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**Country:** Indonesia

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**Report Highlights:**

Indonesian imports of U.S. wheat reached a record high 1.73 million tons in 2018/19. A prolonged dry season has delayed planting of the third crop cycle and caused some farmers to switch from planting paddy to corn. Rice production for 2018/19 is expected to decline to 36.7 million tons.

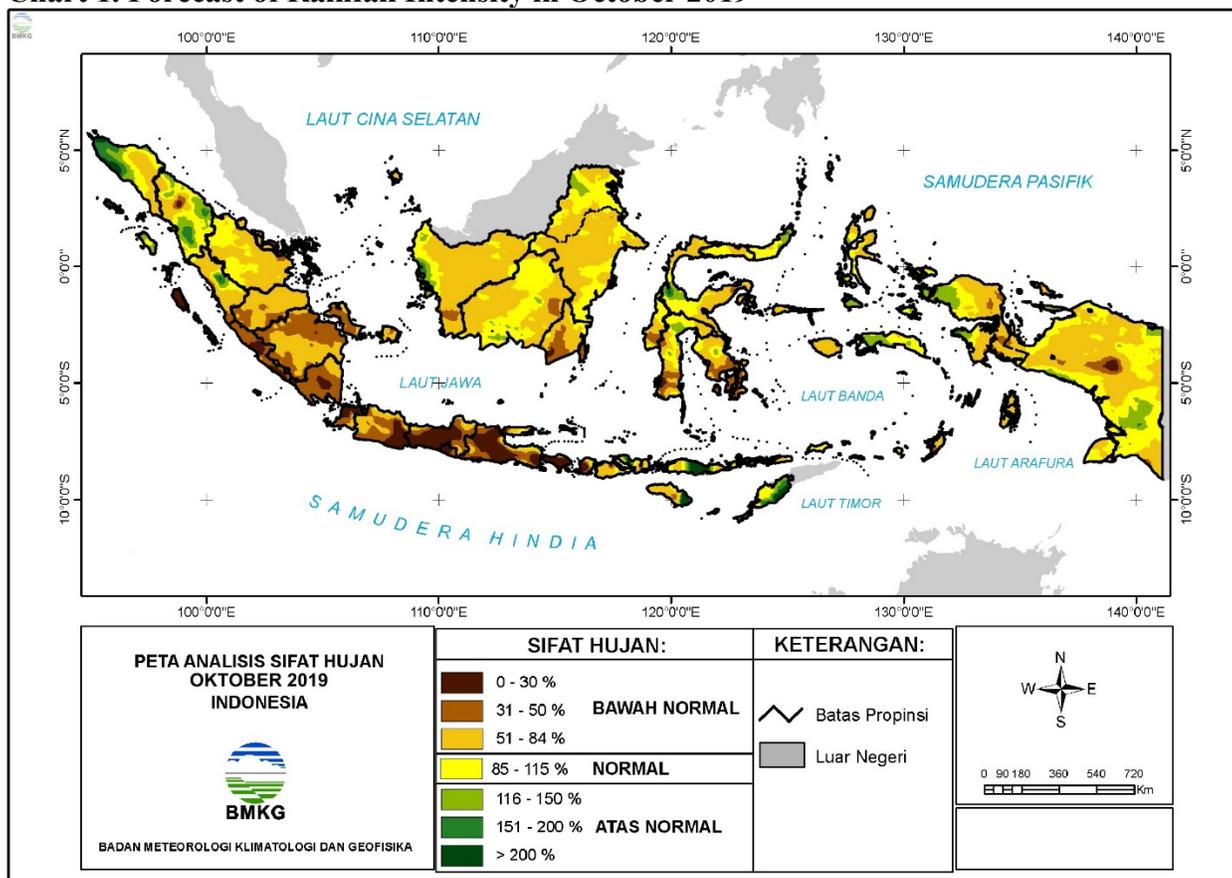
## SITUATION AND OUTLOOK

In August 2019 the Indonesian Meteorology, Climatology, and Geophysics Agency (*BMKG, Badan Meteorologi, Klimatologi, dan Geofisika*) reported that:

*The onset of rainy season will take place in November 2019 in 47.1 percent and in December 2019 in 23.1 percent area of Indonesia. Compared to the 30 years average, the onset of the rainy season will be later than the normal time in 74 percent area of Indonesia. Throughout the rainy season of 2019/20, rainfall intensity will be normal in 73.1 percent area of Indonesia with the peak season to occur in January to February 2020.*

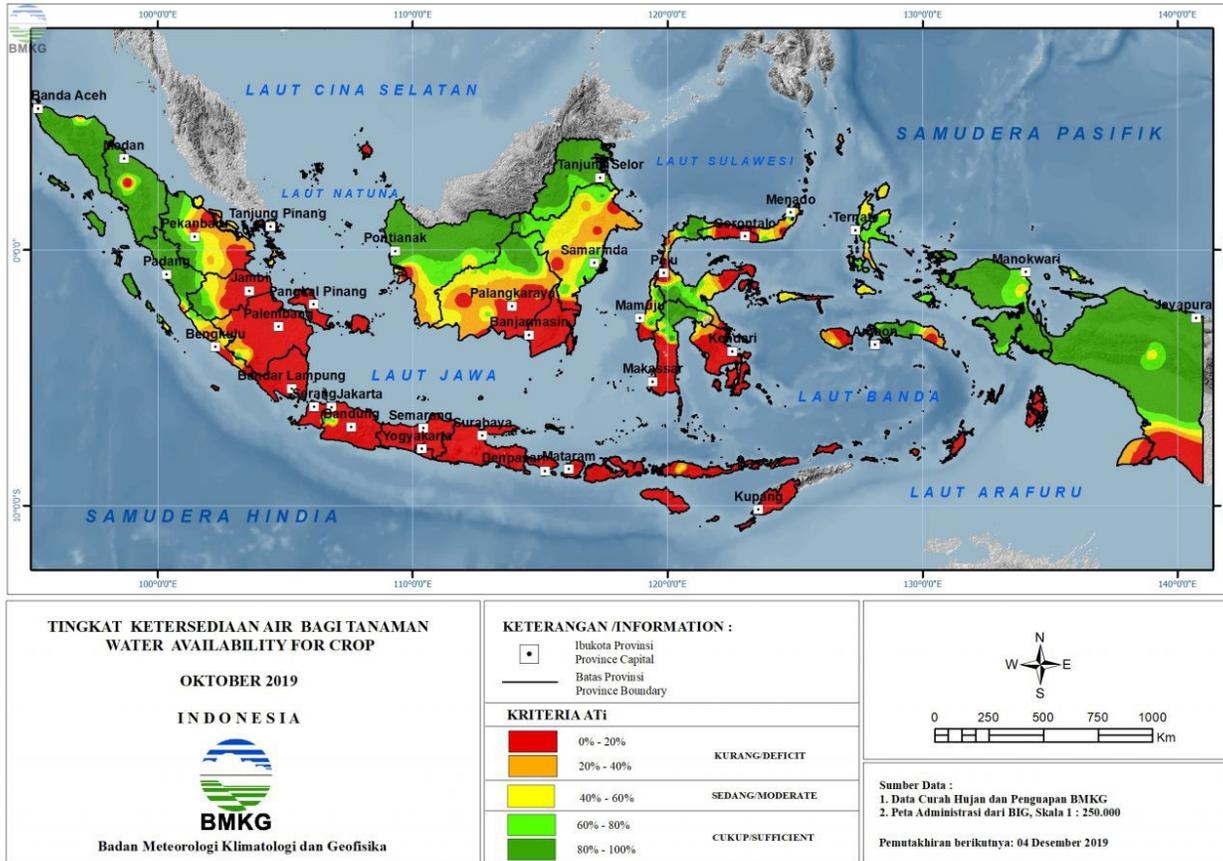
Farmers in main rice producing areas on Java reported insufficient rainfall through the last week of November 2019. The beginning of the 2019/20 first crop cycle is not expected to start until mid-December 2019 or early January 2020. Due to the prolonged dry season, many farmers in lowland irrigated areas switched to growing corn over paddy while farmers on upland rain-fed area left lands fallow during the third crop cycle.

**Chart 1. Forecast of Rainfall Intensity in October 2019**



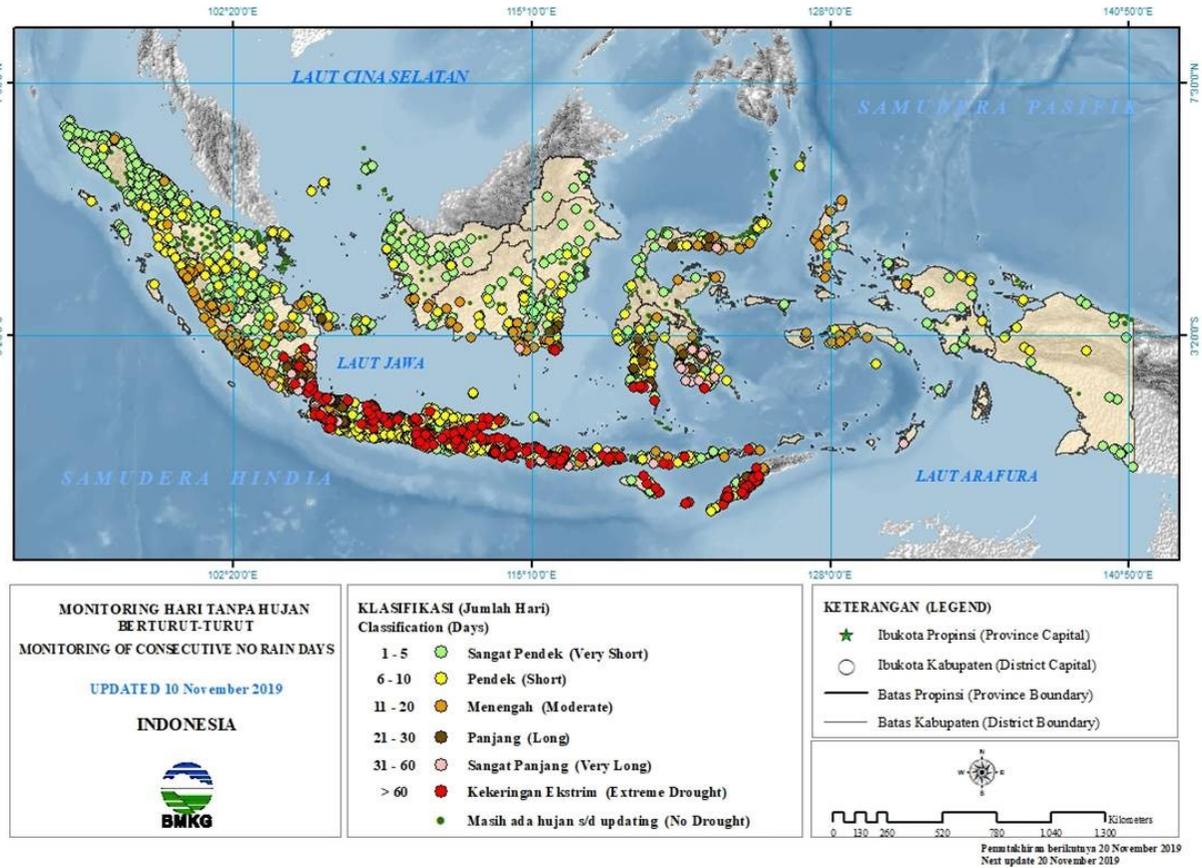
Source: BMKG

**Chart 2. Water Availability for Crops as of October 2019**



Source: BMKG

**Chart 3. Consecutive No Rain Days, as of November 10, 2019**



Source: BMKG

Consistent with drier weather, major reservoirs in Java reported deficit levels of water elevation. Nonetheless, the water volume is expected to be able to supply water for paddy fields close to the reservoirs. A new reservoir located in West Java has also helped to prevent larger drought in the area.

**Table 1. Water Elevation at West Java Water Reservoirs, September 30, 2019**

No.	Reservoir	Reservoir Volume (Million m <sup>3</sup> )	Elevation and Volume				Res. Volume (% to target)	Condition
			Target		Observed			
			Elevation (m)	Volume (Million m <sup>3</sup> )	Elevation (m)	Volume (Million m <sup>3</sup> )		
1	Jatiluhur	1325.40	95.10	447.62	92.94	311.23	0.70	Deficit
2	Cirata	668.12	210.61	201.23	208.60	111.33	0.55	Deficit
3	Saguling	530.75	633.08	159.48	630.07	89.14	0.56	Deficit
4	Kedungombo	723.00	89.99	688.57	79.64	279.67	0.41	Deficit
5	Batutege	690.00	257.66	374.30	259.88	407.61	1.09	Normal
6	Wonogiri	560.00	130.43	90.02	127.00	0.00	0.00	Deficit
7	Wadas Lintang	388.00	157.25	140.04	152.88	111.57	0.80	Dry
8	Sutami	253.00	268.48	113.51	262.19	60.15	0.53	Deficit
9	Bili-bili	305.00	87.66	111.02	83.01	70.90	0.64	Deficit
10	Wonorejo	106.00	180.50	89.01	171.79	61.32	0.69	Deficit
11	Cacaban	90.00	77.50	49.02	66.99	5.42	0.11	Deficit
12	Kalola	70.00	35.85	42.48	37.64	48.49	1.14	Normal
13	Selorejo	50.10	621.25	27.50	614.80	13.42	0.49	Deficit
14	Way Rarem	7045.00	54.00	54.37	54.04	57.38	1.06	Normal
15	Batu Bulan	53.10	60.00	51.94	51.66	10.22	0.20	Deficit
16	Ponre-ponre	48.70	202.52	40.52	211.04	34.97	0.86	Normal
<b>Total</b>		<b>12,906.17</b>		<b>2,680.63</b>		<b>1,672.82</b>		

Source: Indonesian Min. of Public Works, (Sep 30, 2019), processed by FAS/Jakarta.

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

## Wheat

Indonesian imports of U.S. wheat reach a record high 1.73 million tons in 2018/19. The seasonality of Indonesia's corn supply, along with a general lack of adequate drying and storage facilities, will continue to force feed mills to use imported feed wheat. Wheat imports in 2019/20 are estimated to grow modestly to 11.3 million tons, compared to 10.78 million tons in 2018/19. In line with increased

corn production, 2018/19 feed mills' demand for wheat is estimated to decline to 2.0 million tons. As more feed mills have standardized the use of wheat as a component in feed formulation, wheat consumption for feed is forecast to remain stable at 2.0 million tons. FSI wheat use is forecast to grow by only 1 percent in 2018/19, to 8.6 million tons. Relatively positive economic forecasts along with population growth is expected to increase FSI wheat use to 8.9 million tons in 2019/20.

## **Corn**

Post maintains estimates of 2018/19 and 2019/20 corn production at 12.0 million tons and 12.7 million tons, respectively. The arrival of Fall Armyworm (*Spodoptera Frugiperda*) in Sumatera, Java, Kalimantan, Sulawesi, and Nusa Tenggara has yet to cause a significant reduction in corn production. Farmers have thus far managed to use available pesticides to minimize the impact. Drier conditions are causing farmers on lowland irrigated areas to grow corn over paddy during the third crop cycle of 2018/19. Corn import restrictions remain in place for feed use. Increased running capacity of the local corn wet milling industry has increased corn imports for 2018/19 to 1.0 million tons.

## **Rice**

A prolonged dry season during the third crop cycle of 2018/19 in major rice producing areas such as Java, Sumatera, and Nusa Tenggara will decrease production. Harvested area for 2018/19 is estimated to decline to 12.1 million hectares from 12.25 million hectares in 2017/18. Motivated by high corn prices and less water availability, some farmers in key producing areas opted to grow corn over paddy. High stocks at BULOG warehouses due to poor distribution channels have prevented significant imports in 2018/19, lowering total imports to 400,000 tons. Imports for 2019/20 are expected to reach 1 million tons based on stronger demand for specialty rice (japonica, basmati, and rice for healthy diet purposes) and demand to stabilize prices.

## **WHEAT**

### **Production**

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

### **Trade**

Currently, twenty-eight flour mills operate under twenty-three companies, with a total installed capacity of 11.8 million tons per annum, an increase from 11.5 million tons in 2017/18. Most of the mills are located on Java. Running capacity of the mills reached 80 percent in 2017/18, an increase from 70 percent in 2016/17. At the beginning of 2019, industry expected growth of five percent in 2018/19, in line with the estimates of overall economic growth. However, less domestic market demand for both food and feed consumption has slowed the growth of wheat imports to 2.5 percent, from 10.5 million tons in 2017/18 to 10.78 million tons in 2018/19.

Feed mills continue using wheat as a compliment to other feed ingredients, creating steady demand for feed wheat imports. Nonetheless, with more corn available in local market, buyers decreased imports of

wheat during 2018/19 for distribution and end use in livestock and poultry, from 2.1 million tons in 2017/18 to 2.0 million tons in 2018/19. Imports of wheat for feed are expected to remain at 2.0 million tons in 2019/20, as feed millers have come to utilize a more standard wheat component to feed rations.

Ukraine remained the largest supplier of wheat to Indonesia in 2018/19 with 24 percent market share, followed by Canada (22 percent), Argentina (18 percent), the United States (13 percent), Australia (11 percent), and Russia (9 percent).

U.S. wheat exports to Indonesia reached a record high in 2018/19 with a total volume of 1.373 million tons, an increase of 29 percent compared to the previous period. In addition to a reliable supply and consistent premium quality, price competitiveness against other wheat suppliers provided opportunity to increase exports. Despite a larger production in 2018/19, tight exportable supplies hindered Russia's ability to increase market share in Indonesia. Tight supplies also constrained Australia and Argentina in the market. Exports from Russia and Argentina are expected to increase during 2019/20, lowering U.S. exports to 1.35 million tons in.

**Table 2. CNF Monthly Ending Prices from Major Wheat Suppliers (In \$/MT)**

Month	Argentina	Australia	Black Sea	EU	US
<b>2019</b>					
June	280	285	228	252	269
May	277	283	246	251	273
April	255	280	252	248	242
March	255	289	264	251	261
February	267	300	266	257	260
January	275	330	277	276	280
<b>2018</b>					
December	272	332	271	275	278
November	261	333	258	268	279
October	268	341	261	265	283
September	272	340	260	275	283
August	282	334	260	280	291
July	281	299	258	282	296

Source: IGC, processed by FAS/Jakarta

Note: on FOB prices: Argentina 12%, up river; Australia - Avg of APW; Fremantle, Newcastle, and Port Adelaide; Black Sea-milling; EU-France grade 1, Rouen; US- HRW 11.5% Gulf.

During 2018/19, wheat flour imports increased by 30 percent to 66,000 tons wheat equivalent, compared to 51,000 tons during the same period of 2017/18. Domestic flour has continued to dominate the market throughout 2018/19 with a 99.9 percent market share. Turkey held the largest wheat flour market share (69 percent), followed by South Korea (12 percent) and Ukraine (7 percent).

## **Consumption**

In September 2019, the World Bank and BPS projected that Indonesian economy grew at a slower pace of 5.1 percent in 2019, compared to 5.2 percent in 2018. Bank Indonesia reported that as of October 2019, year on year inflation stood at 3.1 percent, lower than the targeted 3.5 percent. Reflecting the economic slowdown, 2018/19 wheat for food consumption grew at just 1 percent, compared to 3.8 percent experienced in 2017/18. Higher demand for exports of wheat-based products is expected to increase wheat consumption to 8.9 million tons in 2019/20.

## **CORN**

### **Production**

Due to less rainfall in Java, Nusa Tenggara and Bali, drier conditions are providing an opportunity for farmers on low land irrigated areas to switch from paddy to corn. Accordingly, corn harvested area for 2018/19 is increased to 3.7 million hectares compared to 3.65 million hectares in 2017/18. Facing the upcoming off-season period, corn prices at the farm level are moved slightly higher to Rp. 4,050/kg (\$284/ton) in November 2019 from Rp. 3,900/kg (\$277/ton) in Central Java. Corn prices at the feed mill level currently range from Rp. 4,400/kg (\$312/ton) in North Sumatera to Rp. 4,650/kg (\$330/ton) in Jakarta, compared to prices of Rp. 5,800/kg (\$411/ton) during the same period last year.

The arrival of Fall Armyworm (*Spodoptera frugiperda*) throughout in Indonesia appears to have only modestly impacted corn production in 2019. So far, farmers have managed to minimize the impact to overall corn production using available pesticides.

Considering the above factors, 2018/19 corn production is maintained at 12 million tons, up from 11.9 million tons in 2017/18. In line with the expectation of some farmers switching to corn over paddy during the last crop cycle of 2018/19 and the likelihood of such a trend continuing during the first crop cycle 2019/20, harvested area is forecast to increase to 3.9 million hectares. The increased area is forecast to increase overall production to 12.7 million tons.

### **Consumption**

Feed production is estimated to reach 22.4 million tons in 2019 and forecast to grow by 5 percent in 2020. In line with expectations for continued growth in poultry feed demand, 2019/20 corn consumption for feed is forecast to increase to 9.5 million tons compared to 9 million tons in 2018/19. Meanwhile, consumption for food, seed, and industrial use is forecast to increase to 4.0 million tons as corn wet mills are expanding running capacity to fulfill more demand for corn starch, maltodextrin, and corn syrup. Local industry cites more demand for corn vermicelli, which uses corn starch as a main ingredient, as one reason for the increase.

### **Trade**

Driven by increased demand for industrial use during 2018/19, Indonesia has imported a total of 1.0 million tons of corn. The corn imports originated primarily from Argentina (73 percent) and Brazil (25

percent). Generally, U.S. corn prices have been above other suppliers, lowering U.S. exports to Indonesia significantly during 2018/19. In September 2019, US corn CIF price was quoted at about \$220/ton compared to \$200/ton of Argentine corn and \$206/ton for Brazilian corn.

Following exports of 272,000 tons to the Philippines in 2017/18, exports have dropped during 2018/19 to less than 1,000 tons based on strong domestic demand.

## **RICE, MILLED**

### **Production**

A prolonged dry season has reduced opportunities for farmers to grow paddy. Due to insufficient water, some farmers on low land irrigated areas opted to grow corn during the third crop cycle of 2018/19, while farmers on upland rain-fed areas had to leave the land fallow. As of early September 2019, Indonesian Statistics Agency (BPS) reported that total paddy harvested area has reached 8.99 million hectares, compared to 9.5 million hectares during the same period of 2018. Despite some showers at the end of November, farmers on Java report that the water received is still insufficient to start planting paddy. Farmers estimate the beginning of 2019/20 first crop cycle will not start until late December 2019 or early January 2020. Therefore, 2018/19 harvested area is expected to decline to 12.1 million hectares compared to 12.25 million hectares in 2017/18. Despite delayed onset of the first crop cycle, 2019/20 harvested area is forecast to remain at 12.1 million hectares.

The third crop cycle on low land irrigated area is currently ongoing with harvest expected to take place in late November to December 2019. Due to the prolonged drought, Ministry of Agriculture (MOA) reported that approximately 70,000 hectares of harvested area was lost during the second crop cycle of 2018/19. Based on the realization of the second harvest in June to July 2019 and observation of the current crop conditions, MOA estimates that a total of 100,000 hectares of paddy will fail to harvest in 2018/19. In line with decreased harvested area, 2018/19 rice production is estimated to decline to 36.7 million tons of milled rice equivalent, compared to 37.0 million tons of milled rice equivalent in 2017/18. Rice Production for 2019/20 is forecast to reach 36.8 million tons of milled rice equivalent, reflecting increased harvested area.

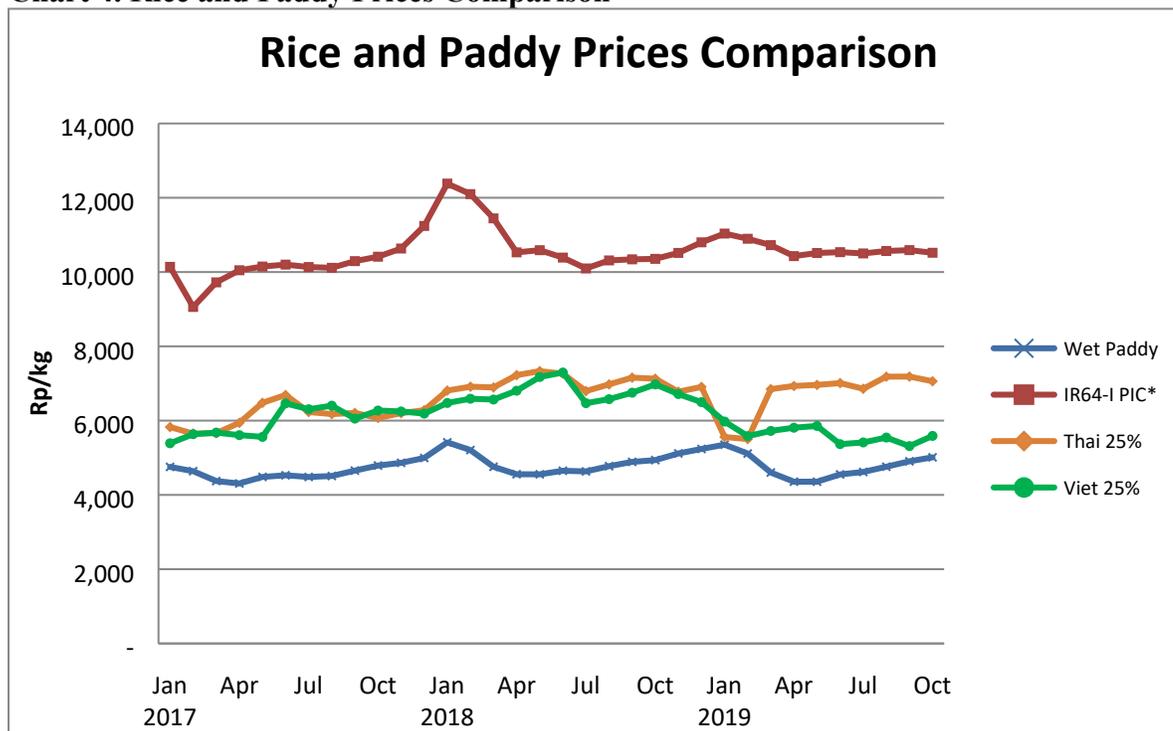
### **Trade**

During the period of January through September 2019, Indonesia imported a total of 400,000 tons of milled rice equivalent through private sector. Pakistan has been the major supplier to Indonesia with 44 percent market share, followed by Myanmar (25 percent), and Thailand (18 percent).

State-run procurement agency BULOG set its procurement target at 1.8 million tons in 2019. BULOG must buy paddy or rice at or below reference prices set by GOI (Please see [ID1916](#)). BPS reported that the national average farm-level wet paddy prices in October 2019 was Rp. 5,012/kg (\$355/ton), while average dry paddy prices was Rp. 5,508kg (\$391/ton). As those prices were above the government purchasing price, BULOG has found it difficult to buy from farmers and have only been able to procure a total of 1.2 million tons of milled rice equivalent as of November 26, 2019.

With the implementation of the Non-Cash Food Aid (*BPNT, Bantuan Pangan Non Tunai*) which replaced rice for the poor program (*raskin or rastra*), BULOG lost its main distribution channel. As a result, some rice imports from 2018 have been sitting in BULOG storage facilities for more than a year. Recently, the deteriorating quality of these stocks forced BULOG to destroy about 20,000 tons of imported rice.

**Chart 4. Rice and Paddy Prices Comparison**



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

Currently, BULOG distributes rice under market operation in efforts to stabilize rice prices in the market. The agency has distributed a total of 470,283 tons of rice to the market as of November 26, 2019. The wholesale price of medium quality rice at Cipinang rice market in Jakarta is relatively stable at from Rp. 10,496/kg (\$744/ton) on November 26, 2019 compared to Rp. 10,550/kg (748/ton) on July 26, 2019.

BULOG is required to maintain a minimum year-end stock level of 1.5 – 2.0 million tons. BULOG’s stock currently stands at 2.2 million tons. Considering less production of rice for the remainder of the year, above government purchasing prices of paddy and rice, and abundant stock currently sitting in BULOG storage, it is unlikely for BULOG to meet its domestic procurement target. Assuming BULOG will distribute the same volume of rice for market operations as last year and manage to distribute 700,000 tons of rice under BPNT, BULOG’s ending stocks will fall below 2.0 million tons. Considering the level of carry-over stocks, reduced production that may lead to higher prices during the off-season period of December 2019 to February 2020, and higher demand for specialty rice by restaurants, 2019/20 rice imports are forecast to reach to 1.0 million tons of milled rice equivalent, compared to 400,000 tons in 2018/19.

## PSD TABLES

**Table 3. PSD: WHEAT**

Wheat Market Begin Year Indonesia	2017/2018		2018/2019		2019/2020	
	Jul 2017		Jul 2018		Jul 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	1875	1875	1475	1475	1381	1381
Production	0	0	0	0	0	0
MY Imports	10518	10518	10780	10780	11000	11300
TY Imports	10518	10518	10780	10780	11000	11300
TY Imp. from U.S.	1066	1066	1374	1374	0	1350
<b>Total Supply</b>	12393	12393	12255	12255	12381	12681
MY Exports	318	318	274	274	300	300
TY Exports	318	318	274	274	300	300
Feed and Residual	2100	2100	2000	2000	1900	2000
FSI Consumption	8500	8500	8600	8600	8800	8900
<b>Total Consumption</b>	10600	10600	10600	10600	10700	10900
Ending Stocks	1475	1475	1381	1381	1381	1481
<b>Total Distribution</b>	12393	12393	12255	12255	12381	12681
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 4. PSD: CORN**

Corn Market Begin Year Indonesia	2017/2018		2018/2019		2019/2020	
	Oct 2017		Oct 2018		Oct 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	3650	3650	3700	3700	3900	3900
Beginning Stocks	1035	1035	793	793	888	791
Production	11900	11900	12000	12000	12700	12700
MY Imports	530	530	1000	1000	800	800
TY Imports	530	530	1000	1000	800	800
TY Imp. from U.S.	150	150	10	12	0	10
Total Supply	13465	13465	13793	13793	14388	14291
MY Exports	272	272	5	2	100	2
TY Exports	272	272	5	2	100	2
Feed and Residual	8500	8500	9000	9000	9500	9500
FSI Consumption	3900	3900	3900	4000	3900	4000
Total Consumption	12400	12400	12900	13000	13400	13500
Ending Stocks	793	793	888	791	888	789
Total Distribution	13465	13465	13793	13793	14388	14291
Yield	3.2603	3.2603	3.2432	3.2432	3.2564	3.2564
(1000 HA) ,(1000 MT) ,(MT/HA)						

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

**Table 5. PSD: RICE, MILLED**

Rice, Milled	2017/2018	2018/2019	2019/2020



2016	13,846	13,395	13,276	13,204	13,615	13,180	13,094	13,300	12,998	13,051	13,563	13,436
2017	13,343	13,347	13,321	13,327	13,321	13,319	13,323	13,351	13,492	13,572	13,514	13,548
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	13,992	

Source: Bank of Indonesia

**Note:** Exchange rate is Rp. 14,100/USD 1, as of November 22, 2019.

**Attachments:**

No Attachments