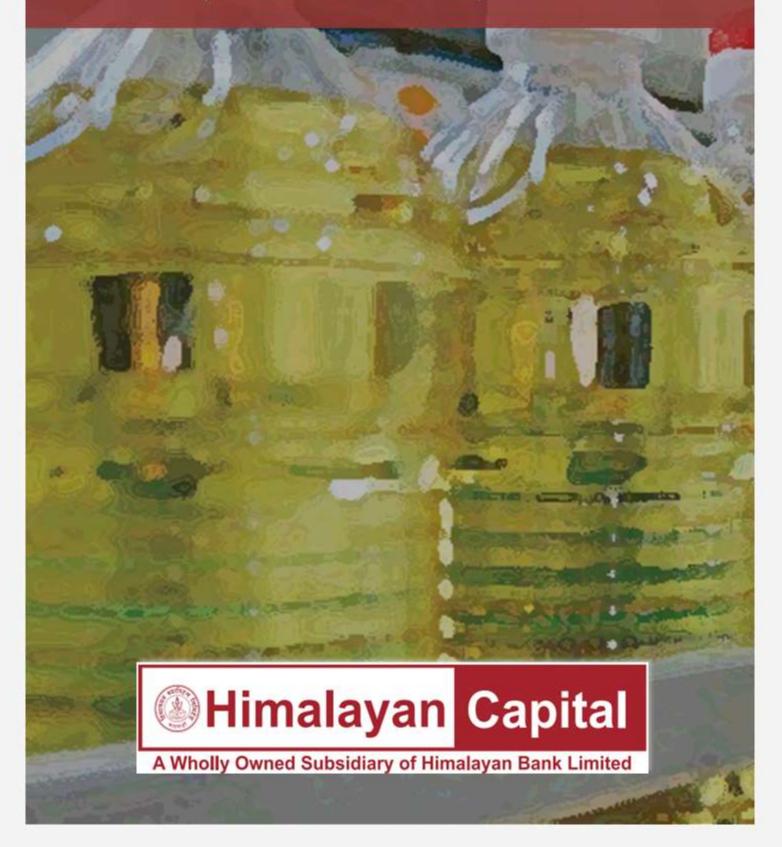


(Palm Oil and Soyabean Oil)
Growth, Risks and Outlook, 2023





1 Introduction

1.1 Palm Oil

Palm oil is a vegetable oil that is widely used in food, personal care products, and industrial applications. It is extracted from the fruit of the oil palm tree, which is native to West and Central Africa but is now grown in tropical regions around the world, including Southeast Asia and South America.

Palm oil is a highly versatile oil that is used in a wide range of food products, including baked goods, confectionery, margarine, and cooking oil. It is also commonly used in personal care and household products such as soap, shampoo, and detergent, due to its moisturizing and cleansing properties.

In addition to its culinary and personal care uses, palm oil is also widely used in industrial applications, such as the production of biofuels, lubricants, and oleochemicals. The high yield of oil per hectare of land makes it an attractive crop for farmers and investors.

1.1.1 Global Market

The global market for palm oil is one of the largest and most rapidly growing agricultural commodities in the world. Palm oil is the most widely produced vegetable oil in the world, accounting for nearly 40% of global vegetable oil production. The market for palm oil is driven by the growing demand for vegetable oils, particularly in emerging economies such as China and India, where rising incomes and changing diets have led to increased consumption of processed foods and cooking oils.

A. Production

Global Annual Palm Oil Production has increased from 56.38 Million Metric Tons in FY 2012 to 77.22 Million Metric Tons in FY 2022 and is expected to reach 82 Million Metric Tons by FY 2030.



Global Annual Palm Oil Production (Million Metric Tons)

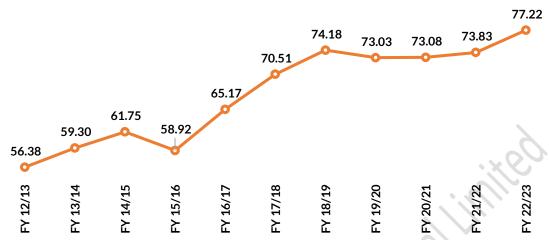


Figure 1: Global Annual Palm Oil Production (Million Metric Tons)

The following countries are the largest producers of palm oil in the world, along with their production capacity as per FAO (2020):

Annual Palm Oil Production by Country (Million Metric Tonnes)

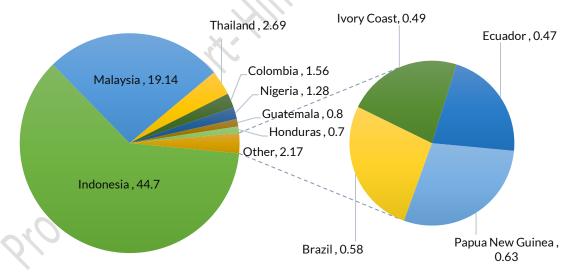


Figure 2: Annual Palm Oil Production by Country (Million Metric Tons)

Together, Indonesia and Malaysia account for over 85% of global palm oil production. In recent years, other countries such as Thailand, Colombia, and Nigeria have increased their production capacity significantly.



B. Consumption

The top ten countries in terms of domestic palm oil consumption and their percentage of global consumption based on data from the United States Department of Agriculture (USDA) for 2022:

18.5 8.85 6.9 5.3 3.63 3.6 2.54 1.79 1.45 India China Nigeria USA Indonesia EU-27 Malaysia Bangladesh Pakistan

Annual Palm Oil Consumption by Country (Million Metric Tons)

Figure 3: Annual Palm Oil Consumption by Country (Million Metric Tons)

Palm oil consumption is a complex issue that varies across different industries and product categories, and the social and environmental impact of palm oil production is a significant concern.

C. Pricing

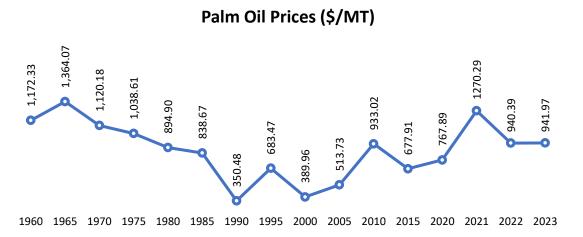




Figure 4: Palm Oil Prices (USD/Metric Ton)

Palm Oil Prices in recent years have increased continuously due to inflation but seem lower as the currencies of producing countries have steadily deprecated vis-à-vis the dollar.

1.1.2 Value Chain

Producers

■ Palm oil producers cultivate and harvest palm oil from plantations. Some of the largest producers are Wilmar International, Golden Agri-Resources, and Sime Darby Plantation. It is estimated that producers make up around 10-15% of the palm oil value chain.



Fraders

Palm oil traders buy palm oil from producers and sell it to downstream companies. Some of the largest traders include Cargill and Archer Daniels Midland (ADM). Traders are estimated to make up around 15-20% of the palm oil value chain.



Consumer goods companies use palm oil as an ingredient in products such as snacks, cosmetics, and cleaning products. Some of the largest consumer goods companies include Unilever, Nestle, and PepsiCo. Consumer goods companies are estimated to make up around 25-30% of the palm oil value chain.



Refiners

■ Refiners process the crude palm oil into refined products such as cooking oil and biofuels. Some of the largest refiners include IOI Corporation and Wilmar International. Refiners are estimated to make up around 20-25% of the palm oil value chain.

Retailers

 Retailers sell products that contain palm oil to consumers. Some of the largest retailers include Walmart and Tesco. Retailers are estimated to make up around 5-10% of the palm oil value chain



1.1.3 Outlook

A. Challenges

The palm oil industry faces various environmental, social, and economic challenges. Deforestation and land use conflicts are among the most significant challenges. The expansion of palm oil plantations has led to deforestation, causing habitat loss for endangered species such as orangutans and tigers. The industry also contributes to greenhouse gas emissions, making it a significant contributor to climate change. Additionally, the industry is associated with human rights abuses, including forced labor and child labor. The industry also faces challenges related to transparency and accountability, as there is a lack of visibility and traceability across the palm oil supply chain.

B. Sustainability

Sustainability is a key issue for the palm oil industry, and many companies are taking steps to improve their sustainability practices. The Roundtable on Sustainable Palm Oil (RSPO) is a certification scheme that aims to promote sustainable palm oil production. Many companies in the palm oil industry are members of the RSPO and have committed to implementing sustainability practices across their supply chains. These practices include zero deforestation, no exploitation, and no peat. Additionally, companies are investing in technologies such as satellite mapping and blockchain to improve traceability and transparency across the palm oil supply chain.

C. Prospects

The global palm oil market is expected to continue growing in the future. The demand for palm oil is driven by the increasing population and demand for sustainable and renewable products. The industry is expected to face challenges related to sustainability, transparency, and accountability. However, many companies are taking steps to address these challenges and improve their sustainability practices. Additionally, there is growing consumer and investor demand for sustainable and responsible products, which is expected to drive the adoption of sustainable practices across the palm oil supply chain.



1.2 Soyabean Oil

Soybean oil is a widely used vegetable oil that is extracted from soybeans. It is a pale yellow, odorless, and tasteless oil that is high in polyunsaturated fats and low in saturated fats. Soybean oil is one of the most commonly consumed cooking oils in the world and is also widely used in the food industry as an ingredient in a wide range of products, including baked goods, snacks, and salad dressings.

Soybean oil is a versatile oil that has a high smoke point, making it ideal for frying and other high-heat cooking methods. It is also used as a base oil in many salad dressings and mayonnaise products, due to its neutral flavor and smooth texture. Soybean oil is commonly used as an ingredient in baked goods such as cakes, cookies, and bread, as well as in snack foods such as potato chips and popcorn.

In addition to its culinary uses, soybean oil is also used in a variety of other applications, including the production of biodiesel, a renewable source of energy that can be used to power vehicles and machinery. Soybean oil is also used in the manufacture of paints, coatings, and other industrial products, due to its high oxidative stability and resistance to corrosion.

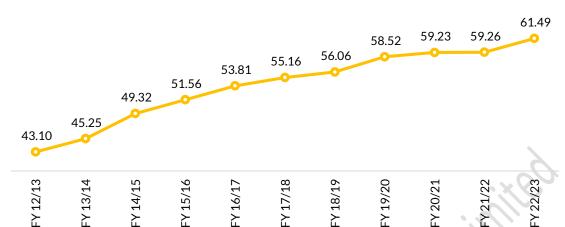
1.2.1 Global Market

The global market for soybean oil is significant and steadily growing. Soybean oil is the most widely produced vegetable oil in the world, accounting for over 30% of global vegetable oil production. The market for soybean oil is driven by increasing demand for vegetable oils in the food industry and other sectors.

A. Production

Global Annual Soyabean Oil Production has increased from 43.10 Million Metric Tons in FY 2012 to 61.49 Million Metric Tons in FY 2022 and is expected to reach 73.7 Million Metric Tons by FY 2030.

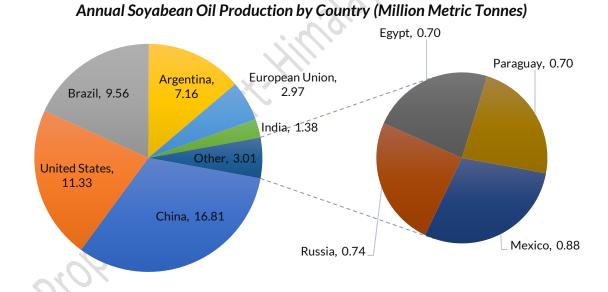




Global Annual Soyabean Oil Production (Million Metric Tons)

Figure 5: Global Annual Soyabean Oil Production (Million Metric Tons)

The following countries are the largest producers of soyabean oil in the world, along with their production capacity as per FAO (2020):



The following countries are the largest producers of soybean oil in the world, along with their production capacity, FAO:

Figure 6: Annual Soyabean Oil Production by Country (Million Metric Tons)

Together, these countries account for over 90% of global soybean oil production. The production of soybean oil is concentrated in the Americas and Asia, with the United States, Brazil, and Argentina being the largest producers.



B. Consumption

The top ten countries in terms of soybean oil consumption and their percentage of global consumption based on data from the United States Department of Agriculture (USDA) for 2022:

Annual Soyabean Oil Consumption by Country (Million Metric Tons)

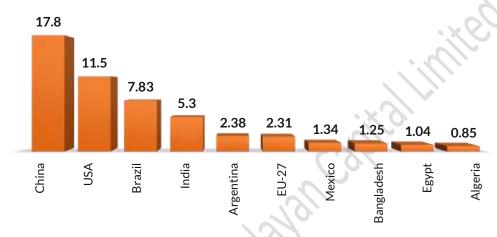


Figure 7: Annual Soyabean Oil Consumption by Country (Million Metric Tons)

C. Pricing

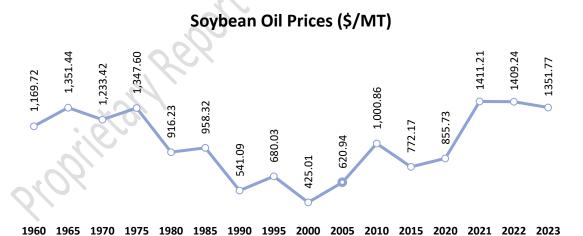
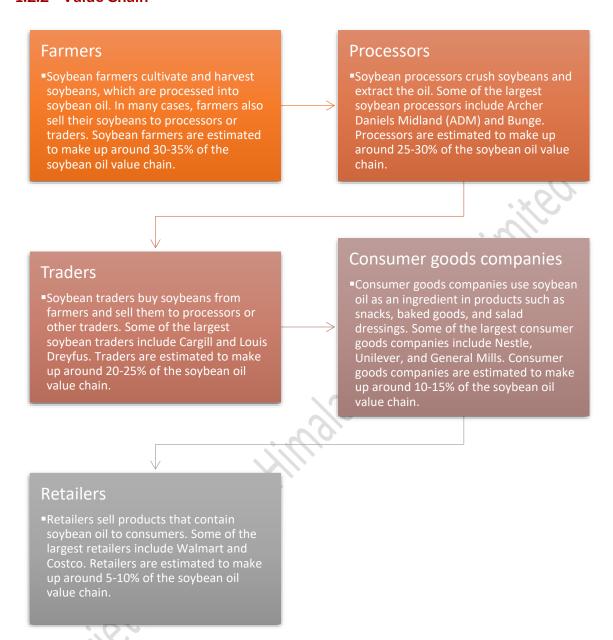


Figure 8: Soyabean Oil Prices (USD/Metric Ton)

Soyabean Oil Prices in recent years have increased continuously due to inflation but seem lower as the currencies of producing countries have steadily deprecated vis-à-vis the dollar.



1.2.2 Value Chain



There are several major players in the global soybean market, including producers, traders, processors, and buyers. The largest traders of soybeans are ADM, Bunge, Cargill, and Louis Dreyfus, which together control approximately 75% of global trade. The largest soybean processors are Archer Daniels Midland (ADM), Bunge, Cargill, and Wilmar, which together control approximately 50% of global processing capacity.



1.2.3 Outlook

A. Challenges

There are several challenges facing the global soybean market, including environmental concerns, trade tensions, and competition from alternative crops. One of the biggest environmental concerns is the impact of soybean production on deforestation in key producing regions such as the Amazon rainforest in Brazil. Trade tensions, particularly between the United States and China, have also had an impact on the soybean market, with China imposing tariffs on U.S. soybeans in response to U.S. tariffs on Chinese goods. Finally, competition from alternative crops such as canola and palm oil has put pressure on the soybean market, particularly in the biodiesel sector.

B. Sustainability

Sustainability is a key concern for the soybean industry, with many stakeholders calling for more sustainable production and sourcing practices. Several initiatives are aimed at promoting sustainability in the soybean sector, including certification schemes, voluntary standards, and public-private partnerships. One of the most well-known certification schemes is the Roundtable on Responsible Soy (RTRS), which sets standards for responsible soy production and sourcing. Several major players in the soybean industry, including ADM, Bunge, and Cargill, have committed to sourcing sustainable soy through the RTRS. Other initiatives include the Soybean Innovation Lab, which promotes sustainable soybean production in developing countries, and the Soy Sustainability Assurance Protocol, which provides a framework for assessing and improving the sustainability of soy production.

C. Prospects

Despite the challenges facing the soybean industry, the outlook for the global market is generally positive. Growing demand for food, feed, and biofuels is expected to continue to drive production and trade in soybeans. In addition, initiatives aimed at promoting sustainability in the soybean sector are expected to gain momentum, with more stakeholders adopting sustainable sourcing practices. Finally, new technologies and innovations, such as gene editing and precision agriculture, may help to address some of the challenges facing the industry, including environmental concerns and competition from alternative crops.



1.3 Summary

Palm oil and soybean oil are two of the most widely produced and consumed vegetable oils in the world. Both oils are used in a wide range of food and non-food applications, including cooking oil, processed foods, and personal care products.

Palm oil is the most widely produced vegetable oil in the world, accounting for about 33% of global vegetable oil production. The majority of palm oil is produced in Indonesia and Malaysia, but it is also grown in other tropical regions such as Africa and South America. Palm oil is commonly used in processed foods, such as baked goods, snacks, and margarine, as well as in cosmetics, soaps, and biofuels.

Soybean oil is the second most widely produced vegetable oil in the world, accounting for about 28% of global vegetable oil production. It is primarily produced in the United States, Brazil, and Argentina. Soybean oil is commonly used as a cooking oil and in processed foods such as mayonnaise, salad dressings, and snack foods. It is also used in non-food applications, such as biodiesel production and industrial applications.

Palm oil and soybean oil are popular for several reasons:

High yield

i. Both palm oil and soybean oil are high-yielding crops, which means that they produce a large amount of oil per hectare of land compared to other oil crops. This makes them attractive to farmers and producers because they can produce more oil per acre, which can lead to lower production costs.

Versatility

i. Both oils are very versatile and can be used in a wide range of food and non-food products, from cooking oil to processed foods and personal care products. This versatility makes them a valuable ingredient for food manufacturers and other industries.

Low cost

i.Palm oil and soybean oil are relatively inexpensive to produce compared to other vegetable oils. This is due to their high yields and efficient production methods.

Neutral flavor and aroma

i. Both oils have a neutral flavor and aroma, which makes them ideal for use in a wide range of food products without affecting their taste or smell.

Shelf-stable

i. Palm oil and soybean oil are both very stable and have a long shelf life, which makes them suitable for use in products that require a long shelf life, such as packaged foods and personal care products.

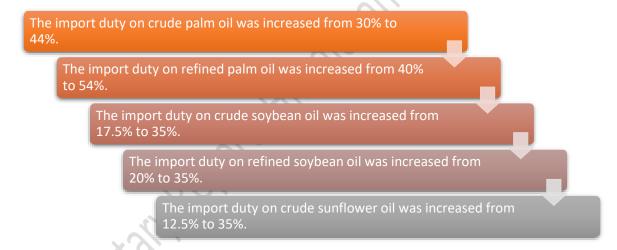


2 History of Edible Oil Exports from Nepal.

Nepal is a landlocked country with limited agricultural land, and the country has not historically been known as a major exporter of edible oils. Instead, Nepal has traditionally imported edible oils from other countries, including India, to meet its domestic demand for cooking oils.

However, In 2018, the Indian government imposed high tariffs on various edible oils, including palm oil, soybean oil, and sunflower oil. The primary reason behind this move was to protect the domestic oilseed growers and to reduce the country's dependence on imports.

The tariff escalation in 2018 for edible oils in India was significant, and the government increased the import duty on several types of edible oils to protect the domestic oilseed growers and reduce the country's dependence on imports. The specific tariffs were:



These tariff hikes were designed to encourage domestic oilseed production and make imported edible oils more expensive compared to domestically produced oilseeds, thus providing a level playing field for domestic oilseed growers. Additionally, the government hoped that this move would promote the growth of the agriculture sector in India.

However, Under the SAFTA agreement, Nepal was allowed to export a limited quantity of specified products, including certain types of edible oils, to India at zero duty. This exemption was designed to promote trade between the two countries and enhance economic cooperation. Thus, Nepali industries could export processed edible oils to India with customs and excise concessions. This opportunities for the Nepali manufacturing



industry to increase their exports and gain access to the Indian market by importing crude edible oils and then processing them and sell the processed product to Indian companies.

This was evident from FY 18/19 and Nepali Palm Oil exports reached NPR 10.33 Billion as palm oil became the number one product for Nepali Oil industries while soyabean oil exports also rose in a similar pattern, but volume was much less than palm oil. However, during FY 20/21 Indian government unilaterally blocked import of Palm Oil from Nepal citing licensing and quality issues which led to soyabean oil exports rising in a huge manner to more than NPR 50 Billion. However, the palm oil related ban was later lifted which saw exports pick up again but owing to Indian Government reducing tariff rates to control spiking inflation, demand for Nepali Oil has reduced greatly as oil from elsewhere has become cheaper.

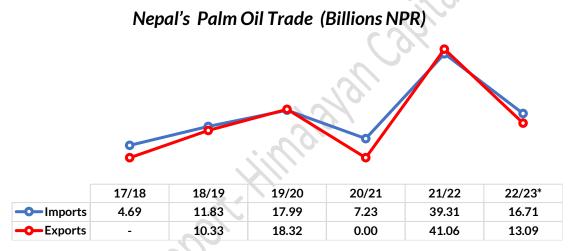


Figure 9: Nepal's Palm Oil Trade (Billions NPR)

Nepal's Soyabean Oil Trade (Billions NPR)

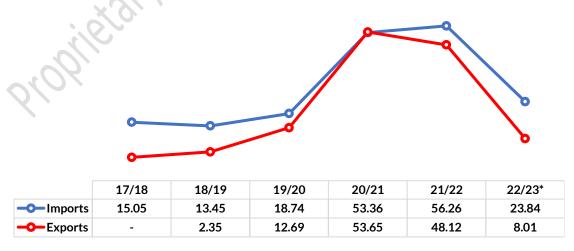


Figure 10: Nepal's Soyabean Oil Trade (Billions NPR)



Overall, while Nepali manufacturers have been able to make good money by processing of palm and soyabean oils, as the raw materials are not produced in Nepal and the cost advantage of Nepali oil is only due to tariff regime imposed by India and favorable provisions in SAFTA which can change at any time given that the business sourced is through the blatant exploitation of concessionary policies aimed at ensuring long term sustainability of Nepali economy which if reversed will not only have bad impact on the manufacturing units but also the entire economy as well.

3 Major Players in Nepal

SN	Name of Industry	Last Update	Type of Loans/Facilities	Size of Facilities (In NPR Million)	Latest Credit Rating	Operating Income (In NPR Million)
1	Siddhartha Oil Industries	February 6, 2023	Short-Term Loans	790.30	Issuer not cooperating	596.8 (H1 FY2021)
2	Nandan Ghee and Oil Industries Private Limited	February 7, 2023	Long-Term Loans, Fund Based	65.48	Issuer not cooperating	2,502 (FY2021)
			Short-Term Loans, Fund Based	267.50		
			Short-Term Facilities, Non-Fund Based	1,706.50		
			Total Facilities	2,039.48		
3	Bagmati Oil Industries	October 25, 2021	Long-Term Loans Limits	99.00	ICRANP] LBBB-; assigned [ICRANP] A3; assigned	2,502 (FY 2021)
			Short-Term Loans, Fund Based	1,720.00		
			Total Facilities	1,819.00		
4	Baba Vegetable Oil Industries Private Limited	November 1, 2022	Short Term Loans	2,065 (Up from 760.00)	CARE-NP A3	7,592 (FY 2022) UA
5	Kwality Oil Refinery Private Limited	October 1, 2022	Short Term Loans	2,750	CARE-NP A4+	2,809 (FY2021) A
	Triveni Dal & Oil Industries Private Limited	August 1, 2022	Long Term Loans	30	CARE-NP BB+	1,452 (FY2021) A
6			Short Term Loans	590	CARE-NP A4+	
			Total Loans	620		
7	Narayani Oil Refinery Udhyog Private Limited	April 1, 2022	Short-Term Loans	5,210.00	CARE-NP A3	10,741 (FY2021) A
8	Ganapati Vanaspati Private Limited	February 1, 2023	Long-Term Loans	362.00	IRN BB+	12,338 (FY2022)A
			Short-Term Loans	7,650.84	IRN A4+	
			Total Loans	8,012.84		
9			Long-Term Loans	303.71	IRN B+	



SN	Name of Industry	Last Update	Type of Loans/Facilities	Size of Facilities (In NPR Million)	Latest Credit Rating	Operating Income (In NPR Million)
	Products	December	Short-Term Loans	1,910.74	IRN A4+	2,183 (FY 2022)UA
	Private Limited		Total Loans	2,214.45		
10	Swastik Oil Industries Private Limited	July 1, 2022	Long-Term Loans	1,189.78	IRN BBB	
			Short-Term Loans 1	1,430	IRN A3+	11,174 (FY 2022) UA
			Short-Term Loans 2	7,848.22	IRN A3+	
			Total Loans	10,468.22		
	ABC Oil Industries Private Limited	December 12, 2022	Long Term Bank Facilities	270.18	CARE-NP BB-Double B Minus	N/A
11			Short Term Bank Facilities	730.00	CARE-NP A4	
			Total Facilities	1,000.18		
	Kalika Refinery Private Limited	January 12, 2023	Long-Term Loans	236	[ICRANP] LBB-; assigned	42 (FY 2021) Provisional
12			Short-Term Loans	1,194	[ICRANP] A4; assigned	
			Total Loans	2,150		
13	Siddhartha Refinery and Solvent Industries Private Limited	November 1, 2021	Short-Term Loans	831.2	[ICRANP] A4+; assigned	2,576 (FY 2021) Provisional
14	Mahalaxmi Solvent and Refinery Private limited	November 1, 2022	Long Term/ Short Term Bank facilities	4,428.40	IRN BB+/A4+	6,496(FY 2022)UA
15	Sushil Vanaspati Private Limited	May 1, 2022	Long-Term Loans, Fund Based	77.4	[ICRANP] LBB+; upgraded from [ICRANP]L BB	6,935(FY 2021)A
			Short-Term Loans, Fund Based	360	[ICRANP] A4+; reaffirmed	
			Short-Term Loans, Non- Fund Based	1,392.60	[ICRANP] A4+; reaffirmed	



4 Overall Outlook

Palm oil and soybean oil are two of the most widely consumed vegetable oils globally, despite concerns about their environmental impact. The continued growth in demand for these oils can be attributed to several factors. The increasing global population and changing dietary patterns are expected to lead to an increase in demand for food, including oils. Additionally, the growing demand for biofuels as governments aim to reduce carbon emissions and increase renewable energy use is expected to drive demand for these oils as feedstocks.

The food industry, particularly the fast-food industry, is also a major driver of demand for these oils, and their use in non-food applications such as personal care products and bio-based plastics is increasing. However, the sustainability concerns associated with palm oil and soybean oil production cannot be ignored. As consumers and companies become more focused on sustainability, there may be a shift towards more sustainable production methods. Despite these challenges, the increasing global demand for food and energy, as well as their versatility in non-food applications, suggests that the growth prospects for palm oil and soybean oil remain strong for the foreseeable future.

Looking closer to home, and Nepal's current market for oil imports India's food industry and non-food applications extensively use palm oil and soybean oil, making the country one of the largest importers of these oils globally. As India's population is expected to continue growing and incomes rise, more people are likely to consume diets higher in fat, including vegetable oils, leading to a surge in demand for palm oil and soybean oil in the coming years. Despite the Indian government's policies and incentives to encourage domestic production of these oils, it is unlikely that domestic production will meet the country's growing demand in the near future, creating an opportunity for exporting countries.

Quality and price competitiveness of the oils, along with sustainability concerns, are critical factors in determining export prospects. Exporters that offer high-quality oils at competitive prices and demonstrate sustainable production methods are more likely to succeed in the Indian market. Overall, the export prospects for palm oil and soybean oil to India are strong due to the country's growing demand and dependence on imports.



Looking at import and exports numbers which swelled up in the last five years, it can be clearly seen that Nepal does not use palm oil and soyabean oil in a large enough quantity to support internal consumption and these oils are only used in commercial manner and not domestically. Even so the Nepali market does not offer large opportunity for the industry to grow as internal consumption is not expected to grow highly any time soon.

Consequently, given the provisions of SAFTA remain active and Indian tariffs on imported edible oils remain high enough, the industry can sustain for the time being. However, long term prospects will rely on an ability to produce higher quality oil and increase internal consumption. Thus, given the current available data and facts, the tariff and excise regime in India is the primary driver of edible oil exports from Nepal and as can be observed through import and export data it can be seen that internal consumption is quite miniscule compared to the quantities traded.

Thus, oil industries established with primary purpose of processing and exporting of palm and soyabean oils are not expected to be sustainable in the long term unless there is internal production of palm and soybean at large enough economies of scale to compete with oils being sourced from abroad. And while soyabean is grown in a small capacity in the nation, the growth of palm for oil purposes is nonexistent and would require a more tropical climate which while available in Nepal in certain areas is not abundant enough to achieve economies of scale. Similarly, land acquisition for farming at scale in Nepal has its own difficulties. Thus, internal raw material production remains elusive for now.

Thus, these circumstances make edible oil processing business very cyclical in nature and thus any change in tariffs/regulation regarding the same in India will affect market prospects immediately as can be seen with zero palm oil exports in FY 20/21 due to regulatory changes in the Indian market. Thus, this industry is expected to create higher risk in both its lenders and investor's books in the long run.

Edible Oils (Palm Oil & Soyabean Oil) in Nepal Growth, Risks and Outlook, 2023

