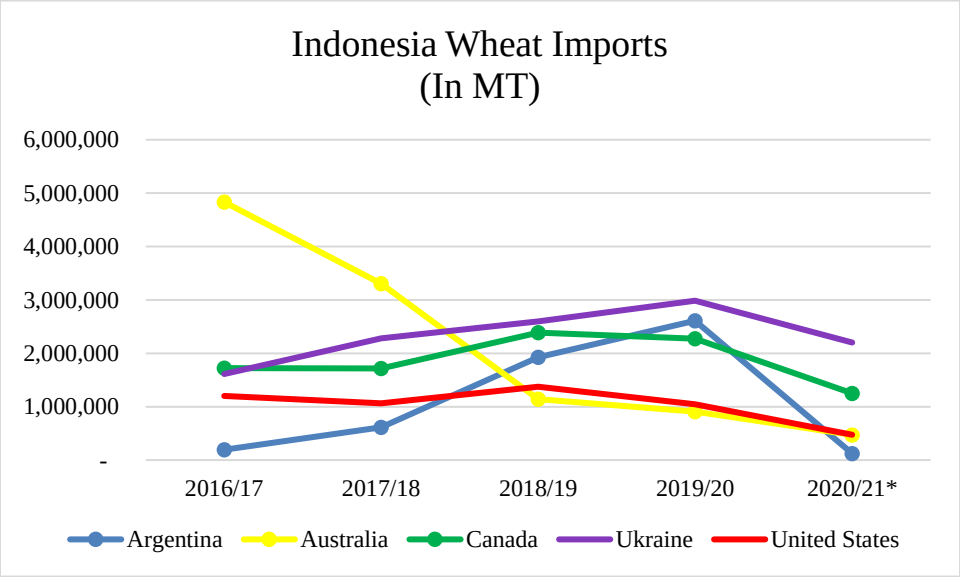
During the pre-deregulation era from 1970 to 1998, when wheat imports were carried out by a single state-owned procurement company, BULOG, only five flour mills operated in Indonesia. Currently, thirty flour mills are operational across the archipelago, including twenty-two mills on Java island, six mills on Sumatera island and 2 mills in South Sulawesi. Despite a challenging 2020, the expansion of existing mills continues. Installed capacity in 2020/21 is estimated to reach 12.8 million tons, an increase from 12.6 million in 2019/20. However, running capacity is currently only averaging 60 -70 percent, a decline from 80 percent in 2018/19. Additionally, new flour mills located in Riau, West Java,

North Sumatera, and South Sulawesi are expected to come on line in 2022. As more mills open and expand capacity, competition in the market is expected to further increase price sensitivities, already a major factor in determining the source of imports.

After years of poor harvests and declining market share, Australia is expected to again export significant volumes of wheat to Indonesia based on higher exportable supplies and policies in the Ukraine and Russia that are increasing prices and restricting exports (Please refer to Australia's Grain and Feed Update, Russia's Grain and Feed Update, Ukraine's Grain and Feed Update). Argentina, which saw its market share of Indonesian imports soar at the expense of Australia has faced challenges meeting demand due to strikes and less competitive prices. During the first six months of 2020/21 (July – December), Australia's market share increased to 10.2 percent compared to 7.9 percent during the same period of 2019/20. Ukraine continued to lead the market with 47.5 percent market share, followed by Canada with 26.9 percent. U.S. market share remains relatively stable at 10.2 percent.

Imports of corn for feed use remain restricted to BULOG, who must receive an appointment from the Ministry of Trade and can only distribute to small-holder farmers. Imports are normally only allowed when prices spike due to domestic supply shortages. Regardless of annual production volume, the seasonality of domestic corn supplies along with limited drying and storage facilities frequently result in higher prices that force some mills to source other feed ingredients to meet energy demand in feed rations. However, with the increasing price of wheat on the international market, feed mills are sourcing more local corn. The decline in wheat's price advantage for feed use, combined with the global economic slowdown and marginal growth of wheat for food consumption is expected to decrease 2020/21 wheat imports to 10 million tons. In line with population growth and a rebounding economy, wheat imports are forecast to grow modestly to 10.4 million tons in 2021/22.

Chart 5. Indonesia Wheat Imports, 2014-2020



Note: *) for the period of July to December 2020.
Source: Trade Data Monitor, March 2021.

Domestic flour continues to dominate the local market with a 99.9 percent market share. In line with weakened consumer purchasing power and reduced consumption, wheat flour imports during the period

of July 2020 to January 2021 decreased 46 percent to 25,600 tons compared to 48,041 tons in the same period of 2019/20. Turkey held the largest wheat flour market share (64 percent), followed by South Korea with 13 percent.

Consumption

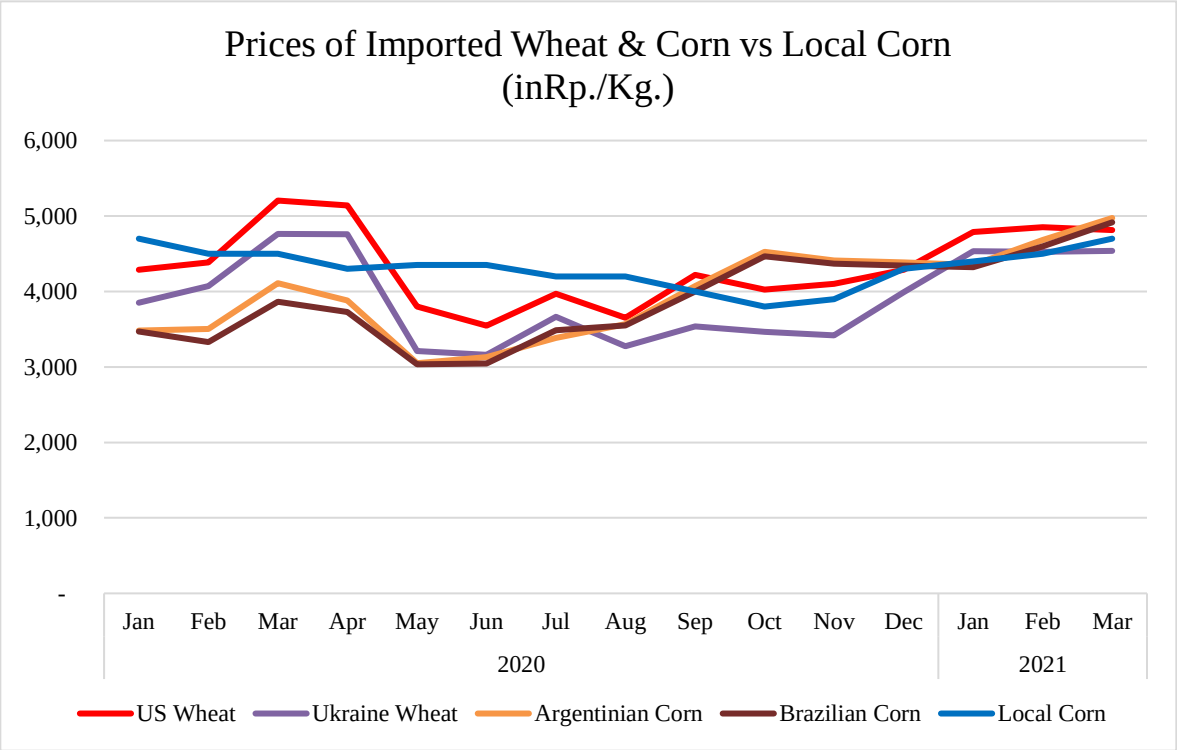
In 2019/20, annual per capita wheat flour consumption slightly increased to 31 kg from 30 kg during 2018/19 (Note: end user profile information of Indonesian wheat flour can be found here: ID2020-0006). Indonesia's trend towards urbanization and a growing middle class continue to align with an increasingly diverse diet and increased consumption of wheat-based foods such as breads, pizza, and pasta. The COVID-19 outbreak and resulting global and local economic slowdown has decreased the growth rate of wheat consumption for food. The closure and subsequent re-opening with limited capacity of shopping malls and restaurants has changed consumer behavior, leading to an increase in at home food preparation. This trend can be seen in the increased demand for smaller sized packaging, such as 1 kg retail bags of all-purpose flour. The change in demand has occurred alongside a volatile exchange rate and increasing global prices for wheat, which combined has resulted in increased production costs for mills. Popular brand Segi Tiga Biru has increased from Rp. 10,900/kg ($754/ton) on March 22, 2020 to Rp. 11,300/kg ($782/ton) on March 17, 2021. As the industry adjusts to these new market conditions, one bright spot has been a significant increase in the creation of at-home baked goods businesses which have sprouted up since the onset of the pandemic. Serving as a source of additional income for families, many of these businesses have had great success marketing and selling their baked goods through online platforms and delivery services. Smaller, artisan bakeries have also joined the surge in online selling, resulting in a change in technical training focus for some large mills. Additionally, wheat-based products for export have seen a considerable increase and are expected to reach 360,000 tons in 2020/21 and 380,000 tons in 2021/22 on strong overseas demand. Exports of wheat based products exceeded $1 billion in 2020, with crispy savory products, wafers, instant noodles, and pasta seeing the largest increase in demand. During the period of July to December 2020, wheat products were exported to Malaysia (26 percent), the Philippines (12 percent), and Australia (7 percent).

Based on increased demand from small businesses and higher production of wheat-based products for export, Post estimates declines in food sector consumption of wheat flour will be offset and total food consumption will increase by 1.0 percent to 8.6 million tons in 2020/21 and 8.7 million tons in 2021/22, in line with population growth.

Demand for wheat in the feed sector is expected to decline significantly as comparatively lower priced domestic corn will reduce feed miller's incorporation of wheat into feed rations. The price spread whereby feed mills begin incorporating more wheat over local corn is approximately Rp. 400-500/kg ($27.6 – 36/ton). Currently, the landed price of Ukrainian wheat, the origin most frequently used in feed formulation, is Rp. 4,550/kg ($315/ton) compared to Rp. 4,500/kg ($311/ton) for local corn at the mills' gate. Declining wheat consumption among poultry feed may in part be offset by increasing demand for wheat in aquaculture feed. Wheat constitutes about 11 percent of aquaculture feed formulation. In 2020 aquaculture feed production reached a total of 1.6 million tons and the Coordinating Ministry of Economic Affairs has forecast growth of 3 percent in the sector for 2021. Despite the relative advantage of local corn prices, feed mills will continue to include wheat as a key ingredient in feed rations, including poultry feed, especially during the off-harvest corn season when prices for local corn tend to

surge. Post forecasts 2020/21 and 2021/22 wheat consumption for feed to decrease to 1.3 million tons and 1.0 million tons, respectively.

Chart 6. Comparison of Imported Wheat Prices and Local Corn.



Source: Hammersmith and USSEC, processed by FAS.

Stocks

Due to lower imports and higher food consumption, 2020/21 ending stocks are expected to decline to 1.456 million tons of wheat equivalent compared to 1.7 million tons of wheat equivalent in 2019/20. Reflecting higher imports and lower feed consumption, 2021/22 ending stocks are forecast to increase to 1.776 tons of wheat equivalent.

CORN

Production

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). Indonesia normally experiences a dry season from April to October and rainy season from October to April. Although some areas only have two planting seasons, most regions normally offer three planting periods. Across much of Indonesia the first corn season normally takes place from October to February (49 percent); the second from March to June (37 percent); and the third from July to September (14 percent). BMKG forecasts that a La Nina weather pattern, which has developed since the end of 2020, will reach its peak during the period January to March 2021, before ending in May 2021. Unlike recent

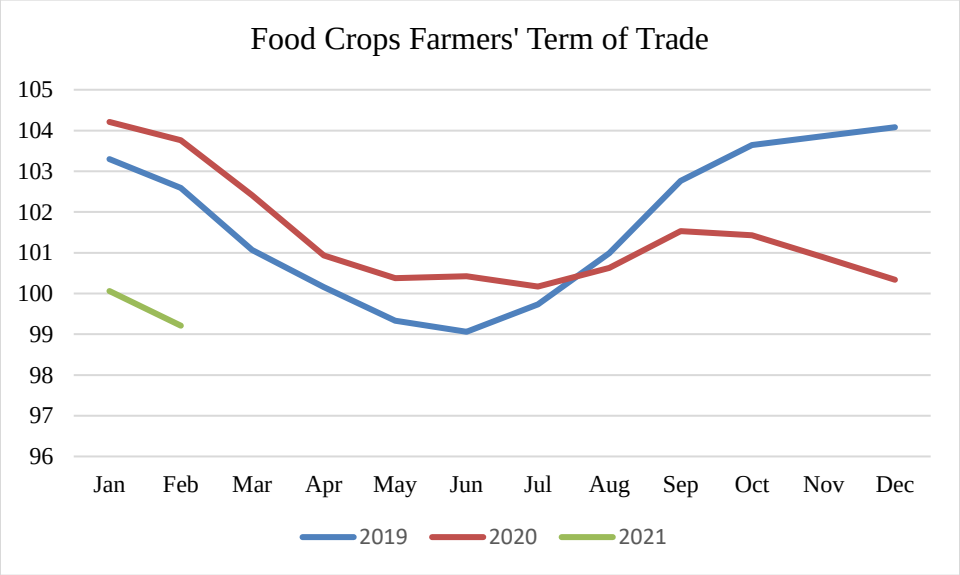
years, the rainy season in 2020 arrived in October, allowing the first crop cycle begin on time. However, the weather pattern is impacting production in other ways. Farmers reported heavy rainfalls and strong winds in Central Java and East Java during February 2021, causing harvest loss due to the collapse of corn plants in some areas. Additionally, sufficient water availability from adequate rainfall during the second crop cycle will likely result in farmers on lowland rain-fed areas growing paddy over corn.

Above: Collapsed corn crops in Central Java due to heavy rainfall.

To increase national corn production, the Ministry of Agriculture (MOA) has provided farmers with subsidized corn seed. In 2020, around 70 percent of total corn area was grown with hybrid corn seed. In 2020, MOA provided farmers with certified subsidized hybrid corn seed for a total of 1,397,000 hectares. MOA collaborated with private seed companies to provide the seed. Despite some concerns from farmers on the quality of the subsidized seed, the program did incentivize farmers to grow corn over other secondary crops. However, with a reduced budget allocated to MOA, the volume of certified subsidized hybrid corn seed under the 2021 program has been reduced to cover only 988,000 hectares.

The budget cuts coincide with a reduction in farmers' purchasing power as a result of the COVID-19 related economic slowdown. The National Statistics Agency (BPS) has reported declining food crop farmers' terms of trade as an indicator of farmers' purchasing power as noted in Chart 7 below.

Chart 7. Farmers' Terms of Trade



Source: BPS, March 2021.

Farmer Terms of Trade (*NTP*, *Nilai Tukar Petani*) is the comparison of the price index received by farmers to the price index paid by farmers. The NTP is used as indicator to assess the level of ability / purchasing power of farmers in rural areas. The NTP also shows the terms of trade of agricultural products with goods and services consumed as well as for production costs. With lower purchasing power, hybrid corn seed producers reported more sales on cheaper and lower quality seeds.

Another production challenge comes from the GOI's reduced allocation for subsidized fertilizers. Initially issued through an MOA regulation in early 2020, the 2020/21 first crop cycle is the first planting season to fall under the new guidelines. A long process to submit requests for subsidized fertilizers has led to delayed arrivals of fertilizers on farms. Farmers have reported less application of fertilizers due to lack of fertilizers availability and untimely arrivals.

Table 2. Allocation and Maximum Retail Prices of Subsidized Fertilizers.

Type of Fertilizers	2019		2020		2021	
	Volume (MT)	Price (Rp./Kg.)	Volume (MT)	Price (Rp./Kg.)	Volume (MT or Liter)	Price (Rp./Kg. or Rp./Liter)
Urea	3,825,000	1,800	3,274,303	1,800	4,166,669	2,250
SP 36	779,000	2,000	500,000	2,000	640,812	2,400
ZA	996,000	1,400	750,000	1,400	784,144	1,700
NPK	2,325,000	2,300	2,688,000	2,300	2,662,000	2,300
Specific NPK			17,000		17,000	3,300
Granulated organic	948,000	500	720,000	500	770,850	800
Liquid organic					1,500,000	20,000

Source: Ministry of Agriculture Regulation No. 49/2020.

Furthermore, the regulation stated that in order to be eligible to receive subsidized fertilizer, farmers must own a so-called "Farmer Card". The card is issued by appointed
Banks to farmers for use in acquiring subsidized fertilizer through electronic machines at authorized retailers. As a prerequisite for banks to issue farmer cards, farmers must show proof of legal of ownership of agricultural land. The requirement eliminates the eligibility of farmers who use Perhutani land (state-owned forestry land) to receive subsidized fertilizer. As a result, some farmers reported choosing not to plant corn during the first planting season of 2021, rather than planting corn without proper fertilizer application. Perhutani, a state owned company managing Indonesian forests, reported approximately 43,000 hectares of Perhutani land are planted with corn annually. The average corn production reached a total of about 22,000 tons annually, yields far below the national average. The land is scattered across major corn producing areas in Central and East Java, such as in Grobogan, Pemalang, Pati, Blora, Bojonegoro, Mojokerto, Madiun, and Tuban.

Based on the abovementioned factors, 2020/21 corn harvested area and corn yield are estimated to decline to 3.6 million hectares and yield 3.22 tons per hectare. In line with the decline in harvested area and yield, 2020/21 corn production is estimated to decline to 11.6 million tons from the previous estimate of 12.1 million tons. Harvested area in 2021/22 is forecast to recover to 3.7 million hectares as a recovering economy is expected to lift farmer income and purchasing power. Accordingly, 2021/22 corn production is forecast to increase to 12.0 million tons. No significant pest and disease problems were reported during 2019/20 crop year.

Consumption

Currently, Indonesia's feed mill sector consists of 110 feed mills located in 10 provinces, with 81 mills located on Java Island. In 2020, total installed capacity reached approximately 29.7 million tons, an increase of 20 percent from 24.7 million tons in 2018. Feed mills are running at 70 percent of total installed capacity. Following 2016 GOI import restrictions on imports of corn for feed use, to secure a consistent supply for operations amid seasonal supplies from farmers, mills began to build their own dryers and silos in 2018.

Table 3. Indonesian Feed Mills Production and Silo Capacities, in Thousand Tons/Year (Including Aquaculture)

Area	Number of Plants		Production		Silo
	2018	2020	2018	2020	2020
North and West Sumatera	12	13	2,780	3,068	184.0
Southern Sumatera and Lampung	6	6	1,440	1,560	187.0
West Java and Jakarta	34	40	8,820	10,676	530.2
Central Java	10	13	2,240	3,950	242.5
East Java	25	28	7,055	8,102	421.6
Kalimantan	3	3	800	800	64.0
Sulawesi	7	7	1,545	1,580	109.5
Total	97	110	24,680	29,736	1,738.8

Source: Indonesian Feed Producers Association (*Asosiasi Produsen Pakan Indonesia, APPI*), 2021.

The poultry industry consumes approximately 90 percent of domestic animal feed supplies with aquaculture accounting for 6 percent and cattle and swine the remaining 4 percent. MOA forecasts that

the population of broilers in 2020–2024 will grow 8.49% per year. In 2020 broiler population reached 2.97 billion heads. In 2021, MOA estimates broiler population to reach 3.4 billion heads. In 2021, the production of purebred chicken meat is estimated to reach 3.8 million tons. To meet this demand in 2020, feed mills produced a total of 17.8 million tons of poultry complete feed, while poultry farmers produced a total of 1.08 million tons of home mixed feed. In 2021, feed mills are expected to produce a total of 18.7 million tons of poultry complete feed, while poultry farmers are estimated to produce a total of 1.1 million tons of home mixed feed. For aquaculture, a total of 1.6 million tons of feed was produced in 2020. In 2021, it is estimated that aqua feed production will increase to 1.68 million tons. Due to measures implemented to curb COVID-19 that significantly reduced consumption at restaurants, hotels, and other venues, as well as depressed consumer purchasing power, 2020 per capita poultry meat consumption declined to 10.1 kg per capita from 12.8 kg per capita in 2019. Per capita poultry meat consumption is expected to increase to 11.75 kg in 2021.

The soaring prices of corn and wheat on the international market has encouraged feed mills to use local corn as the primary energy source in feed. Corn usage in feed formulation in 2021 is expected to increase to 45 percent compared to 43 percent in 2020 (corn usage was 50 - 60 percent prior to import restrictions on corn for feed use). The gap will still be filled with wheat purchased from local mills and other local feed ingredients.

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	45	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.

Corn milling capacity is continuing to grow. Installed capacity of the industry is estimated to increase to 4 million tons in 2020/21, compared to 3 million tons in 2019/20. The industry remains the main importer of corn due to food safety requirement for corn in the wet milling process. The wet milling industry requires corn with aflatoxin content of less than 20 parts per billion (ppb) to produce food ingredients fit for human consumption. Local corn, which is mostly harvested manually at moisture content levels reaching 35 percent, dried under the sun, and often improperly stored at the farmer level, frequently reaches aflatoxin levels far above 20 ppb. As a result, local corn is often consumed through feed mills that can tolerate high moisture and aflatoxin levels. Wet millers also prefer imported dent corn over locally produced flint corn due to its higher starch content.

The industry in 2020 produced a total of 304,000 tons of corn starch, 71,000 tons of glucose syrup, 56,000 tons of high fructose corn syrup, 22,000 tons liquid dextrose, and 18,000 tons of maltodextrin from a total of 1.0 million tons of imported corn. Approximately 80 – 90 percent of the corn starch is used as the main raw material for corn vermicelli production, while most of the balance is used as a

whitener by the paper industry. Despite recent increased capacity, Indonesia still imports 55 percent of total demand for starch, providing ample opportunity for the local corn milling industry to grow.

In addition to being converted to starch for fabricating corn vermicelli, corn is also consumed as a staple food, often mixed with rice in parts of Eastern Indonesia. However, with rice generally becoming more accessible, corn consumption as staple food is declining. MOA has reported that for the period of 2020 to 2024 corn for food consumption is projected to decrease by 4.56 percent per year.

Based on the abovementioned factors, 2020/21 corn consumption for feed is expected to slightly increase to 8.7 million tons. An improving economy and rebound in poultry meat consumption is forecast to increase corn consumption for feed to 9.1 million tons in 2021/22. Corn consumption for food in 2020/21 and 2021/22 is forecast to increase to 4.1 million tons and 4.2 million tons, respectively, due to wet mill expansion and increasing demand for corn starch increasing.

Trade

Despite prices for corn on the international market soaring from an average price of $195/ton in 2019 to $290/ton in 2020, Indonesia's wet milling industry continues to import corn to meet food safety requirements. Based on recent industry expansions, Post estimates 2020/21 corn imports will reach 900,000 tons, further increasing 1.3 million tons in 2021/22 as new facilities begin operations.

The major impediment to importing corn for industrial use comes from uncertainty of the import permit issuance process. The GOI continues to encourage industry to incorporate local corn into their production process, despite challenges related to food safety. The Ministry of Trade (MOT) issues import permits for the industry on a semester basis, requiring allocation applications be submitted at least one month in advance. However, in 2020, import permits for the second semester allocation were not issued until October 2020, causing some companies to completely deplete stocks and halt production. Following the disruption, local industry has attempted to support local corn production by conducting a feasibility study and developing standard operating procedures to produce low aflatoxin corn in high humidity environments.

For the period of October 2020 through January 2021, a total of 295,459 tons of imported corn landed in country, an increase of 14.5 percent from 258,122 tons imported during the same period of 2019/20. During 2019/20, corn imports originated from Argentina (88.5 percent), Brazil (7.6 percent), and the United States (3.7 percent). For the period of October 2020 to January 2021, Indonesia imported from Brazil (58.7 percent) and Argentina (40.8 percent).

Indonesia exports minimal volumes of corn. Exports for 2020/21 are estimated at 5,000 tons. The volume is forecast to remain stable in 2021/22 as demand from local feed mills is forecast to increase. In 2019/20 Indonesia exported corn to the Philippines (97.3 percent) and Japan (1.1 percent).

Stocks

Consistent with estimated lower production and higher consumption both by feed mills and for industry, 2020/21 ending stocks are estimated to decreased to 797,000 tons from the previous estimates of 1.047

million tons. Stocks are forecast to further decline to 792,000 tons due to higher consumption in 2021/22.

Prices

According to MOT regulation number 7/2020, issued on February 10, 2020, the selling price of corn with 15 percent moisture content at the mill level is set at Rp. 4,500/kg ($277/ton). Currently, the first main harvest is ongoing. Prices at the farmer's level are normally declining as the main harvest progresses. However, driven by higher demand from feed mills and estimated lower supply from the field, the average prices of corn at farmers' level have increased to Rp. 4,500/kg ($311/ton) compared to Rp. 3,800/kg ($263/ton) on March, 2020. The price of feed ingredients constitutes 80-85 percent of compound feed production costs. Combined with scarcity to find containers for importing containerized feed ingredients such DDGS, prices of poultry complete feed also increased, as follows:

Table 5. Prices of Poultry Complete Feed

Broiler Complete Feed												
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
2020	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100	6650 - 7100
2020	6800 - 7200	6800 - 7200	6800 - 7200									
Layer Complete Feed												
2020	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5650 - 6100	5800 - 6250	5800 - 6250
2021	5900 - 6350	5900 - 6350	5900 - 6350									

Source: USSEC.

RICE, MILLED

Production

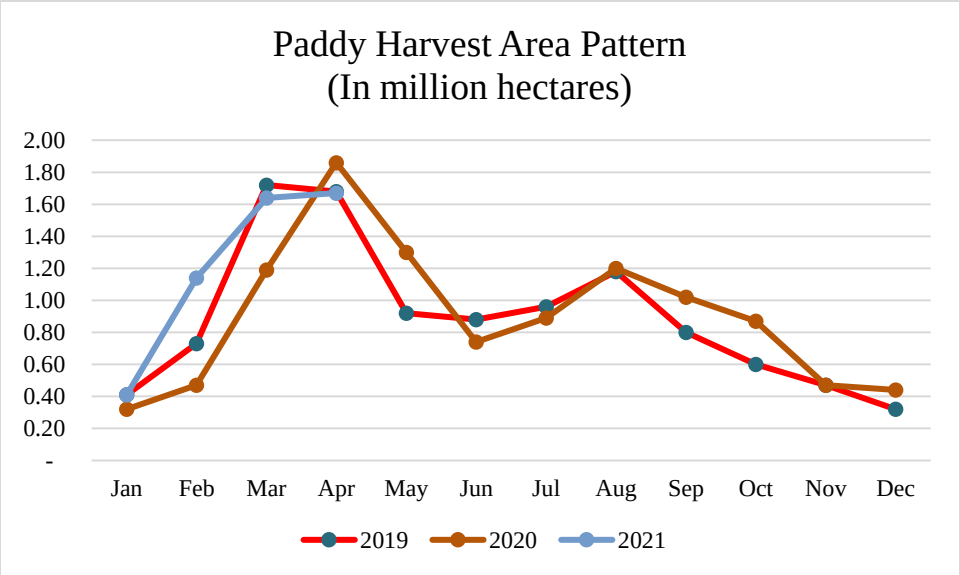
Approximately 50 to 55 percent of rice production is in Java, while Sumatera and Sulawesi contribute 20 and 12 percent, respectively. Approximately 85 percent of rice production comes from irrigated paddy fields. Typically, irrigated farms are planted to paddy during the first and second crop cycles (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 timely arrival of the 2020/21 rainy season has provided opportunity for farmers to start the first crop cycle on time, with most farmers planting paddy in October or November 2020.

In early March 2021, the National Statistics Agency (BPS) forecast based on standing crops that 2020/21 first crop cycle paddy harvested area will increase to 4.86 million hectares, compared to 4.55 million hectares the same period of 2019/20. BPS estimates that paddy production for the first main harvest will increase to 25.37 million tons from 19.99 million tons produced in the period of January to April 2020. However, recent Post observations from the field showed that frequent rainfall had limited the sunlight required during the flowering and grain filling stages, resulting in high amounts of empty husks and high moisture content for harvested paddy. Paddy farmers have also faced the same fertilizer problems as corn farmers, with some not receiving allocated subsidized fertilizers on time, resulting in

fewer applications to crops. The high rainfall also caused flooding in parts of East Java, requiring some farmers to replant entire fields. Accordingly, some farmers in major paddy growing areas in Central Java and East Java reported yield declines of almost 15 percent compared to the same period of 2019/20. No significant incident of pest and diseases are reported.

Considering the aforementioned factors, Post estimates 2020/21 harvested area to increase to 11.8 million hectares compared to 11.6 million hectares in 2019/20. However, due to reduced yields during the first main harvest, 2020/21 paddy production is estimated to decline to 53.9 million tons, compared to 55.9 million tons previously estimated. Harvested area is forecast to remain stable at 11.8 million hectares in 2021/22. Higher yields resulting from the end of the La Nina weather pattern are expected to increase 2021/22 production to 55.6 million tons.

Chart 8. Paddy Harvest Pattern



Source: BPS, February 2021.

Consumption

In order to assist people economically affected by the pandemic, the GOI has distributed social assistance aid in the form of rice, which has been distributed in the amount of 15 kilograms per month during August-October 2020 to select households. Under the program, rice was distributed to 10 million recipients of the Family Hope Program (*PKH, Program Keluarga Harapan*) throughout Indonesia. In total, BULOG has distributed 450,000 tons of rice under the program. Combined with regular market operation and other government social aid programs, BULOG distributed 1.927 million tons of rice throughout 2019/20.

Per capita rice consumption continues to decline by approximately 0.62 percent per year as middle and upper-middle income consumers continue diversifying their diets to include more western-style foods like bread and pasta and lower-middle income consumers continue to replace rice-based dishes with instant noodles due to ease of preparation and affordability.

Post estimates 2020/21 rice consumption to decline to 35.8 million tons compared to 36.0 million tons in 2019/20, reflecting a slower economy and decreased consumer purchasing power. Rice consumption in 2021/22 is estimated to rebound to 36.0 million tons, in line with population growth.

Policy

The 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.

Table 6. Indonesia: Government Purchasing Price for Paddy and Rice 2015-Present

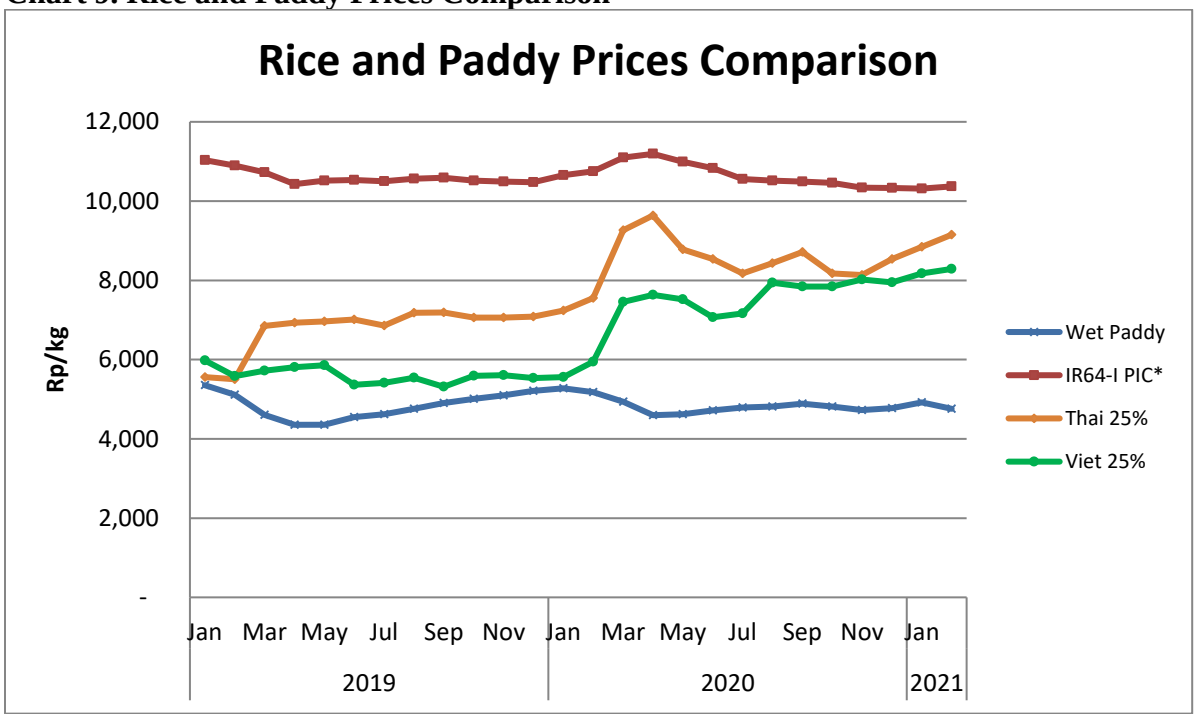
		2015			2020		
Quality Requirement		Wet Paddy	Dry Paddy	Rice	Wet Paddy	Dry Paddy	Rice
Moisture Content	Max	25%	14%	14%	25%	14%	14%
Empty Husks/Dirt	Max	10%	3%	-	10%	3%	-
Broken	Max	-	-	20%	-	-	20%
Price at farmer's level		Rp. 3,700	-	-	Rp. 4,200	-	-
Price at mill's level		Rp. 3,750	Rp. 4,600	-	Rp. 4,250	Rp. 5,250	-
Price at Bulog warehouse		-	Rp. 4,650	Rp. 7,300	-	Rp. 5,300	Rp. 8,300

Source: Presidential Instruction No. 5/2015, and MOT Reg. No. 24/2020

BPS reports prices of wet paddy at farmers level in February 2021 declined by 8.1 percent to Rp. 4,758/kg ($329/ton) compared to Rp. 5,176/kg ($358/ton) in February 2020. Wet paddy prices at mill's level in February 2021 declined by 7.8 percent to Rp. 4,863/kg ($336/ton) compared to Rp. 5,276/kg ($365/ton) in January 2020. The price declines are in line with lower yields and quality from the ongoing main harvest.

GOI assistance to pandemic affected families has prevented higher demand at commercial markets and maintained stable prices for medium quality rice at around Rp. 10,300/kg ($712/ton) since November 2020 at the wholesale market. Prices remain above the maximum retail price of Rp. 9,450/kg ($653/ton) for medium quality rice on Java.

Chart 9. Rice and Paddy Prices Comparison



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

Trade

BULOG set its 2021 procurement target at 1.4 million tons, a modest increase from realized procurement of 1.19 million tons in 2019. As of March 22, 2021, BULOG had procured a total of 121,832 tons of milled rice, higher than 78,547 tons of milled rice equivalent procured at the same period of 2020. BULOG stocks at the end of February were reported to be 870,000 tons.

BULOG is required to maintain a minimum year-end stock level of 1.5 - 2 million tons. Considering the current stock level and in anticipation of higher demand during the upcoming Ramadan period, the GOI recently announced its intention to import a total of 1 million tons of rice in 2021. BULOG will use the additional supply from imports to stabilize domestic rice prices. Taking into account imports of specialty rice by the private sector, 2020/21 rice imports are estimated at 1.5 million tons, an increase from 2019/20 rice imports of 550,000 tons. 2021/22 rice imports are forecast to decline to 600,000 tons, consisting primarily of specialty rice. In 2019/20, Indonesia imported rice from Pakistan (22 percent), Thailand (18 percent), Vietnam (18 percent), and Singapore (16 percent).

Stocks

In line with estimated lower production, 2020/21 ending stocks are estimated to decline to 3.2 million tons of milled rice equivalent compared to the previous estimate of 3.5 million tons of milled rice equivalent. Other than stocks at BULOG, rice mills held a total of 1.1 million tons while private traders held 616,000 million tons of milled rice equivalent at the end of February 2021. Based on increased production, lower imports, and higher consumption, 2021/22 ending stocks are forecast to further decrease to 3.1 million tons of milled rice equivalent.

PSD TABLES

Table 7. PSD: WHEAT

Wheat	2019/2020		2020/2021		2021/2022	
Market Begin Year	Jul 2019		Jul 2020		Jul 2021	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	1780	1780	1716	1716	0	1456
Production	0	0	0	0	0	0
MY Imports	10586	10586	10500	10000	0	10400
TY Imports	10586	10586	10500	10000	0	10400
TY Imp. from U.S.	1044	1044	0	1000	0	1000
Total Supply	12366	12366	12216	11716	0	11856
MY Exports	350	350	300	360	0	380
TY Exports	350	350	300	360	0	380
Feed and Residual	1800	1800	1800	1300	0	1000
FSI Consumption	8500	8500	8700	8600	0	8700
Total Consumption	10300	10300	10500	9900	0	9700
Ending Stocks	1716	1716	1416	1456	0	1776
Total Distribution	12366	12366	12216	11716	0	11856
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 8. PSD: CORN

Corn	2019/2020		2020/2021		2021/2022	
Market Begin Year	Oct 2019		Oct 2020		Oct 2021	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	3800	3800	3700	3600	0	3700
Beginning Stocks	906	906	1102	1102	0	797
Production	12000	12000	12100	11600	0	12000
MY Imports	860	860	850	900	0	1300
TY Imports	860	860	850	900	0	1200
TY Imp. from U.S.	34	34	0	32	0	0
Total Supply	13766	13766	14052	13602	0	14097
MY Exports	64	64	5	5	0	5
TY Exports	64	64	5	5	0	5
Feed and Residual	8600	8600	9000	8700	0	9100
FSI Consumption	4000	4000	4000	4100	0	4200
Total Consumption	12600	12600	13000	12800	0	13300
Ending Stocks	1102	1102	1047	797	0	792
Total Distribution	13766	13766	14052	13602	0	14097
Yield	3.1579	3.1579	3.2703	3.2222	0	3.2432
(1000 HA) ,(1000 MT) ,(MT/HA)						

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

Table 9. PSD: RICE, MILLED

Rice, Milled	2019/2020		2020/2021		2021/2022	
Market Begin Year	Jan 2020		Jan 2021		Jan 2022	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	11600	11600	11800	11800	0	11800
Beginning Stocks	4063	4063	3313	3313	0	3213
Milled Production	34700	34700	35500	34200	0	35306
Rough Production	54646	54646	55906	53858	0	55600
Milling Rate (.9999)	6350	6350	6350	6350	0	6350
MY Imports	550	550	500	1500	0	600
TY Imports	550	550	500	1500	0	600
TY Imp. from U.S.	1	1	0	0	0	0
Total Supply	39313	39313	39313	39013	0	39119
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Consumption and Residual	36000	36000	35800	35800	0	36000
Ending Stocks	3313	3313	3513	3213	0	3119
Total Distribution	39313	39313	39313	39013	0	39119
Yield (Rough)	4.7109	4.7109	4.7378	4.5642	0	4.7119
(1000 HA) ,(1000 MT) ,(MT/HA)						

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

Source: Ministry of Finance.

Table 11. Exchange Rate

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	13,343	13,347	13,321	13,327	13,321	13,319	13,323	13,351	13,492	13,572	13,514	13,548
2018	13,413	13,707	13,756	13,877	13,951	14,404	14,413	14,711	14,929	15,227	14,339	14,481
2019	14,072	14,062	14,244	14,268	14,362	14,141	13,913	14,237	14,174	14,008	14,102	13,901
2020	13,662	14,234	16,367	15,157	14,733	14,302	14,653	14,554	14,918	14,690	14,187	14,105
2021	14,084	14,229	14,459									

Source: Bank of Indonesia

Note: Exchange rate is Rp. 14,459/USD 1, as of March 17, 2021.

Attachments:

No Attachments