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# **Report Name:** Grain and Feed Annual

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## **Report Highlights:**

The Red Sea conflict is not expected to pose significant threats to Indonesian grain imports. Driven by demand from the recent general elections, as well as high local corn prices, imports of wheat for food and feed consumption are estimated to increase for 2023/24. Post-election demand for wheat and rice are forecast to be corrected in 2024/25.

Glossary:	
APHIS	: Animal and Plant Health Inspection Service
APTINDO	: Indonesian Flour Mills Association
BMKG	: Indonesian Meteorology, Climatology, and Geophysics Agency
BI	: Bank of Indonesia
BMDTP	: Government Borne Import Duty
BPS	: Indonesian Statistics Agency
BULOG	: Indonesian National Logistics Agency
CGM	: Corn Gluten Meal
DDGS	: Distillers Dried Grain Soluble
DOC	: Day-Old Chicken
FS	: Final Stock
GOI	: Government of Indonesia
GPMT	: Feed Producers Association
GPS	: Grand Parent Stock
IDR	: Indonesian Rupiah
INSW	: Indonesian National Single Window
IQA	: Indonesian Quarantine Agency
HPP	: Government Purchasing Price
KPM	: Beneficiary Families
MOA	: Ministry of Agriculture
MT	: Metric Tons
MMT	: Million Metric Tons
MPW	: Ministry of Public Works
NFA	: National Food Agency
SPHP	: Stabilization of Rice Supply and Price
TDM	: Trade Data Monitor

## SECTION I. SITUATION AND OUTLOOK

The Indonesian Meteorology, Climatology and Geophysics Agency (*BMKG*, *Badan Meteorologi*, *Klimatologi*, *dan Geofisika*) predicts that the start of the dry season in Indonesia will occur in April 2024 as the Australian monsoon becomes active. Dry season will start from East Nusa Tenggara, West Nusa Tenggara, and Bali, and will continue to Java Island and dominate almost all of Indonesia from May to August 2024. When compared to the climatological average (1991-2020 period), the start of the 2024 dry season in Indonesia is predicted to be later than normal in 40 percent of total area, normal time in 25 percent of total area, and earlier than normal in 15 percent of total area. Compared to the climatological average (1991-2020 period), the 2024 dry season is predicted to be normal and above in 51.36 percent of area and below normal in 39.91 percent of area. Moreover, BMKG predicts 8.73 percent area of Indonesia will experience below normal dry season. Furthermore, BMKG reported that until early March 2024, monitoring of global climate anomalies in the Pacific Ocean showed that a moderate El Nino is still ongoing. The El Nino phenomenon is predicted to move towards its neutral phase around May-July 2024, potentially turning into a weak La Nina after the third quarter (July-September) 2024. The El Nino phenomenon that has hit Indonesia since the second semester of 2023 has increased the area unplanted with rice or corn throughout October to December 2023. The Indonesian Statistics Agency (*BPS, Badan Pusat Statistik*) reported that fallow land in Indonesia in October 2023 is estimated to reach a total of 2.94 million hectares. From November 2023 to January 2024, fallow area has been reduced from 2.24 million hectares to 0.74 million hectares. Fallow area during the early months of 2023/24 indicates later than normal beginnings of the first crop cycle of 2023/24. The first crop cycle in Java, which contributes to more than half of Indonesian corn and paddy production, started in late November to December 2023. Therefore, production of rice and corn during the first harvest are also estimated to be later and lower than the first crop cycle of 2022/23. Assuming BMKG's La Nina prediction materializes, the beginning of the 2024/25 first crop cycle is expected to start at the normal time of October to November 2024. Therefore, 2024/25 rice and corn production are forecast to improve.



#### Chart 1. Forecast of Rainfall Intensity in April 2024

Source: Indonesian Meteorology, Climatology, and Geophysics Agency (BMKG)



## Chart 2. Rainfall Intensity in April 2023

Source: Indonesian Meteorology, Climatology, and Geophysics Agency (BMKG)





Source: Indonesian Meteorology, Climatology, and Geophysics Agency (BMKG)



Chart 4. Rainfall Intensity in May 2023

Despite the ongoing El Nino-induced dryness, the Ministry of Public Works (MPW) reported that currently, major reservoirs in Java have normal levels of water elevation. The water volume is expected to be able to supply water for paddy fields close to the reservoirs during the second and third crop cycle.

		Reservoir Volume	Tai	:get	Obse		
No.	Reservoir	, ordinic	Elevation	Volume	Elevation	Volume	Condition
		(Million		(Million		(Million	
		<b>m</b> <sup>3</sup> )	( <b>m</b> )	<b>m</b> <sup>3</sup> )	( <b>m</b> )	<b>m</b> <sup>3</sup> )	
1	Jatiluhur	1325.40	95.10	447.62	97.99	n/a	Normal
2	Cirata	668.12	210.61	201.23	214.85	n/a	Normal
3	Saguling	530.75	633.08	159.48	637	n/a	Normal

Table 1. Water Elevation at West Java Water Reservoirs, February 22, 2024.

Source: Indonesian Min. of Public Works, (February 23, 2024), processed by FAS/Jakarta.

# **SUMMARY**

## Wheat

Wheat imports for 2023/24 are estimated to increase by 21.7 percent to a total of 11.5 million metric tons (MMT) from 9.446 MMT imported in 2022/23. The receding of the spike in wheat demand that had been caused by the recent general elections is forecast to marginally decrease 2024/25 wheat imports to 11.4 MMT. However, 2023/24 and 2024/25 wheat consumption for feed is forecast to increase to 1.6 MMT and 1.8 MMT due to higher demand for wheat resulting from high local corn prices and feed production increases.

Source: Indonesian Meteorology, Climatology, and Geophysics Agency (BMKG)

## Corn

Lack of rainfall from the stronger than anticipated El Nino diminished opportunities to grow more corn during the second and third crop cycle of 2022/23, leading to significant reduction in local corn production. The Minister of Agriculture's decision to expand corn area by providing subsidized seed to farmers potentially hindered opportunities to achieve higher productivity in 2023/24 as well as in 2024/2025 as subsidized seed is not normally the highest yielding variety. Production shortages and skyrocketing prices of local corn reduced the use of corn and incentivized not only higher wheat inclusion in feed formulation but also other plant-based feed ingredients.

# Rice

Referring to Indonesian Statistics Agency (*BPS, Badan Pusat Statistik*) report, Post revises down 2022/23 paddy harvested area to 11.3 million hectares from the previous estimate of 11.5 million hectares as the effects of El Nino have proven to be stronger than initially anticipated, leading to more farmers leaving the land fallow. The impact of El Nino in 2022/23 combined with floodings in some paddy producing areas during the early months of 2023/24 and the expected arrival of dry season in April 2024 is estimated to further lower harvested area and production in 2023/24. Assuming improved weather conditions, paddy production is forecast to slightly rebound in 2024/25. Production shortages which resulted in rising prices for paddy and rice led to higher imports allocations that the Government of Indonesia (GOI) assigned to BULOG in 2022/23 and 2023/24.

# **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

The Indonesian flour mill industry currently consists of 30 flour mills with a total installed capacity of 14.4 MMT. A total of 23 flour mills are located on Java, 5 in Sumatera, and 2 in Sulawesi. In line with growing demand from population growth, new flour-based food trends and food diversification, prospects for the industry remains bright. Four new flour mills are expected to come online in 2024-2025.

The GOI allows only flour mills to import wheat while it restricts imports by traders and feed mills. The GOI will only allow imports of wheat for feed use when deemed necessary and only through assignments to state-owned enterprises managing government food reserves such as the National Logistics Agency (*BULOG, Badan Urusan Logistik*). To enforce these restrictions, the GOI levies different import duties on wheat imports based on the HS Code:

HS Code	Description	Import Duty (In Percent)
1001 1900	Durum wheat, other than seed	0
1001 9912	Wheat grain without husk, fit for human consumption	0
1001 9919	Wheat, other than durum wheat and seed, other than wheat grain without husk, fit for human consumption	0
1001 9999	Other meslin, not fit for human consumption	5

**Table 2. Wheat Grains Import Duty** 

Source: Indonesia Custom and Excise, Indonesian Flour Mills Association (APTINDO).

The Indonesian flour mills association (*APTINDO*, *Asosiasi Produsen Tepung Terigu Indonesia*) reported that the conflict in the Red Sea and the shallowing of the Panama Canal is not expected to pose a significant disruption to Indonesian wheat imports. The higher freight due to the longer route for shipments are offset by the softening prices of wheat on the international market. Demand from flour mills remains strong. Shortfalls in domestic corn production have led to local corn prices rising above the ceiling. Despite restrictions on imports of wheat for feed, the high prices of local corn have also initiated higher demand for lower quality wheat earmarked for feed production.



Chart 5. Prices of Imported Wheat Compared to Local Corn

Source: National Food Agency (NFA) and Hammersmith Reports, processed by FAS Jakarta.

Considering the abovementioned factors, Indonesian wheat imports in 2023/24 are estimated to increase by 21.7 percent to a total of 11.5 MMT compared to 9.446 MMT imported in 2022/23.

Due to receding demand after the general elections in early 2024, imports of wheat in 2024/25 are forecast to dip back down slightly to 11.4 MMT.

During the period of July 2023 to January 2024, Indonesia imported a total of 7.1 MMT of wheat, an increase of 29.4 percent compared to the same period of 2022/23. Australia continues to enjoy the benefit of having closer proximity with Indonesia and dominating the market with 34.4 percent market share followed by Canada with 19.8 percent market share. Price competitiveness is the main reason for Russia and Bulgaria's respective 14.5 percent and 14.4 percent market shares. Brazil, on the other hand, is losing Indonesian market share due to high contamination of foreign material, according to industry. As flour mill demand is mostly for soft white wheat, the United States maintains a 4.2 percent market share.

Domestically produced wheat flour continues to dominate the local market with a 99.9 percent market share. Nonetheless, demand for imported wheat flour increased during the period of July 2023 to January 2024 by 67.4 percent to 45,317 MT of wheat equivalent compared to 27,066 MT of wheat equivalent compared to the same period of 2022/23. Indonesia sources most of its imported wheat flour from Turkey with a total of 90.1 percent market share, followed by South Korea with 1.8 percent market share.

## Consumption

Weakened demand for Indonesian manufactured goods from export markets which subsequently have caused massive layoffs in the labor-intensive manufacturing sector such as the footwear and textile industries has not recovered. The situation contributed to depressed Indonesian consumer purchasing power indicated by declining inflation rates in 2022/23. Nonetheless, driven by soaring food prices of particularly rice, chilies, eggs, and poultry meat, cooking oil, and sugar, the inflation rate is slowly increasing.





Source: Bank Indonesia

Small and medium enterprises consumed about two-thirds of Indonesian wheat flour production. The sector, which is characterized as traditionally managed, family-owned business, and community oriented includes small-scale wet noodle makers, street food vendors, low-end bread and bakery businesses, and traditional Indonesian cake makers. SMEs producing traditional cakes, pastry, fritters, low-end baked goods, and wet noodles struggled to survive following the weakened purchasing power and high prices of raw material for the production. However, the other third of the flour-using industry, large and modern establishments, including several publicly-listed companies with advanced production facilities and professional management, are growing as demand increases. These producers include instant noodle manufacturers, high-end bakeries, and cookie and biscuit manufacturers.



#### Chart 7. End User Profile of Indonesian Wheat Flour

Indonesian Flour Mills Association.

The Indonesian flour mills association (*APTINDO*, *Asosiasi Produsen Tepung Terigu Indonesia*) reported that the high prices of rice in the domestic market have increased the consumption of instant noodles, especially by lower income families. World Instant Noodle Association (WINA) reported that in 2022 Indonesia consumed 14.3 billion servings of instant noodles compared to 12.6 billion servings in 2020. The trend is forecast to continue growing as consuming a pack of instant noodle at the price of Rp. 3,000/pack (\$0.2/pack) that does not require additional side dish is cheaper than consuming a plate of rice with additional side dish. The recent general elections with political party gatherings and campaigns serving boxed snacks, followed by consecutive religious festivities in 2024, are also expected to drive demand for wheat flour-based foods in 2023/24. Moreover, the growing Indonesian middle-income class, which accounts for approximately 20 percent of the Indonesian population, is dominated by generation Z who likes to try new products and experiences. More upper-end restaurants and bakeries offering new and globally trending flour-based food products are opening. The Indonesia Food and Beverage

Producers Association estimated that the food and beverage sector will grow by 7 percent in 2023/24.

Based on the abovementioned factors, Post estimates that 2023/24 total food consumption will increase by 5.9 percent to 9.0 MMT compared to 8.5 MMT of wheat equivalent in 2022/23. Receding demand from large gatherings such as the recent general election will slow down the growth of flour-based food consumption. Post forecasts that 2024/25 food consumption to marginally increase by 1.1 percent to 9.1 MMT of wheat equivalent.

Wheat is also largely consumed in Indonesia as a feed ingredient. Approximately 90 percent of Indonesian feed production is for poultry. The poultry association reported that imports of Grand Parent Stock (GPS) in 2023 is estimated to increase to 686,000 heads compared to 659,100 heads imported in 2022. Imports of GPS will have an impact on the production of Day-Old Chicks (DOC) Final Stock (FS) on the second year of imports. Therefore, the increased imports GPS in 2023 will increase poultry population in 2025. In line with the forecast increase of DOC production and demand increase from the recent general elections, the feed mills association estimated that feed production in 2024 will increase by 5 percent to 22.4 MMT from 21.3 MMT produced in 2023. Due to the seasonal supply of corn from local production, feed mills continue to include wheat as one of the energy sources in feed formulation. Shortages of corn production that led to increased corn prices have forced feed mills to reduce the proportion of corn in their feed formulation in favor of wheat to fill demand for energy source. Therefore, Post estimates that 2023/24 wheat consumption for feed at 1.6 MMT of wheat equivalent, an increase of 45.5 percent compared to 1.1 MMT of wheat equivalent in 2022/23. Wheat consumption for feed in 2024/25 is forecast to further increase to 1.8 MMT in line with forecast increase of DOC supply.

## Stocks

Due to higher imports, 2023/24 ending stocks are estimated to increase by 42.6 percent to 1.673 MMT compared to the 2022/23 ending stocks of 1.173 MMT of wheat equivalent. Higher 2023/24 ending stocks are forecast to offset lower imports of 2024/25 and is expected to increase 2024/25 ending stocks to 1.813 MMT of wheat equivalent.

## Policy

Following the circulation of the October 11, 2023 letter from the Indonesian Quarantine Agency (IQA) on new wheat import procedures (see <u>ID2023-0029</u>), the U.S. Animal and Plant Health Inspection Service (APHIS) sent an official comment letter to IQA in early January 2024. APHIS requested resolutions and a grace period to comply with the new requirements. As APHIS did not receive any response as clear guidance from IQA, U.S. wheat shipments temporarily experienced a short trade break in early March 2024. After strong reaction from trading partners and local flour mills, IQA responded to APHIS' requests. U.S. wheat exports into Indonesia are expected to resume in the near future.

## <u>CORN</u>

#### Production

Corn is a secondary crop after paddy for Indonesian farmers. Indonesia's main corn producing areas are Java, which accounts for 40 percent of national corn production, followed by Sulawesi (24 percent), Sumatera (24 percent), and Nusa Tenggara (10 percent). Indonesia normally experiences dry season from April to October and rainy season from October to April. Depending on the relative distance to water reservoirs, rivers, and other sources of water, some areas may have two or three planting periods per year. Areas closer to sources of water will have an opportunity to have three plantings annually. 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).

On March 2024, BPS reported that Indonesian harvested area and production in 2022/23 declined by 10.4 percent and 10.6 percent compared to 2021/22. Referring to the report, Post revised 2022/23 corn harvested area and production to 3.5 million hectares and 12.4 MMT respectively.

El Nino has led to late planting and harvesting of the first corn crop cycle for 2023/24. The first main harvest that normally takes place in January to February will be delayed to March to April. Production shortages in 2022/23 that resulted in high corn prices have incentivized farmers to grow more corn during the first crop cycle of 2023/24. BPS estimated that corn harvested during the period of January to April 2023/24 will increase by 10.3 percent compared to the same period of 2022/23.

The seed industry reported that the projected demand for seed in 2024 from the commercial market is around 45,121 MMT to cover demand for 3 million hectares. In addition, to further motivate farmers to grow corn, the Ministry of Agriculture (MOA) provides farmers with subsidized corn seed for an estimated total area of 2 million hectares. The total allocation of subsidized seed continues to decline every year. However, experience showed that seeds provided under the subsidized seed program are of lower yield compared to seeds from commercial market. Total seeds sales in 2023/24 is forecast to reach 63,000 - 65,000 MT compared to sales of 60,000 - 62,000 MT in 2023. Farmers are expected to cultivate hybrid corn seed in approximately 80 percent of total area in 2023/24, an increase from 72-75 percent of total area in 2022/23.

Based on the abovementioned factors, 2023/24 corn harvested area is estimated to increase to 3.7 million hectares while corn yield is estimated to marginally decrease to 3.43 MT per hectare. Considering that high corn prices will continue to drive farmers to opt for growing corn over other secondary crops, 2024/25 harvested area is forecast to further increase to 3.8 million hectares. In line with increased harvested area, 2023/24 corn production is estimated to increase to 12.7 MMT. Corn production for 2024/25 is forecast to further increase to 13.0 MMT.

#### Consumption

Currently, Indonesia's feed mill sector consists of 110 feed mills under 44 companies located in 10 provinces, with 81 of those mills located on Java Island. In 2023, total installed capacity of poultry feed reached approximately 27.597 MMT, remaining on par with installed capacity in 2022 of 27.561 MMT. Installed capacity of aquaculture feed in 2023 is also at the same level of 2.527 MMT as in 2022. Feed mills are running at 70-75 percent of total installed capacity.

<b>A m</b> oo	Nun	nber of Pla	ants	Production			
Area	2020	2022	2023	2020	2022	2023	
North and West Sumatera	13	13	13	3,307	3,301	3,301	
Southern Sumatera and Lampung	6	6	6	1,076	1,612	1,648	
West Java and Jakarta	40	40	40	8,798	9,059	9,059	
Central Java	13	13	13	4,103	4,117	4,117	
East Java	28	28	28	7,456	7,604	7,604	
Kalimantan	3	3	3	660	660	660	
Sulawesi	7	7	7	1,176	1,208	1,208	
Total	110	110	110	26,576	27,561	27,597	

Table 3. Indonesian Feed Mills Number of Plants and Installed Capacity, in Thousand
Metric Tons/Year (Excluding Aquaculture)

Source: Indonesian Feed Producers Association (GPMT, Gabungan Perusahaan Makanan Ternak), November 2023

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. The MOA forecasts that the population of broilers in 2020–2024 will grow 8.49 percent per year. However, the MOA reported that in 2023, broiler and layer populations were recorded at 3.1 billion heads and 315 million heads, compared to 3.2 billion heads and 378 million heads in 2022. The decline is due to overpopulation that required culling to maintain profitable prices at the farmers' level. The MOA instructed the carrying out of culling at least four times in 2023. The last culling was conducted when the MOA instructed the culling of DOC Parent Stock (DOC PS) of 2.5 million females aged 50-54 in the weeks of 24 August-7 October 2023. The culling program is estimated to reduce the DOC Final Stock (DOC FS) cumulatively by 70.8 million heads in September-November 2023. Based on imports of Grand Parent Stocks, the poultry industry association forecasts that the poultry population will increase by 6 percent in 2024. To meet this demand in 2023/24, feed mills are estimated to produce a total of 22.4 MMT of poultry feed, while aquaculture feed is estimated at 1.7 MMT. In line with estimated imports of GPS reaching a total 686,000 heads in 2023, feed mills are forecast to increase feed production by 4 percent to 23.3 MMT in 2024/25. In 2024/25, it is forecast that agua feed production will be stable at 1.7 MMT. An improving economy is expected to increase consumption of poultry meat to 12.58 per capita per year in 2023 compared to 11.63 kg per capita per year in 2022.

The shortages in local corn production that led to skyrocketing prices in 2022/23 have forced feed mills to reduce corn usage in feed formulation to 38 - 40 percent. Assuming improved corn production, feed mills estimate that corn usage in feed formulation can be increased to 48 percent in 2023/24.

Animal Species	Corn	Soybean Meal	Rice Bran	Wheat Pollard	Animal By Products	CGM	Palm Kernel Meal	Palm Oil	DDGS
Broiler	35-45	23-25	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

Table 4. Average Composition of Feed Formulation (In percent) in 2023.

Source: GPMT, processed by U.S. Grains Council

Corn milling capacity is continuing to grow. Installed capacity of the industry is estimated to increase to 4,500 MT per day in 2022/23, compared to 4,000 MT per day in 2021/22. The industry consists of four major players and remains the main importer of corn due to food safety requirements for corn in the wet milling process. In addition, two ethanol plants continue to use corn in 2024. Using corn as the raw material, total installed capacity for both plants is approximately 300,000 MT. Both the wet milling and ethanol industry require corn with an aflatoxin content of less than 20 parts per billion (ppb) to produce food ingredients fit for human consumption which local corn cannot provide. Rudimentary harvesting technology means domestically grown corn is manually harvested with an average manual content of 35 percent. Most farmers dry their corn under the sun, and often improperly store it at the farmer level, frequently causing their corn to reach aflatoxin levels far above 20 ppb. As a result, corn wet mills cannot purchase local corn as their raw materials. Wet millers also prefer imported dent corn over locally produced flint corn due to its higher starch content. The wet mills industry produces corn starch, high fructose corn syrup, and glucose syrup. 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. Prospects for wet mill expansion remains bright as Indonesia still imports 55 percent of total demand for starch, providing ample opportunity for the local corn milling industry to grow.

Corn for food use is not only consumed as vermicelli but also as a staple food, especially in the Eastern part of Indonesia. However, with rice generally becoming more accessible, corn consumption as a staple food continues to decline. The MOA has reported that from 2020 to 2024, corn for food consumption is projected to decrease by 4.56 percent per year.

Based on the abovementioned factors, 2023/24 and 2024/25 corn consumption for feed is expected to increase to 9.3 MMT and 9.5 MMT respectively due to estimate increase of poultry feed production. Corn consumption for food in 2023/24 and 2024/25 is forecast to increase to 4.5 MMT and 4.6 MMT, respectively, due to wet mill expansion and increasing demand for corn starch.

#### Trade

To ensure that no corn for feed enters the country unless otherwise authorized, the GOI differentiates the HS Codes for corn for feed and corn for human consumption.

Table 5.	Corn	Import	Dutv
I GOIC CI	~~~	mport	240

HS Code	Description	Import Duty (In Percent)
1005 9091	Corn, other, fit for human	5
	consumption	
1005 9099	Corn, other, other	5

Source: Indonesia National Single Window.

Only BULOG is authorized to import corn for feed to distribute to smallholder poultry farmers. The private sector can import corn as raw material for industrial purposes. During the interministerial meeting on Commodity Balance in February 2024, the GOI authorized BULOG to import a total of 750,000 MT of corn for feed. The private sector may import up to 1,217,026 MT of corn for human consumption. Indonesia's wet milling industry and the two new ethanol plants continue to import corn to meet food safety requirements and to gain higher starch content that cannot be fulfilled from local corn production.

Based on recent industry expansions and higher imports by BULOG, Post estimates 2023/24 corn imports will reach 1.2 MMT, further increasing to 1.3 MMT in 2024/25. For the period of October 2022 through September 2023, Indonesia imported a total of 901,000 MT of corn, a decrease of 21.9 percent compared to 1.154 MMT during the same period in 2021/22. The decline is mainly due to the late issuance of import licenses from the Ministry of Trade. The licenses are supposed to be issued in December 2022, but were not issued until mid-January 2023. In 2022/23, corn imports originated from Argentina (65.1 percent), Brazil (33.6 percent), and the Pakistan (1.0 percent). For the period of October 2023 to January 2024, Indonesia imported from Brazil (53.5 percent) and Argentina (46.2 percent). In addition to the lack of price competitiveness, according to industry contacts, wet mills prefer to source more corn from South America over corn from the United States, as U.S. corn has more broken kernels, more brittleness, and more foreign material which provide less yield and more cost inefficiency compared to using corn from South America. Industry contacts also claim they have faced inconsistencies between the stated specifications on the inspection result and the actual condition of the U.S. corn upon arrival.

In addition to using more wheat, feed mills also increased imports of distillers dried grains with soluble (DDGS), corn gluten meal (CGM), and canola meal to meet the demand for energy source in feed formulation.

		Import Duty	Imports (In MT)						
HS Code	Description	(In Percent)	2022	2023	Jan 23	Jan 24			
230310	CGM	5	216,000	234,412	21,946	29,198			
230330	DDGS	5	776,126	799,170	47,868	81,735			
230649	Canola Meal	5	80,156	98,532	6,056	5,133			

Table 6. Imports and Import Duty of Other Plant Based Feed Ingredients

Source: Indonesia National Single Window, Trade Data Monitor.

During the period of January to December 2023, feed mills imported most of the CGM from the United States (52.7 percent) and China (46.9 percent), while importing DDGS mostly from the United States (98.8 percent), and canola meal from India (99.3 percent). Considering the forecast increase of feed production and insufficient supply of corn from local production, imports of CGM, DDGS, and canola meal in 2023/24 are forecast to continue growing.

Indonesia exports minimal volumes of corn. However, when prices of corn decreased significantly during the early months of 2022/23 due to abundant stocks, traders had to export some of the corn. Therefore in 2022/23, Indonesian corn exports reached a total of 247,000 MT. Indonesian corn exports in 2022/23 went to the Philippines (83.9 percent) and Vietnam (15.5 percent). Exports are forecast to decline significantly to 2,000 MT in both 2023/24 and 2024/25 as high corn prices domestically will keep the corn in Indonesia.

## Stocks

In line with expected increases in production and imports, ending stocks in 2023/24 and 2024/25 are estimated to increase to 1.419 MMT and 1.617 MMT respectively.

#### Prices

Currently, small and sporadic harvest is ongoing. Corn prices at the farmer's level are declining as the main harvest progresses. Corn prices at the farmer's level in Central Java in mid-March 2024 ranged from IDR 4,000/kg (\$256/MT) to IDR 6,600/kg (\$422/MT), declining from IDR 4,300/kg (\$275/MT) to IDR 9,000/kg (\$576/MT) in November 2023. Nevertheless, the average corn prices at the feed mill's level are still at a high level of IDR 8,250/kg (\$528/MT) compared to IDR 7,250/kg (\$464/MT) in November 2023.

Despite declining, corn prices at the feed mills' gate are still above the government reference price of IDR 5,000/kg (\$320/MT). According to the Indonesian National Food Agency (NFA) Regulation No. 5/2022 on References on Purchasing Prices at Producers' Level and Selling Prices at Consumers' Level for Corn, Egg, and Broiler Meat, if prices at the producers' level are below the purchasing reference prices, the head of the NFA can authorize BULOG or food related state-owned companies to purchase from the producers using the reference prices at the producer level. On the other hand, when prices are above the buying reference prices at the consumer level, the NFA can assign BULOG, and food-related state-owned companies to stabilize the price. The price of feed ingredients constitutes 80-85 percent of compound feed production costs.



Chart 8. Average Corn Prices at Feed Mill's Gate

Source: Ministry of Agriculture and National Food Agency, March 2024

## RICE, MILLED

#### Production

The tropical climate of Indonesia is favorable for growing multiple crops in the same plot of land within the same year. Cropping systems are diverse, including different ecosystems (upland, lowland), and sources of water (rain-fed and irrigated). Approximately 85 percent of rice production comes from irrigated paddy fields. Typically, irrigated farms are planted with 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). Rice production from the first crop cycle makes up 50-55 percent of total national rice production, while the second and third crop cycle make up 30-35 percent and 15-20 percent respectively.

A stronger-than-anticipated El Nino reduced paddy harvested area and production in 2023/24. In early March 2024, BPS reported that based on the realization of harvested area from January to December 2023, rice harvest area in 2022/23 reached a total of 10.21 million hectares, a decrease of 2.3 percent compared to 10.45 million hectares in 2021/22. The decline in harvested area led to a decline of 2022/23 paddy production by 1.4 percent to 53.98 MMT compared to 54.75 MMT produced in 2021/22.





Source: BPS, March 2024

As mentioned above, the impact of a strong El Nino was still ongoing into February 2024, reducing rainfall intensity during the first crop cycle of 2023/24. Field observations showed that the majority of farmers on Java Island (who account for 55.6 percent of national paddy production) only started the 2023/24 first planting cycle in late November to January 2024. Due to varying rainfall arrival times, farmers could not start to plant paddy at the same time. Therefore, the first harvest of 2023/24 is expected to start at the earliest in April 2024 with a longer harvesting period. BPS estimated that harvested area during the period of January to April 2024 is estimated to decline by 6.48 percent compared to harvested area during the same period of 2023.

Farmers are likely to start the second crop cycle of 2023/24 immediately after the first harvest is completed. Cropping patterns that are not uniform and uninterrupted may lead to higher incidents of pest and disease in 2023/34. The MOA reported that during the planting cycle of 2022/23, pest and disease incidents reached a total area of 106,000 hectares, compared to 198,000 hectares in 2021/22. Some farmers in Central Java as well as in Sumatera have reported incidents of brown hopper that may lead to harvest failure.

In an effort to increase paddy production, in early 2024 the MOA announced the increase in the allocation of subsidized fertilizer from 4.7 MMT to 9.55 MMT. Approximately 14 million registered farmers will be eligible to receive subsidized fertilizer in the form of urea and NPK (Nitrogen, Phosphor, and Kalium) fertilizer at the same maximum retail price as in 2023. The 2024 subsidized fertilizer allocation is higher than in 2023.

20	21	20	22	2023	
Volume (MT)	Price (IDR/Kg.)	Volume (MT or Liter)	Price (IDR/Kg. or IDR/Liter)	Volume (MT or Liter)	Price (IDR/Kg. or IDR/Liter)
4,166,669	2,250	4,232,704	2,250		2,250
640,812	2,400	541,201	2,400		-
784,144	1,700	823,475	1,700		
2,662,000	2,300	2,470,445	2,300		2,300
17,000	3,300	11,469	3,300		3,300
770,850	800	1,038,763	800		
1,500,000	20,000	1,870,380	20,000		
	Volume (MT)   4,166,669   640,812   784,144   2,662,000   17,000   770,850   1,500,000	(MT)(IDR/Kg.)4,166,6692,250640,8122,400784,1441,7002,662,0002,30017,0003,300770,850800	Volume (MT)Price (IDR/Kg.)Volume (MT or Liter)4,166,6692,2504,232,704640,8122,400541,201784,1441,700823,4752,662,0002,3002,470,44517,0003,30011,469770,8508001,038,7631,500,00020,0001,870,380	Volume (MT)Price (IDR/Kg.)Volume (MT or Liter)Price (IDR/Kg. or IDR/Liter)4,166,6692,2504,232,7042,250640,8122,400541,2012,400784,1441,700823,4751,7002,662,0002,3002,470,4452,30017,0003,30011,4693,300770,8508001,038,7638001,500,00020,0001,870,38020,000	Volume (MT)Price (IDR/Kg.)Price (IDR/Kg.)Volume (MT or IDR/Liter)Volume (MT or 

Table 7. Allocation and Maximum Retail Prices of Subsidized Fertilizer
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Source: Ministry of Agriculture Decree No. 734/2022



Picture: Stages of rice crops during the first crop cycle of 2023/2024 West Java in early March of 2024.

BPS noted that the national rice harvested area continues to decline consistently. In general, during the period of 2018 to 2023, rice harvested area shrunk by 1.17 million hectares. The downward trend appears to be strongly tied to the rapid rate of conversion of rice fields into non-agricultural uses. Efforts from the MOA to open new fields every year cannot keep up with the loss. Data from the Ministry of Agrarian Affairs and Spatial Planning shows that the raw area of rice fields has decreased from 7.75 million hectares in 2013 to 7.46 million hectares in 2019.

Considering the aforementioned factors, Post revises down 2022/23 harvested area to 11.3 million hectares from the previous estimate of 11.55 million hectares, a decline of 2.6 percent from 11.6 million hectares in 2021/22. Referring to BPS estimates of the decline in harvested

area and considering the possible higher incidents of pest and disease in 2023/24 compared to 2022/23, Post estimates 2023/24 harvested area will further decline to 10.7 million hectares. Assuming sufficient rainfall if the predicted La Nina weather patterns materialize at the end of 2024, Post forecasts 2024/25 harvested area will increase to 11.0 million hectares. In line with harvested area, 2023/24 paddy production is estimated to decline by 5.3 percent to 50.6 MMT compared to 53.4 MMT in 2022/23. Paddy production in 2024/25 is forecast to increase by 2.8 percent to 51.97 MMT.

# Consumption

In addition to increased prices of farming inputs and increased fuel prices in late 2022, production shortages have further pushed up prices for paddy and rice. The Indonesian rice mills association (*PERPADI, Persatuan Pengusaha Penggilingan Padi dan Beras Indonesia*) reported that fiercer competition among the 169,000 members to find paddy from farmers also contributed to the price hikes.



Chart 10. Rice and Paddy Prices Comparison (In Rp./Kg.)

Source: BPS, FAO, Cipinang rice wholesale market, processed by FAS.

To stabilize rice prices, since the end of August 2023, the GOI has authorized BULOG to distribute rice under the Stabilization of Food Supply and Prices program (*SPHP*, *Stabilisasi Pasokan dan Harga Pangan*) at the price of Rp. 47,000/5-kg bag. As of the end of 2023, BULOG has sold a total 1,196,728 MT of milled rice equivalent under the SPHP program, a realization of 110.3 percent of the targeted 1,085,000 MT. In 2024, the GOI again assigned BULOG to implement SPHP for rice at the consumer level with a distribution target of 1.2 MMT of rice. During the period of January to middle of March 2024, BULOG has distributed a total of 431,000 MT of rice under the SPHP program.

Additionally, the GOI also authorized BULOG to continue the distribution of rice under the Beneficiary Family (*KPM*, *Keluarga Penerima Manfaat*) program to June 2024. A total of 22 million families, an increase of 8 percent from 21.3 million families in the previous year, will receive 10 kilograms of rice every month. Therefore, Post estimates 2023/24 rice consumption at 35.1 MMT, a decrease of 1.1 percent compared to 35.5 MMT consumed in 2022/23. Assuming population growth and ongoing KPM allocations, Post forecasts 2024/25 rice consumption will rebound to 35.4 MMT.

## Trade

The GOI instructed BULOG to set its 2024 procurement target at 3.0 MMT, an increase of 42 percent from its 2.1 MMT procurement target in 2022/23. BULOG managed to domestically procure only 1.0 MMT of the 2022/23 target, the lowest domestic procurement realization since 2019. With the added import realization, BULOG stocks by the end of 2022/23 stood at 1.2 MMT. The GOI requires BULOG to maintain a minimum year-end stock level of 1.5-2 MMT.

BULOG can only buy paddy and rice from farmers at the price below or at the level of the government purchasing price (*HPP*, *Harga Pembelian Pemerintah*). Considering that prices of paddy and rice have been above the HPP since August 2022, BULOG will again find it difficult to meet its mandated target from domestic procurement.

		8	Inpres 2015	NFA Reg. 2023			
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. 5,000	-	-
Price at mill's level		Rp. 3,750	Rp. 4,600	-	Rp. 5,100	Rp. 6,200	-
Price at BULOG warehouse		-	Rp. 4,650	Rp. 7,300	-	Rp. 6,300	Rp. 9,950

Table 8. Government Purchasing Price for Paddy and Rice (In Rp./Kg.)

Source: Presidential regulation no. 5/2015, NFA regulation no. 6/2023.

Therefore, in early December 2023, the GOI authorized BULOG to import a total of 2 MMT of rice for 2023/24. However, because rice prices remained high and BPS reported significant reductions in paddy production during the first crop cycle of 2023/24, in early 2024 the GOI assigned BULOG to import an additional 1.6 MMT of rice, bringing the total import allocation for 2023/24 to 3.6 MMT. As of mid-March 2024, BULOG has materialized a total of 970,000 MT of rice, including the 500,000 MT carryover from the 2022/23 import allocation. Another 450,000 MT of rice is expected to arrive before the end of March 2024. BULOG reported to already have contracts with several countries where production is still large, namely Thailand, Vietnam, Pakistan, Cambodia, and Myanmar. Considering the rice price increases both at the wholesale and retail markets, and the requirement for BULOG to meet its 2023/24 ending stock target, it is likely that BULOG will maximize the utilization of the import authorization. However, BULOG stated that it will consider the domestic procurement realization from the ongoing and upcoming harvests before making additional import contracts. As an incentive for

BULOG to materialize the imports assignment, the GOI provided the Government Borne Import Duty (*BMDTP, Bea Masuk Ditanggung Pemerintah*) of Rp. 450/kg to BULOG.

HS Code	Description	Import Duty (In Rp./Kg.)
1006 10	Rice in the husk	450
1006 20	Husked (brown) rice	450
	Semi-milled or wholly milled rice, whether or not polished or	
1006 30	glazed :	450
1006 40	Broken rice	450

Table 9. Import Duty of Rice (In Rp./Kg)

Source: Indonesia National Single Window.

In addition to assigning the import authorization to BULOG, the GOI also issued import authorization to fulfill demand from industry as well as hotels, restaurants, and cafes (specialty rice which includes broken rice, basmati rice, fragrant rice, and rice for diabetic purposes) with a total of 445,761 MT in 2023/24. Out of the total authorization, the GOI has issued import permits for a total of 378,258 MT with only 10,313 MT being materialized as of mid-March 2024. In 2022/23, total realization of specialty rice imports is approximately 362,000 MT. Post forecasts that imports of basmati rice will continue to increase as more middle eastern restaurants open.

Based on the abovementioned factors, 2023/24 rice imports are estimated at 3.0 MMT, a decrease of 14.3 percent compared to 3.5 MMT imported in 2022/23. In line with forecast increases of rice production, imports in 2024/25 are forecast to decline to 1.0 MMT. During the period of January to December 2023, Indonesia imported rice from Thailand (40.5 percent), Vietnam (33.9 percent), Pakistan (10.7 percent), and Myanmar (5.1 percent).

## Stocks

In line with higher import realization, 2022/23 milled rice equivalent ending stocks are revised upward to 4.8 MMT from the previous estimate of 4.7 MMT. Lower production and lower imports combined with lower consumption are estimated to maintain 2023/24 ending stocks at 4.8 MMT. Ending stocks in 2024/25 are forecast to decrease to 3.4 MMT of milled rice equivalent as imports are forecast to be significantly lower due to expected improved production. Approximately 68.0 percent of stocks are at households, 10.0 percent at rice mills, 10.6 percent at traders, and the rest are in BULOG storage.

# Policy

According to BPS, prices of wet paddy at the farmers' level in February 2024 increased by 5.9 percent to IDR 7,261/kg (\$475.7/MT) compared to IDR 6,851/kg (\$438.5/MT) in October 2023. Dry paddy prices at the mill's level in February 2024 increased to IDR8,713/kg (\$557.7/MT) compared to IDR 7,703/kg (\$493.0/MT) in October 2023. The price increase is in line with lower yields and quality as well as high production costs from the ongoing main harvest.

Despite continuous GOI assistance to stabilize medium quality rice prices by distributing rice under the SPHP program carried out by BULOG, rice prices at wholesale markets in March 2024 reached IDR 13,352/kg (\$54.6/MT) an increase of 21.4 percent compared to IDR 12,401/kg (\$793.7/MT) in November 2023. In line with the higher prices at wholesale markets, prices of medium quality rice at retail markets in March 2024 is also recorded at IDR 14,290/kg (\$914.6/MT) an increase of 8.2 percent from IDR 13,210/kg (\$45.5/MT). Prices of premium quality rice at retail markets in March 2024 also increased to IDR 16,440/kg (\$1,052/MT) compared to IDR 14,980/kg (\$958.8/MT) in November 2023. High prices of premium quality rice have led to the disappearance of premium quality rice at modern market shelves causing consumer panic. Therefore, to maintain stable supplies and prices of premium quality rice, on March 9, 2024, the NFA issued a regulation on the temporary relaxation of maximum retail prices of premium rice effective March 10 – 23, 2024.

		Premium Rice			
Area	Medium Rice		<b>Temporary</b> *		
Java, Lampung, and South Sumatera	10,900	13,900	14,900		
Aceh, North Sumatera. West Sumatera, Riau, Riau Islands, Jambi, and Bangka Belitung Island	11,500	14,400	15,400		
Bali and West Nusa Tenggara	10,900	13,900	14,900		
East Nusa Tenggara	11,500	14,400	15,400		
Sulawesi	10,900	13,900	14,900		
Kalimantan	11,500	14,400	15,400		
Maluku	11,800	14,800	15,800		
Papua	11,800	14,800	15,800		

#### Table 10. Maximum Retail Prices of Rice (In Rp. / Kg.)

Source: Regulation of National Food Agency Number 7/2023

Note: \*temporary for the period of March 10-23, 2024, referring to the Letter of Head of the National Food Agency No. 102/TS.02.02/K/3/2024

#### **SECTION II. PSD TABLES Table 11. PSD: WHEAT**

Wheat	2022/2	2023	2023/	2024	2024/2025 Jul 2024		
Market Year Begins	Jul 20	)22	Jul 2	023			
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested (1000 HA)	0	0	0	0	0	0	
Beginning Stocks (1000 MT)	1658	1658	1173	1173	0	1673	
Production (1000 MT)	0	0	0	0	0	0	
MY Imports (1000 MT)	9446	9446	11500	11500	0	11400	
TY Imports (1000 MT)	9446	9446	11500	11500	0	11400	
<b>TY Imp. from U.S.</b> (1000 MT)	346	346	0	0	0	0	
Total Supply (1000 MT)	11104	11104	12673	12673	0	13073	
MY Exports (1000 MT)	331	331	350	400	0	360	
TY Exports (1000 MT)	331	331	350	400	0	360	
Feed and Residual (1000 MT)	1100	1100	1500	1600	0	1800	
FSI Consumption (1000 MT)	8500	8500	9000	9000	0	9100	
Total Consumption (1000 MT)	9600	9600	10500	10600	0	10900	
Ending Stocks (1000 MT)	1173	1173	1823	1673	0	1813	
Total Distribution (1000 MT)	11104	11104	12673	12673	0	13073	
Yield (MT/HA)	0	0	0	0	0	0	

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

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Wheat begins in July for all countries. TY 2024/2025 = July 2024 - June 2025

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

#### Table 12. PSD: CORN

Corn	2022/2	2023	2023/	2024	2024/2025 Oct 2024		
Market Year Begins	Oct 20	022	Oct 2	2023			
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested (1000 HA)	3950	3500	4000	3700	0	3800	
Beginning Stocks (1000 MT)	1367	1367	1221	1321	0	1419	
Production (1000 MT)	12900	12400	12900	12700	0	13000	
MY Imports (1000 MT)	901	901	1000	1200	0	1300	
TY Imports (1000 MT)	901	901	1000	1200	0	1300	
<b>TY Imp. from U.S.</b> (1000 MT)	1	1	0	1	0	0	
Total Supply (1000 MT)	15168	14668	15121	15221	0	15719	
MY Exports (1000 MT)	247	247	2	2	0	2	
TY Exports (1000 MT)	247	247	2	2	0	2	
Feed and Residual (1000 MT)	9400	8800	9600	9300	0	9500	
FSI Consumption (1000 MT)	4300	4300	4300	4500	0	4600	
Total Consumption (1000 MT)	13700	13100	13900	13800	0	14100	
Ending Stocks (1000 MT)	1221	1321	1219	1419	0	1617	
Total Distribution (1000 MT)	15168	14668	15121	15221	0	15719	
Yield (MT/HA)	3.2658	3.5429	3.225	3.4324	0	3.4211	

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

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Corn begins in October for all countries. TY 2024/2025 = October 2024 - September 2025

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

Rice, Milled	2022/2	2023	2023/2	2024	2024/2025 Jan 2025		
Market Year Begins	Jan 2	023	Jan 2	2024			
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Area Harvested (1000 HA)	11550	11300	11300	10700	0	11000	
Beginning Stocks (1000 MT)	2900	2900	4700	4800	0	4800	
Milled Production (1000 MT)	34000	33900	33500	32100	0	33000	
Rough Production (1000 MT)	53543	53386	52756	50551	0	51969	
Milling Rate (.9999) (1000 MT)	6350	6350	6350	6350	0	6350	
MY Imports (1000 MT)	3500	3500	3500	3000	0	1000	
TY Imports (1000 MT)	3500	3500	3500	3000	0	1000	
<b>TY Imp. from U.S.</b> (1000 MT)	0	0	0	0	0	0	
Total Supply (1000 MT)	40400	40300	41700	39900	0	38800	
MY Exports (1000 MT)	0	0	0	0	0	0	
TY Exports (1000 MT)	0	0	0	0	0	0	
Consumption and Residual (1000 MT)	35700	35500	36100	35100	0	35400	
Ending Stocks (1000 MT)	4700	4800	5600	4800	0	3400	
Total Distribution (1000 MT)	40400	40300	41700	39900	0	38800	
Yield (Rough) (MT/HA)	4.6358	4.7244	4.6687	4.7244	0	4.7245	

#### Table 13. PSD: RICE, MILLED

(1000 HA) ,(1000 MT) ,(MT/HA) MY = Marketing Year, begins with the month listed at the top of each column TY = Trade Year, which for Rice, Milled begins in January for all countries. TY 2024/2025 = January 2025 - December 2025

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

## Table 14. Exchange Rate

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	14,084	14,229	14,459	14,453	14,292	14,452	14,548	14,306	14,321	14,171	14,320	14,278
2022	14,392	14,369	14,306	14,480	14,592	14,848	14,990	14,853	15,232	15,596	15,668	15,619
2023	14,992	15,240	15,418	14,661	15,003	15,000	15,026	15,237	15,487	15,897	15,587	15,439
2024	15,803	15,630	15,624									

Source: Bank of Indonesia

Note: Exchange rate is IDR 15,624/USD 1, as of March 15, 2024

#### **Attachments:**

No Attachments