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## **Indonesia**

### **Sugar Annual**

#### **Indonesia Sugar Annual Report 2016**

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**Report Highlights:**

Indonesian sugarcane production in marketing year (MY) 2015/16 is estimated to decline to 27.0 million metric tons (MMT) due to El Nino related weather conditions. Sugarcane declines will decrease MY 2015/16 plantation white sugar production to 2.025 MMT, compared to 2.1 MMT in MY 2014/15. MY 2016/17 Indonesian sugarcane harvested area and production are expected to rebound to 410,000 hectares and 28.0 MMT, respectively. MY 2016/17 Indonesian plantation white sugar production is expected to increase to 2.2 MMT due to the expected increases in harvested area and sugarcane production. MY 2015/16 raw sugar and refined sugar imports are estimated to increase to 3.1 MMT and 170,000 MT respectively, in line with increasing refinery capacity and increasing food and beverage industry demand. MY 2016/17 Indonesian raw sugar imports will further increase to 3.2 MMT, in line

with higher demand for refined sugar from the food and beverage industry.

## General Summary

Government of Indonesia (GOI) sugar policy divides the domestic sugar market into three categories: plantation white sugar for home consumption, raw sugar for domestic sugar refining, and refined sugar for the local food and beverage industry.

In MY 2015/16, Post expects Indonesia will produce 2.025 MMT of plantation white sugar, a decrease of 3.6 percent from 2.1 MMT in MY 2014/15. Indonesian raw sugar imports are expected to increase to 3.1 MMT in MY 2015/16. MY 2016/17 Indonesian raw sugar imports will further increase to 3.2 MMT, in line with higher demand for refined sugar from the food and beverage industry. Refined/plantation white sugar imports by the food and beverage industry in MY 2015/16 are estimated to increase to 170,000 MT of raw sugar equivalent. Refined sugar can only be imported by the food and beverage industry.

The average retail price of plantation white sugar in March 2016 increased to Rp. 13,400/kg (\$1,020/MT) compared to Rp. 11,600/kg (\$883/MT) in March 2015, consistent with a decrease in domestic plantation white sugar production in MY 2015/16. In order to incentivize sugarcane production, the GOI increased the plantation white sugar floor price to Rp. 8,900/ kg (\$678/MT) in May 2015, compared to Rp. 8,500/kg (\$647/MT) in the previous year. Despite price hikes, dry weather (due to a strong El Nino phenomenon) impeded sugarcane production, thus limiting Indonesian plantation white sugar production in MY 2015/16.

Table 1. PSD: Sugarcane for Centrifugal

Sugarcane for Centrifugal Market Begin Year	2014/2015		2015/2016		2016/2017	
	May 2014		May 2015		May 2016	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Indonesia						
Area Planted	420	420	410	410	0	420
Area Harvested	410	410	400	405	0	410
Production	27100	27100	28000	27000	0	28000
Total Supply	27100	27100	28000	27000	0	28000
Utilization for Sugar	27100	27100	28000	27000	0	28000
Utilizatn for Alcohol	0	0	0	0	0	0
Total Utilization	27100	27100	28000	27000	0	28000
(1000 HA) ,(1000 MT)						

Note: the last column of each Marketing Year is not official USDA data.

Table 2. PSD: Centrifugal Sugar

Sugar, Centrifugal Market Begin Year	2014/2015		2015/2016		2016/2017	
	May 2014		May 2015		May 2016	
Indonesia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	1299	1299	949	949	0	644
Beet Sugar Production	0	0	0	0	0	0
Cane Sugar Production	2100	2100	2250	2025	0	2200
Total Sugar Production	2100	2100	2250	2025	0	2200
Raw Imports	2950	2950	3100	3100	0	3200
Refined Imp.(Raw Val)	100	100	100	170	0	200
Total Imports	3050	3050	3200	3270	0	3400
Total Supply	6449	6449	6399	6244	0	6244
Raw Exports	0	0	0	0	0	0
Refined Exp.(Raw Val)	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Human Dom. Consumption	5500	5500	5550	5600	0	5700
Other Disappearance	0	0	0	0	0	0
Total Use	5500	5500	5550	5600	0	5700
Ending Stocks	949	949	849	644	0	544
Total Distribution	6449	6449	6399	6244	0	6244

(1000 MT)

Note: the last column of each Marketing Year is not official USDA data.

## Production

Indonesia produces plantation white sugar from sugarcane, primarily produced for direct human consumption. Indonesia also produces refined sugar from imported raw sugar, which is generally used for processing by the food and beverage industries. Indonesian regulations prohibit the distribution of refined sugar produced from imported raw sugar to retail markets for direct human consumption.

**Table 3. Profile and Characteristics of Indonesian Sugar Industry**

No.	Description	Sugarcane Based	Raw Sugar Based
1.	Number of companies	18	11
2.	Number of plants	63	11
3.	Processing capacity	245,900 TCD (Tons of Cane/Day) Avg. 3,900 TCD per mill	5.01 MMT of installed capacity 3.697 MMT of running capacity
4.	Raw material	Sugarcane from mills' own plantation and farmers	Imported raw sugar
5.	Number of processing day	Avg. 160 days per year	Avg. 320 days per annum
6.	Annual production potential	2.5-3.0 MMT	3-4 MMT
7.	Number of workers: - On farm - Off farm	28,350 27,427	None 4,833
8.	Number of farmers involved	1,328,250 farmers families	None
9.	Age of existing mills	1-184 years old	3-12 years old
10.	Climate influence to production	Strong	Almost none
11.	Overseeing agency	Ministry of Agriculture (GOI Reg. No. 17/1986)	Ministry of Industry (Law No. 5/1984)

Source: Nusantara Sugar Community.

Java's 48 sugar mills accounted for 63 percent of Indonesian white sugar production in MY 2014/15. The balance is produced by 15 sugar mills outside of Java, primarily in Sumatera. These sugar mills produce plantation white sugar from sugarcane with a total running capacity of 245,900 Tons of Cane per Day (TCD) or an average of 3,900 TCD per mill. Indonesian sugar mills are aging, with approximately 40 mills over 100 years old. Only six sugar mills are less than 25 years old. Old machinery results in poor recovery rates and discourages farmers, who obtain higher margins from paddy or corn. Given these factors, Indonesian total sugarcane area, especially on Java, is declining. Post does not expect this trend to change significantly, despite government efforts to become self-sufficient in sugar by 2019 (a revision to the initial 2014 self-sufficiency target). Post notes that GOI's plans to open approximately 500,000 ha of land for sugarcane and build 10 new sugar mills faces challenges due to limited appropriate land on and off of Java.

The Indonesian Meteorology, Climatology, and Geophysics Agency (*Badan Meteorologi, Klimatologi, dan Geofisika*, BMKG) reported that Indonesia has experienced a strong El Nino phenomenon since August 2015, exacerbating forest fires in Sumatera and Kalimantan. BMKG forecasts that unlike last year, Indonesia will experience La Nina during the period of October to December 2016, which may lead to higher intensity rainfall during the first crop cycle of MY2016/17. BMKG will refer to the guidelines for evaluating sea surface temperatures and forecasting possible El Nino/La Nina occurrences summarized in table 4.

**Table 4. Southern Oscillation Index (SOI) El Nino/La Nina Forecast Guidelines**

SOI Value (Tahiti Island and Darwin) Island)	Events That May Occur
Below -10 for 6 months	Strong El Nino
-5 to -10 for 6 months	Moderate to Weak El Nino
-5 to +5 for 6 months	Normal
+5 to +10 for 6 months	Moderate to Weak La Nina
Above +10 for 6 months	Strong La Nina

Source: BMKG

On March 21, 2016, BMKG reported that:

1. The value of the El Nino index was at 1.44 compared to 1.51 the week before. It indicates a moderate El Nino (+1 to +2). (Note: The index must remain within the range of a particular SOI value for six months before reclassifying the event).
2. El Nino is expected to be neutralized in April to May 2016.
3. During the first ten days of March 2016, rainfall intensity fell between 20-150 mm/ten days, or low to medium rainfall intensity. Rainfall intensity is considered below normal in most areas of Indonesia, especially in northern Sumatera, Riau, Lampung, Central Java, Bali, West Nusa Tenggara, East Nusa Tenggara, Eastern Kalimantan, North Sulawesi, Central Sulawesi, North Maluku, and Papua.
4. Results from rainfall observations indicate uneven rainfall distribution and no extreme droughts.
5. The dry season will start in May/June 2016, covering 66 percent of Indonesia. Referring to the 30-year average, 50 percent of Indonesia are expected to have a delayed dry season, while 23 percent will have an early dry season.
6. Due to the expected La Nina which is forecast to arrive in April or May 2016, Indonesia will experience a wet dry season in 2016.

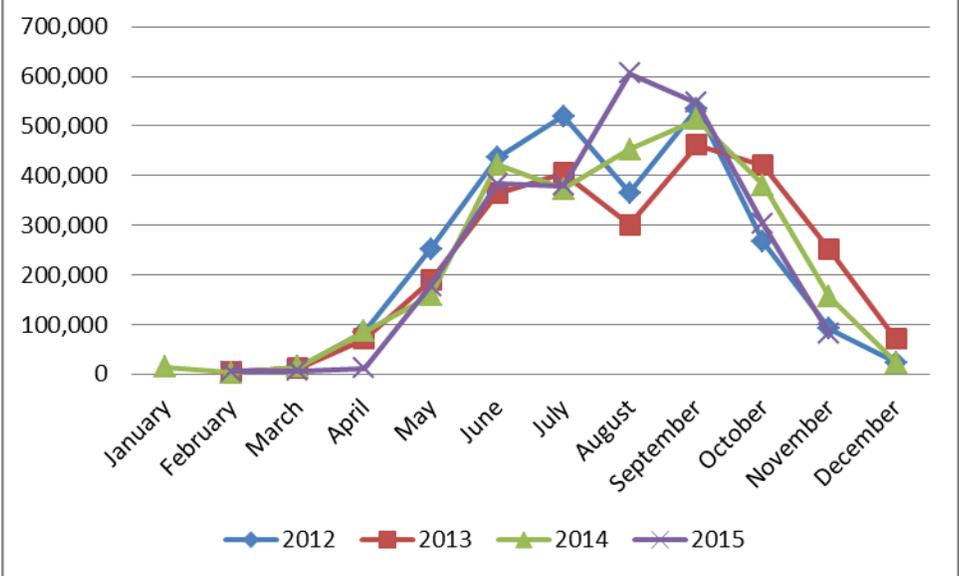
The occurrence of a moderate to strong El Nino in Indonesia since April 2015 delayed the onset of 2015's rainy season to December 2015, with its peak arriving in February 2016. Normally, the rainy season lasts from October to April, although the 2016 rainy season started in December and is currently expected to continue through May. As of early April 2016, Indonesia's rainy season is ongoing, with sufficient rainfall.

Sugar mills reported that the El Nino phenomenon has delayed MY 2015/16 sugarcane plantings on and off of Java. Normally, sugarcane plantings should have been completed by October 2015. Limited rainfall, however, has limited planting to 70 percent of the expected area by the benchmark date. Delayed plantings are expected to decrease overall yields, as well as lower sucrose content by an

estimated five percent. Sugar mills have announced that in order to offset yield losses, they will delay the beginning of the milling season. In previous years, sugar mills start the milling season as early as February (especially Sumatran mills). Given planting delays, the MY2016/17 milling season is not expected to start until May 2016. The milling season typically lasts six months or less.

A delayed milling period will lead to a lower recovery rate, (compared to 7.5 percent in MY 2015/16 and 7.7 percent in MY 2014/15). The target rate may also be hampered by poor recovery rate analysis, poor harvest management, sugarcane transportation problems, and the limited capacity of older mills.

**Chart 1. Indonesia: Monthly Plantation White Sugar Production (MT)**



Source: Industry.

Considering the above factors, Post estimates that MY 2015/16 sugarcane harvested area will decline slightly to 405,000 hectares. MY 2015/16 Indonesian sugarcane production is estimated to decline to 27.0 million metric tons (MMT) compared to 27.1 MMT in MY 2014/15.

Indonesian sugar mills may increase sugarcane production capacity by adopting new planting patterns, using higher yielding/late ripening varieties, on-farm mechanization, and by better timing harvests to increase recovery rates. Considering these factors and assuming favorable weather (the diminishing El Nino), Post forecasts MY 2016/17 Indonesian sugarcane harvested area and production to rebound to 410,000 hectares and 28.0 MMT, respectively. Post estimates MY 2015/16 Indonesian plantation white sugar production to decline to 2.025 MMT, compared to 2.1 MMT in MY 2014/15, in line with the decline in harvested area and yield. Post also forecasts MY 2016/17 Indonesian plantation white sugar production to increase to 2.2 MMT due to the expected increase in harvested area and sugarcane production.

Since MY 2013/14 there are 11 sugar refineries in Indonesian with total installed capacity of 5.01 MMT. Running capacity of these refineries varies year to year, depending on the raw sugar import approval issued by the GOI. Running capacity reached 81.97 percent in MY 2014/15 and is estimated to remain on par in MY2015/16. Robust growth of the Indonesian food and beverage industry will incentivize refineries to expand sugar production. Based on a survey conducted by a private surveyor, Indonesian food and beverages industry demands for approximately 2.89 MMT of refined sugar, equal to 3.042

MMT of imported raw sugar in MY 2014/15. With estimated growth of five percent per annum, the industry will require 3.03 MMT of refined sugar in MY 2015/16. Despite demand growth, no new sugar refineries are expected in the near future, as Presidential Regulation No. 36/2010 includes sugar refineries on Indonesia's Negative Investment List.

### Consumption

MY 2015/16 sugar consumption is estimated to increase marginally to 5.6 MMT based on 1.4 percent population growth and growing demand from the food and beverage industry. Post expects consumption will increase to 5.7 MMT in MY 2016/2017. Direct human consumption is estimated at 2.9 MMT, while the food and beverage industry uses the balance. Indonesian per capita sugar consumption in MY2015/16 is estimated at 11.47 kg. Per capita consumption is forecast to increase to 11.54 kg in MY2016/17.

### Prices

On May 12, 2015, the Indonesian Minister of Trade announced that the floor price for plantation white sugar was increased to Rp. 8,900/kg (\$678/MT), based on a recommendation from the head of the Indonesian Sugar Council (who is also the Minister of Agriculture). However, competition with higher-quality refined sugar, (supposedly prohibited from retail sale), prevents the floor price increase from supporting plantation white sugar retail prices.

**Table 5. Indonesia: Jakarta Monthly Average Retail White Sugar Prices (Rp./Kg)**

Month	2014		2015		2016	
	Local	Imported	Local	Imported	Local	Imported
January	12,600	13,000	11,850	-	13,325	-
February	12,350	13,000	11,800	-	13,375	-
March	12,400	13,000	11,600	-	13,400	-
April	12,100	-	12,325	-		-

May	11,900	-	12,575	-	-
June	11,950	-	12,725	-	-
July	11,900	-	13,000	-	-
August	11,950	-	13,350	-	-
September	11,700	-	13,200	-	-
October	11,600	-	12,975	-	-
November	11,750	-	13,050	-	-
December	11,800	-	13,150	-	-
Average	12,000	13,000	12,633	-	13,367

Source: Market Information Center (PIP), Ministry of Trade.

## Stocks

Due to the decline of plantation white sugar production, raw sugar imports and refined sugar imports, MY 2015/16 ending stocks are expected to decrease to 644 MMT from 949 MMT in MY 2014/15. Post expects MY 2015/16 Indonesian sugar ending stocks to further decrease to 544,000 MT, despite the slight increase in plantation white sugar production and raw sugar imports.

## Trade

According to Minister of Trade (MOT) regulation number 19/2008, plantation white sugar, a regulated commodity, can only be imported by registered importers. Registered importers must also be sugar producers and are required to produce at least 75 percent of their white sugar from Indonesian-grown sugarcane. Raw sugar can only be imported by processors that will use it for their own refining, while refined sugar may be imported by food processors for their own production. Also, whenever it deems necessary, the GOI can grant sugar mills permission to import raw sugar for white sugar production, provided that it is used to reduce idle capacity due to domestic cane production shortfalls. In MY 2014/15 no raw sugar import approval was granted to sugar mills. Furthermore, on December 23, 2015, MOT issued regulation number 117/2015 stating that imports of plantation white sugar can only be conducted by state owned companies. The GOI is also prohibited from issuing raw sugar import approvals to sugar mills to reduce idle capacity in the future.

The GOI expects the food and beverage industry to consume domestically produced refined sugar, although it also permits some imports, normally issuing import allocations at the beginning of the year. These allocations are subject to change when certain sugar products cannot be sourced domestically. In MY 2014/15, Indonesian sugar refineries imported a total of 3.1 MMT of raw sugar, uniquely intended for distribution to the domestic food and beverage industry (after refining). The MY 2015/16 total allocation for raw sugar imports by refineries is estimated to reach 3.22 MMT. For the first quarter of 2016, the GOI allocated refineries 968,053 MT of imported raw sugar. As of February 2016, refineries have brought in approximately 500,438 MT of the allocation. The GOI did authorize sugar mills to import plantation white sugar or raw sugar to fill idle capacity in MY 2014/15, unlike MY 2013/14. The GOI may give import permits for plantation white sugar to state-owned companies (possessing a general importer identification number), if imports are necessitated by domestic production shortages, in accordance MOT regulation 117/2015. As of April 2016, the GOI has not issued any import approvals for MY2015/16 imports of plantation white sugar.

The GOI sets sugar import duties as follows:

**Table 6. Indonesia: Sugar Import Duty (ID) and Value Added Tax (VAT), 2016**

No.	Commodity	ID		VAT (%)
		(Rp./Kg)	(US\$/ton)	
1.	Raw sugar from sugarcane	550		10
2.	White sugar	790		10
3.	Refined sugar	790		10

Source: Indonesian Customs Tariff Book 2012.

In CY 2014/15, Indonesia's primary refined sugar suppliers were Thailand (41 percent) and Malaysia (15 percent). 37 percent was transshipped through Singapore. Raw sugar was supplied by Thailand (64 percent) and Brazil (33 percent). Indonesia imports most of its sugar from Thailand due to freight advantage, and because Thailand can meet Indonesia's unique specifications ("Indospec").

### Policy

On December 23, 2015, the Indonesian Minister of Trade issued regulation 117/2015 on sugar imports. The regulation classified sugar into three categories:

1. Raw sugar with HS Code. 1701.12.00.00, ex. 1701.13.00.00, and ex. 1701.14.00.00 with a minimum ICUMSA (International Commission for Uniform Methods of Sugar Analysis) of 1200 IU (International Unit).
2. Refined sugar with HS Code. 1701.19.11.00 and 1701.99.19.00 with maximum ICUMSA of 45 IU.
3. Plantation white sugar with HS Code. 1701.91.00.00 and 1701.99.90.00 with ICUMSA ranges from 70 IU to 200 IU.

MOT 117/2015 states that the volume of sugar imports will be based on domestic demand, to be determined during an inter-ministerial meeting. It further mentions that imports of plantation white sugar will only be conducted to maintain the availability and stability of plantation white sugar prices in the domestic market. The regulation states:

1. Raw sugar and refined sugar can be imported by private importers possessing a producers importers identification number (*API-P, Angka Pengenal Importer-Produsen*), after obtaining import approval from the Minister of Trade. Prior to applying for an import approval, private importers must obtain an import recommendation from Director General for Agro Industry of the Ministry of Industry. Once an import approval is granted, it will be valid in accordance with the validity of the import recommendation, starting from the issuance date of the import approval. The imported raw sugar and refined sugar must only be used as food ingredients for further production and must not be traded or transferred to other parties. Refined sugar produced from imported raw sugar must only be sold to food and beverage manufacturers and is prohibited to be sold in domestic retail market. Any company located within a bonded zone or possessing a dedicated export facility may get an import approval from the Ministry of Trade to import raw

sugar or refined sugar for further processing without having any import recommendation from the Ministry of Industry. In order to do so, the company must provide an official letter stating they will not sell the imported raw sugar or refined sugar on the domestic retail market, and will only use imported raw sugar or refined sugar as ingredients.

2. Plantation white sugar can only be imported by state owned companies possessing a general importer identification number (*API-U, Angka Pengenal Importir Umum*) after obtaining an import approval from the Minister of Trade. To obtain an import approval, a state owned company must submit an electronic application to MOT's Director General for Foreign Trade. Once MOT grants an import approval, it will be valid for one year starting from the issuance date of the import approval.

Regulation 117/2015 restricts sugar imports one month prior to, during, and two months after the milling season. This is intended to simplify sugar import procedures and to improve the competitiveness of Indonesia's sugar industry. MOT regulation 19/M-DAG/PER/5/2008 is revoked and declared invalid.

The Indonesian Food and Drugs Monitoring Agency (BPOM, Badan Pengawas Obat dan Makanan) allows the use of food additives, including natural sweeteners and artificial sweeteners, in accordance with the maximum limits determined in BPOM regulation number 4/2014.

The following natural sweeteners are allowed to be added to food:

- a. Sorbitol
- b. Mannitol
- c. Isomalt/Isomaltitol
- d. Steviol glycoside
- e. Maltitol
- f. Lactitol
- g. Xylitol
- h. Erythritol

The following artificial sweeteners are also allowed to be added to food:

- a. Acesulfame potassium
- b. Aspartame
- c. Cyclamates
- d. Saccharins
- e. Sucralose/Trichlorogalactosucrose
- f. Neotame

The sweeteners can be used solely or in combination with other sweeteners. The use of table top sweeteners is limited to single use packs of 5 to 10 grams of sucrose per package. Artificial sweeteners are prohibited in food products for infants, toddlers below three years of age, and pregnant or breast-feeding mothers.

Note: Exchange rate is Rp. 13,134/US\$ 1, as of April 11, 2016.