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# Palm Oil For Pakistan – A Burden Or Breather In-Depth Analysis Of Pakistan’s Edible Oil Industry

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## Abbreviations and Acronyms

GDP	Gross Domestic Product
HS	Harmonized System of Coding
USD	US Dollar
PTA	Preferential Trade Agreement
FTA	Free Trade Agreement
MMT	Million Metric Tons
MT	Metric Tons
PODB	Pakistan Oilseed Development Board
CAGR	Combined Annual Growth Rate
CPO	Crude Palm Oil
RBDO	Refined, Bleached and Deodorized Oil
RBDPO	Refined, Bleached and Deodorized Palm Oil
PO	Palm Olein
PS	Palm Stearin
PFAD	Palm Fatty Acid Distillate
RM	Malaysian ringgit
SCDA	Sindh Coastal Development Authority
SFD	Sindh Forest Department



## Executive Summary

For the last five years, Pakistan's agro sector is under trade deficit with USD 2.2 billion being the highest low in 2020. The widened trade gap in 2020 was due to the imports of wheat and pulses and the sudden increase in palm oil prices globally. Palm oil is Pakistan's largest food import item with a 30 percent share in agro imports and the country's second-biggest import after petroleum. The bulk imports are a consequence of Pakistan's increasing per capita consumption of edible oil, and the inability to produce adequate quantities of edible oil domestically. The total local consumption of edible oil is 5 MMT, 30 percent of which is domestically-produced and 70 percent of edible oil demand is met through the import of refined palm oil. This demand-supply gap indicates a deeply rooted dependence of Pakistan on imported oilseeds and refined palm oil, which is susceptible to deepen due to yearly decline in local oilseed production. Although the government has launched oilseed production enhancement programs for rapeseeds, sunflowers, and olive oil, the harvest cycle will approximately take the next 7 years to complete. Amid rising demands of edible oil and stunted local production, palm oil is a natural and economic choice for Pakistan due to its affordability, accessibility, and availability. Pakistan imports 75 percent of palm oil products from Indonesia under the Preferential Trade Agreement, whereas it imports 25 percent of palm oil products from Malaysia under the Free Trade Agreement. Despite these agreements, Pakistan faces high export duties on crude palm oil and increasing prices of refined palm oil. Because of these concerns the import value of palm oil is increasing at 2 percent faster rate than the quantity imported annually. If this scenario prevails, Pakistan will import 4 million tons of palm oil by 2025 costing over USD3.5 billion. To control the predicted hike, it is mandatory to control the price and consumption of palm oil for Pakistan. Pakistan is capable of consuming 1.5 million tons of crude oil but only a thousand tons were imported in 2020. The crude will not only produce refined palm oil but will also produce palm fatty acid distillate (PFAD) and palm stearin which are major imports of Pakistan. The study examines the possibility of importing crude oil instead of refined palm oil and finds out how imports of crude palm oil can reduce burden from the economy of Pakistan and make it an opportunity to move towards self-sufficiency.



## **Introduction**

This study focuses on palm oil as the main player in Pakistan's edible oil industry. It gives an overview of the agriculture sector of Pakistan with major attention to imports highlighting the topmost imported food items in terms of share in import bill. With this approach, it narrows down to the significance of palm oil in Pakistan's edible oil industry bringing in focus the retrospective of demand and consumption of edible oil and its substitution. This research examines Pakistan's potential of becoming self-sufficient in edible oil production and identify the best edible oil or oilseed to import in terms of affordability, accessibility and availability. This will help in assessing that for how long Pakistan will have to import that edible oil and what should be the policy recommendations for controlling the import bill during the process.

### **Chapter 1. Agro Sector of Pakistan**

According to the Economic Survey of Pakistan 2020-21, the agriculture sector contributes 19.2% to the country's overall GDP while engaging 38.5% of total labor force primarily in rural areas (Finance, 2021). It also enjoys second-most pivotal position after textiles sector in maintaining trade balance due to significant exports of cereals and cotton. Where the agriculture sector can spur the economic growth of Pakistan it can equally pose threat to economic stability due to its uncontrolled susceptibility to multiple challenges like climate change, variations in temperature and precipitation, water shortages, labor diversion, and fluctuation of input prices. To overcome these challenges, a perpetual inclusion of new approaches, adequate budgets, well-regulated policies, and interventions is mandatory. If Pakistan fails to cope with the changing environments and devises modern techniques of cultivation, not only it will lead to acute food shortages but will drastically widen the gap between the country's imports and exports. Pakistan's agricultural productivity in the coming years will eventually decide the fate of the country's GDP and trade outlook.



## 1.1 Trade Profile of Agro Sector

Despite being an agro-based economy, Pakistan withstands a widening trade gap in the agriculture sector with imports exceeding exports every year. It indicates an escalating national demand for food that is not being met by the country's domestic resources. Solely in 2020, the agro sector faced a trade deficit of USD2.2 billion being the highest in the last 3 years as shown in Table 1 subject to a gradual decline in exports and increase in imports, simultaneously.

Table 1

### Export & Import of Pakistan Agro Products in USD Millions (2016-2020)

YoY Trade Growth	2016	2017	2018	2019	2020
Agro Export Value	\$4,119	\$4,480	\$5,455	\$5,261	\$4,678
Agro Import Value	\$6,000	\$6,910	\$6,162	\$5,486	\$6,967
Trade Deficit	-\$1,881	-\$2,430	-\$707	-\$225	-\$2,289

Source: ITC Trade Map

The sudden hike of USD1.5 billion in agro imports in 2020 from 2019 led to a trade deficit of USD2.2billion. It resulted mainly due to the import of wheat and sugar to meet national demands and control local producers, the import of increased quantities of pulses to overcome the national shortage, and a global surge in palm oil prices.

## 1.2 Major Agro Imports

Pakistan's imports of agro products from 2016 to 2020 on an average stand at USD6.3 billion out of which a 70 percent share accounts to 4 major agro divisions; HS-15 – Animal and vegetable oils, HS-12 – Oilseeds, HS-07 – Edible vegetables and HS-09 – Coffee, tea, mate and spices.

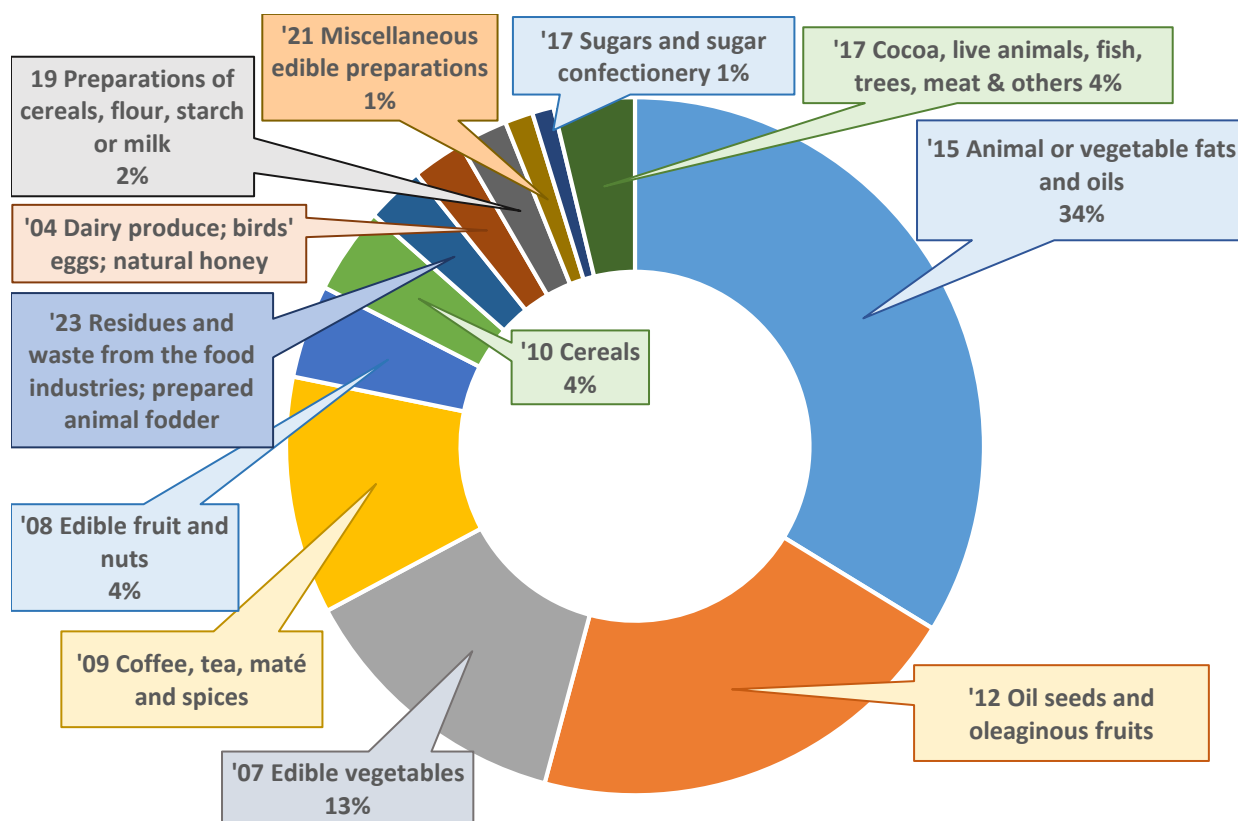
Animal and vegetable fats and oils constitute 34 percent of the total agro import bill. This is solely due to the imports of palm oil products worth USD2.1 billion becoming the largest agro import of Pakistan. After palm oil, oilseeds constitute 21 percent of the total agro import bill due to USD735 million worth of imports of soybean. Edible vegetables form 13 percent by importing legumes and lentils of USD646 million followed by import of tea worth USD540 million constituting 11 percent of the total import value of the agro sector.





Figure 1

**% Share of Product Categories in Total Agro Imports of Pakistan at HS-2 Level**



Source: ITC Trade Map

**1.3 Top 4 Imports of Agro Products**

As shown in Table 2, Palm oil is the largest food import item with a 30 percent share in agro imports and Pakistan’s second-largest import after petroleum. Significant quantities of palm oil products are imported every year to meet the increasing per capita demand for edible oil. Due to this greater share, any fluctuations in the international prices of palm oil directly impact the import bill of the country.

Soybean is the second-highest product that is imported to fulfill the need for animal feed and edible oil. A wide variety of pulses and tea are also imported by Pakistan with the third and fourth-largest food import share.



Table 2

**TOP 4 Major Agro imports of Pakistan with % share on HS 6-digit level**

Product	Total Import Value in USD1000	% Share in Total Agro Import	6-Digit HS Code	Product label	Average Value (2016-2020) USD1000
PALM OIL	\$1,920,455	30.40%	151190	Palm oil and its fractions, whether or not refined (excluding chemically modified and crude)	\$1,805,207
			151110	Crude palm oil	\$115,247
SOYBEAN	\$735,022	11.00%	120110	Soya bean seed, for sowing	\$735,022
LEGUMES & LENTILS	\$645,689	10.20%	'071310	Dried, shelled peas "Pisum sativum", whether or not skinned or split	\$168,749
			'071340	Dried, shelled lentils, whether or not skinned or split	\$80,702
			'071320	Dried, shelled chickpeas "garbanzos", whether or not skinned or split	\$239,391
			'071333	Dried, shelled kidney beans "Phaseolus vulgaris", whether or not skinned or split	\$68,505
			'071390	Dried, shelled leguminous vegetables, whether or not skinned or split (excluding peas, chickpeas, ...)	\$68,447
			071339	Dried, shelled beans "Vigna and Phaseolus", whether or not skinned or split (excluding beans ...)	\$17,957
			'071331	Dried, shelled beans of species "Vigna mungo [L.] Hepper or Vigna radiata [L.] Wilczek", whether ...	\$1,469
			'071350	Dried, shelled broad beans "Vicia faba var. major" and horse beans "Vicia faba var. equina ...	\$465
TEA	\$540,057.40	8.50%	'090240	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	\$526,004
			'090220	Green tea in immediate packings of > 3 kg	\$13,136
			'090210	Green tea in immediate packings of <= 3 kg	\$313
			'090230	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	\$603

Source: ITC Trade Map



## Chapter 2. Pakistan’s Edible Oil Industry

Pakistan’s major imports of palm oil and soybean are a result of increasing per capita consumption of edible oil currently standing at 24 kg (Rehman, 2020). The agriculture sector struggles to cater to the domestic demand for edible oil and is highly dependent on the imports of oilseeds and refined palm oil.

Pakistan’s local consumption of edible oil is 5 MMT, out of which 1.5 MMT – 30 percent of edible oil is domestically-produced, the remaining 3.5 MMT – 70 percent of edible oil needs are met through the import of refined palm oil (Rehman S. , 2021).

Pakistan’s edible oil industry consists of refineries, Vanaspati manufacturing plants, and oil extraction units. Pakistan produces edible oil by crushing homegrown cottonseeds, rapeseed, sunflower seeds, and other imported seeds including soybean and canola into cooking oil. The crushing industry consumes 42 percent of locally produced oilseeds and 58 percent of imported oilseeds, indicating Pakistan’s high dependence on imports of palm oil and oilseeds to meet the increasing demands of the growing population.

### 2.1 Oilseeds – Demand & Supply

Pakistan meets 30 percent of total vegetable oil demands by extracting it from oilseeds; 14 percent of which is extracted from domestic oilseed crops including cottonseed, rapeseed, sunflower and canola with cottonseed being the highest source of oil, whereas, the remaining 16 percent is drawn from imported oilseeds including soybean and canola.

**Table 3**

**Statistics of production, demand and supply of Oilseeds with CAGR (2018-2020)**

OILSEEDS IN PAKISTAN	2018	2019	2020	CAGR
Area Harvested (1000 HA)	2,690	3,042	2,802	1.37%
Production (1000MT)	3,784	3,457	3,360	-3.88%
Imports (1000 MT)	2,669	3,125	3,325	7.60%

Source: United States Department of Agriculture – Foreign Agriculture Service



Table 3 shows growth in the area of harvest for oilseeds at CAGR 1.4 percent, with a decline in production of oilseeds at CAGR 4% showing an irregular comparison of area and production. This can be attributed to the newly launched oilseed development programs bringing more area under new cultivation which in turn will take 4 to 5 years to produce. Another reason for decline in production is the reduction in cotton production. The harvest of cottonseed which accounts for 84 percent of local oilseed production has gone down by 6 percent from the previous year because of unavailability of quality seeds and price dynamics. The growers require new seeds either by imports or through production in the country. The pricing dynamics have tended to give sugarcane an edge over cotton, which has manifested in the switching of area away from the crop in favor of sugarcane (Iqbal, 2021).

Unlike harvest and production, the imports of oilseeds are at a steady surge growing 8 percent annually. In 2005, Pakistan revised the tariff regime on imports of oilseeds to facilitate the oilseed extraction industry. Tariffs on sunflower, canola, and rapeseed were reduced to 3 percent. In 2015, soybean was also added to the list, after which the oilseed industry witnessed a quantum jump in consumption from zero imports in 2013 to 2.5 million tons in 2020. The drastic rise in soybean imports was to meet the excessively growing needs of soybean meal required for livestock feed. The same soybeans are simultaneously used to extract edible oil which is later supplied to vegetable oil manufacturers. Rapeseed and canola imports have declined since being replaced by soybean (Rehman S. , 2021).

However, this trend between harvest, production and imports of oilseeds if continues with the similar pace will directly hit the country's economy leading to an irretrievable trade imbalance.

## **2.2 Edible Oil – Demand & Supply**

Among the major edible oil consuming countries including India and China, Pakistan has the highest per capita consumption of edible oil. Pakistan consumes 24 kg per capita whereas India and China consume 19.5kg and 9.8kg (Batumalai, 2021), respectively. The overwhelming local demand of edible oil reflects on the upward trend of import bill since the growth in domestic production is comparatively slower.

As shown in Table 4, the domestic production of edible oil is growing at the rate of 1.3 percent annually whereas the imports of refined oil are exceeding by 3 percent yearly. With growing



population and financial capacity, imports of palm oil are likely to increase at a much faster rate than the domestic production.

Table 4

**Statistics of production and import of Edible Oil with CAGR (2018-2020)**

EDIBLE OIL	2018	2019	2020	CAGR
Production (1000MT)	1,380	1,438	1,436	1.33%
Imports (1000 MT)	3,266	3,377	3,552	2.84%

Source: United States Department of Agriculture – Foreign Agriculture Service

### 2.3 Oilseed Production Enhancement Programs

- **National Oilseeds Enhancement Programme**

Federal and provincial governments together launched cash-payment subsidy packages to enhance rapeseed and sunflower production in 2018. The program has been effective in bringing more areas under oilseed production especially in Punjab and KPK. In Sindh, a certain reluctance is observed either due to the ongoing friction between the provincial governments or due to yield gaps as low rates are offered to farmers in the market (Khan, 2021). Another reason for farmers' reluctance in adopting oilseed production regime is that most oilseeds are winter crops and farmers prefer growing wheat instead as government is providing support for the price mechanism of wheat. Similarly, sunflower and soybeans are produced in summer season, farmers tend to view cotton, rice, corn and sugarcane as more profitable options.

- **Olive Cultivation Enhancement Programme**

Olive cultivation is yet another target area which government has considered by cultivating over 27,000 hectares. The goal is to cultivate 70,000 hectares in the coming years. At present, on average, 500,000 to 600,000 olive plants are being produced annually. Keeping in view the weather conditions, the areas surrounding the Indus River, Khyber Pakhtunkhwa, Islamabad, and Pothohar region are considered as the most suitable for olive cultivation.



- **Sindh Coastal Development Authority’s Pilot Project of Palm Cultivation**

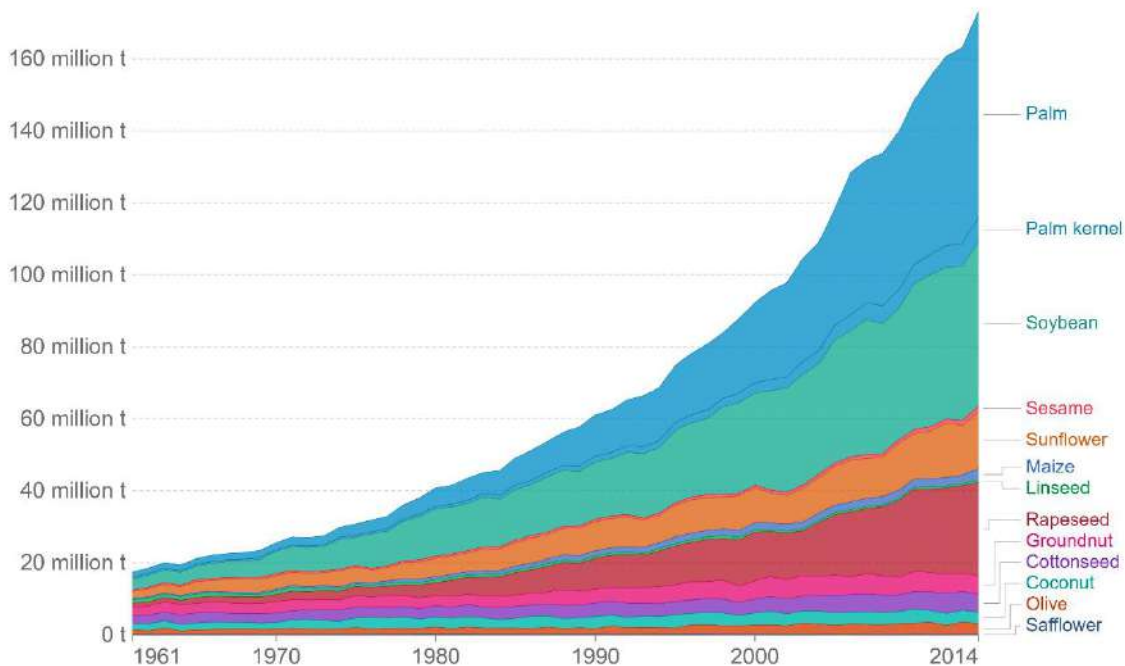
Sindh Government has also introduced palm cultivation programme in collaboration with Sindh Coastal Development Authority which is discussed in detailed in the last chapter.

### Chapter 3. Global Status of Palm Oil

In terms of growth in the production of edible oil on a global level, palm oil has had the fastest pace. From producing 2 million tons in 1970, to producing 71 million tons in 2018, palm oil production has gone 35 times higher in the last 50 years, greater than any other oilseed. Production of palm oil is more efficient than other vegetable oils as its oilseeds use less than 9 percent of croplands devoted to oil production yet produce a major share as shown in figure 2 (Hannah Ritchie, 2020).

Figure 2

#### Vegetable Oil Production in the World



Source: UN Food and Agriculture Organization



### 3.1 Pricing & Availability

The production and consumption of palm oil are closely associated with the global demand and supply of all edible oils encompassing the demand and supply of other items including soybean, sunflower seeds, rapeseeds, olive seeds and other different types of oilseeds.

Pakistan over all other edible oils, imports palm oil in large quantities due to easy access, availability and affordability. Currently, palm oil is a readily available edible oil as it accounts for 36 percent of the world's oil. Pakistan imports palm oil from Malaysia and Indonesia through FTA and PTA, respectively, granting it ease of access to palm oil. In terms of price, Palm oil is the cheapest edible oil than other soft oils. According to the trade map, the global average per ton cost of Olive oil is USD2,769, Sunflower oil is USD1,475, Rapeseed oil is USD1,419, Soybean oil is USD1,027 and Palm oil's per ton cost is the lowest – USD 663. It has, therefore, been a natural and economic choice of Pakistan to meet this demand.

### 3.2 Major Producers of Palm Oil

Small amounts of palm oil are grown in many countries, but the global market is dominated by only two countries i.e. Indonesia and Malaysia. In 2020, the world produced 75.45 million tons (Shahbandeh, 2021) of oil palm. Indonesia accounted for 64 percent of total production (48.3 million tons (Department, 2021), and Malaysia produced 25 percent (19.14 million tons (Iskahar Nordin, 2020)). 89 percent of global palm oil production originates from Indonesia and Malaysia.

Table 5

#### Global Palm Oil Production in 1000 t with Indonesian and Malaysian share

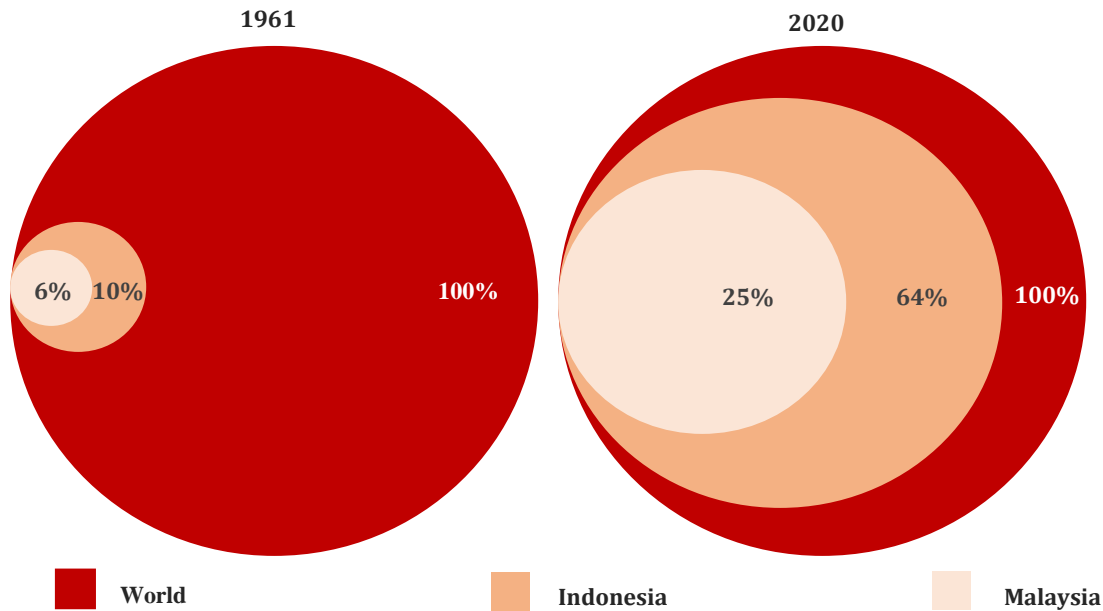
Producers	Year 1961	Year 2020	Absolute Change
World	1,480	75,450	73,970
Indonesia	145	48,300	48,155
Malaysia	94.86	19,140	19,045

Source: UN Food and Agriculture Organization



Figure 3

**Comparison of Palm Oil Production in Indonesia & Malaysia with World**



Source: UN Food and Agriculture Organization

Figure 3 shows Indonesia’s and Malaysia’s road to global palm oil domination from the year 1961 to 2020.

**3.3 Major Importers of Palm Oil**

India is the world’s largest importer of edible oils and also the largest importer of palm oil. India is a net importer of crude palm oil and imported USD5 billion worth of crude palm oil in 2020. However, the buying trend is declining at the rate of 2.7 percent annually.

On the contrary, China's imports of palm oil are increasing 7 percent annually becoming the second-largest importer of palm oil. China mainly imports refined palm oil accounting for USD5.6 billion worth of imports in 2020.

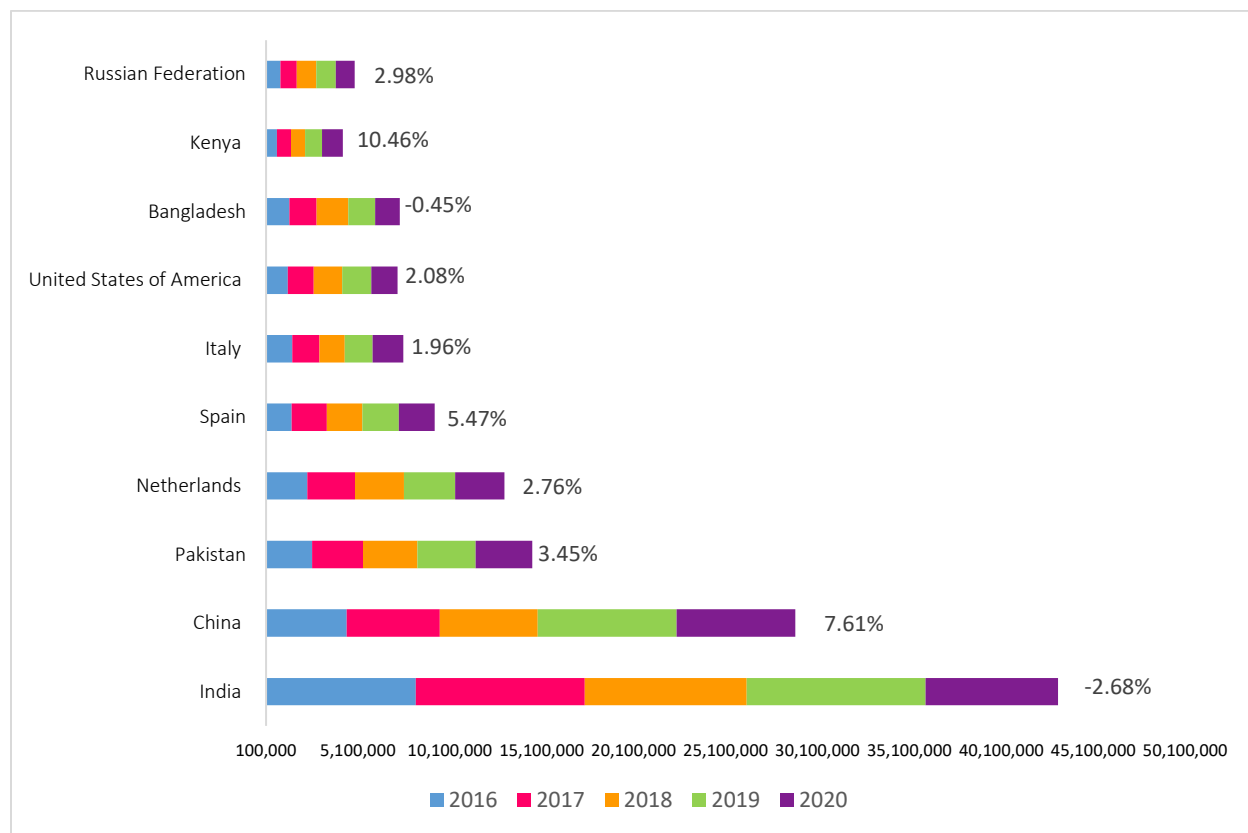
Pakistan comes third in the league, importing palm oil from Indonesia and Malaysia. Pakistan majorly imports refined palm oil and only imports small quantities of crude oil.





Figure 4

**Top 10 Importers of Palm Oil as per Quantity in Tons with CAGR (2016-2020)**



Source: ITC Trade Map

**Chapter 4. Palm Oil – Staple of Pakistan’s Agro Imports**

With the increase in per capita consumption of edible oil exceeding the growth in domestic production of edible oil in Pakistan, it is the only plausible prediction that Pakistan will continue to import palm oil due to cheaper rates and availability at least for the next seven years till the time the domestic oilseed production programs start to bear fruit. It is, therefore, imperative to understand the dimensions of the palm oil industry and try to control the import bill of the food sector as much as possible.

**4.1 Palm Oil Imports – Price and Consumption Dilemma**

Any substantial boom in Pakistan’s import bill of palm oil is not indicative of increase in the imported quantity of palm oil. Trends indicate that an increase in the import value does not directly imply an increase in tons of oil imported. The CAGR of the past 18 years from 2003 to 2020



signifies an irregular relation between import value and import quantity of palm oil, with a 7.25 percent annual growth rate of value imported and a 4.87 percent annual growth rate of the imported quantity of palm. The increased CAGR of the import bill shows that the unit price of palm oil is increasing at a faster rate than the import quantity, drawing more attention to the price of palm oil than the annual consumption as shown below.

Table 6

**Price & Quantity Comparison of Pakistan Palm Oil Imports**

Pakistan Palm Oil Imports	2003	2020	Absolute Change	CAGR
Total Import Value	\$598 Million	\$2.1 Billion	1.5 Billion	7.25%
Total Import Quantity (Tons)	1.31 Million	3.2 Million	1.89 Million	5%

Source: ITC Trade Map

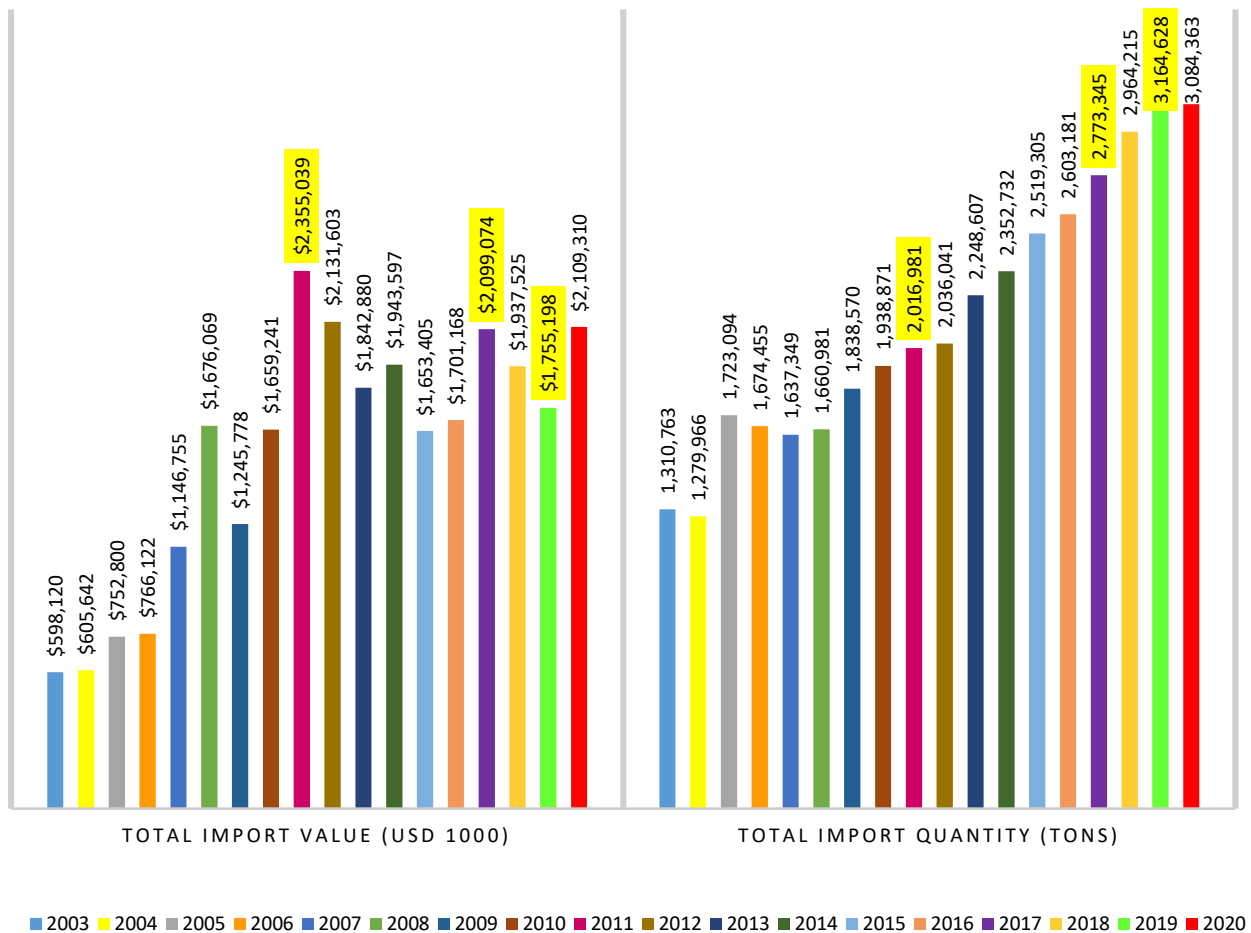
The prices of palm oil remain dependent on different world trends which are apparently beyond the control of any importing country. As shown in Figure 5;

- The sudden surge in import bills in 2011, from USD1.6 billion to USD2.3 billion, was due to Indonesia's policy of discouraging the export of crude palm oil by imposing an export duty of \$20-\$25/ton.
- Another surge was seen in 2017, the import bill jumped from USD1.7 billion to USD2 billion despite an insignificant change in quantity. The USA-China trade war reduced the trade of soybean from the USA to China and eventually paved the way for Indonesia to export palm oil to China which is the biggest market of oil and fats. The increased demand led to an increased global price and thus the increase in import bills.
- A subsequent dip in 2019 in import bills was due to decrease in prices of palm oil pertaining to demand shortage in COVID year. The import bill of Pakistan for palm oil remained as low as USD1.7 billion whereas the quantity of imported palm oil was an increase from \$2.9 million tons to USD3.1 million tons.



Figure 5

**Pakistan Palm Oil Imports from 2003 to 2020 - Comparison of Import Bill and Import Quantity**



Source: ITC Trade Map

**4.2 Pakistan Palm Oil Imports – 2020 To 2025 Forecast**

As discussed above, the price and quantity of palm oil imports are two independent quotients and must be analyzed separately. The per-unit price of palm oil depends on reference price set by the exporting country, export duty, freight cost, custom duty, sales tax and other multiple factors. Whereas, the quantity depends on per capita consumption, local production of edible oil and domestic politics.

The annual growth rate of Pakistan’s import bill is 7.25 percent bringing the possibility of Pakistan becoming a net importer of palm oil with an import bill of USD3.5 billion by 2024-2025.



Similarly, the annual growth rate of Pakistan's import quantity is 5 percent establishing a possibility that Pakistan will import 4 million tonnes of palm oil given the decline in the local production of edible oil.

However, the above values may rise more than predicted given the turbulence in the global oil industry. In order to halt this upward trend, it is mandatory to provide solutions on two fronts:

1. Price Control
2. Consumption Control

To find out the above solutions, it is important to understand the palm oil processing and industrial use, Pakistan's import of various kinds of palm oil products, dynamics of crude palm oil and refined palm oil, relations with exporting countries, demand and supply of edible oils, and Pakistan's local production of edible oil.

## Chapter 5. Dynamics of Crude and Refined Palm Oil

### 5.1 Pakistan's Palm Oil Trade with Malaysia And Indonesia

Malaysia and Indonesia are two largest producers and exporters of palm oil dominating the global palm oil market. Pakistan imports 75 percent of palm oil products from Indonesia with which it shares a Preferential Trade Agreement (PTA). And imports 25 percent of palm oil products from Malaysia with which it shares Free Trade Agreement (FTA). The share in trade of both countries has been more or less the same in the past 5 years as shown in Table 7.

Table 7

#### Malaysia's and Indonesia's share in Pakistan's import of palm oil

	Import share in 2016	Import share in 2017	Import share in 2018	Import share in 2019	Import share in 2020
Pakistan's Total Imports of Palm Oil	1,779,189	2,189,448	2,028,336	1,830,126	2,191,524



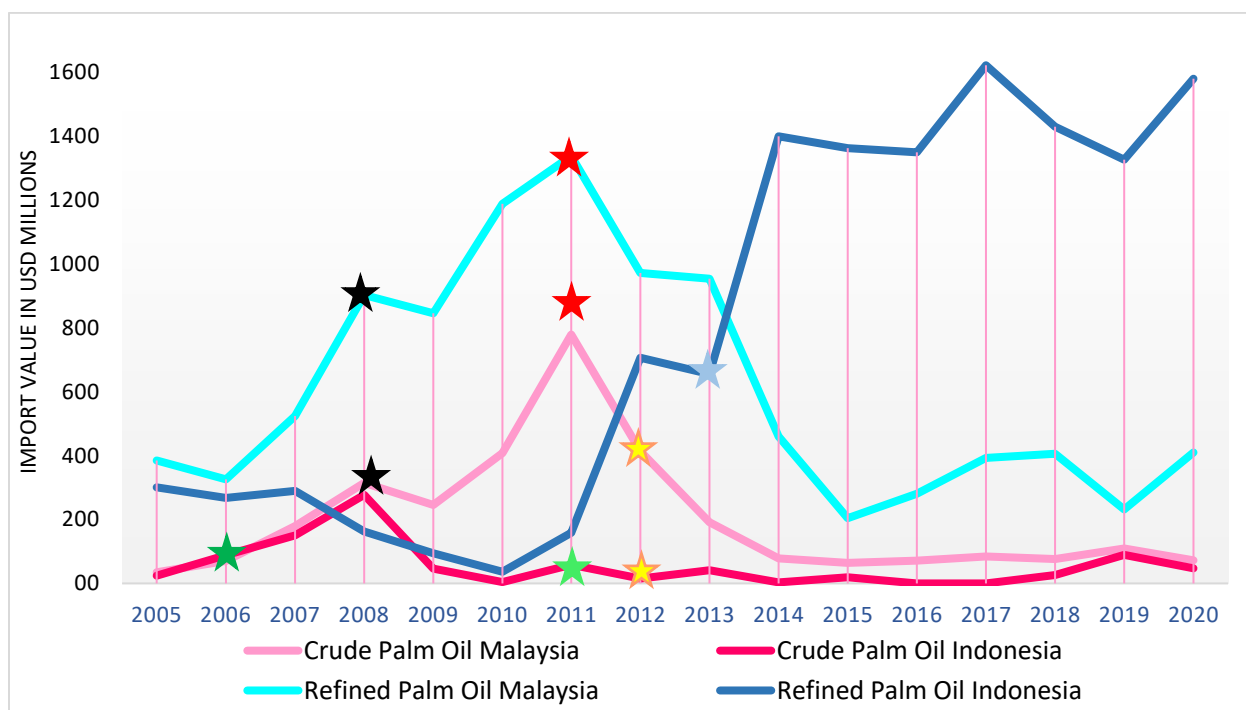
Products from World					
% Share if Malaysia	22%	24%	26%	22%	25%
% Share of Indonesia	77%	75%	73%	78%	75%

Source: ITC Trade Map

Pakistan palm oil trade has had a turbulent history with Indonesia and Malaysia since 2015 as shown in Figure 6.

Figure 6

**Pakistan's Palm Oil relations with Malaysia and Indonesia since 2015**



Source: ITC Trade Map

★ In 2006, the palm oil refining industry in Pakistan started Malaysian-Pakistan joint venture company i.e. Mapak Edible Oils in Port Qasim. Since then the industry has grown and Pakistan at this moment has more than 15 palm oil refineries with a total production capacity of more than 5,250 tons/day. Pakistan Edible Oil Refiners Association (PEORA)



estimated that these refineries can consume up to 1.5 million tons of CPO per year. It led to an increase in crude oil imports as seen in graph (M. Fairus, 2020).

- ★ In 2008, Pakistan became the most consistent buyer of Malaysian palm oil products after the implementation of the Malaysian-Pakistan Free Trade Agreement (FTA). Pakistan later became the second largest importer of Malaysian palm oil after China in 2010 and Pakistan's imports hit a record level of 2.13 million tons in 2010.
- ★ In 2011, after the signing of Malaysian-Pakistan FTA agreement, Pakistan's imports of crude palm oil jumped to a record level of more than 700,000 tons. It provided a good margin for the refiners in Pakistan, as the import duty for CPO was reduced, especially for CPO imported from Malaysia. However, palm oil refining in Pakistan lost its advantage by the end of 2011, when Indonesia slashed highest export duties on crude oil and encouraged exports of refined palm oil by putting zero export duty on it. It made the landed prices of Indonesian RBDO in Pakistan even cheaper compared than that produced locally (M. Fairus, 2020).
- ★ In 2012, Pakistan's crude oil industry went into constant decline due to increase in export duties by Indonesia and Malaysia.
- ★ In 2013, implementation of Pakistan-Indonesian PTA, reduced the tariffs on import of refined palm oil and led to an indefinite boost leaving Malaysian imports behind.

## 5.2 List of Palm Oil Products Imported by Pakistan

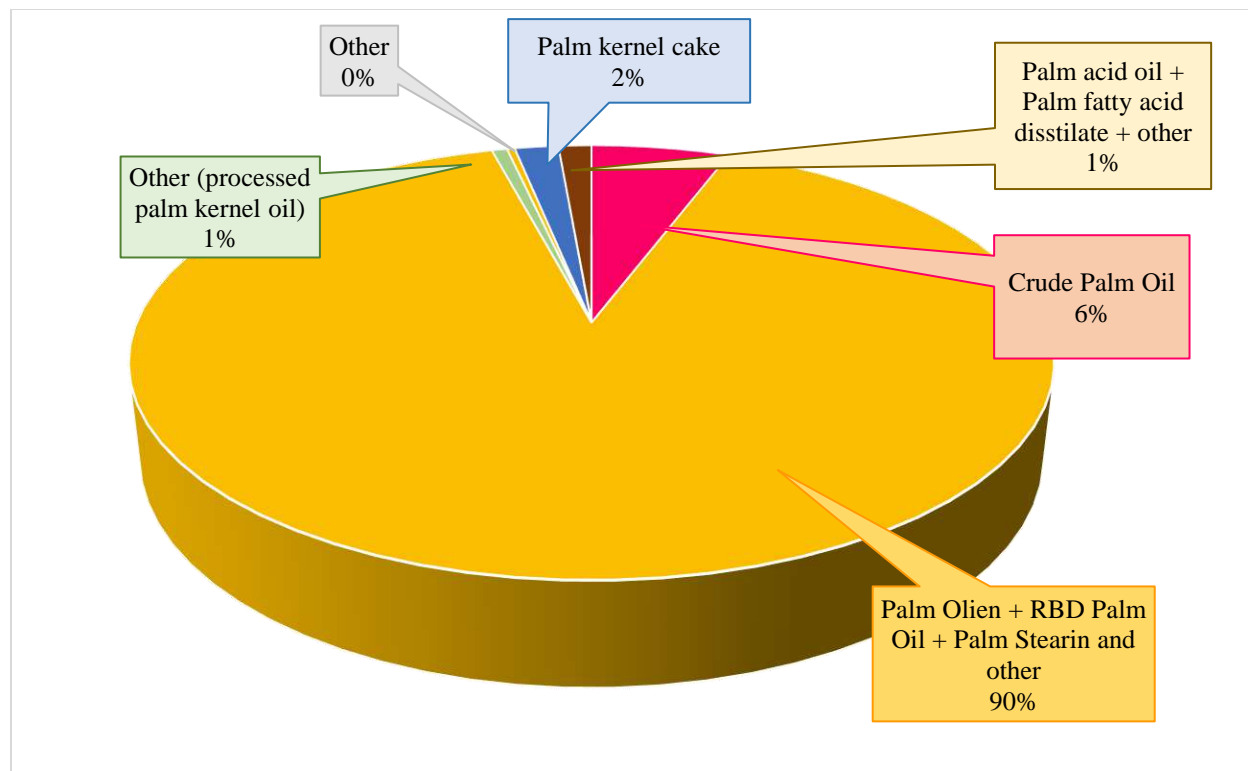
Palm oil is produced by a complex manufacturing cycle that produces diverse value-added products in way along with refined palm oil. Initial most stage is Crude Palm Oil (CPO) which is a raw form of palm oil. The CPO is later processed into degumming, bleaching, filtration and deodorization, producing Refined Bleached Deodorized Palm Oil (RBDO) with byproduct Palm Fatty Acid Distillate (PFAD). The RBDO is further refined that produces Palm Olein and Palm Stearin.



RBDO is primary source of edible oil and is used for industrial frying, palm olein is finished form of edible oil used for Vanaspati production, and PFAD is a staple ingredient for soap manufacturing whereas palm stearin is an essential ingredient in manufacturing edible oil. Pakistan is net importer of all 4 of these products instead of crude oil.

Figure 7

**Share of Palm oil products in total palm oil imports**



Source: ITC Trade Map

Figure 11 shows that 90 percent of palm oil imports include Palm Olein, RBD Palm Oil and Palm Stearin. Due to PTA and FTA, Pakistan has given same tariff concession to Indonesia and Malaysia, respectively for major palm oil imports as shown in Table 8.

**Table 8**

**List of Palm Oil products imported by Pakistan with CAGR and Tariff on Indonesia & Malaysia**

Tariff Lines	Product description	CAGR (2016-2019)	Normal Tariff Rs/Ton	Malaysia – Pakistan FTA	Indonesia-Pakistan PTA



15119030	Palm olein	4.08%	9,050	7,692.5	7,692.5
15119020	Refined, bleached, and deodorized palm oil	-7.84%	10,800	9,180	9,180
15111000	Crude Palm Oil	18.45%	8 000	6 800	6,800
15119010	Palm stearin	7.51%	9 050	7 692.5	7 692.5
23066000	Palm kernel cake	13.95%	10%	0%	Na
38231920	Palm acid oil	9.14%	10%	0%	5%
15132900	Other (processed palm kernel oil)	-3.03%	10 800	9 180	9 180
38231990	Others (palm kernel acid oil except distilled fatty acid)	-31.62%	15%	5%	9%
38231910	Palm fatty acid distillate	-23.72%	10%	0%	5%
38231100	Stearin acids	-3.35%	20%	20%	na
34011900	Soap noodle	-5.09%	30%	20%	na
15171000	Margarine excluding liquid margarine	-17.90%	10 800	8 640	na
38231200	Oleic acid	10.20%	5%	0%	0%

Source: ITC Trade Map, Pak-Indonesia PTA, Pak-Malaysia FTA

### 5.3 Pakistan's Tariff Structure of Palm Oil Imports in Comparison with India and China

India, China and Pakistan are top 3 importers of palm oil in the world. All three importing countries import palm oil from Indonesia and Malaysia and each destination has individually given similar tariff concession to both exporting countries for RBD palm oil as well as for CPO. India has slashed highest tariffs in the world on RBD palm oil in a bid to protect its oil refining industry with effectively applied tariff of 45 percent on RBD oil. However, the tariffs are lower on CPO to facilitate its import with effectively applied tariff of 15 percent. Pakistan has the lowest tariff among the three having effectively applied tariff of 6 percent on both RBDO and CPO.

**Table 9**

#### **Pakistan's Tariff Structure of Palm Oil Imports In Comparison With India and China**

RBD PALM OIL - HS 151190				
MARKET	MFN tariffs	Effectively applied tariffs	Pref. Margin	Import value in 2020 (USD 1000)
INDONESIA				
India	54%	45%	9%	\$127,129
China	8.50%	8.50%	0%	\$2,402,210





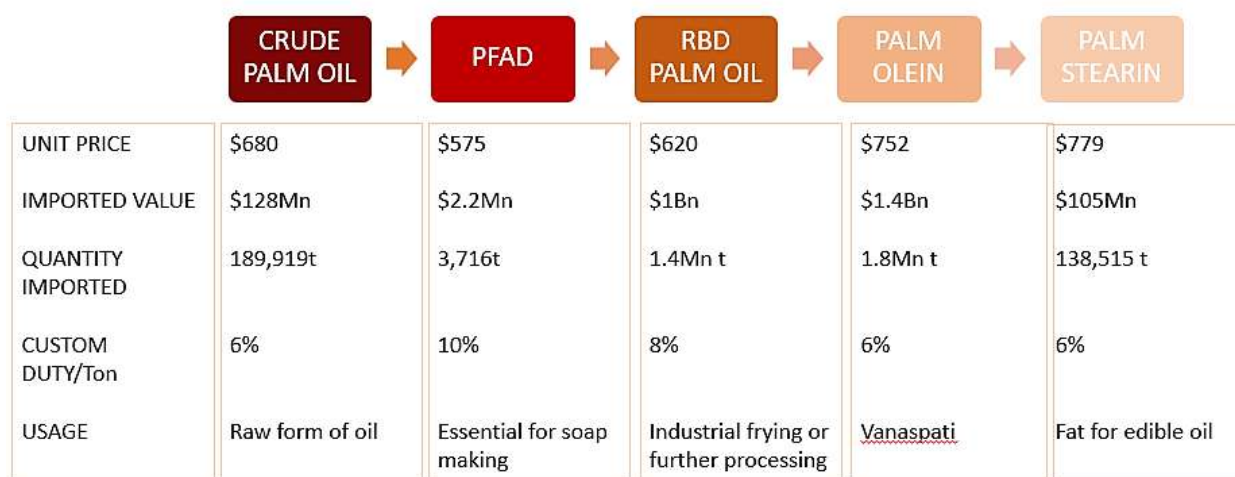
Pakistan	6.97%	5.92%	1.05%	\$1,579,060
<b>MALAYSIA</b>				
India	54%	45%	9%	\$7,447
China	8.50%	8.50%	0%	\$1,707,636
Pakistan	6.97%	5.92%	1.05%	\$409,982
<b>CRUDE PALM OIL - HS 151110</b>				
<b>MARKET</b>	<b>MFN tariffs</b>	<b>Effectively applied tariffs</b>	<b>Prof. Margin</b>	<b>Import value in 2020</b>
<b>INDONESIA</b>				
India	15%	15%	0%	\$3,096,406
China	9%	9%	0%	\$2,309
Pakistan	6.68%	5.68%	1%	\$47,274
<b>MALAYSIA</b>				
India	15%	15%	0%	\$1,514,106
China	9%	9%	0%	\$92
Pakistan	6.68%	5.68%	1%	\$72,255

Source: ITC Market Access Map

Pakistan’s existing tariff regime of palm oil products does not support import of crude oil as same tariff is applied on palm olein which is the finished form of palm oil and palm stearin which is a byproduct of crude oil as shown in figure 8. In order to protect the oil refineries of palm oil, Pakistan should revise its tariff regime and facilitate the import of crude oil.

**Figure 8**

**Pakistan's Tariff structure on Tariff lines of Palm oil**



Source: WeBOC

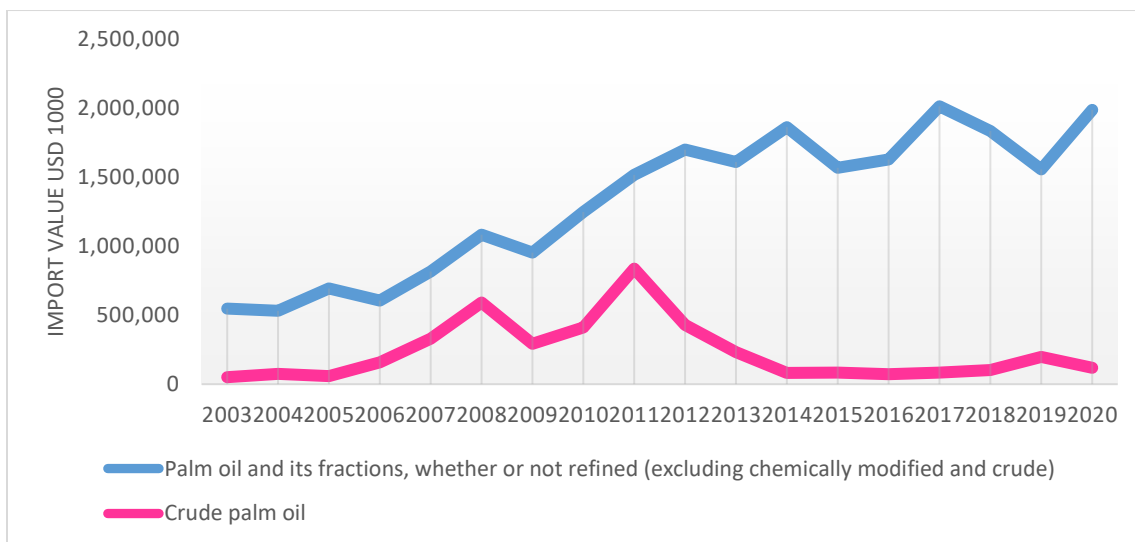


### 5.4 Crude Oil Vs Refined Palm Oil

As mentioned above, Pakistan in collaboration with Malaysia had established palm oil refinery units in Pakistan to boost crude palm oil imports due to which Pakistan imported the highest quantities of crude palm oil in 2011. However, the later years witnessed a sharp decline in crude palm oil import resulting in shutting down of refineries. It came as a repercussion after Indonesia’s act of slashing the highest tariffs on crude palm oil and lowering prices of refined palm oil as much as the locally produced palm oil became comparatively expensive for edible oil manufacturers of Pakistan.

**Figure 9**

**Pakistan's imports of RBD Palm Oil and Crude Palm Oil since 2013**



Source: ITC Trade Map

- Currently, Pakistan has approximately 18 palm oil refineries with the capacity to consume about 1.5 million tons of CPO annually according to the Pakistan Edible Oil Refiners Association (PEORA). Despite the capacity, Pakistan only imported 190 thousand tons of CPO and imported 3.3 million tons of RBD palm oil in FY 2020-2021 (WeBOC).



- One reason for preferring the import of refined oil over crude oil is skyrocketing export duties on crude palm oil. Malaysia has an export tax of 8 percent per ton of crude oil if the reference price is RM3,450 whereas Indonesia has a 14% export tax. These export duties increase the import cost of crude oil resulting in expensive locally refined oil which is way higher than the refined oil directly imported from Indonesia. Therefore, Pakistan's import of crude is very inconsistent and bought on the forward contract of month plus current basis as it depends on the global market rates and export duties of crude oil.
- Due to lesser imports of crude oil and greater imports of palm olein, Pakistan has to import PFAD and Palm stearin worth USD130 million which are byproducts of crude oil and can easily be manufactured in Pakistan. Importing palm olein directly has low net margins due to zero value addition by the supplier whereas crude oil refining can save 20\$ to 25\$ per ton. The import of refined palm oil gets deteriorated while being supplied in the pipeline resulting in poor quality and significant wastage.
- Although the cost of production of palm oil in Pakistan shall be very high in comparison to Malaysia's and Indonesia's, yet it is feasible, because of the production of crude palm oil, refineries shall start processing and Pakistan shall be able to cater its domestic palm oil requirements to a great extent.

## 5.5 CASE STUDY

According to FY2020-2021 (WeBOC), Pakistan imported 3.5 million tons of palm oil including refined oil and crude oil. Approx. 190 thousand tons of crude oil and 3.3 million tons of refined oil were imported. Pakistan currently has the capacity to refine 1.5 million tons of crude palm oil annually. If Pakistan replaces the import of refined oil only as much as the total capacity of crude oil, 1.5 million tons of crude oil will be imported by Malaysia at unit price USD663 and 2 million tons of refined oil will be imported from Indonesia at unit price USD752 to meet the demand. With this trade, Pakistan can save up to USD270 million from the total palm oil import bill of USD2.6 billion as per FY2020-2021. This can be achieved by saving the import bill of PFAD with imports



worth USD24 million and palm stearin with imports worth USD105 million, as both are byproducts of crude palm oil; by saving from per unit cost of crude oil and net margins gained by refiners.

CASE STUDY ON CRUDE PALM OIL	CRUDE OIL		REFINED OIL	
	Indonesia	Malaysia	Indonesia	Malaysia
Country's Total Exported Quantity in Tons	7,170,956	4,503,986	18,765,763	10,071,453
Per Unit Price USD/Ton	\$698	\$663	\$752	\$702
Pakistan's Total Quantity Imported in Ton FY20-21	189,919		3,335,667	
Pakistan have the capacity to refine 1.5 million tons of crude oil annually. Let's analyze the change in import bill, if Pakistan imports 1.5 million tons of crude palm oil and meets the remaining quantity with refined palm oil.				
Pakistan's total import bill of palm oil FY20-21	\$2,657,376,609			
Pakistan's required consumption in Tons	1,500,000		2,025,586	
1st reduction in Import Bill	\$2,517,740,672			
We import Palm Fatty Acid Distillate and Palm Stearin in large quantities, which can easily be obtained by crude oil as a byproduct				
Pakistan's Import of PFAD & Palm Stearin in FY20-21	\$24,630,280 + \$105,592,240			
2nd reduction in Import Bill	\$2,387,518,152			
Total Cost saved by importing 1.5 million of crude palm oil instead of refined oil.	\$269,858,457			
Refiners profit \$25 per ton from processing crude palm oil				
Total profit earned by refineries	\$37,500,000			



## Chapter 6. Plantation of Oil Palm Trees

The palm oil plantation project was initiated in 1996 by the Pakistan Oilseed Development Board (PODB) on a trial basis in the coastal belt of Sindh. The project was initiated to cover 700-mile long coastal area of Pakistan. The programme yielded results in 2002 and was promising in terms of quality and quantity of oil extracted from the palm trees. Palm oil cultivation yielded fruits across 1,040 acres of area in Thatta, Badin, Tando Mohamad Jam and Vinder since 1996. Palm oil trees internationally require 4 years to bear fruits but oil palms in Sindh had come to fruition after only 30 months. The fruit bunch produced was also larger -18 kg than the standard 10 kg. However, the project wasn't taken to its logical end due to an inordinate delay in funds. Out of Rs. 9.5 million sanctioned for the project, only Rs. 4.2 million were made available to the board for execution (Dawn, 2002).

Palm fruits are highly perishable and can shortly deteriorate in an open area. It is, therefore, ideal to establish a solvent extraction mill within the area of cultivation so that the fruits reach the factory within 24 hours. During this project in 1996, the Sindh government established the first palm oil extraction mill at Ghulamullah of Thatta district which was later left non-operational due to discontinuation of the plantation project (Khaskheli, 2016).

Under the annual development plan of Sindh 2021-22, the Sindh government has again launched a palm oil cultivation project. Sindh Coastal Development Authority (SCDA) has acquired 1000 acres of land from the Sindh Forest Department for palm tree cultivation. SCDA has initiated a project of planting palm on 50 acres of land out of which 30 acres have already been cultivated costing Rs. 2 million. Besides the government's decision to undertake the palm tree plantation, it is important to establish more solvent extraction units near the area of plantation. So far, only one extraction unit is established with the capacity to cater up to 100 acres of land.

According to Malaysian experts, Pakistan's coastal belt is well suited for the production of palm oil. Though it requires an abundant amount of water, it is still 50% less than the requirements of the banana trees. A total of 30 mm is required on daily basis for the current plantation of 35 acres (through flood irrigation). For about 3 months, during the monsoon season, it becomes rain-dependent and irrigation is not required.



## Chapter 7. Conclusion & Recommendation

Pakistan's need of imported edible oil is indispensable at least for the next 20 years. With surging consumption of edible oil and declining production of oilseeds, it is the need of hour to divert the attention toward edible oil industry. The solution is not only to initiate small scale oilseed production enhancement programs which will eventually begin to bear fruit in next 5 to 7 years but to analyze the imports of palm oil to be able to withstand the fore coming surge in import bill due to increasing imports of palm oil and its global prices. The crude palm oil sector should be taken into active consideration and interventions should be made on diplomatic level as well as local level to facilitate the CPO refiners. Policies and financial support should be given to stabilize the production of oilseeds mainly cottonseeds. With a multi-tier approach on international as well as national level, Pakistan will be able to pave its way to self-sufficiency.

Thus, palm oil can be a burden for Pakistan if imported without intervention on an international level and can be a breather if the crude palm is imported and utilized effectively to meet the edible oil requirements until Pakistan becomes self-sufficient in oilseed production and solvent extraction.

### 7.1 Recommendations

To meet the increasing demand for edible oil federal government has started oilseed production enhancement programs for rapeseed and sunflower seeds all over the country whereas the Sindh government has started palm oil trees cultivation to meet the needs. However, the result of these projects will yield in the next 7 to 8 years and Pakistan will not be able to meet the edible oil demand domestically even in the next 3 to 4 decades.

- In short term, it is imperative to optimize the production of cottonseed since it has the largest share in domestic oilseed production. The government needs to overcome the challenges of unavailability of quality seeds and price dynamics which have led to a decline in cottonseed production.



- For the long term, federal and provincial governments must work hand in hand to enhance oilseed production. As Sindh government has been reluctant in joining the sunflower seed cultivation program whereas, the federal government is not taking up the palm oil plantation project of Sindh despite promising research and results. Farmers will have to be incentivized accordingly as other crops like wheat, cotton, rice, corn, and sugarcane get them higher profits than oilseeds. Government must give the same confidence to oilseed producers the way it is given to wheat producers of Pakistan.
- Pakistan foresees an increased import of oilseeds especially soybean, which will result in a boom of solvent extraction industry leading to a major market for soybean meal. Similarly, palm oil extraction units should be established in Sindh in a public-private partnership to make use of the 1000 acres of land fully cultivated with wild palm oil trees and for future extraction.
- Palm oil imports are inevitable for Pakistan at least for the next 10 to 15 years given the demand-supply gap of edible oil, but increasing prices of refined palm oil and Pakistan's dependence on palm oil finished products can lead to a drastic spur in the Agro import bill.
- Pakistan should fully optimize its FTA and PTA with Malaysia and Indonesia simultaneously and should negotiate price or quota in form of forward contracting to give security to the crude oil importers.
- Pakistan can save a tremendous amount of import bills if it replaces refined palm oil with crude oil as Pakistan is currently capable of refining 1.5 million tons of crude oil annually. Malaysia has 8 percent export duty while Indonesia has 14 percent export duty on crude oil. Thus, Malaysia can be a potential exporting market for the import of crude oil.
- Pakistan must negotiate a fixed import quota of crude oil from Malaysia and using FTA it should negotiate to waver export duties and reduced transfer pricing.



- The tariff structure of palm oil products should be revised and to facilitate the crude oil refiners tariff on crude oil should be lowered than the refined oil which at this time is the same. When import tariffs are the same, increased export duties on crude oil make it hard for importers to buy crude oil making the locally produced refined oil more expensive than the imported one.
- Palm fatty acid distillate (PFAD) is globally expensive for Pakistan and importers rely on other low-quality substitutes, however, if PFAD and Palm Stearin are produced locally through crude it will be cheaper and will also save the cost of import.
- Palm oil plantation projects and CPO mill projects should be pursued actively till completion. The need for quarantine facilities, import of disease-resistant seed, and international certification requirements for the pilot project should be met.





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