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India and ASEAN free trade agreement: an impact assessment on coffee product

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Abstract: *Plantation products are not a major item of India's export basket; it is the source of livelihood for millions of small and marginal farmers and provides employment for millions of plantation workers. The plantation sector of India is also exposed to heightened international competition. In an open economy, competitiveness of a product is not only from export point of view, it equally important to survive in the domestic market as well. In this respect the present study focus on plantation sector, particularly Coffee product. There is a strong apprehension among a section of stakeholders on the possibility of large-scale import of plantation crops from ASEAN due to India-ASEAN FTA. The study tries to seek answer to the questions such as, Can India re-export by importing low priced coffee from ASEAN? It follows from the discussion that, due to growing domestic demand and new low cost producing and exporting country like Vietnam and increasing ASEAN countries performance in exporting value added products in the international market. India is losing export competitiveness in the international market. Over the years, India's dependency on import and domestic market of coffee has been increasing. This product is increasingly becoming domestic oriented. India's trade integration with ASEAN created for concern for coffee product. In case of coffee, there is high concern, as Vietnam coffee competes with domestically produced coffee and India's import dependency on Vietnam for this product is high and it is on rise. In the international market India is competing with Vietnam and Brazil. India has the opportunity in exporting value added coffee in the international market, especially in ASEAN market. In the initial stage, support by the government is very important to push Indian exporters in global value added supply chain. The value addition in supply chain is important for the sustainability of the plantation sector of India. In this respect, state initiation is important so that Indian value added plantation product such as coffee can access the ASEAN and other developed countries market. The plantation products of India are constrained by logistic problems, there by experiencing higher transaction cost affecting the export competitiveness. Government need to intervene in a large scale to address such issue. So that Indian plantation sector can become globally competitive.*

Keywords: Plantation Crop, Changing pattern, Area, Production, Productivity, Export, Import.

Introduction

Plantation sector is a part of agriculture sector and plantation crops are export oriented commodities, contributing to foreign exchange earnings. The major plantation crops in India are coconut, cashew nut tea, coffee and rubber. While the development of tea, coffee and rubber come under the Ministry of Commerce, coconut and cashew nut are under the Ministry of

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Agriculture. Plantation Sector contributes to the employment both directly and indirectly through its forward and backward linkages. According to the estimates of Ministry of commerce more than two million people are engaged in plantation sector directly and another six million are indirectly engaged in plantation sector. In India plantation crops are mainly grown in Kerala, Karnataka, Tamil Nadu, West Bengal and North Eastern states of India. Being export oriented crops, with the growing economic integration among the countries of the world in recent years; the plantation sector of India is exposed to heightened international competition. In an open economy, competitiveness of a product is not only important from export point of view, it is equally important to survive in the domestic market. There is always threat of entry of cheaper products from the International market into domestic market; same is the case with plantation crops (B.H. Nagoor, 2010). The India's, Coffee trade performance with world and particularly Association of South East Asian Countries (ASEAN) of plantation crop to understand the impact of globalization on this crop to suggest policy measure. Coffee is predominantly an export oriented commodity and over 70 percent of the coffee produced in the country is exported and remaining 30 percent is consumed within the country (planning commission, 2007). Coffee is exported in the southern states of India. Karnataka is the largest contributor with (56.3%); the other states are Kerala (21%) and Tamil Nadu (7.7%). Non Traditional Areas are contributing 13.7% and 1.2% is being contributed by Eastern Region. In this condition, the present study makes an effort to study the trade direction of analyzing the trend in export, import, demand and other relevant factors. The study also looked into some of the supply side aspects like production and productivity of coffee product.

Sources of Data, Research design and Methodology

The study is based on secondary data. The international trade data on production, yield, area under cultivation, export and import of coffee of major producing and exporting countries of the world are sourced from FAO. The comparison with the dollar values of export unit value and import unit value. We also make use of Export Unit Value (EUV) [1], Import Unit Value (IUV) [2]. The values of exports and imports have been referred in US dollars. To study the per cent shares were worked out on a triennium basis to take into account the problem of wide fluctuations in the value of exports and imports. For certain data, we have calculated Compound Annual Growth Rates (CAGR) for the period 1991 to 2015.

1. Export unit value represents the price at which commodity is exported. In our study we have calculated EUV by taking ratio between export value and quantity (EUV=export value/export quantity). In certain cases, the world export unit value is considered as international prices.
2. Import unit value represents the price at which country imports from foreign countries, which includes transportation and insurance costs but excludes tariffs. In our study we have calculated IUV by taking ratio between import value and quantity. (IUV=Import value/import quantity).

Results and Discussions

This segment is divided in to four sections. First section deals with coffee economy of India, second section deal with coffee economy of India and ASEAN, third section deal with coffee economy of world; forth section deal with major coffee exporting countries of the world and last section is conclusion.

Coffee Economy of India

In this section, brief analysis of India's coffee economy with world during 1991 to 2014 has been made. Analysis in terms of area under coffee cultivation, yield is in hg/ha, productivity and trade. The purpose of this analysis is to examine the trends and patterns of coffee production, productivity and trade of India with the world. As we know that India is an agricultural dominant country, but its contribution to GDP was hardly 18% and more than 60% people were dependent. In this respect, as a researcher I want to find out the reasons behind it. In this article, moves to analyze part of the agriculture like plantation sector, particularly coffee product. India is neither a major nor an exporter of coffee in the world. India has been producing only 3.44 per cent of world output of coffee and exporting only 3.09 per cent of the world coffee. In terms of percentage share of world before FTA India's production has been increased continuously but not much of that Table 1. While most of the coffee produced is domestically consumed within the country, in recent years. Indian coffee is becoming more trade oriented. Until 1990, not much coffee was traded since, 99 per cent of produced coffee was consumed domestically. However, during 2014, the share of coffee export in domestic production has increased 2.18 to 3.09 percent. On the other hand, India's coffee import has been increasing continuously from 1991-93 to 2012-14. India's coffee import share in world import, which was less than one percent until 2014 but coffee import growth rate per annum registered 11.7 Table 1. It's clearly found that, India's coffee import from world has been rapid grown and India's increasing demand for world coffee. There is a need to examine whether growing India's coffee imports is concern for coffee economy of India or not. India's import unit value of coffee is much lower than the export unit value of coffee Table 5. It is evident that, India is importing low priced coffee from rest of the world and exports high priced coffee. One more reason for India's accelerated coffee import from world is that, India made some value additions to importing coffee and re-export higher prices due to the earn foreign currency. India is a small player in international market in coffee trade. Therefore, India is a price taken. But Indian coffee is preferred for blend. Therefore, Indian coffee production is influenced by international prices. Evidently, India has been producing only 3.44 per cent of world output of coffee and exporting only 3.09 per cent of world coffee exports Table 1. While, India's area under coffee cultivation and production has increased continuously, growth rate also registered in positive manner. But in terms of productivity India's achievement was not satisfactory because growth rate resisted negative (-0.01) manner Table-1. It also indicates that there is a growing market for value added quality coffee within the country would be exploited.

Table 1: Area, Yield, Production, Export and Import of Coffee in India

Year	Area	Yield	Production	Export	Import
1991-93	224 (2.14)	7636	171 (2.89)	111.9 (2.18)	1 (0.0)
1994-96	232 (2.38)	8758	204 (3.49)	150.2 (2.98)	1 (0.0)
1997-99	280 (2.80)	8303	233 (3.58)	179.4 (3.16)	3 (0.0)
2000-02	314 (2.97)	9480	298 (3.89)	182.8 (2.90)	4 (0.1)
2003-05	326 (3.07)	8390	274 (3.65)	177.5 (2.72)	23 (0.3)
2006-08	343 (3.19)	8009	275 (3.32)	193.5 (2.59)	25 (0.3)
2009-11	355 (3.41)	8003	285 (3.44)	224.9 (2.73)	41 (0.5)
2012-14	375 (3.65)	8320	312 (3.44)	277.4 (3.09)	63 (0.7)
CAGR	1.11	-0.01	1.10	1.47	11.7

Source: Estimation based on FAO Statistics

Note: i) Production, Exports and Imports are in 000 tonnes. Yield is in hg/ha. Area is in 000 hectares ii) Figure in brackets shows percentage share in the world iii) Exports and Imports data are available up to 2013 only iv) Compound annual growth rate v) Avg-3yearly

Table 2: Production of Coffee in Major Exporting Countries of ASEAN (in 000 tones)

Year	Indonesia	Malaysia	Thailand	Viet Nam	Total-4	India
1991-93	435 (7.36)	9 (0.16)	66 (1.12)	118 (2.01)	628 (10.66)	171 (2.89)
1994-96	443 (7.64)	13 (0.21)	82 (1.41)	239 (4.08)	777 (13.33)	204 (3.49)
1997-99	488 (7.52)	28 (0.42)	72 (1.13)	461 (7.10)	1049 (16.17)	233 (3.58)
2000-02	602 (7.83)	39 (0.51)	74 (0.96)	781 (10.21)	1495 (19.51)	298 (3.89)
2003-05	650 (8.68)	40 (0.53)	58 (0.78)	846 (11.26)	1595 (21.25)	274 (3.65)
2006-08	686 (8.27)	26 (0.31)	51 (0.62)	1097 (13.25)	1860 (22.44)	275 (3.32)
2009-11	668 (8.09)	16 (0.19)	49 (0.60)	1147 (13.84)	1880 (22.72)	285 (3.44)
2012-14	678 (7.46)	12 (0.13)	43 (0.47)	1478 (16.26)	2210 (24.33)	312 (3.44)
CAGR	1.08	0.44	-1.14	4.99	5.36	1.10

Source: Estimation based on FAO Statistics Note: i) Figure in brackets shows percentage share in the world ii) CAGR (Compound annual growth rate) iii) Avg-3yearly

Table 3: Yield of Coffee in Countries of ASEAN and India (kg/ha)

Year	Indonesia	Malaysia	Thailand	Viet Nam	India
1991-93	5520(-27.6)	6458(-15.0)	9173(20.1)	14937(96.4)	7636
1994-96	5367(-38.4)	7551(-13.3)	11618(33.7)	19149(119.8)	8758
1997-99	5676(-31.5)	7474(-9.8)	10951(32.9)	21121(154.8)	8303
2000-02	4568(-51.8)	7532(-20.5)	10683(12.5)	16261(71.4)	9480
2003-05	4956(-40.9)	7544(-10.1)	8313(-0.8)	17592(109.8)	8390
2006-08	5274(-34.0)	8005(0.4)	7706(-3.6)	22362(178.8)	8009
2009-11	5241(-34.3)	15111(85.1)	8784(10.4)	21974(174.6)	8003
2012-14	5489(-34.0)	25209(202.5)	9119(9.7)	25402(205.2)	8320

Source: FAOSTAT
Note: Figure in brackets shows proportionate yield of respective country in India's yield
Negative value means yield of respective country is lower than India's yield and yield difference is in percentage and vice verse for positive value. Yield difference= (Yield of respective ASEAN country/ Yield of India)*100-100

Table 4: Area Harvested of Coffee in Major Producing Countries of ASEAN (000 ha)

Year	Indonesia	Malaysia	Thailand	Viet Nam	Total-4	India
1991-93	788 (7.53)	14 (0.14)	71 (0.68)	79 (0.76)	953 (9.11)	224 (2.14)
1994-96	827 (8.47)	17 (0.17)	70 (0.72)	124 (1.27)	1037 (10.64)	232 (2.38)
1997-99	859 (8.61)	37 (0.37)	66 (0.66)	221 (2.21)	1182 (11.85)	280 (2.80)
2000-02	1315(12.42)	52 (0.49)	69 (0.65)	481 (4.54)	1917 (18.10)	314 (2.97)
2003-05	1314 (12.36)	53 (0.50)	70 (0.66)	481 (4.52)	1918 (18.04)	326 (3.07)
2006-08	1300 (12.11)	32 (0.30)	66 (0.62)	491 (4.57)	1889 (17.60)	343 (3.19)
2009-11	1276 (12.23)	15 (0.14)	56 (0.53)	521 (4.99)	1868 (17.90)	355 (3.41)
2012-14	1235 (12.01)	5 (0.04)	47 (0.46)	582 (5.66)	1869 (18.17)	375 (3.65)
CAGR	1.13	-1.68	-0.70	4.16	2.91	1.11

Source: FAOSTAT

Note: Figure in brackets shows % share of World harvested ii) CAGR (Compound annual growth rate) iii) Avg-3yearly

Table 5: EUV & IUV of Major Coffee Exporting Countries of ASEAN

Year	Indonesia		Malaysia		Thailand		Viet Nam		India		World	
	EUV	IUV	EUV	IUV	EUV	IUV	EUV	IUV	EUV	IUV	EUV	IUV
1991-93	1.0	0.8	4.3	1.4	0.8	10.9	0.8	1.0	1.4	0.6	1.5	1.7
1994-96	2.3	2.4	4.7	2.2	1.8	7.6	1.9	2.1	2.7	2.3	2.9	3.1
1997-99	1.6	1.4	2.7	1.8	1.3	5.6	1.3	1.6	2.3	1.3	2.7	2.9
2000-02	0.8	0.8	2.1	1.3	0.8	2.0	0.5	1.1	1.3	1.2	1.5	1.7
2003-05	1.0	2.2	1.8	1.5	1.3	1.4	0.7	1.4	1.5	0.8	1.9	2.0
2006-08	1.9	3.6	3.4	2.2	2.1	3.3	1.6	2.6	2.5	1.7	3.0	3.1
2009-11	2.3	3.1	4.0	2.4	3.4	3.4	1.7	1.7	2.8	1.6	3.9	4.2
2012-13	2.7	3.6	5.3	2.9	3.7	3.8	2.1	2.3	3.2	2.1	4.2	4.5

Table 6: India's Coffee Trade with Major ASEAN Member Countries-0901 (value in '000' $)

Year	Indonesia		Malaysia		Singapore		Thailand		Vietnam	
	Export	**Import**	**Export**	**Import**	**Export**	**Import**	**Export**	**Import**	**Export**	**Import**
1991-93	NA	207.2 (20.37)	42.0 (0.01)	NA	750.1 (0.29)	NA	NA	19.1 (20.92)	NA	180.3 (75.79)
1994-96	176.5 (0.03)	1097.4 (67.64)	2151.6 (0.35)	NA	3104.9 (0.47)	1.7 (0.16)	41.0 (0.01)	NA	NA	122.3 (11.63)
1997-99	126.4 (0.02)	1935.4 (58.88)	484.7 (0.08)	NA	1765.3 (0.28)	275.8 (8.96)	286.3 (0.05)	NA	NA	829.0 (26.34)
2000-02	269.0 (0.08)	1274.6 (43.74)	350.6 (0.10)	1.4 (0.03)	1034.4 (0.31)	7.6 (0.42)	55.0 (0.02)	70.0 (3.60)	51.8 (0.02)	841.2 (32.91)
2003-05	21.7 (0.01)	7811.4 (37.33)	437.7 (0.11)	0.7 (0.00)	849.9 (0.26)	1.3 (0.02)	2.5 (0.00)	72.8 (0.19)	387.7 (0.10)	8313.3 (40.21)
2006-08	NA	15706.9 (42.85)	66.7 (0.01)	13.2 (0.04)	529.2 (0.07)	7.5 (0.02)	99.7 (0.02)	110.7 (0.33)	NA	9235.9 (26.17)
2009-11	1354.4 (0.13)	15872.4 (22.47)	1757.9 (0.30)	0.7 (0.00)	203.6 (0.02)	85.4 (0.09)	6.9 (0.00)	0.5 (0.00)	563.9 (0.04)	39461.4 (57.87)
2012-14	313.8 (0.03)	33608.7 (26.27)	759.1 (0.07)	181.4 (0.14)	207.1 (0.02	NA	6.1 (0.00)	44.4 (0.04)	115.9 (0.01)	71929.5 (55.49)
2015	176.8 (0.02)	37781.9 (31.50)	101.8 (0.01)	NA	346.4 (0.03)	NA	NA	NA	NA	57082.7 (47.59)
CAGR 1991-2015	2.8	11.4	-0.9	10.9	-4.2	-3.3	-9.8	-4.4	-5.8	14.9

Source: UNCOMTRADE

Note: i) figure in bracket shows percentage share of India's exports to and Imports from major ASEAN member countries ii) Compound annual growth rate (CAGR) of India's exports to and imports from major ASEAN member countries. Iii) Avg-3yearly

Coffee Economy of ASEAN and India

In this section, is to explore relevant policy directions on India's engagement with ASEAN in the subject of Area under cultivation, productivity, production, exports and imports of Coffee. India has an interest in ASEAN, particularly in strengthening its economic relations. This has been evidenced by a long string of initiatives, perhaps most strikingly evidenced by the ASEAN-India FTA.Table-2 shows, ASEAN has a major coffee producing block in the world, among ASEAN member countries, Indonesia (7.36%), Malaysia (0.16%), Thailand (1.12%) and Vietnam (2.01%) are the major coffee producing countries. These four countries contribute around 11 per cent during 1991-93. So production trend indicates initially Indonesia having more shares among these four countries. In recent years important development in the international coffee market is that, Vietnam (16.26%) has become a first largest producer of coffee in the ASEAN followed by Indonesia (7.46%) for the period of 2012-14 (Table-2) and second largest producer of coffee in the world (Table-9) and it is expanding its coffee production, area under cultivation and productivity rapidly (Table-2, 3, and 4). The growth rate estimation clarifies Vietnam is an emerging economy for producing coffee in ASEAN region and Thailand has been facing rapid declining trend evident that growth rate registered -1.14 per cent. If we look at the area under coffee cultivation of ASEAN four countries Indonesia (7.53%) is the largest and Vietnam (0.76%) is the second for the period of 1991-93. So the trend of coffee cultivation under area harvested again Indonesia (12.01%) took first place but its production (7.46%. Table-2) capacities very low and Vietnam (5.66%) took second place, its production (16.26% Table-2) capacity very high during 2012-14. This clearly indicates that Vietnam has lot of productive capacity followed by Indonesia and rest of the member countries (Table-3 and 4). Vietnam is a source of lower priced coffee. During 1991-93, Vietnam's export unit value was US$ 0.8 per unit, which was much lower than the corresponding to Indian export unit value of US$ 1.4 per unit. Trend shows except Vietnam (US$ 2.1), Indonesia (US$ 2.7), Malaysia (US$ 5.3), Thailand (US$ 3.7) and India (US$ 3.2) producing high priced coffee for the period of 2012-13 (Table-5). Further we explore India's coffee trade with ASEAN member countries in the context of free trade agreement such as Indonesia, Malaysia, Singapore, Thailand and Vietnam. In one hand, among these members Singapore and Malaysia are major importers of India's coffee exports. On the other hand, Vietnam (75.79%) and Indonesia (20.37%) are major exporters of India's coffee import during 1991-93 (Table-6). Here trade trend indicates that India's coffee exports to ASEAN member countries has come down but imports from ASEAN has been increasing. Some studies have been hypothesized after India-ASEAN free trade agreement trade with both parties has significantly increasing due to the employing different tariff elimination commitments in phased manner (Nagoor 2010). But the result is different after India-ASEAN free trade agreement (2009 onwards), particularly coffee trade, India's export has come down rapidly and India's coffee import from ASEAN is continuously increasing and stable position is maintained. This clearly postulates that India's coffee trade with ASEAN has an adverse impact. Under India-ASEAN FTA the tariff commitments are not favorable to India because of India's trade potentiality is not satisfactory compared to ASEAN. It's evident that Vietnam is a member of ASEAN. There is high possibility that Vietnam may increase its low priced coffee export to India. Here, again there is a need to assess the impact of India-ASEAN FTA on Indian coffee economy. Obviously, India has been import lower priced coffee of ASEAN member countries, particularly Vietnam (Table-5 & 6), and makes some value additions subsequently re-export. But this study does not attempt re-export concept.

Table 7: India's Export Destinations of Coffee-0901 (value in %)

Year	Italy	Germany	Belgium	Jordan	Slovenia	Spain	Australia	Kuwait	Greece	S.Arabia	USA
1991-93	NA	18.7	NA	0.9	0.4	1.0	0.8	1.4	0.8	2.4	7.7
1994-96	16.1	16.3	NA	1.6	0.3	2.0	1.8	1.6	1.5	0.8	10.9
1997-99	17.7	19.6	NA	0.9	1.8	5.4	1.1	1.5	1.5	0.8	9.7
2000-02	18.8	18.4	8.1	1.3	2.2	5.7	1.3	2.2	1.8	1.6	7.3
2003-05	28.9	12.7	8.1	1.5	3.7	6.1	1.7	2.3	2.4	0.9	2.3
2006-08	32.7	11.6	7.4	2.5	2.9	5.1	2.1	2.6	2.9	1.2	1.6
2009-11	31.6	13.1	8.0	4.0	2.2	4.2	2.3	2.8	2.4	1.6	1.7
2012-14	33.0	13.4	9.2	4.5	4.2	2.6	2.9	2.5	2.3	2.2	1.2
2015	32.7	12.6	7.8	5.2	3.8	2.3	3.2	3.4	2.6	2.4	1.2
CAGR	4.2	1.3	5.2	5.5	6.9	3.9	4.3	3.7	4.3	3.2	-2.7

Source: UNCOMTRADE

Note: i) Compound annual growth rate (CAGR) of India's exports destinations of the world ii) Avg-3yearly

Table 8: EUV of India's major export destinations of coffee-901

Year	Italy	Germany	Belgium	Jordan	Slovenia	Spain	Australia	Kuwait	Greece	S.Arabia	USA
1991-93	NA	1.12	NA	1.06	1.06	1.11	1.24	1.46	1.01	1.27	1.17
1994-96	2.02	2.29	NA	2.19	1.93	2.30	2.28	2.85	2.09	2.40	2.14
1997-99	1.87	2.04	NA	1.84	1.53	1.52	1.90	2.77	1.54	2.54	1.92
2000-02	0.96	1.10	0.82	1.03	0.76	0.88	1.03	1.46	0.78	1.39	1.03
2003-05	1.13	1.19	1.16	1.30	0.88	1.00	1.27	1.58	0.94	1.48	1.17
2006-08	2.01	2.25	2.07	2.20	1.78	1.83	2.19	2.58	1.82	2.74	2.07
2009-11	2.52	2.73	2.71	2.77	2.24	2.29	2.73	3.14	2.22	2.95	2.86
2012-14	2.56	2.81	3.07	3.18	2.17	2.35	2.97	3.33	2.25	2.91	3.22
2015	2.40	2.70	2.82	3.51	2.06	2.13	2.89	3.60	2.13	3.37	3.05

Source: UNCOMTRADE database

Note: i) Avg-3yearly

Table 9: Production of coffee in major producing countries of the world (%share)

Year	Brazil	Viet Nam	Indo-nesia	Colombia	Ethiopia	Honduras	Peru	India	Guatemala	Mexico
1991-93	23.06	2.01	7.36	16.23	1.08	1.83	1.44	2.89	3.45	5.81
1994-96	20.55	4.08	7.64	12.75	3.82	2.33	1.68	3.49	3.80	5.85
1997-99	23.31	7.10	7.52	10.10	3.49	2.54	2.29	3.58	4.22	4.92
2000-02	27.55	10.21	7.83	8.64	2.38	2.49	2.61	3.89	3.53	4.15
2003-05	29.20	11.26	8.68	9.06	2.01	2.45	2.76	3.65	3.30	4.08
2006-08	30.59	13.25	8.27	8.73	3.12	2.78	3.11	3.32	2.92	3.25
2009-11	32.37	13.84	8.09	5.93	4.06	3.06	3.37	3.44	3.07	3.02
2012-14	32.31	14.67	7.38	6.79	4.00	3.32	2.92	3.44	2.76	2.54
CAGR	1.92	4.87	1.07	-0.83	1.33	1.94	2.56	1.10	0.29	-0.84

Source: FAOSTAT

Note: i) CAGR (Compound annual growth rate)ii) Avg-3yearly

Table 10: Yield (kg/ha) of Coffee in Major Producing Countries of the World

Year	Brazil	Viet Nam	Indo nesia	Colombia	Ethiopia	Honduras	Peru	India	Guatemala	Mexico
1991-93	5446.3	14936.7	5520.3	9803.3	7200.0	7262.0	5205.0	7636.0	7731.7	5082.7
1994-96	6112.0	19149.3	5367.0	8247.7	7454.7	7130.3	5841.0	8758.3	8371.3	4624.3
1997-99	7226.7	21121.3	5676.0	8055.3	7897.7	8246.7	7590.3	8302.7	10191.3	4533.3
2000-02	9119.0	16261.0	4567.7	9517.0	7661.0	9036.7	7268.3	9480.0	10194.7	4398.7
2003-05	9302.7	17591.7	4956.0	8878.3	6000.7	7832.7	7019.3	8390.3	9923.7	4051.7
2006-08	11216.3	22362.3	5274.0	9372.3	7181.7	9463.0	7894.7	8009.3	9741.0	3512.7
2009-11	12485.0	21974.0	5241.0	6492.3	7152.3	8661.7	7902.0	8002.7	10083.7	3402.3
2012-14	14192.7	22903.3	5425.7	8086.0	6656.3	9671.3	7063.7	8319.7	10052.3	3306.0
CAGR	2.04	0.68	-0.06	-0.36	-0.27	0.55	0.62	-0.01	0.45	-0.93

Source: FAOSTAT
Note: i) CAGR (Compound annual growth rate)ii) Avg-3yearly

Table 11: Area Harvested of Coffee in major producing countries of the world (values in 000 ha)

Year	Brazil	Viet Nam	Indo nesia	Colombia	Ethiopia	Honduras	Peru	India	Guatemala	Mexico
1991-93	2508 (23.90)	79 (0.76)	788 (7.53)	983 (9.40)	250 (2.48)	149 (1.42)	163 (1.56)	224 (2.14)	264 (2.52)	676 (6.46)
1994-96	1963 (20.11)	124 (1.27)	827 (8.47)	902 (9.24)	298 (3.06)	190 (1.95)	168 (1.72)	232 (2.38)	265 (2.71)	737 (7.56)
1997-99	2094 (20.99)	221 (2.21)	859 (8.61)	808 (8.11)	287 (2.88)	199 (1.99)	195 (1.96)	280 (2.80)	267 (2.68)	697 (6.84)
2000-02	2325 (21.95)	481 (4.54)	1315 (12.42)	697 (6.58)	237 (2.24)	211 (2.00)	275 (2.60)	314 (2.97)	264 (2.49)	724 (6.99)
2003-05	2363 (22.23)	481 (4.52)	1314 (12.36)	766 (7.20)	251 (2.36)	234 (2.20)	296 (2.79)	326 (3.07)	250 (2.35)	755 (7.10)
2006-08	2266 (21.11)	491 (4.57)	1300 (12.11)	772 (7.19)	365 (3.40)	244 (2.27)	326 (3.04)	343 (3.19)	249 (2.32)	767 (7.15)
2009-11	2148 (20.58)	521 (4.99)	1276 (12.23)	756 (7.24)	470 (4.51)	295 (2.83)	353 (3.39)	355 (3.41)	252 (2.42)	732 (7.01)
2012-14	2068 (20.11)	581 (5.65)	1235 (12.01)	754 (7.33)	543 (5.28)	312 (3.04)	377 (3.67)	375 (3.65)	249 (2.43)	698 (6.79)
CAGR	-0.11	4.15	1.13	-0.47	1.60	1.39	1.94	1.11	-0.16	0.09

Source: FAOOSTAT Note: i) Value in brackets % share of world ii) CAGR (Compound annual growth rate) iii) Avg-3yearly

Coffee Economy of World

In this segment, summarizes Area under coffee cultivation, production and productivity of coffee in major producing countries of the world. This section hyalites countries capacity to production and enhances their exports. Also will find out export unit value and import unit value of major coffee exporting and importing countries of the world. Table-9, during 1991-93 Brazil (23.6%) was the top most producer of coffee in the world, followed by Colombia (16.23%), Indonesia (7.36%), Mexico (5.81%), Guatemala (3.45%) and India (2.89%). Here Vietnam (2.01%) has a small amount of producing coffee during the same period. Production trend shows Brazil (32.21%) and Vietnam (14.67%) are more potential in producing coffee due to the rapid growth over a period of time. Indonesia (7.38%) has maintained stable production of coffee since 2012-14 (Table-9). Supporting to this results, productivity and area harvested also increased rapidly in

Vietnam while Brazil's area harvested has comedown (Table-10&11). Compound Annual Growth Rate shows that countries potentiality to producing coffee such as Vietnam (4.87%) has huge potential of coffee production due to the favorable climatic conditions. On the other hand, India is also an emerging country to producing coffee but its productivity has not been satisfactory (Table-10 and 11).

Table 12: Major coffee importing countries of the world (value in 000 lac $)

Year	Canada	France	Germany	India	Japan	Poland	Russian F	Spain	Ukraine	UK	USA
1991-93	2.55 (2.8)	6.60 (7.4)	14.37 (16.0)	0.01 (0.0)	6.34 (7.1)	0.88 (1.0)	1.17 (0.9)	2.70 (3.0)	0.02 (0.0)	3.79 (4.2)	18.27 (20.4)
1994-96	4.89 (3.1)	11.79 (7.6)	23.32 (14.9)	0.01 (0.0)	11.37 (7.3)	2.89 (1.9)	2.38 (1.5)	5.36 (3.4)	0.36 (0.2)	6.03 (3.9)	29.38 (18.9)
1997-99	5.69 (3.6)	10.95 (6.8)	23.47 (14.6)	0.03 (0.0)	11.23 (7.0)	2.93 (1.8)	1.98 (1.2)	5.14 (3.2)	0.35 (0.2)	5.81 (3.6)	35.08 (21.9)
2000-02	4.15 (4.1)	6.48 (6.3)	13.57 (13.1)	0.04 (0.0)	7.58 (7.3)	1.81 (1.8)	2.17 (2.2)	2.82 (2.7)	0.37 (0.4)	3.52 (3.4)	21.00 (20.1)
2003-05	4.84 (3.7)	8.01 (6.2)	16.76 (12.8)	0.20 (0.1)	8.44 (6.5)	2.65 (2.0)	3.22 (2.5)	3.70 (2.8)	0.87 (0.7)	4.54 (3.5)	25.31 (19.5)
2006-08	8.02 (3.5)	13.69 (6.0)	31.63 (13.9)	0.43 (0.2)	12.51 (5.5)	4.13 (1.8)	5.77 (2.5)	7.29 (3.2)	2.09 (0.9)	7.58 (3.3)	39.78 (17.6)
2009-11	12.13 (3.7)	20.84 (6.4)	44.48 (13.5)	0.69 (0.2)	16.74 (5.1)	6.52 (2.0)	8.11 (2.5)	10.76 (3.3)	2.89 (0.9)	11.06 (3.4)	58.73 (17.7)
2012-13	14.58 (3.8)	26.51 (6.9)	48.65 (12.6)	1.29 (0.3)	18.25 (4.8)	7.61 (2.0)	9.76 (2.5)	11.96 (3.1)	3.68 (1.0)	11.80 (3.1)	65.02 (16.9)
CAGR	3.1	2.2	2.1	13.0	1.6	4.1	4.4	2.6	9.3	2.0	2.2

Source: FAOSTAT Note: figure in brackets show %share of world import value ii) CAGR (Compound annual growth rate) iii) Avg-3yearly

Table 13: IUV of major coffee Importing countries of the world

Year	Canada	France	Germany	India	Japan	Poland	Russian F	Spain	Ukraine	UK	USA
1991-93	1.95	1.75	1.76	0.60	1.91	1.33	3.12	1.47	5.56	2.54	1.52
1994-96	3.30	3.20	3.00	2.32	3.26	2.83	4.18	2.80	6.16	3.91	2.90
1997-99	3.26	2.91	2.87	1.34	3.09	2.38	2.69	2.35	5.20	3.70	2.86
2000-02	2.34	1.70	1.53	1.16	1.83	1.31	1.91	1.22	3.26	2.26	1.62
2003-05	2.54	2.40	1.70	0.76	1.97	1.90	2.19	1.48	2.95	2.73	1.93
2006-08	3.65	3.96	2.82	1.66	2.92	3.77	3.88	2.63	3.62	4.01	2.87
2009-11	5.04	5.53	3.73	1.64	3.87	4.07	4.80	3.69	5.75	5.28	4.11
2012-13	5.70	7.23	3.89	2.06	4.12	4.61	4.92	3.96	7.67	5.63	4.29

Source: FAOSTAT Note: i) Avg-3yearly

Table 14: Major Coffee Exporting Countries of the World (values in 000 lac $)

Year	Brazil	Colombia	France	Germany	India	Indonesia	Netherlands	Poland	Spain	Switzerland	UK
1991-93	13.16 (16.63)	13.11 (16.64)	1.45 (1.85)	6.06 (7.71)	1.52 (1.93)	3.23 (4.07)	1.19 (1.52)	0.09 (0.12)	0.49 (0.63)	0.54 (0.69)	0.98 (1.25)
1994-96	23.94 (16.61)	19.21 (13.33)	2.58 (1.78)	8.85 (6.14)	4.01 (2.76)	6.58 (4.58)	1.62 (1.12)	0.34 (0.24)	1.12 (0.77)	0.82 (0.57)	1.54 (1.06)
1997-99	27.34 (17.98)	19.60 (12.71)	2.75 (1.81)	9.57 (6.27)	4.02 (2.63)	5.45 (3.60)	1.19 (0.79)	0.96 (0.64)	1.18 (0.78)	1.00 (0.66)	1.47 (0.98)
2000-02	15.29 (15.88)	9.70 (10.02)	2.00 (2.09)	8.70 (9.07)	2.38 (2.48)	2.61 (2.68)	1.00 (1.05)	0.91 (0.95)	1.26 (1.36)	0.95 (1.01)	1.33 (1.41)
2003-05	21.78 (17.25)	11.92 (9.45)	2.48 (2.05)	12.87 (10.31)	2.73 (2.19)	3.71 (2.92)	2.12 (1.66)	1.03 (0.83)	2.04 (1.66)	1.87 (1.50)	1.95 (1.57)
2006-08	40.06 (17.87)	18.78 (8.42)	3.31 (1.47)	23.31 (10.43)	4.74 (2.14)	7.95 (3.50)	3.26 (1.48)	2.16 (0.96)	3.51 (1.56)	6.18 (2.63)	3.60 (1.59)
2009-11	62.58 (19.08)	22.99 (7.15)	5.66 (1.78)	30.54 (9.54)	6.36 (1.92)	10.68 (3.36)	5.69 (1.76)	4.04 (1.26)	4.58 (1.43)	15.35 (4.74)	4.94 (1.53)
2012-13	58.69 (15.40)	21.86 (5.77)	7.82 (2.08)	35.45 (9.34)	8.85 (2.33)	15.18 (4.00)	6.44 (1.68)	5.37 (1.41)	5.81 (1.53)	22.27 (5.91)	6.59 (1.74)
CAGR	2.89	0.73	2.75	3.78	2.56	2.41	3.71	8.53	5.02	8.25	3.86

Source: FAOSTAT Note: i) figure in brackets show %share of world ii) CAGR (Compound annual growth rate) iii) Avg-3yearly

Table 15: EUV of Major Coffee Exporting Countries of the World

Year	Brazil	Colombia	France	Germany	India	Indonesia	Nether lands	Poland	Spain	Switzer land	UK
1991-93	1.21	1.58	2.94	3.77	1.35	0.96	4.75	1.93	3.24	10.24	5.10
1994-96	2.80	3.09	4.57	5.40	2.67	2.29	6.02	4.70	5.54	12.58	7.36
1997-99	2.57	3.13	4.84	4.75	2.29	1.58	5.90	4.59	4.33	11.36	7.90
2000-02	1.22	1.74	3.44	2.93	1.30	0.84	5.92	2.70	3.40	7.75	5.52
2003-05	1.49	1.95	4.95	3.25	1.54	0.96	6.37	3.35	4.01	10.88	7.10
2006-08	2.50	2.97	8.79	4.49	2.48	1.91	6.53	5.50	6.67	19.54	9.56
2009-11	3.40	5.05	14.05	5.28	2.77	2.27	6.94	5.80	7.32	30.56	9.86
2012-13	3.51	4.58	19.46	5.67	3.19	2.69	7.16	6.27	9.32	35.28	11.23

Source: FAOSTAT Note: i) Avg-3yearly

Major Coffee Exporting Countries of the World

In this section, we observe capacity of major coffee exporting countries of the world. thus, Table-14, summaries in terms of percentage Colombia (16.64%) was the top most coffee exporting countries of the world; followed by Brazil (16.63%) took second place and Germany (7.71%) third place during the period of 1991-93. Looking at the exports trend over a period of time Brazil has been continually increasing at declining trend and acquired first place in producer of coffee (Table-9) and also exporter in the world (Table-14) for the period 2012-13. It is also interesting to note that Germany does not produce coffee, but in terms of value in percentage it was second largest exporting country in the world (Table-14). It seems that value addition is most important in coffee exports. Looking at export unit value of major coffee exporting countries (Table-15), the export unit values in Germany, UK, Spain, France, Netherlands and Switzerland are much higher than the Indian coffee export unit value indicating their higher position in the coffee value chain. Though, Indian coffee is cheaper in the international market, it is unable to compete with other major exporting countries to capture export market. What emerges from this analysis is that in coffee export, quality and value addition matters. India has to look for a strategy to export more value added coffee. It is also interesting to note that major coffee exporter of the world do not produce coffee and most of their export demand is met through import of coffee from other countries like Brazil and India. Another important note can be made that Vietnam is second largest producer of coffee in the world (Table-9) but it is not an exporter. This clearly shows that Vietnam is having huge domestic demand for its coffee.

Conclusion

It follows from the discussion that, due to growing domestic demand and new low cost producing and exporting country like Vietnam and increasing ASEAN countries performance in exporting value added products in the international market. India is losing export competitiveness in the international market. Over the years, India’s dependency on import and domestic market of coffee has been increasing. This product is increasingly becoming domestic oriented. India’s trade integration with ASEAN created for concern for coffee product. In case of coffee, there is high concern, as Vietnam coffee competes with domestically produced coffee and India’s import dependency on Vietnam for this product is high and it is on rise. In the international market India is competing with Vietnam and Brazil. India has the opportunity in exporting value added coffee in the international market, especially in ASEAN market. In the initial stage, support by the government is very important to push Indian exporters in global value added supply chain. The value addition in supply chain is important for the sustainability of the plantation sector of India. In this respect, state initiation is important so that Indian value added plantation product such as coffee can access the ASEAN and other developed countries market. The plantation products of India are constrained by logistic problems, there by experiencing higher transaction cost affecting the export competitiveness. Government need to intervene in a large scale to address such issue. So that Indian plantation sector can become globally competitive.

Reference

Joseph, K.J. (2009), "ASEAN-India Pact and Plantations: Realities of the Myths", *Economic and Political Weekly, 14-18.*

Nagoor B H (2010): "Trade Aspects of Plantation Sector of India", *NRPPD Discussion paper number 08.*

Planning Commision (2007), "Horticulture, Plantation crops and organic farming for the XI Five Year Plan", *Report of the working group, Government of India.*

Joseph and George K (2015), "Revealed Comparative Advantage and Decomposition of Export growth Case of India's Selected Rubber Products", *Economic and political Weekly*, Vol.42. October 17.