



## Trend of Vegetable Oils International Trade of India

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### ABSTRACT

*The Covid-19 pandemic has had a major impact on the world economy, more than in the last century. The trade in agricultural products plays an important role in the food security of the people of the world. In this situation, the Government of India has called for a general lockdown to protect the people from the effects of the disease spread. This paper analyses in detail the impact of the pandemic on the India's international trade in vegetable oils and its trend over the last 10 years from 2010-11 to 2020-21. Accordingly, despite the sharp decline in exports and imports of industrial goods in the international trade of India, export and import of vegetable oils were increased well. But, its impact has different effects on different commodities.*

**Keywords:** Covid-19, Food security, Export, Import, Vegetable oils.

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### 1. INTRODUCTION

India is becoming the most populous country in the world. The greatest challenge of the new millennium is to ensure the continued availability of adequate food for this large population. Along with food grains, vegetable oils also play an important role in this food security. Although India has become self-sufficient in food grain production through the Green Revolution, it has not been able to increase the production of oilseeds to a large extent. It is noteworthy that even today import of edible oils plays an important role in the total import of agricultural products of India. This import is also facing many hurdles. Especially palm oil is mostly imported from Indonesia and Malaysia. It is notable that it has been affected by some political reasons. And most of the sunflower oil was imported from Ukraine as the Ukraine-Russia war has severely affected it. These hurdles lead to shortage of edible oil domestically and its price has increased significantly. This price hike has led to higher the inflation of India. The World Health Organization (WHO) declared Covid-19 as a pandemic on March 11, 2020. The disease has so far claimed more than 10 lakh lives. The world economy is projected to decline by 4.3 percent in 2020. And, 8.5% decline in the volume of international trade of goods and services in 2020 (OECD, 2021). In addition, the United Nations estimates that 1.3 billion people are living in abject poverty (al, 2020). Over the past two years, all the countries of the world have been trying to mitigate the effects of the disease by manipulating the general population in some way. However, the disease is evolving and attacking people continuously. To protect the economy from the recurrence of this disease, it is necessary to study in detail how its impact is in various sectors. Along with this, the research paper analyzes in detail how India's vegetable oils trade trend has been affected by the Corona-19 outbreak.

### 2. METHODS AND METIERIAL

This paper analyses the level of vegetable oils overseas trade for the past ten years i.e. from 2011-12 to 2020-21. Vegetable oil means the fats and oils extracted from the seeds or from other parts of fruits. They are being as crude, edible and non-edible forms. The following statistical information is compiled from the annual trade statistics published by the Union Ministry of Commerce and Industry website. In which, goods are classified by the Harmonized System of Nomenclature (HSN) code. The vegetable oils are comes under the 15<sup>th</sup> chapter of the HSN code. This chapter broadly contains 103 commodities from both the animal fats and vegetable oils. Out of 103

commodities 83 commodities ranging from HSN-15071000 to HSN-15180040 are taken for the tabulations. This paper is divided into two sections. First one deals about the export of vegetable oils in India. And, the second section deals about the import of it.

**3. EXPORT OF VEGETABLE OILS IN INDIA**

India’s total merchandise export value for the year 2020-21 was US\$ 2,91,808.48 million. But the share of total vegetable oils export value was only 0.55 per cent alone in 2020-21. The table 1.1 depicts the value of vegetable oils export for the past ten years. Though the list of vegetable oils is nearly 83, this table portrait the 16 commodities. But, the value of these 16 commodities explains 92.35 per cent of total vegetable oils exports value of India in 2020-21. And, its worth is increased from US\$ 1,079.04 million to US\$ 1,595.53 million from 2011-12 to 2020-21.

**Table 1.1: Value of Vegetable Oils Export in India**

(Value in US\$ million)

Sl.No	Commodity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	CAGR <sup>1</sup>
1	Castor Oil and Its Fractions other than Edible Grade	879.1	728.87	663.55	703.81	643.32	616.95	966.99	810.1	814.49	846.83	-0.41
2	Crude Ground Nut Oil	0.27	4.32	0	9.9	6.55	9.9	5.59	0	40.43	410.32	125.70
3	Other Hydrogenated Castor Oil (Opal Wax)	84.29	60.31	59.09	64.44	59.48	55.47	74.16	71.26	75.07	68.13	-2.34
4	Refined Ground Nut Oil (Edible)	8.48	35.32	4.89	16.71	2.6	7.39	7.86	18.75	14.41	49.97	21.78
5	Coconut (Copra) Refined Oil and Fractions	17.18	15.2	14.03	23.82	21.2	33.13	21.37	19.52	19.71	33.28	7.62
6	Sesame Oil and Its Fractions other than Crude of Edible Grade	7.02	4.01	4.93	7.26	6.92	7.37	11.76	15.23	17.36	23.63	14.44
7	Soya Bean Oil of Edible Grade	0.84	0.28	0.45	0.43	1.6	0.23	1.42	5.41	10.54	15.69	38.44
8	Sesame Oil and Its Fractions other than Crude Excluding Edible Grade	5.34	5.42	9.11	8.4	9.51	8.61	9.29	11	10.71	6.48	2.17
9	Crude Sesame Oil and Its Fractions	0.19	0.35	0.27	0.47	0.69	2.78	0.71	0	1.84	5.25	44.60
10	Sunflower Oil Edible Grade	2.31	1.65	1.83	2.22	3.47	3.19	3.36	4.32	3.24	4.54	7.80
11	Soya Bean Crude Oil	11.56	0.01	0.02	0.03	0.05	0.03	0.08	0	2.27	3.71	-11.86
12	Peanut Butter	4.64	6.17	0.05	2.12	1.53	3.17	3.35	0.72	2.08	2.06	-8.63
13	Castor Oil Dehydrated other than Edible Grade	3.73	2.71	2.08	2.04	2.02	2.05	2.61	2.12	1.53	1.44	-10.04
14	Castor Oil and Its Fractions of Edible	4.68	0.81	0.93	0.16	0.38	0.26	0.21	0.31	3.26	0.83	-17.48

	Grade											
15	Soya Bean Oil other than Edible Grade	0.48	0.53	0.42	0.25	1.22	0.43	3.19	4.01	2.78	0.68	3.95
16	Crude Mustard Oil	2.07	3.03	3.93	4.01	4.14	4.67	0	0	0.2	0.57	13.35
17	Others	46.86	46.25	54.03	79.14	72.02	89.54	87.22	96.53	116.73	122.12	11.23
Total Value of Vegetable Oils' Export		1079.04	915.24	819.61	925.21	836.70	845.17	1199.17	1059.28	1136.65	1595.53	4.44

Source: Trade Statistics, Ministry of Commerce and Industry, Government of India (2021)

Over the past 10 years, India's vegetable oil exports have been growing at an average of 4.44 per cent per annum despite many fluctuations. It is significant that the export is increasing despite the high domestic demand. While the trend was declining till 2016-17, it has continued to rise since 2017-18. Especially in 2020-21, India's vegetable oil exports have seen a growth of 40.37 percent over last year despite the high impact of Corona-19. The main reason for this is the export of groundnut oil. In 2020-21, the export of this commodity has increased 10 times over last year.

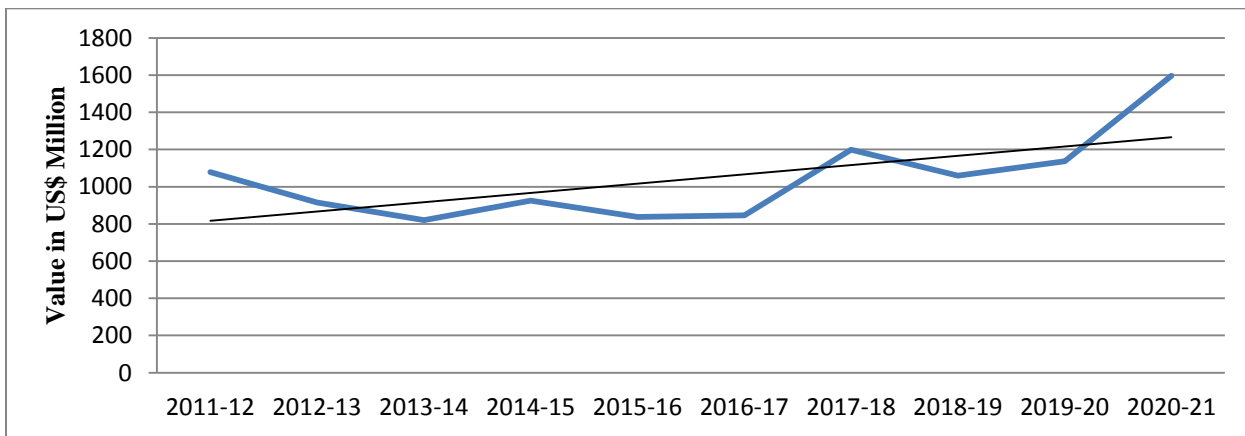


Figure 1.1: Trend of Vegetable Oils Export of India

Although 83 types of vegetable oil products are exported, castor oil plays a major role in India's overall vegetable oil exports. Its value of export is US\$ 846.83 million, which is 53.07 per cent of total vegetable oil export of India in 2020-21. Its share has declined from 81.47 percent in 2010-11 to 53.07 percent in 2020-21. Castor, which can be grown even in dry land also, which is grown as an intercrop by small and marginal farmers in India. Castor oil exports reached a peak of US\$ 966.99 million in the last 10 years in 2017-18 alone. Thus, although it's annual average growth rate is very low at -0.41 per cent; Figure 1.2 indicates that its growth trend is positive.

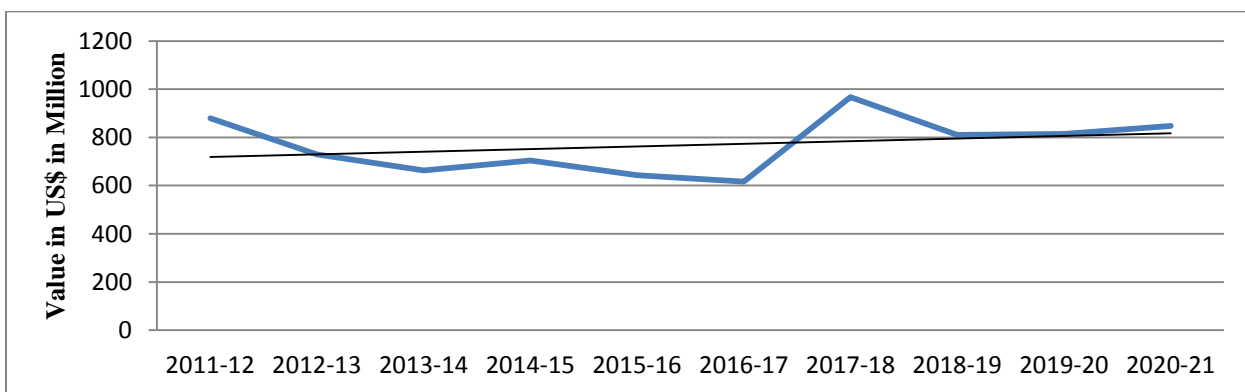


Figure 1.2: Castor Oil Export of India

Another major commodity is Crude Ground Nut Oil. Its value of export is US\$ 410.32 million. Interestingly, its previous year export value was US\$ 40.43 million alone. It grows for more than ten times. The other major commodities are Soya Bean Oil, Coconut Oil and Sesame Oil. Soya Bean Crude Oil export is reduced from US\$ 11.56

million to US\$ 3.71 million from 2011-12 to 2020-21. But, its edible grade export is increasing from US\$ 0.84 million to US\$ 15.69 million for the same period. Likewise, both Ground Nut Crude and Refined oils exports are tremendously increased from US\$ 0.27 million to US\$ 410.32 million and from US\$ 8.48 million to US\$ 49.97 million consecutively for the same period.

**Table 1.2: India’s Value of Export of Animal or Vegetable Fats and Oils for major Countries**

(Value in US\$ million)

S. No	Commodity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	CAGR
1	China	344.54	378.32	293.87	273.06	294.81	294.15	440.57	395.7	394.56	875.91	<b>10.92</b>
2	Netherland	153.41	111.1	116.23	128.23	98.61	91.85	161.6	146.15	165.74	127.61	<b>-2.03</b>
3	U S A	117.38	98.26	80.5	108.03	85.95	91.12	129.45	116.81	124.55	126.93	<b>0.87</b>
4	France	141.26	94.77	87.28	94.28	78.51	83.05	113.71	69.91	87.97	89.3	<b>-4.97</b>
5	Japan	60.64	44.26	31.04	43.75	46.02	37.19	52.67	45.98	38.25	44.58	<b>-3.36</b>
6	Italy	12.92	13.72	13.75	21.67	19.92	19.44	26.39	22.47	33.87	35.34	<b>11.83</b>
7	United Arab Emirates	14.25	12.21	13.37	16.62	15.7	15.06	19.87	23.1	26.33	29.57	<b>8.45</b>
8	Malaysia	21.59	14.16	12.71	78.79	28.25	22.45	14.07	13.05	17.86	29.15	<b>3.39</b>
9	Thailand	40.23	29.31	30.92	29.69	23.5	19.87	48.78	33.72	24.3	27.41	<b>-4.17</b>
10	Bhutan	0.00	0.00	0.00	0.00	4.29	6.41	9.53	13.1	15.55	21.78	<b>38.39</b>
11	U K	22.14	19.02	27.03	18.29	23.45	17.51	21.54	23.5	23.64	20.85	<b>-0.66</b>
12	Korea Republic	17.82	12.85	14.47	13.44	11.56	11.75	16.9	15.82	18.53	19.41	<b>0.95</b>
13	Nepal	2.59	3.04	2.27	3.98	13.18	11.25	14.38	14.88	9.97	17.45	<b>23.61</b>
14	Singapore	6.5	5.38	5.98	5.78	5.24	5.27	6.61	7.52	10.07	12.18	<b>7.23</b>
15	Turkey	13.68	12.08	14.16	11.54	9.34	8.26	14.66	11.62	13.99	12.11	<b>-1.35</b>
16	Germany	7	3.41	5.2	5.92	6.68	4.75	7.23	8.8	13.2	11.44	<b>5.61</b>
17	Mexico	8.51	5.9	7.07	8.71	6.63	6.37	6.96	9.5	9.64	11.38	<b>3.28</b>
18	Canada	1.33	2.23	1.48	3.52	2.66	2.81	4.87	3.27	6.65	10.47	<b>25.77</b>
19	Australia	5.16	3.46	4.19	8.46	7.99	5.4	8.65	9.03	7.99	10.05	<b>7.69</b>
20	Russia	9.32	5.85	5.33	5.93	7.83	9.16	8.51	8.19	13.9	9.89	<b>0.66</b>
21	Other Countries	108.63	89.46	90.48	93.60	87.14	129.50	136.93	105.45	109.13	90.35	<b>-2.03</b>
	<b>Total</b>	<b>1,108.90</b>	<b>958.79</b>	<b>857.33</b>	<b>973.29</b>	<b>877.26</b>	<b>892.62</b>	<b>1,263.88</b>	<b>1,097.57</b>	<b>1,165.69</b>	<b>1,633.16</b>	<b>4.40</b>

Source: Trade Statistics, Ministry of Commerce and Industry, Government of India (2021)

The table 1.2 points out that the top 20 export destination for both animal fats and vegetable oils from India. In order to get the macro picture of top export destination countries chapter 15 of HSN code is chosen for this table. In this chapter, the value of export is US\$ 1633.16 million in 2020-21. But the value of vegetable oils export is 97.70 per cent of it. So the table 1.2 better depicts the top export destination countries for the vegetable oils export of India. This ranking is based on 2020-21 export value of vegetable oils. In which, China is the major country which share 31.07 per cent of total vegetable oils export in 2011-12 and it tremendously increased to 53.63 per cent in 2020-21. The second major country is Netherland. Its share decreased from 13.83 per cent to 7.81 per cent on the same period. Interestingly, vegetable oils export to Bhutan was nil upto 2014-15, and then onwards it increased to US\$ 21.78 million in 2020-21. These top 20 countries alone had shared the India’s vegetable oils export upto 94.45 per cent.

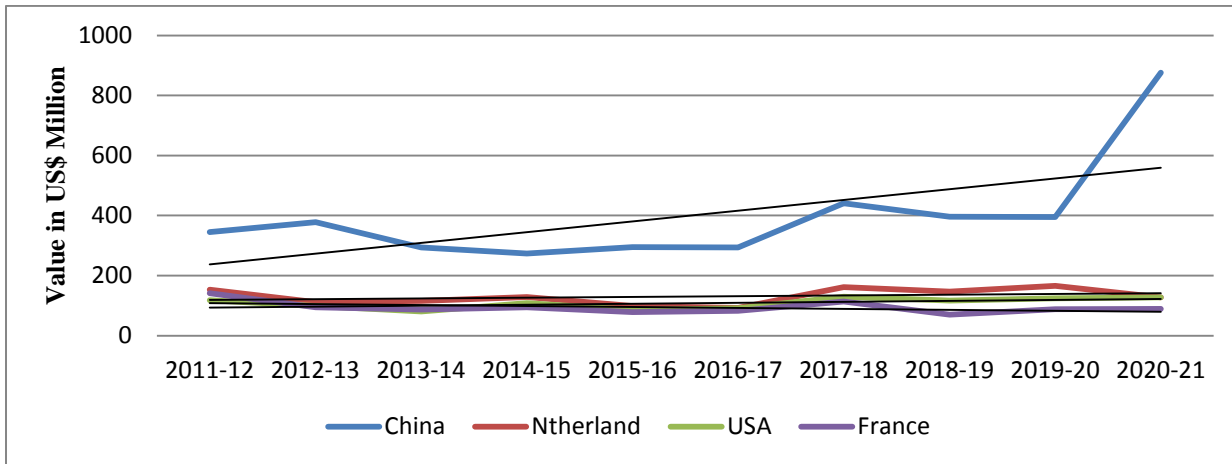


Figure 1.3: Major Export Destination of Vegetable Oils Export Trend of India

#### 4. IMPORT OF VEGETABLE OILS IN INDIA

India’s vegetable oils import value is seven-time higher than the export value. The value of total merchandise import of India was US\$ 3,94,435.88 million during 2020-21, in which total vegetable oils share is 2.85 per cent alone.

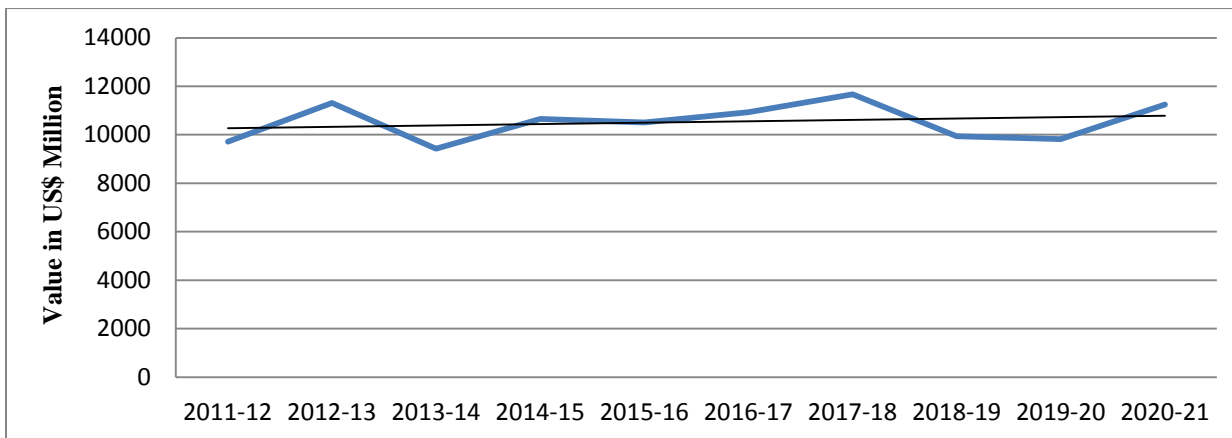


Figure 2.1: Trend of Vegetable Oils Import of India

Figure 2.1 shows the import trend of India's major imported vegetable oils namely palm oil, soya bean oil and sunflower oil. Apart from palm oil, there is a positive growth trend in the import of other two oil products.

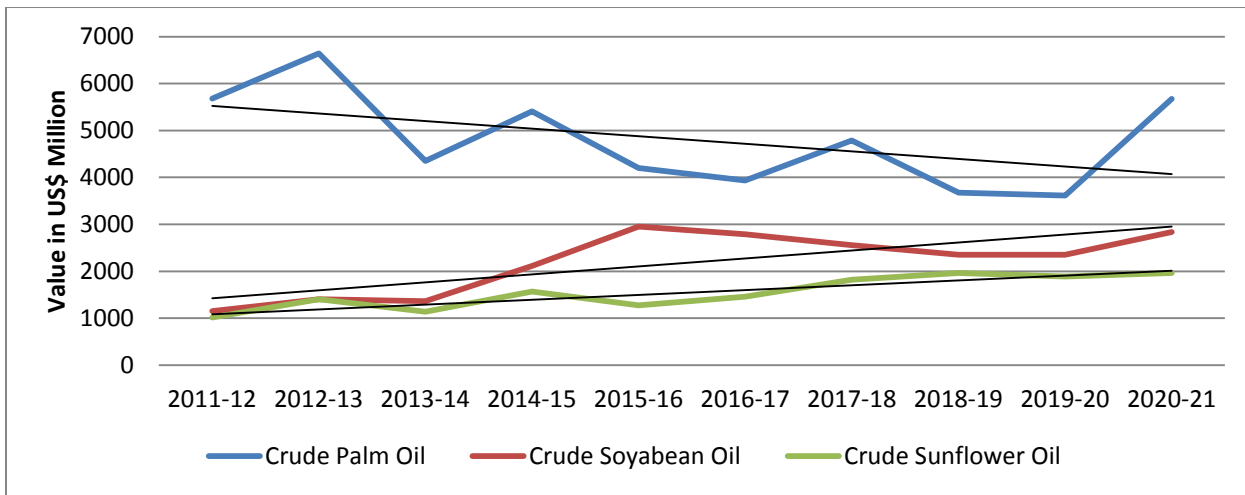


Figure 2.2: Trend of Major Vegetable Oils Import of India

India’s major importing oils are Palm Oil, Soya Bean Oil and Sunflower Oil. The table 2.1 depicts the major vegetable oil commodities are imported for the past ten years. Its value is measured in US million dollars. Out of 83 commodities, 14 commodities are expressed in this table. But its value of import has 98.49 per cent share of total vegetable oils import of India in 2020-21. The share of import value of total Palm Oil<sup>2</sup> import was 76.22 per cent in 2011-12, 59.28 per cent in 2017-18 and 52.11 per cent in 2020-21. It shows that the share of Palm Oil import is continuously reducing for the last ten years. In which, the Crude Palm Oil is the highest value of commodity imported by India. It alone share 50.44 per cent of total vegetable oils import in 2020-21. Other than Crude Palm Oil, Refined Palm Oil and Palmolein and Other Refined Palm Oils are also imported. In which the value of import for both Refined Palmolein and Other Refined Palm oils are US\$ 72.74 million and US\$ 0.41 million respectively for the year 2020-21, but its value of last year (2019-20) was US\$ 1,426.25 million and US\$ 47.58 million respectively. That is the value of both commodities is tremendously decreased in 2020-21. Crude Palm Oil import had been also reduced in the years of 2018-19 and 2019-20, but during 2020-21 it come back for the past level of 2017-18.

Table 2.1: Value of Vegetable Oils Import in India

(Value in US\$ million)

S. No	Commodity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	CAGR
1	Crude Palm Oil	5679.71	6644.74	4348.14	5409.01	4200.08	3933.48	4787.69	3674.32	3615.98	5676.37	-0.01
2	Soya bean Crude Oil	1150.55	1404.03	1366.36	2113.43	2952.78	2791.16	2559.02	2350.26	2352.99	2837.06	10.55
3	Sunflower Seed Oil Crude	1017.7	1402.74	1137.33	1565.31	1272.41	1459.23	1823.11	1966.02	1887.71	1964.13	7.58
4	Soya Bean Oil of Edible Grade	0.02	0.01	0.01	0.02	0.08	0.1	0.26	23.6	85.73	287.02	189.65
5	Crude Palm Kernel Oil	195.98	218.89	237.56	214.49	156.86	71.85	140.65	111.21	94.54	102.82	-6.92
6	Other Vegetable Oils	12.77	10.33	2.09	0.7	3.54	13.29	0.74	8.57	64.86	95	24.98

7	Refined Bleached Deodorized Palmolein	1528.74	1414.3	2140.76	949.58	1584.87	2191.94	1931.51	1500.76	1426.25	72.74	-28.71
8	Crude Rape Oil	41.09	68.19	53.18	251.33	217.19	319.57	250.71	122.15	27.97	36.3	-1.37
9	Refined Palm Kernel Oil	1.95	2.11	1.63	0.31	2.74	2.91	1.2	2.92	2.75	7.88	16.79
10	Refined Bleached Deodorized Palm Oil	1.66	9.88	19.51	6.49	1.82	0.86	1.51	8.72	2.38	3.98	10.20
11	Other Refined Palm Oil	0.14	0.08	0.1	2.04	0.35	0.3	53.46	50.46	47.58	0.41	12.68
12	Coconut (Copra) Refined Oil	5.7	1.17	1.5	5.07	3.5	0.06	0.99	0.48	2.02	0.4	-25.56
13	Safflower Seed Oil	16.37	21.82	16.96	17.04	12.36	30.21	16.43	0.74	4.81	0.01	-56.06
14	Crude Rape Seed Oil	13.94	32.96	16.11	21.46	20.58	24.09	3.43	1.59	15.04	0	-100.00
15	Other Oils	53.66	84.35	80.76	95.8	84.96	86.91	95.06	118.37	191.59	169.45	13.63
<b>Total Value of Import of Vegetable Oils</b>		<b>9719.98</b>	<b>11315.60</b>	<b>9422.00</b>	<b>10652.08</b>	<b>10514.12</b>	<b>10925.96</b>	<b>11665.77</b>	<b>9940.17</b>	<b>9822.20</b>	<b>11253.57</b>	<b>1.64</b>

Source: Trade Statistics, Ministry of Commerce and Industry, Government of India (2021)

The second highest importing vegetable oil is Soya Bean Oil. Its crude oil import was increased from US\$ 1,150.55 million in 2011-12 to US\$ 2,837.06 million in 2020-21, which is nearly 2.5 times higher than the previous value. Significantly, its edible grade has been increased for the last three years. Especially, in 2020-21 its value of import was US\$ 287.02 million, which is 14,351 times higher than the import value of 2011-12. Interestingly, export of its edible grade is also increased in the last three years. Sunflower seed oil is the third highest importing vegetable oil in India. Since 2011-12, its import has been increased smoothly. The import value of Crude Rape Oil had increased tremendously during 2014-15 to 2017-18.

Table 2.2: India’s Value of Import of Animal or Vegetable Fats and Oils from major Countries

(Value in US\$ million)

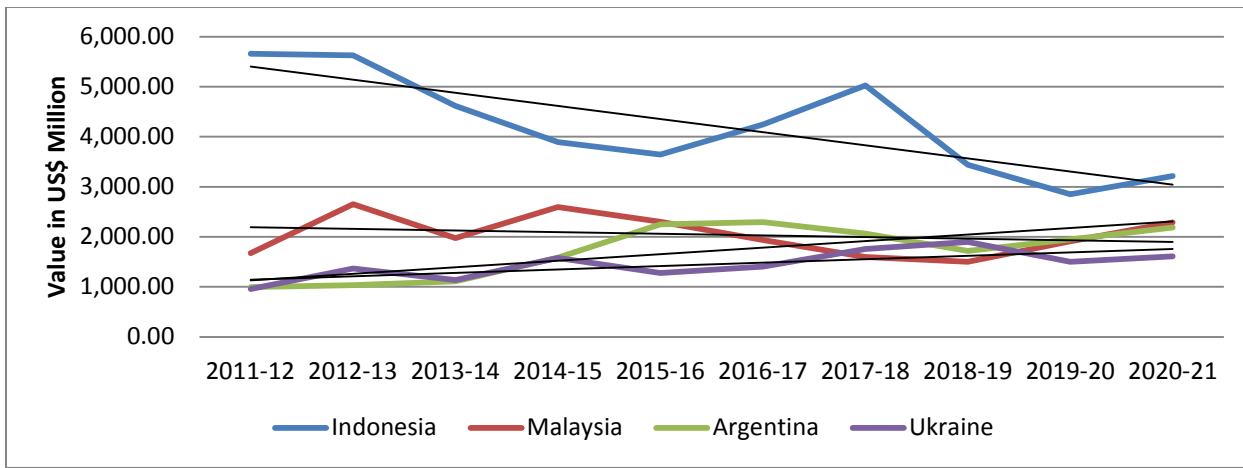
S. No	Commodity	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	CAGR
1	Indonesia	5,658.82	5,625.93	4,615.43	3,893.77	3,642.56	4,244.97	5,024.80	3,440.97	2,850.45	3,214.41	-6.09
2	Malaysia	1,675.30	2,649.41	1,973.28	2,591.88	2,299.25	1,934.93	1,597.30	1,501.04	1,907.85	2,287.06	3.52
3	Argentina	996.32	1,031.68	1,111.27	1,583.75	2,246.26	2,291.92	2,064.73	1,720.46	1,945.88	2,185.58	9.12
4	Ukraine	958.5	1,36	1,13	1,578.	1,274.	1,405.	1,754.	1,894.	1,500.	1,607.1	5.91

		8	8.99	5.70	32	49	62	03	95	18	2	
5	Russia	7.26	13.86	0.00	50.96	5.72	21.87	5.75	32.61	287	292.99	50.81
6	Nepal	1.93	1.78	1.91	0.95	0.61	2.06	0.46	61.58	279.33	286.33	74.28
7	Singapore	2.09	5.93	2.72	5.16	2.39	2.33	2.35	254.78	235.67	272.42	71.79
8	Brazil	144.63	276.48	230.69	410.72	572.6	391.43	430.58	468.6	234.02	255.78	6.54
9	Switzerland	0.03	0.07	0.17	0.22	0.21	0.51	0.63	114.05	162.31	164.15	160.22
10	Bangladesh	13.34	8.47	7.83	4.57	4.62	14.23	0.78	22.35	147.34	158.49	31.65
11	Netherlands	0.13	0.95	1.12	0.67	1.96	0.24	0.41	30.21	77.65	132.23	115.85
12	Thailand	62.15	31.7	159.41	81.63	5.00	0.17	282.32	114.28	65.29	117.42	7.32
13	Egypt	5.4	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04	51.79	28.56
14	U S A	2.51	99.29	31.73	3.36	3.97	5.42	7.2	8.66	6.65	45.63	38.02
15	Turkey	0.7	0.89	0.67	0.78	0.6	0.83	1.08	6.96	4.95	40.05	56.78
16	Spain	13.47	22.06	26.9	61.85	57.29	35.94	45.18	51.56	32.06	37.06	11.90
17	Papua New Guinea	0.00	0.00	0.00	0.00	0.00	6.79	15.23	21.31	0.2	27.87	42.34
18	Sri Lanka	0.08	0.00	0.00	0.00	0.00	0.13	0.98	12.41	15.18	23.43	87.96
19	Belgium	4.15	4.67	3.66	1.57	1.87	8.08	5.12	5.68	5.65	22.27	20.52
20	Germany	3.71	17.93	1.38	1.62	1.12	4.56	5.61	22.27	2.59	21.51	21.56
21	Other Countries	182.25	171.10	137.87	398.22	409.81	574.28	455.89	209.63	106.83	64.48	-10.90
	Total	9,732.85	11,331.19	9,441.74	10,670.00	10,530.33	10,946.31	11,700.43	9,994.42	9,867.12	11,308.07	1.68

Source: Trade Statistics, Ministry of Commerce and Industry, Government of India (2021)

The table 2.2 is also alike the table 1.2, i.e. chapter 15 (HSN code) is used to identify the top countries from which India importing its vegetable oils. And this table also ranked based on the import value of 2020-21. The value difference between the both animal fats and vegetable oil and total vegetable oil is just 0.48 per cent of total value of animal fats and vegetable oils import in 2020-21. Therefore, this table is reliable to identify the top source of import for vegetable oil for India. This table shows that Indonesia, Malaysia, Argentina and Ukraine are the leading countries from which India import 82.19 per cent of total animal fats and vegetable oils import value in 2020-21. Not only that, its share was 95.44 per cent in 2011-12, which is very much higher than the 2020-21 share of import. Since 2017-18, import from Indonesia has been consecutively decreasing. And import from Malaysia also decreased after 2014-15, but for the last two financial years it has been come up. In the case of Argentina and Ukraine, value of import has been increased smoothly. For the last three financial years, the import value is very much increased in Russia, Nepal, Singapore, Switzerland, Bangladesh, Netherland and Sri Langa.





**Figure 2.3: India's Vegetable Oil Import Trend from Major Countries**

## 5. CONCLUSION

The Covid-19 pandemic, which has rocked the world, has had a significant impact on India's international trade of agricultural products. Although exports and imports of industrial commodities declined, it had a positive impact on export and import of vegetable oil products. At the same time, it has had a different impact on different commodities, both on export and import. Therefore, the livelihoods of billions of farmers can be protected if the trade in agricultural products is handled in a manner that does not affect the risk of infection in the coming seasons. The government should take appropriate measures to overcome the decline in castor oil exports. Also, increasing the involvement of Farmer Producer Organisations (FPO) in the production of these can increase the income of the poor farmers who depend on rainfed agriculture. The Government of India is trying to grow oil palm trees in the northeastern states of India and the Andaman-Nicobar Islands. However, palm oil, which is widely used by the poor, should be imported without restrictions until production increases in India.

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