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INDUSTRY OUTLOOK

"THE GOLDEN HARVEST: EXPLORING DIVERSE FLAVORS OF INDIA'S EDIBLE OIL INDUSTRY".

15 May 2024

Introduction

The Department of Food and Public Distribution (DFPD), the Ministry of Consumer Affairs, Food and Public Distribution, Government of India has clearly brought out that oilseeds and edible oils are two essential commodities. India cultivates nine oilseeds: groundnut, castor seed, sesamum, Niger seed, Soybean, sunflower, rapeseed and mustard, linseed, and safflower. Vegetable oils and their derivatives are ubiquitous in our everyday lives, appearing in bottles on kitchen and supermarket shelves, processed foods, cosmetics, soaps, and potentially even the automobile engine.

India is one of the largest producers of oilseeds in the world and this sector occupies a critical position in the agricultural economy, accounting for the estimated production of 41.35 Metric Million tonnes (MMT) of nine cultivated oilseeds during the year 2022-23 (November-October) as per 1st Advance Estimates[1] released by the Ministry of Agriculture on 27th October 2023. The Indian edible oil Industry, with a size of ₹ 3 lakh crore (USD 35 billion), holds significant importance. India contributes about 5-6 per cent of the world

oilseeds production. The export of oil meals, oilseeds and minor oils was about 3.46 MMT in the FY23 valued at ₹ 14,609 crores.

India, the 4th largest vegetable oil economy in the world, stands first in the production of castor, sesame, safflower, and niger oils, whereas second in groundnut, third in rapeseed mustard, fourth in linseed and fifth in soybean oil. Currently, India is the world's top importer and second largest consumer country of edible oils in the world.[2]

Global Outlook

In 2024, revenue in the Edible Oils market totals US$ 126 billion. The market is projected to experience an annual growth rate of 6.5 per cent (CAGR 2024-2028). In terms of global revenue, India leads the market, generating approximately US$ 34,750 million in 2024[3], given that the country is the world's largest importer and consumer of edible oils. The factors leading to this growth are both from Household and Commercial use.

A global vegetable oil supply deficit is highly probable next year, largely due to the influence of the El Niño weather pattern. This is compounded by consistently high demand growth in the market. "*Global demand was seen growing by 5.6 million metric tons in the 2023-24 season, but world production growth of palm oil, which make up a big chunk of global edible oil, would be the smallest in four years at 0.2 million to 0.3 million tonnes*", said Thomas Mielke, head of Hamburg-based analyst firm Oil World at PIPOC 2023 in November. The World Bank Commodity Outlook states that "*palm oil production in 2023-24 will rise marginally by 0.2 million tonnes, much lower than the average annual increase of about 2.5 million tonnes in each of the last ten seasons".*

In 2024, Malaysia and Indonesia foresee no growth in palm oil production due to agro-climatic factors like below-average rainfall and aging oil palms. Persisting challenges, such as, a lack of replanting, labor shortages, and management issues contribute to this stagnation. Despite this, palm oil remains dominant, comprising 32 per cent of production and 53 per cent of world exports in the global oils and fats market.[4]

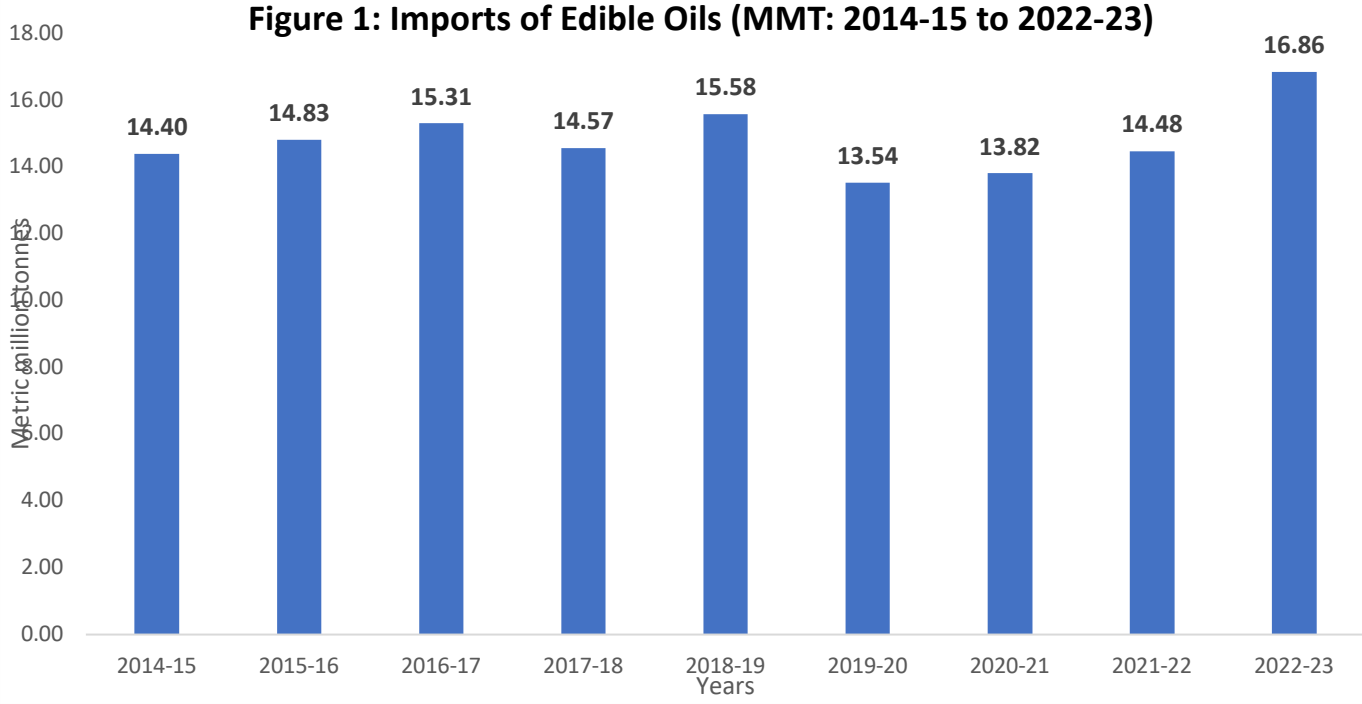
Imports

In India, soybean, sunflower, palm, and rice bran oils are gradually taking the place of conventional cooking oils like mustard, peanut, and sesame. India continues to import large amounts of both oils and oil-bearing materials to meet domestic demand, despite the fact that the country's edible oil sector mostly depends on indigenous producers for oilseed crops including soybean, mustard, sunflower, peanut, and sesame.[5] As per the CMIE, the domestic output is of around 7-8 MMT. This level of domestic output is grossly insufficient to meet the demand. Accordingly, India imports an average 13.5 MMT of edible oils every year, which is about 50 to 60 per cent of its domestic edible oil requirement.

The top three vegetable oil imports – palm, soybean, and sunflower seed oil decreased by 6.5, 15.4 and 6.9 per cent respectively due to various geo-political-economic dynamics and increased domestic production goals in India.[6] In the summer of 2023, the Indian

government reduced import duties for refined sunflower and soybean oils from 17.5 to 12.5 per cent and similarly reduced duties for unrefined (crude) palm, sunflower, and soybean oils to 5 per cent.[7] The Indian government reduced import duties to mitigate domestic price fluctuations and ensure accessibility of edible oil for consumers. Coupled with these reduced taxes, adjustments in the global market prices led to cheaper edible oil, resulting in increased Indian imports during marketing year (MY) 2022-23. Since 2021, the Indian government amended its edible oil import duties more than eight times, having mostly altered the rates of unprocessed edible oils while keeping refined oil duties elevated to support domestic refineries.

Figure 1: Imports of Edible Oils (MMT: 2014-15 to 2022-23)



Source: CMIE

The edible oil imports peaked in the recently concluded oil year Nov'22-Oct'23. Imports of edible oil are projected to have touched an all-time high of 16.5 MMT during the year after languishing below the pre-pandemic level of 15.6 MMT for the preceding three oil years.

India is likely to continue importing discounted sunflower and palm oil for the rest of the MY. In Dec'23, India's sunflower oil imports reached almost 261 MMT, soybean oil was at 153 MMT, and palm oil at 886 MMT. India is forecasted to produce 3.9 MMT of rapeseed oil in MY 2023-24, higher than previous MY due to a good production year.[8]

As per a press release[9] by Solvent Extractors Association of India (SEA), imports of vegetable oils (edible & non-edible) for the month of Feb'24 are reported at 974,852 tons compared to 1,114,481 tons in Feb'23, out of which 967,852 tons were of edible oils, i.e., down by 13 per cent. And the overall vegetable oil imports during Nov'23 to Feb'24 fell by 21 per cent y-o-y, from 5,887,900 tons to 4,647,963 tons. This is attributable to the shifting and diverting the production of these oils to produce Biodiesel by the two largest producers of the world, i.e., Indonesia and Malaysia. Imports from Argentina, to meet the needs of Soya oil has increased in Feb'24 while the same declined from Brazil, again to meet the

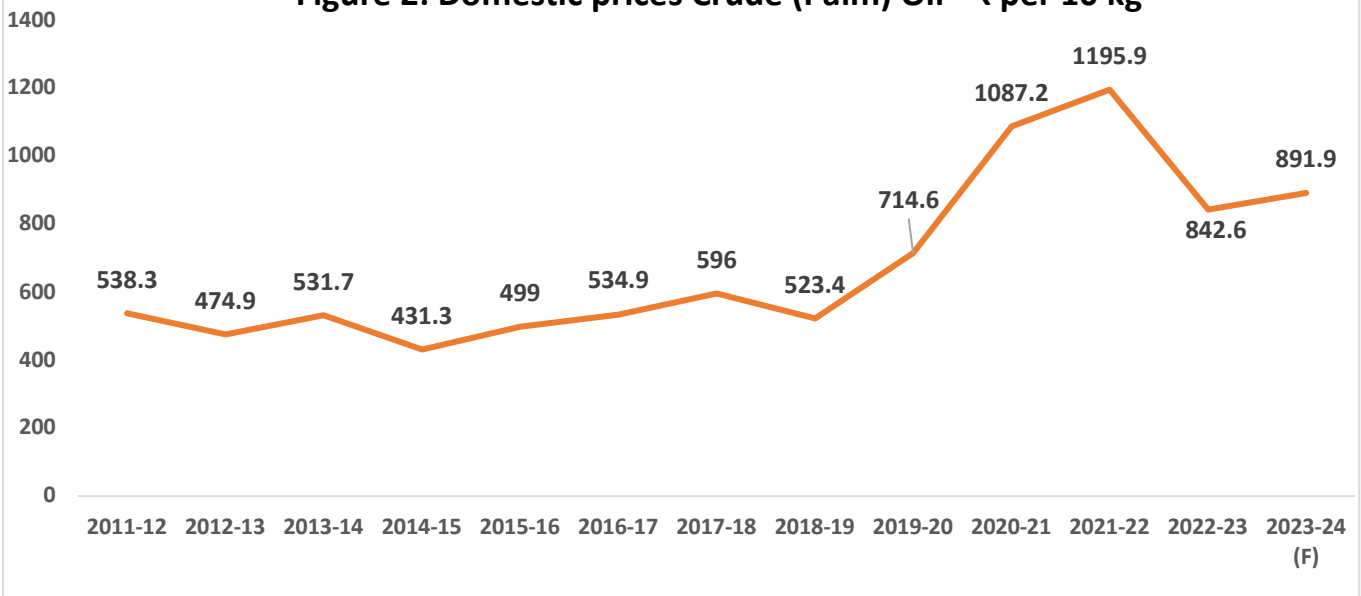
Biofuel needs. During these four months, 792,808 tons of refined oil (RBD Palmolein) being imported compared to 819,636 tons, down by 3 per cent and crude oil imports fell by 24 per cent in the same period.

Demand and Prices

There is an expected bullish trend in the crude palm oil (CPO) prices due to the El-Nino effect causing dryness to the oil palms in Southeast Asia. The demand for palm oil for biodiesel is likely to increase in the world's top two palm oil producing countries, i.e., Indonesia and Malaysia. While Malaysia has started implementing a 10 per cent biodiesel mandate (B10) in its domestic market, Indonesia has increased its biodiesel mandate from 30 per cent to 35 per cent earlier this year. The Malaysian Biodiesel Association (MBA) said the country could produce 1.5 MMT of biodiesel if the government's B20 biodiesel mandate for the transport sector was fully implemented.[10] The availability of palm oil is expected to be lower in the international market due to Indonesia's continued Domestic Market Obligation (DMO) policy[11] and an expected lower palm oil output in Indonesia. Indonesia, the world's biggest palm oil producer, imposed the DMO policy in 2022 to rein in soaring prices of cooking oil. The producers can export only after selling a portion of their products domestically under the scheme.

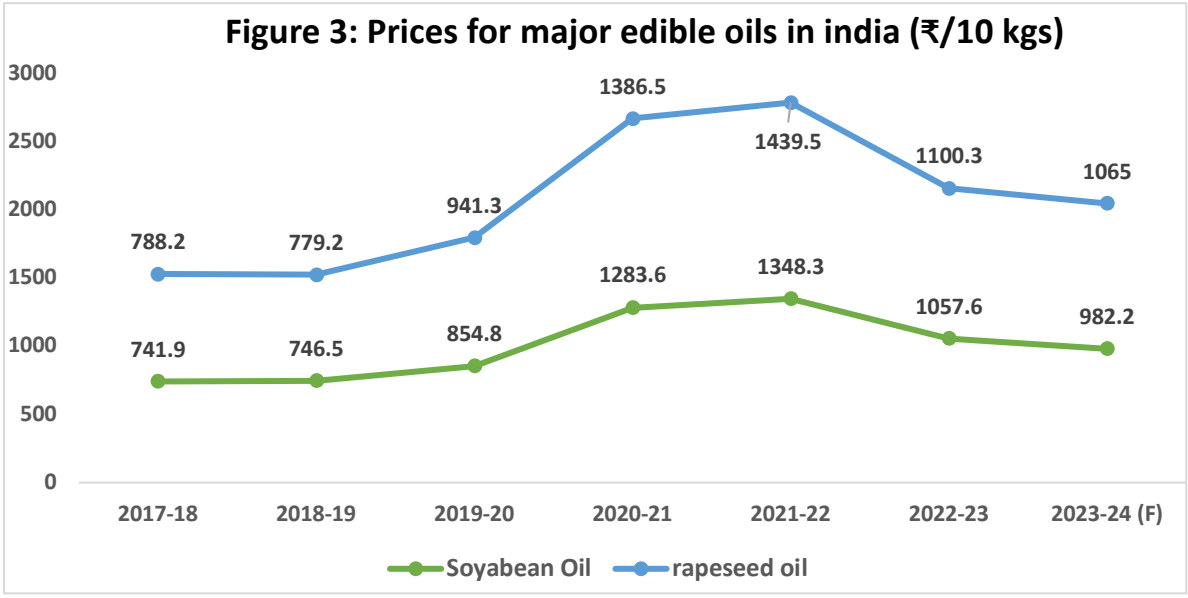
Domestically, increase in demand coupled with tight supply is likely to exert upward pressure on edible oil prices during oil year 2023-24. Palm oil prices that ruled at ₹ 1,195.9 per 10 kg in 2021-22 cooled down to ₹ 842.6 per 10 kg in 2022-23.

Figure 2: Domestic prices Crude (Palm) Oil - ₹ per 10 kg



Source: CMIE

Media reports suggest that Brazil is going to expand its planted area under soyabeans as producers are switching from corn and Argentina's soyabean output is estimated to be 50 MMT in 2023-24 up from 21 MMT in the previous season. Due to this expansion in the area under production, prices are unlikely to rise significantly as the shortage in palm oil will be partially offset by soyabean oil supplies from Brazil and Argentina.



Source: CMIE

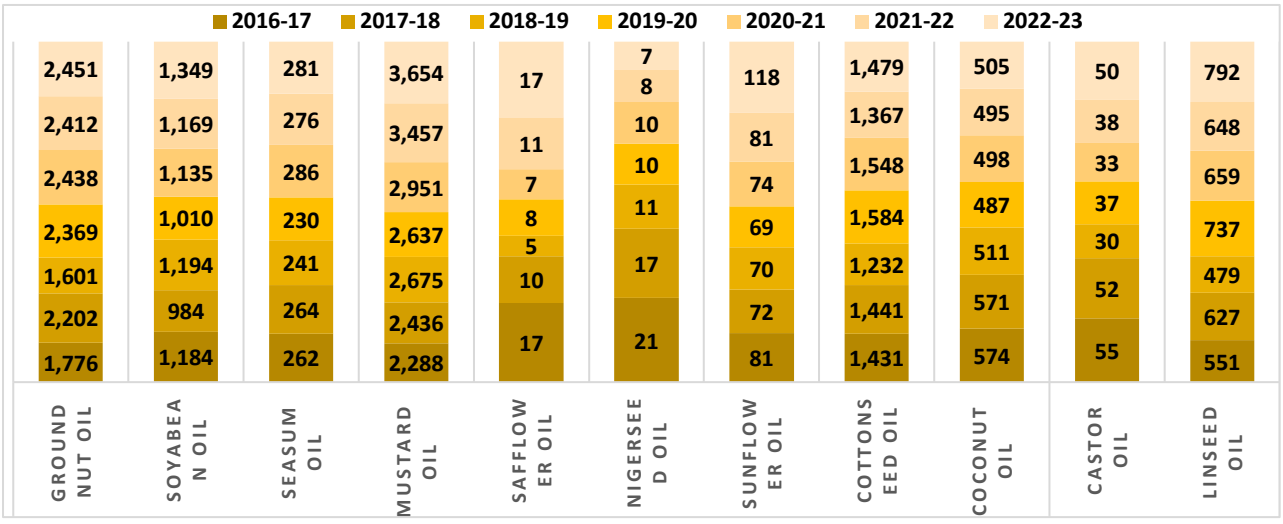
When Palm oil peaked in the covid period, soyabean oil and rapeseed oil averaged at an all-time high of ₹ 1,348.30 per 10 kg and ₹ 1,439.50 per 10 kg, respectively.

Production

Vegetable Oil

In line with its biodiesel mandate, Indonesia tightened its palm oil exports under the DMO policy in Jan'23 by reducing the export multiplier ratio from 1:8 to 1:6. This modification implied that palm oil companies in the country were allowed to export six times the volume of their domestic sales as against the earlier ratio of 1:8. The country further modified this policy by changing the DMO ratio from 1:6 to 1:4 with effect from 1 May 2023. Although, the Indonesian producers are urging for the policy to be reviewed or repealed soon as the first DMO policy was put into effect in 2022, the price of palm oil has dropped significantly on a global scale.[12]

Figure 4: Production of Vegetable Oils in India '000 tonnes: 2016-23



Source: CMIE

As per the CMIE, the domestic output of edible oils in India is expected to fall during the oil year Nov'23-Oct'24. A likely El Nino condition may affect monsoon rainfall over the Indian subcontinent and thereby impact oilseeds production during the year. This in turn will affect edible oil production. Total edible oil output is expected to fall by nearly seven per cent in the oil year 2023-24. Most edible oils including ground nut oil, soyabean oil, sesame oil, mustard oil, safflower oil and cottonseed oil are expected to witness a 5-7 per cent fall in output, while sunflower oil output is likely to witness a 26.2 per cent fall during the year.

The kind of fat ingested in each geographic area is determined by what is readily available there. For instance, the people in the steep areas of the Northern belts and the Eastern region use mustard oil. In the West, sesame oil is the most used type of oil. The Keralites prefer their coconut oil. People who live in the northern plains are essentially die-hard fat eaters. Recently, things have begun to shift. Geographical barriers regarding oil consumption patterns appear to be disappearing because of advancements in technology and increased awareness of health issues. Among them are refined rapeseed oil, palm oil and its liquid fractions (palmolein) and cottonseed, soybean, and sunflower oils.

There are four sources for the vegetable oils:

(a) The nine oils seeds cultivated i.e., groundnut, rape-mustard, Soyabean, Sesame, Niger, Sunflower, Safflower, Castor, and linseed.

(b) The perennial oil-bearing material - under this category falls coconut and oil palm.

(c) Derived oil-bearing material - under this comes cottonseed and rice bran.

(d) Oilseeds of forest and tree origin - sal, mahua, karanja and kusum etc. *Out of the above nine oilseeds, groundnut, rape-mustard, soyabean, sesame, niger, sunflower, and safflower are edible oils and castor, and linseed are non-edible.*

Among the edible oilseed crops, soybean (36 per cent), groundnut (32 per cent), and rapeseed-mustard (29 per cent) contribute 97 per cent of the total edible oilseeds production. Sesame, sunflower, safflower and niger contribute only around 3 per cent. In contrary, the major contribution to domestic edible oil production comes from rapeseed-mustard (45 per cent), groundnut (25 per cent), and soybean (25 per cent) amounting for 95 per cent, whereas sesame, sunflower, safflower and niger contribute to about 5 per cent of the total domestic production.[13]

Oilseed

India ranks as the fourth-largest oilseeds producer globally, following the USA, China, and Brazil.[14] It commands 20.8 per cent of the total cultivated area worldwide, contributing to 10 per cent of global production. Oilseeds cover 13 per cent of the Gross Cropped Area and represent 3 per cent of the Gross National Product, with their value accounting for 10 per cent of all agricultural commodities. Groundnut, soybean, sunflower, sesamum, Niger seed, mustard, and safflower are among the oilseeds produced in the country.

On October 18, 2023, the Ministry of Agriculture and Farmers Welfare released the final total oilseed production estimate of 41.3 MMT for MY 2022-23.[15] Groundnuts, soybean, and rapeseed-mustard production are estimated at 10.3 MMT, 14.9 MMT, and 12.6 MMT, resp.[16] So far in the estimate game, Government has released second advance estimates of production of food grains (as on 29th February 2024) for the MY 2023-24. According to those estimates, groundnuts, soybean, and rapeseed-mustard are estimated at 8.7 MMT, 12.6 MMT, and 12.7 MMT, resp.[17] This makes the total estimates for oilseeds at 36.6 MMT for the MY 2023-24.

Table 1: Advance Estimates of Production: Oilseeds; '000: 2017-18 to 2022-23

Year		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Total Oilseed	**Final estimates**	31459	31522	33219	35946	37963	41355
	Actual	31459.3	31521.8	33220.9	35946.2	37963	41355.2
Soyabean	**Final estimates**	10933	13268	11226	12610	12987	14985
	Actual	10933	13267.5	11225.9	12610.3	12986.7	14984.9
Groundnut	**Final estimates**	9253	6727	9952	10244	10135	10297
	Actual	9252.6	6727.2	9952	10244.1	10135	10296.7
Linseed	**Final estimates**	174	99	121	111	126	167
	Actual	173.8	99.1	122.3	111.4	126.4	166.8
Rapeseed & Mustard	**Final estimates**	8430	9256	9124	10210	11963	12643
	Actual	8429.9	9255.7	9123.6	10210	11963.1	12643.2
Sunflower seeds	**Final estimates**	222	216	213	228	250	363
	Actual	221.7	216.3	212.5	228.3	250.2	363.1
Castor	**Final estimates**	1568	1197	1842	1647	1619	1980
	Actual	1567.6	1196.7	1842	1647	1618.8	1979.7
Niger seed	**Final estimates**	70	45	41	42	33	29
	Actual	70.2	45.4	41.3	42.5	32.8	28.6
Safflower	**Final estimates**	55	25	44	36	61	90
	Actual	55.3	24.6	43.7	35.9	61.3	90
Sesamum (Til)	**Final estimates**	755	689	658	817	789	802
	Actual	755.4	689.3	657.5	816.8	788.7	802.1

Source: CMIE & Directorate of Economics and Statistics.

Note: Of nine oilseeds referred to, five namely groundnut, rape-mustard, sesame cluster and linseeds are listed as Major Oilseeds

The states that produce the most oilseeds in India include Tamil Nadu, Uttar Pradesh, West Bengal, Madhya Pradesh, Maharashtra, Gujarat, Andhra Pradesh, and Karnataka. Rajasthan, Gujarat, Madhya Pradesh, and Maharashtra are the top producing states among them, accounting for around 20 per cent, 20 per cent, 19 per cent, and 16 per cent of the overall output, respectively.

The production of oilseeds in India has been growing for the last five years. In 2022-23, the production of the country was 40.9 MMT. From the years 2015-16 to 2022-23, the compound annual growth rate (CAGR) of production was 5 per cent.[18] This was made possible by the execution of a number of initiatives, including the Government's cluster demonstrations of enhanced technology and specific programs on mustard and rapeseed during Rabi.

Government policies

The National Mission on Edible Oil-Oil Palm (NMEO-OP)[19]

It is more critical than ever for the country to become self-sufficient (Atmanirbhar) in the production of edible oil through the development of oilseeds and palm oil since the lack of edible oil has a detrimental influence on our FOREX by 20.56 billion USD. The Government of India launched the National Mission for Edible Oils - Oil Palm (NMEO-OP) in Aug'21. The mission is committed to escalating oil palm cultivation and elevating Crude Palm Oil production to 1.12 MMT by 2025-26 and 2.8 MMT by 2028-29.[20] Shri Narendra Modi, the Prime Minister of India, launched the first oil mill as part of this mission, a unique initiative with an emphasis on the Northeast and Andaman and Nicobar Islands, regions with rainfall and temperatures mostly suitable for oil-palm cultivation.

The scheme is presently operational in 15 states nationwide, covering a potential area of 21.75 lakh hectares. So far, 111 nurseries with the capacity of 1 crore planting material have been established, along with 12 seed gardens with the potential of 1.2 crore planting material for area expansion under the mission.

The implementation strategy of the NMEO-OP includes increasing production of seedlings by establishment of seed garden, nurseries of oil palm to assure domestic availability of seedlings as per target fixed under NMEO-OP. Improving productivity of FFBs, increasing drip irrigation coverage under oil palm, diversification of area from low yielding cereals crops to oil palm, inter-cropping during gestation period of four years, would provide economic return to the farmers when there is no production.

This mission mode implementation of NMEO-OP necessitates coordinated and concerted action by all stakeholders to discernibly alter the ground realities. The flow of funds needs to be carefully monitored to ensure that the benefit reaches the identified beneficiaries in a timely manner to realize the avowed objectives of this Mission.

There are number of benefits farmers get under this mission, namely:

1. Viability Gap payments (VGPs) till 2037; to promote oil palm in new geographies, provide end-to-end support to farmers in terms of assistance in planting material, assure buyback from private players involved, to compensate for any negative pricing in the fresh fruit bunch (FFB), and protect the farmers from the global price volatility in oil palm, the government has timely revised the viability price of oil palm from ₹ 10,516 in Oct'22 to ₹ 13,652 in Nov'23 to hedge farmers' risk.
2. Special assistance of ₹ 70,000 per hectare to farmers for planting material and management, ₹ 2,90,000 for the purchase of harvesting tools to farmers for palm oil cultivation and ₹ 25 lakh for establishing custom hiring centers (CHC).
3. One-Stop Centers for oil palm farmers where they provide input, custom hiring services, farm advisories of good agricultural practices, and collection of farmers' produce.

Prior efforts to increase the production of palm oil in the northeastern and southern states included the Oil Palm Development Program in 1992 and the "Oil Palm Area Expansion" plan in 2011. However, both programs resulted in limited economic potential and raised worries about deforestation.

National Food Security Mission (NFSM) – Oilseed[21]

The Government of India introduced a new initiative in 2014–15 called the National Mission on Oilseed and Oil Palm (NMOOP) with the goal of increasing the nation's oilseed output. The major domestic oilseeds policy continues to be overseen by the Ministry of Agriculture and Farmers Welfare's NMOOP. In MY 2022–23, the mission aims to produce 45.64 MMT of oilseeds domestically from nine oilseed crops (Groundnut, Soybean, Rapeseed & Mustard, Sunflower, Safflower, Sesame, Niger, Linseed and Castor), expand area producing Oil Palm & Tree Borne Oilseeds (TBO: Olive, Mahua, Kokum, Wild Apricot, Neem, Jojoba, Karanja, Simaroba, Tung, Cheura and Jatropha) in the country, and reduce the imports 20 per cent by MY 2025-26.

In 2018, the NMOOP merged with the National Food Security Mission (NFSM) and activities are implemented through the broader NFSM-Oilseeds policy, which comprises of three sub-missions: NFSM-Oilseeds, NFSM- Oil Pam and NFSM-TBO. It is being implemented in 28 States/UTs, including Gujarat and assistance is being provided in all 33 districts of Gujarat.

Under this scheme, the Government has also been implementing some special programmes namely Special Programme on Rapeseed & Mustard for distribution of latest high yielding varieties seeds, Distribution of Seed Mini kits of hybrid Mustard seeds, Rapid Soybean Seed Multiplication Plan (3S1Y) and a Special Project to increase area and production of Sunflower cultivation in the country through hybrid seed production and demonstration for three years from 2022-23 to 2024-25. In addition, the Government has also approved an Annual Action Plan for area expansion of Sunflower in Paddy Fallows during 2022-23.

Import Duty on Edible Oils

To protect the domestic producers, the government takes additional control measures including increased import duties on certain refined oils, and revise export restrictions or new import quotas as it continues to balance the needs of supporting consumers.

India's palm oil imports rose to their highest at 5.69 per cent in four months in Dec'23 as purchases of refined palmolein surged because of competitive prices.[22] India has extended lower import duty structure till March 2025. Earlier it was set to expire in March 2024. This move was made to keep the prices in control till Lok Sabha Elections. Since 2021, to assist domestic refineries, the Indian government raised the import tariffs on refined oil while largely changing the rates for unprocessed edible oils. This change was made eight times in a row.

Table 2: India: 2021-2023 Edible Oil Effective Duty Revisions by Date									
Commodity	15-Jun-23	1-Apr-23	24-May-22	13-Feb-22	20-Dec-21	14-Oct-21	11-Sep-21	20-Aug-21	30-Jun-21
Crude Palm Oil	5.5	5.5	5.5	5.5	8.25	8.25	24.75	30.25	30.25
Refined Bleached Deodorized (RBD) Palmolein	13.75	13.75	13.75	13.75	13.75	19.25	35.75	41.25	41.25
RBD Palm Oil	13.75	13.75	13.75	13.75	13.75	19.25	35.75	41.25	41.25
Crude Soybean Oil	5.5	5.5	0	5.5	5.5	5.5	24.75	30.25	38.5
Refined Soybean Oil	13.75	19.25	19.25	19.25	19.25	19.25	35.75	41.25	49.5
Crude Sunflower seed Oil	5.5	5.5	0	5.5	5.5	5.5	24.75	30.25	38.5
Refined Sunflower seed Oil	13.75	19.25	19.25	19.25	19.25	19.25	35.75	41.25	49.5
Crude Rapeseed-Mustard Oil	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
Refined Rapeseed-Mustard Oil	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5	49.5

Source: Solvent Extractors Association of India (SEA), Government of India.

The basic import duty is an important factor, which impacts the landed cost of edible oils which in turn affects the domestic prices. The reduction in import duty on refined sunflower oil and refined soyabean oil (i.e., from 19.25 per cent to 13.75 per cent, each) will benefit the consumers, as it will help in easing the domestic retail prices.

Further, to curb the inflation that rose to a four-month high of 5.69 per cent in Dec'23, the Security Exchange Board of India (SEBI) has extended the ban on futures trading for certain commodities including wheat, paddy (non-basmati), chana, mustard seeds, soya bean, crude palm oil and moong till Dec'24.[23]

Industry Risks and Challenges

Some of the factors that could limit the success of the Indian edible oil industry are farmer resistance to long-term NMEO-OP activities, the frequency of unpredictable weather patterns that cast doubt on projections of future water availability levels required for oil palm production, and a shortage of oil palm processing units in growing regions, particularly in the northeastern states.

Also, environmental problems related to expanding oil palm cultivation on forested areas, continuous fluctuations in the price of CPO worldwide, and a general shortage of land for sufficient plantation crop development might impede India's production of oil palm. The demand for edible oils being highly income and price-elastic, the increase in population coupled with rise in income levels have also led to demand growth at a faster rate than the growth in production of edible oils in India. This demand-supply gap in the edible oils necessitated for huge imports.

The edible oils market has witnessed heightened volatility recently, with prices reaching unprecedented levels. These fluctuations can be attributed to a range of factors, such as increased product demand and a decline in production. According to market sources[24], the import of sunflower from Black Sea region can raise the freight cost, which already resulted in an increased port landing cost for sunflower oil in the last month.

The two leading producers of edible oils are taking advantage of currency devaluation to get a greater portion of the market, which is driving down the price of palm oil. This is resulting in an influx of cheap sunflower oil from Russia and Ukraine. India is likely to continue importing discounted sunflower and palm oil for the rest of the MY. In Dec'23, India's sunflower oil imports reached almost 261 MMT, soybean oil was at 153 MMT, and palm oil at 886 MMT. The country's vegetable oil imports declined in January 2024 from January 2023 by 28 per cent to 1.2 MMT.[25] As on February 1st 2024, total edible oils stock stood at 2.649 MMT, down 7.64 per cent from that of the year-ago period.

In India, the duty differential between CPO and refined palm oil has been reduced to 7.5 per cent, which serves the interests of the refining industry in Malaysia and Indonesia. To safeguard its refining sector, Indonesia and Malaysia have levied higher export duties on CPO than on refined oil for the past 12 years. Since refined oil is now less expensive, Indian capacity becomes less needed. There is a need to increase the duty differential from 7.5 per cent to 15 per cent.[26] This situation is threatening the industry, which may lead to an increase in NPAs and disruptions in the value-supply chain.

The Road Ahead

Given the essential nature of the edible oils in India's food and consumption basket, the compelling need to conserve precious foreign exchange for developmental requirements and the implications of edible oils for food security and food inflation, the pathway to the future requires an accent on novel hybrids and varieties utilizing the double haploid approach, marker-assisted breeding and selection, and other biotechnological methods to address problems with seed output and viability (sunflower and soybean).

The rice-wheat (R-W) rotation is now intensively farmed throughout the North Indian irrigated belt, especially in Punjab, Haryana, and Uttar Pradesh. Since the productivity and revenue of this system are guaranteed, many other states, including MP, Chhattisgarh, and even Rajasthan's canal-irrigated districts, adopt the R-W rotation strategy. It has been observed, meanwhile, that the R-W system is degrading the ecosystem and water availability. To correct this, in most places, soybeans may be used in place of rice during Kharif. Likewise, in Rabi, wheat can be replaced by the growth of mostly mustard and, to a lesser extent, linseed. Such diversification not only satisfies the nation's need for vegetable oil but also offers clear benefits for mitigating the negative consequences of the R-W system.

There is a high potential to reduce the dependency on the imports and achieve the self-sufficiency in oilseed, by focusing on the priority areas of R&D and policy interventions, development of high yielding and improved quality varieties for specific traits, use of modern biotech tools, and area expansion. All these are essential elements of a broad spectrum development strategy to transform the production of oilseed in India in conformity with India's emerging needs and requirements.

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