



IMPACT OF TRADE LIBERALIZATION ON INDIAN COFFEE EXPORTS

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The decade of 1990's has opened the door in India for Liberalization. The dilemma of India to become liberalized in external trade in 1980 was clarified when India got liberalized in 1991. Today India has crossed two decades of accelerating liberalization. Though the wind of liberalization brought many reforms, the agriculture sector remained quiet untouched for a very long time. The irony was that the reform failed to glance, that sector of workforce which supported as the largest share in the country. But the increasing economic integration of Indian economy with the global process has brought significant challenges and changes at the door of the agriculture sector. The reform dragged out most of the restriction on both import and export of agriculture products. The quantitative restrictions on agriculture import were removed, import licensing for all product were abolished (but with certain criteria), the canalising agencies was greatly reduced. By getting certain changes a strong feeling was emerged in the country not to keep the agriculture sector outside the purview of direct reform.

India is a founder member of the World Trade Organization (WTO) and is thus committed in moving in the direction of liberalization of trade in agricultural commodities. Quantitative restrictions on imports are being phased out and exports are also being liberalized. Both agricultural exports as well as imports are now permitted through private trade, except for a few commodities. There is lot of anxiety, interest and apprehension about the impact that the trade liberalization may have on producers, consumers and the economy.

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Within the agriculture, plantation crops are an important segment of export oriented crops. Plantation crops constitute a large group of crops such as coconut, areca nut, oil palm, cashew, tea, coffee and rubber; and the minor plantation crops include cocoa. Among these Tea and coffee are the main and oldest industries in the country, which provide ample employment opportunities to the people at large and holds immense potential for export.

Coffee occupies a place of pride in plantation sector Arabica and Robusta are the varieties in coffee, it is the second largest traded commodity in the world and is an extremely important foreign exchange earner. India stands fifth in global production and India occupies seventh place in exporting coffee to global market. Though coffee production is located mainly in developing countries, consumption is concentrated in the industrialized economies

Coffee is an important commodity and a popular beverage. Over 2.25 billion cups of coffee are consumed in the world every day. Over 90% of coffee production takes place in developing countries, from beginning Brazil is the world leader in production of green coffee followed by Vietnam, Indonesia and Colombia. Among the top ten producers growing coffee Brazil has its lion share its total output is 2.44 million of metric tonnes, where India produced 0.29 million of metric tons and occupies fifth place in the rank. India occupies seventh place in exporting coffee to other countries, it exports mainly to Italy, Germany, and Russian federation in large quantities, irony is that India in international market is not a price maker but a price taker.

Coffee production in India is dominated in the hill traces of South Indian states; with the state of Karnataka accounting 53% followed by Kerala 28% and Tamil Nadu 11% of production of 8,200 tonnes. There are approximately 250,000 coffee growers in India among them 98% of them are small growers. In Karnataka, all the three districts are expected to show an increase in production over the previous years. Overall, the crop estimate for Karnataka is placed at 226,355 Million Tonnes with a break up of 81,505 Million Tonnes of Arabica and 144,750 Million Tonnes of Robusta. Coffee production is small grower dominant and more than 70 percent of coffee is produced by the growers of less than ten hectares of land.

LIBERALIZATION OF COFFEE TRADE IN INDIA

The Liberalization brought a drastic change in coffee market, though the scenario started with the economic reform in 1991, the external trade was liberalized with the



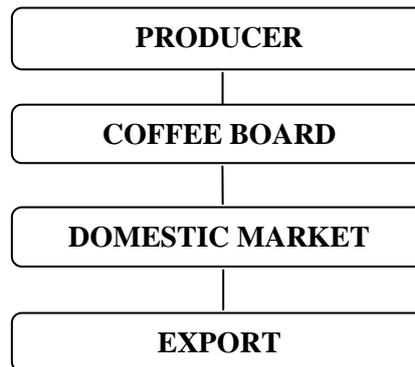
implementation of WTO Agreement on Agriculture in 1995. The coffee industries liberalization brought freedom for producers to sell their produce without restriction. Here the control or restriction was removed and the coffee market was opened up to develop in this particular sector. In case of coffee its price are highly volatile, after the coffee trade liberalization there has been fundamental changes regarding the prices, exports and also on the producers. It gave an entry not only to the coffee growers, but wholesalers, distributional channels, roasters and exporters were also benefited by Liberalization.

COFFEE INDUSTRY BEFORE LIBERALIZATION UNDER CONTROL OF COFFEE BOARD

Prior to liberalization, coffee board had a rigid control over the whole process of marketing from grower to exporters this was formed by the Coffee Act of 1942 under The Ministry of Commerce. Here coffee produced were pooled to coffee board, all the private coffee curers were under the control of coffee board but they had the permission to collect, process, and store produce instead of coffee board and it was named as pooling depot. For the purpose of cleaning, sorting and grading-coffee was brought to the curing centres, later coffee board decides to market these produce in market in proportion of 30 per cent to domestic market and 70 per cent for exportation. In domestic market coffee passed through several channels like co-operative societies, coffee houses, internal auction, in order to reach the consumers. Internal auction was a major channel here Coffee is again let into soluble manufacture and roasters. From roasters it passes the chain through wholesalers, retailers and then finally reaches the domestic consumers. In export market the auction would take place and the exporters would make reach the coffee to the international consumer. After the auctions the money was pooled and was paid to the growers according to the instalment up to three years. Growers were fed up of late issue of cash flow and they also had a discontent against Coffee Board for paying sales tax which in real was exempted, even they wanted to Export directly to their customers all these reason made growers to demand for liberalization of coffee sector.



Pre liberalization chain



The wind of liberalization brought drastic changes in the following aspects:

Dismantling of pooled system

The coffee board of India was an autonomous body, functioning under the ministry of commerce and industry, government of India, after liberalization board focused on research, development, extension, quality up-gradation, market information, and the domestic and external promotion of Indian coffee. Till 1995, the coffee board had a monopolistic control over the marketing of coffee in India. However, the winds of liberalization swept the Indian coffee industry and since 1995, marketing of coffee was strictly a private sector activity.

Emergence of private traders and exporters

Withdrawal of coffee board from coffee marketing made the emergence of new private sector organisation and institution which includes not only traders and middleman who buy coffee from producer but also the privately run auction, the future exchange, private grading firm, and number of market firms. The new players have helped to create a precise and energetic industry.

COFFEE INDUSTRY AFTER LIBERALIZATION

After liberalization, growers started to sell their produce in domestic and international (export) market on auction basis without any restriction and this was known as open market. Under the open market system producers had many option to sell their produce through different channels like local traders, local agents, own exporters, export agents or participate in voluntary auction, But before that they even have option to sell on spot after plucking cherry known as ex-garden sale and later on it will join the channels chain to reach the consumers. Many opine that open market assures better price, but it did not work in



case of coffee. Coffee growers received better price after liberalization, but price later on was declined.

Comparing to the pre-liberalization, in post-liberalization we can find additional player like local agents in domestic market and own exporters, export agents in International market, these players makes reach the produce to the consumer. Later on the role of coffee board was shifted from marketing to research, extension & promotion. Thus producers were satisfied after liberalization of coffee market because that made exports of coffee to reach customers directly, avoiding implicit taxes despite the fact that exported commodities were exempt from taxation, and the board had effectively been paying a sales tax before.

Along with the liberalization policies, coffee marketing was also liberalized giving the opportunity for the growers to sell coffee both internally and export. The shift from the pooled marketing system to open marketing system brought in several changes in the quantity and direction of exports. The present paper makes an attempt to analyse impact of trade liberalization on coffee exports.

REVIEW OF LITERATURE

Indira (2007) in a study “Gainers and losers in transition: an evaluation of liberalised coffee marketing system in India” has analyzed the impact of coffee liberalization on coffee growers and seller and other market participants. Problem faced before liberalisation and benefits gained after liberalisation has been studied. The decline of Coffee Board and the new emergence of ex-garden sale, trading companies, fair trade, market associations and co-operative markets were highlighted. The study reveals that trade liberalisation has shown a positive impact on growers, traders, exporters and other market players who had proper market skills.

Russell Bill (2012) in the study “Coffee Market Liberalisation and the Implications for Producers in Brazil, Guatemala and India” analysed the trade liberalization. The Standard approach to exhibit the relationship between world and producer prices of coffee did not include the effects of changing government policies and market structures. These changes have led to large structural breaks in the relationship between the prices inferring the standard estimates are biased. The model studies on coffee prices in Brazil, Guatemala and India allowing for the structural breaks and show that the liberalisation of coffee markets



has benefited producers substantially both in terms of a higher share of the world price of coffee and higher real prices.

A study about the impact of coffee market liberalisation in Tanzania by *Lukanima (2009)* revealed the volatility of coffee producer prices and the relationships between producer prices and world coffee market prices. Like other developing countries, the Tanzanian coffee market has been undergoing liberalisation reforms since 1993. Some studies were conducted on the impact of agricultural liberalisation in Tanzania, but only few of them have focused on coffee prices. Moreover, most of these previous studies produce contradicting results, making the debate about the outcomes of Tanzanian coffee liberalisation inconclusive. Particularly, whereas the link between hedging strategies and price behaviours is inseparable, there is no evidence of any study about the impact of the Tanzanian coffee market liberalisation on coffee producer price behaviours.

OBJECTIVES

the research study has set out the following objectives:

- To analyse the impact of trade liberalization on quantity of coffee exports.
- To analyse the value realized and the direction of trade.

METHODOLOGY

This study is based on secondary data. Secondary data was collected from the records of Coffee Board of India, Ministry of Commerce, journals and internet. Time series data of annual production and percentage of India's coffee share in the World market is collected from The Coffee Board of India, Bangalore.

IMPACT OF TRADE LIBERALIZATION ON QUANTITY OF COFFEE EXPORTS

Liberalization in coffee industry gave entry to new players in the market and one among them was export agencies which took sole responsibility to export the produce to the international market, so the objective tries to analyse whether export has formally increased with the policy reform or remained the same. India occupies seventh place in exporting coffee to other countries, India exports mainly to Italy, Germany, and Russian federation in large quantities, though production happen largely in developing countries consumption happen mainly in developed nations. Among the major exports of India the main sector facing the barriers according to Ministry of Commerce are agriculture sector. There are two types of tariffs-tariff barrier and non tariff barriers, in this India is facing non



tariff barriers in Cereals, Coffee, Tea, Spices, Edible fruits, Nuts etc. Countries like US, Japan, European Union's (EU), imposes non tariff barriers on India.

In order to look at the trends in volume of export two divisions are made pre liberalization from 1979 to 1990 and post liberalization period from 1991 to 2013, Quantity of coffee produced and volume of export is taken into consideration to analyse the trends in coffee export. The production and export of coffee under the control of coffee board is shown in table.1 and the production and volume of coffee exported after liberalization is shown in table.2 below.

Table 1: Production and Export of Coffee by Types in India during Pre-liberalization period (1979-1980 to 1989-90) (In Million tonnes)

Year	Production		Total	Exports	Percentage of exports
	Arabica	Robusta			
1979-80	71428	78407	149835	61380	40.97
1980-81	61262	57384	118646	86253	72.7
1981-82	74110	75890	150000	83817	55.88
1982-83	74326	55626	129952	83824	64.5
1983-84	70683	34346	105029	71179	67.77
1984-85	80046	115064	195110	68896	35.31
1985-86	72311	50139	122450	99298	81.09
1986-87	88975	103119	192094	86666	45.12
1987-88	64556	58157	122713	92533	75.41
1988-89	94781	119934	214715	98266	45.77
1989-90	63590	56410	118053	134052	113.5
Average	74188	73134.1	147145	87833.1	63.46
SD	10356.9	28239.5	37197.8	19417.4	22.5
CV	13.9	38.6	25.2	22.1	35.4

Source: Indian coffee board. Note: SD= Standard Deviation; CV= Coefficient of Variation.

The table shows that the production in the year 1979 was 149835 Million Tonnes and out of this 61380 Million Tonnes i.e.40.97% of coffee was exported. There was a continuous rise in export and on the other hand production was also increasing, but in between 1984-85, volume of export came down for 35.31%, Increase in domestic consumption and price variation remains one of the reasons for it. After this period there was a continuous hike in volume of export. In the year1989-90 export was 134052 Million Tonnes and production



was 118053 Million Tonnes, due to the balance of stock much of coffee (113.5%) got exported according to the demand in international market. As coffee board had a sole authority, auction were taking place under its action and it would decide of how much the quantity of coffee to be exported and the price were determined in the auctions. Separate auctions were conducted for domestic and international markets. The average production of Arabica during the pre liberalization was 74188 Million Tonnes and Robusta was 73134.1 Million Tonnes. Coefficient of variation was calculated to understand the variability in the production of coffee. The data shows that Arabica production showed greater stability indicated by lower coefficient of variation (13.9 %) compared to Robusta (38.6%) Variability in the total coffee production was 25.2 percent during the pre liberalization period. Average coffee exports 87833.09 Million Tonnes in the pre liberalization period and the variability in exports was 22.1% which is lower than the variability in production. This is due to the controlled release of coffee for exports by the Coffee Board. However the share of exports in total production showed greater variability.

Table 2: Production and Export of Coffee by Types in India during Post liberalization – period (1990-91 to 2012-13) (In Million Tonnes)

Year	Production		Total Production	Exports	Percentage of Exports
	Arabica	Robusta			
1990-91	80535	89465	170000	100110	58.89
1991-92	88320	91680	180000	111458	61.92
1992-93	83000	86395	169395	113585	67.05
1993-94	103900	108100	212000	136690	64.48
1994-95	87670	92430	180100	137395	76.29
1995-96	108640	114360	223000	170578	76.49
1996-97	99790	105210	205000	181237	88.41
1997-98	123026	105262	228288	179059	78.44
1998-99	142810	122190	265000	211623	79.86
1999-00	119000	163000	282000	195000	69.15
2000-01	104400	196800	301000	247000	82.06
2001-02	118863	206591	325454	176300	54.17
2002-03	100436	174564	275000	207333	75.39
2003-04	100300	174500	275000	232684	84.61
2004-05	116800	175600	275500	211715	76.85
2005-06	98550	183350	274000	210555	76.84
2006-07	104380	196000	288000	249030	86.47



2007-08	109250	169500	262000	218996	83.59
2008-09	79500	182800	262300	210000	80.06
2009-10	94600	195000	289600	197169	68.08
2010-11	94140	207860	302000	299737	99.25
2011-12	101500	212500	314000	324253	103.27
2012-13	100225	215275	315500	310612	98.45
Average	102592.83	155149.22	253915.32	201396.48	77.83
SD	14872.34	46352.20	49755.88	60158.77	12.56
CV	14.50	29.88	19.60	29.87	16.14

Source: Indian coffee board. Note: SD= Standard Deviation; CV= Coefficient of Variation.

The above table no 2 shows the volume of coffee produced and exported after liberalization from 1990 to 2013. Due to withdrawal of coffee board from the marketing responsibility, many private sector and export agencies came into existence after liberalization and all producers were free to sell their produce either in the domestic or international markets. This appears to have a positive impact on production and export and both have started to increase rapidly. In 1990 the production of coffee was 170000 Million Tonnes and out of this about 100110 Million Tonnes that is 58.89% of coffee was exported from India. It is observed that soon after liberalization, though production increased, exports did not show much increase. In 2012-13 the production was 315500 Million Tonnes and export was 310612 Million Tonnes that is 98.45% of coffee from India was exported to the International market. In between these years there was a slight variation in the export of coffee, up to 2000-01 export went on increasing and reached 82.06% (247000 Million Tonnes), after this there was a slight fall and this continued till 2006 and then recovered by bringing percentage of coffee to 86.47% but in 2009 again due to price crises export came down to 68.08% (197169 Million Tonnes), but it recovered in 2011 by exporting 324253 Million Tonnes of coffee to the International Market. The average production of Arabica during the post liberalization was 102592.83 Million Tonnes and Robusta was 155149.22 Million Tonnes. Coefficient of variation was calculated to understand the variability in the production of coffee. The data shows that Arabica production showed greater stability indicated by lower coefficient of variation (14.5%) compared to Robusta (29.8%). Variability in the total coffee production was 19.6 percent during the post liberalization period. Average coffee exports 201396.48 Million Tonnes in the post liberalization period and the variability in exports was 29.87 percent which is greater than the variability in production.



This is due to the access of open market as producers could freely compete in the world market; sell their produce on their own with no barricades from Coffee Board. But the share of exports in total production showed lesser variability.

Traditionally Brazil has been the world leader in production of green coffee followed by Vietnam, Indonesia and Colombia. Among the top ten coffee producers, Brazil has lion share. Its total output was 2.44 Million Tonnes where India produced 0.29 Million Tonnes and occupies fifth place in the rank. India occupies seventh place in exporting coffee to global market. It exports mainly to Italy, Germany, and Russian federation in large quantities; these are the top three buyers of Indian coffee. Trends in coffee production and exports from India in comparison world coffee market is presented in table 3.

Table 3: India's share in world market of Production and Exports after Liberalization

(In Million Tonnes)

Year	India's Share (%) in production	India's Share (%) in export
1992-93	3.18	2.37
1993-94	3.91	3.93
1994-95	3.15	3.15
1995-96	4.36	4.83
1996-97	3.35	3.03
1997-98	3.97	4.74
1998-99	4.16	4.17
1999-2000	4.23	4.57
2000-01	4.30	4.74
2001-02	4.62	4.12
2002-03	3.71	3.96
2003-04	4.34	4.37
2004-05	3.96	3.12
2005-06	4.11	3.92
2006-07	3.74	4.23
2007-08	3.74	3.83
2008-09	3.40	3.32
2009-10	3.94	3.53
2010-11	3.77	4.72
2011-12	3.89	5.16
Average	3.89	3.99

Source: Indian Coffee Board.

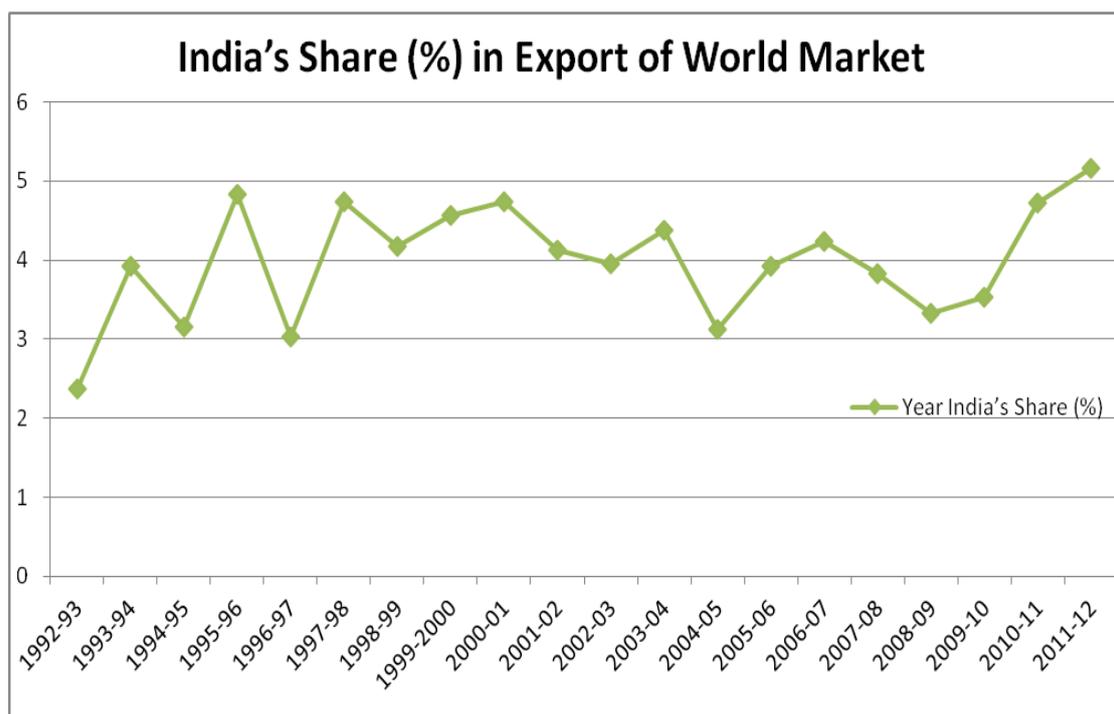
The above table.3 shows the Indian share of coffee production as well as Export in the world market from 1992-2013 In 1992 it was about 2.37%, and gradually it increased. From 1997



up to 2002 the India share in Export of coffee managed to stay between 4% to 4.74%, but from the year 2002 up to 2009 the share of exports ranged between 3% to 4%. As demand for coffee increased gradually the percentage of exports also increased and in the year 2011-12 India's share in world market was 5.16%, Exports were at all-time high in 2011-12, at 333,000 tonnes, earning nearly \$1 billion, when global coffee prices were rising. The average of India's total production of coffee is 3.89% and the average of India's total export of coffee to the world market is 3.99%. As noted earlier coffee production is concentrated in developing countries and consumption mainly in developed countries. This leads to the out flow of production and inflow of capital through coffee exports.

Figure: 1.

The figure 1 explains the percentage of India's coffee share in the world market from the year 1992-93 to 2011-12.



Trends in value realized and the direction of trade

Around 70 countries produce coffee, of which the Exporting Members of the International Coffee Organization are responsible for over 97 percent of world output, For many countries, coffee exports are not only a vital contributor to foreign exchange earnings but also account for a significant proportion of tax income and gross domestic product. But Irony is that India in international market is not a price maker but a price taker Coffee is an



export oriented commodity with about 75% of the coffee produced in the country being exported. As such the returns to coffee growers largely depend on international prices. Though the domestic prices are also aligned with international prices, they have been found to be a little higher than the international prices. In view of this price differential, Coffee Board is endeavouring to promote domestic coffee consumption to create a buffer against the international price fluctuations.

Table 4: Quantity and Value of coffee exports from India during 1991 and 2013 (At Current Prices)

Year	Value (Rs. In crores)	Unit value (Rs/tonne)
1991	324.41	31302
1992	347.99	31929
1993	507.32	40214
1994	1032.58	68142
1995	1407.56	94283
1996	1449.12	77558
1997	1513.68	93674
1998	1868.28	89098
1999	1648.51	75540
2000	1682.59	66368
2001	1136.93	50805
2002	1043.87	49006
2003	1112.35	50010
2004	1203.52	52729
2005	1451.65	71240
2006	1930.95	78817
2007	1906.52	89025
2008	2358.37	110822
2009	1929.67	107026
2010	2877.94	103212
2011	4384.21	137171
2012	4691.00	152078
2013	1498.55	147228
Average	1709.02	81185.96

Source: Coffee Board of India

The above table 4 shows the value earned by export in terms of crores from the year 1991 to 2012. In the year 1991 value per tonne was 31302 Rs and quantity exported was 103638 million tonne and total value for that period was Rs 324.41 crores, the value gradually increased up to 2005. The highest value for coffee was in the year 1995. It was about Rs



94283 per tonne, but the highest value earned out of total export up to the year 2008 was in the year 1998 Rs 1868.28 crores of income was earned out of export. Later on there was a raise in value of coffee in 2010. Its total value was Rs 2877.94 crores, but the year 2011 made makeable raise in total value of Rs 4384.21 crores it was a jump of Rs. 2000 crores. Exports remained high as global prices improved and have remained stable since last one year. International prices have gone up on expectation of lower crop in Brazil. The coffee prices were increasing for the last five years till 2011. The prices have however started to decline, especially Arabica coffee prices in 2012 and to that extent the income of the coffee growers has been affected. In 2013 the total value had a drop out from Rs 4691.00 crores in 2012 to Rs 1498.55 crores in 2013. The average value of coffee per tonne in post liberalization period is Rs 81185.96 and average value earned for total export of coffee is Rs 1709.02 crores.

CONCLUSION

The saga of pre and post liberalization of coffee industry showed the different variations in production, volume of export and its total value. There was a continuous increase till 2012 when compared to 1980's. In the present scenario the volume of export has shown a steady increase in its percentage, though it was difficult to hold the market quick after liberalization, the involvement to achieve expanded the market for the flow of coffee to the international market. The policy reform created new players in the industry and this made shipment of coffee to international market move very easily. There was a drastic change in the volume of export; the share of Indian coffee has increased to 5.16% in the world market even the variability in export is 29.87% which is greater than the production and this is due to the access of open market as producers could freely compete in the world market; sell their produce on their own with no barricades from coffee board. As coffee has gained space in the international market, the value earned out of export has also gained its position but it is just a price taker not a maker of it. The percentage of value earned has increased to 46.9%. and it has become a source for the nation, but this didn't last for a long span, soon there was a plunge in its export level and the percentage of value earned out of export came down to 14.9%. By keeping the exports at the equal level, new areas can be introduced to increase the domestic production. Coffee board should concentrate on the extension of plantation area so that export will also be increased. The in-home and out of home



consumption of coffee is on the rise and this is an indicator to the strong trends in the domestic and international market.

REFERENCES

1. Annual Report (2013). Ministry of Commerce, Government of India, New Delhi.
2. BANGA, DAS, (2012). "Twenty years of India's Liberalization, Experiences and Lessons" United Nations Conference on Trade and Development, New York, p-28.
3. BHATTACHARYYA (2003). "Trade Liberalization and Agriculture Price Policy in India since Reforms". Indian Journal of Agriculture Economics. Vol 58, No 3, pp. 315-332.
4. DATABASE ON COFFEE, Market Intelligence and statistical Unit, Coffee Board, Bangalore, March 2013.
5. INDIRA, M. (2007). "Gainers and losers in transition: an evaluation of liberalised coffee marketing system in India" major research project, University Grant Commission, New Delhi, pp. 5-15.
6. JESUS, G. (2000). "Coffee, Economic fluctuations and stabilization: an in temporal disequilibrium model with capital market imperfections" Journal of development Economics, vol-62, no 1, pp. 105-129.
7. JOHN, F.LARSON, VARANGIS, (2001). "Commodity Market Reforms: Lesson of Two Decades" World Bank Publication, January 2001, pp. 89-93.
8. KRIVONOS, EKATERINA, (2005). "The impact of coffee market reforms on producer prices and price transmission," Annual meeting, July 24-27, Providence, RI 19315, American Agricultural Economics Association (New Name 2008: Agricultural and Applied Economics Association).
9. LUKANIMA (2009). "The impact of coffee market liberalisation on producer price behaviour in Tanzania," (Thesis) University of Hull Business School; Mzumbe University.
10. MARK MUSUMBA (2011). "Effect of Trade Liberalization on Price Transmission to Ugandan Coffee Grower (2011 AAEA & NAREA joint annual meeting (July 24-26, 2011)).
11. NARAYAN (2004). "Liberalization Measures in India's Coffee Sector: Analytical Implications for Market Structure and Consumer Welfare Analyses in Developing Countries". South Asia Economic Journal, September 2004, vol. 5, no. 2, pp. 267-281.
12. PARIKH, A. (1971). "Study on coffee price – A special approach". Congress Journal of Agricultural Economics, 19 (3): 15-22.
13. RAMESH CHAND (2005). "Competition and Regulation issues in Indian Agricultural Markets" Research Report, September 2005, NCAP, New Delhi.



14. RUSSELL BILL (2012). "Coffee Market Liberalisation and the Implications for Producers in Brazil, Guatemala and India". World Bank Econ Rev. Oxford university press.

Online web sources:

- www.coffeeboard.com
- www.indiastats.com
- www.data.gov.in