

Export Performance Of Small Cardamom From India: A Perspective

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Abstract : International trade is considered to be an essential parameter for a country to increase its revenue and growth. International trade also indirectly establishes a mutual friendly relationship between countries. Export of agricultural products contributes significantly to India's foreign exchange. In particular, small cardamom referred to as the queen of spices brings huge revenue to India. Small cardamom is one of the spice varieties that are cultivated in few countries because of its climatic requirements. Due to its ideal climate, India is one of the countries pioneering in small cardamom cultivation and international trade. In recent years other small cardamom cultivating countries have increased their share of the international export market. This article presents a systematic study of India's export performance in cardamom trade utilizing a scientific approach. This article also identifies and suggests some suitable measures to be taken in order to improve India's small cardamom trade in international markets.

Keywords – *export analysis of small cardamom-international small cardamom trade-India's cardamom export.*

Introduction

Cardamom is called the queen of spices. It is used widely in India's day to day food as a flavoring agent. It is used widely in sweets, tea, and in gravies. Cardamom can be grown only in certain climatic conditions and hence cultivated only in certain regions of India. Guatemala is the world's largest producer and exporter of cardamom. India is the second largest exporter and producer of cardamom in the world. Cardamom is cultivated in the southern parts of India specifically it covers the Western Ghats of India. The favorable climatic condition that prevails in the regions closer to Western Ghats makes cardamom as a profitable cash crop for cultivation. India pioneered the cultivation of cardamom. The cultivation and export of cardamom has been carried out continuously in India for more than 200 years. The high quality of Indian cardamom provides India a competitive advantage in international trade. In the world market there is a huge demand for Indian cardamom and India exports cardamom almost to nearly every country in the world. Very few countries produce cardamom and because of this cardamom are priced high in both national and international markets. Because of this every year India receives huge revenue by exporting cardamom to various parts of world. In recent years the quantity of cardamom exported has increased to a significant level. Cardamom export from has brought 43.2 million US dollars in average annual revenues in each of the past twenty years. In spite of these increasing exports there is a fluctuation in the quantity of cardamom being exported every year. The present study is concerned about the factors that influence India's market share in cardamom export trade internationally. The perspectives of India in cardamom export are also analyzed. A comparative discussion is made by considering the export performance of top cardamom producing countries.

Statement of Problem

Cardamom is primarily an export oriented commodity developed and nurtured mostly by small and marginal farmers. The export of cardamom fluctuates every year because the needs for local consumption have to be fulfilled and that leads to the fall in the annual cardamom export. The fall in India's export during recent years has resulted in Guatemala becoming the leading exporter of cardamom in the world.

The competition in the international market is also increased because of production of cardamom in Indonesia, Sri Lanka, and Papua New Guinea. In the previous decade India was honored as a supreme exporter of cardamom. In the year 2012-13 India exported 31% of its total production which then declined to 21.08% and 19.62% of total production in the year 2014-2015 and 2016-17 respectively. Further, the growers and traders many times found it difficult to cope with large-scale price variation due to export/import policy of Government and unfair trade practices of certain market intermediaries. Unstable international trade market also resulted in the price fluctuation of cardamom. In recent years, it was found that no in-depth study has been made to explore the possibility of placing the cardamom export marketing in the right path to maximize foreign exchange income in the current strong dollar value economic scenario. A scientific study of various issues relating to export marketing of cardamom will assist stakeholders in this precious industry to redefine their strategies and policies to further their economic interests which is highly relevant and socially significant.

Small Cardamom in World Scenario

Review of India's performance in small cardamom export is made by comparing with the export performance of other small cardamom producing countries will reveal the real impact of international trade over small cardamom commodity of India in a multidimensional trade system. The production quantity of various small cardamom cultivating countries are shown in Table.1. An overview of the production of small cardamom by the world countries is essential to strengthen the export analysis and to have an understanding about the internal consumption level and demand of the small cardamom producing countries. On the other side, it is very essential to understand and recognize the transformation with respect to time in the global trade of small cardamom. Small cardamom is also produced and exported consistently by countries such as Guatemala, Indonesia, and Sri Lanka. The increase in production from countries like Papua New Guinea, Tanzania also takes its share in the export market in a discontinuous manner.

Volume of Cardamom Exports

The analysis is carried out by considering the volume of cardamom in tonnes and value of cardamom exported from the year 2000 to 2019. The volume of small cardamom exported over the above period and its value in United States dollars is listed in Table 2. It is seen from the Table 1; India is one among the top three small cardamom producing countries in the world. The production in India is found to be fluctuating over the study period and the average production of India recorded as 21.25 percentages during the study period. India was recorded as the top producer of cardamom in 2007 and 2013 by contributing 32.99% and 30.96% of the world production. India was recorded as the second largest producer of small cardamom in 2004 and 2009 by contributing 22.21%, 21.93% of the world production. The declines in cardamom production in India are due to the impacts in the climatic conditions, inadequate or poor rainfall and re-plantation. India was reported as a top producer of small cardamom among the world countries in the early twentieth century, but lost its standing to Guatemala and Indonesia because of expansion of cultivation area in those countries. It can be found from the Table. 1 Guatemala emerged as the top producer in the world with Indonesia and India taking the second and third positions respectively. Guatemala's and Indonesia's average growth Compound Growth Rate (CGR) between 2009 and 2019 of 3.9 and 3.3 respectively, India's average CGR during the same time period of 2.7, reflects the significant increase in production volume among the competitive countries India could not able to sustain its top position among the competitive small cardamom producing countries because of the significant increase in production volume among the competitive countries and fall in production value in India.

The small cardamom export share of major producers of cardamom in terms of quantity and value is included in Table 2. It is clear from the Table 2 there is a consistent increase

Table 1 : Small Cardamom Production in the Major Producing Countries during 2000-2019 ('000 Tonnes)

Year	Guatemala	Indonesia	India	Nepal	Bhutan	Sri Lanka	Tanzania	Papua New Guinea	Others	World Production	Increase/Decrease in Total Production	Percentage of Increase or Decrease
2000	1564	21031	1450	4900	200	208	786	45	668	6766	NA	NA
2001	1591	23787	1520	6080	150	201	822	50	653	7189	422	5.88
2002	1900	26786	1540	6179	100	201	858	215	743	7888	699	8.87
2003	2860	22236	1670	6300	80	205	895	150	666	8439	551	6.53
2004	2840	14497	1690	6500	81	175	959	148	710	7707	-	-9.50
2005	3160	15376	1780	6800	119	171	1006	152	452	8016	308	3.85
2006	3120	21770	1700	6646	347	69	1041	160	422	8621	605	7.02
2007	2800	23845	1365	6792	212	50	1098	140	442	8057	-	-7.00
2008	2626	32724	1545	7086	150	40	1139	135	455	8925	868	9.73
2009	2479	16000	1572	7037	105	48	1004	100	477	7095	-	-25.79
2010	2259	15700	1570	5231	116	57	883	80	475	6667	-	-6.43
2011	2605	19800	1581	5517	65	58	790	100	474	7405	738	9.97
2012	3519	25200	1807	6026	64	55	700	120	480	9130	1725	18.90
2013	3779	28100	1656	7000	27	62	720	118	612	9731	601	6.18
2014	3846	32700	2100	5225	90	58	740	94	490	10461	730	6.98
2015	3450	34300	2200	5166	209	58	802	86	518	10471	10	0.10
2016	3547	31039	3800	6439	259	66	764	83	765	12272	1800	14.67
2017	3599	34385	4300	6521	108	318	729	93	534	13034	762	5.85
2018	3816	36242	1686	6849	197	307	724	91	31	10428	-	-24.99
2019	3942	3829	1593	7019	251	306	754	82	316	11024	596	5.41
TOTAL	593083		513812	381261	125313	29345	27161	17214	2242	103908	1793339	-
AVERAGE	29654		25690.6	19063.05	6265.65	1467.3	1358.05	860.7	112.1	5195.4	89667	-
PERCENT SHARE	33.07		28.65	21.25	6.99	1.64	1.51	0.96	0.13	5.79	100	-
RANK	1		2	3	4	5	6	7	8	NA	-	-
CGR	3.9		3.3	2.7	0.3	0.5	-1	-1.4	-1	-5	8.6	-

Source: www.fao.org

Table 2: Quantity and Value of Small Cardamom Export by Major Exporting Countries during 2000-2019

Year	Guatemala		Indonesia		India		Sri Lanka	
	Export in Tonnes	Export Value in millions in U.S Dollars	Export in Tonnes	Export Value in millions in U.S Dollars	Export in Tonnes	Export Value in millions in U.S Dollars	Export in Tonnes	Export Value in millions in U.S Dollars
2000	14338.68	79.44	1761.02	4.30	2616.88	17.19	8.467	0.09
2001	15064.93	96.10	2199.29	3.86	2182.05	14.08	2.94	0.06
2002	19157.93	93.29	2834.88	2.28	1903.51	10.94	2.83	0.06
2003	28614.91	78.89	1899.52	2.30	1714.18	9.99	3.96	0.08
2004	28568.71	73.83	2633.22	3.16	1578.95	8.03	4.41	0.05
2005	31654.44	70.37	2897.57	3.72	1970.63	8.05	11.40	0.16
2006	31166.94	83.44	3469.18	4.56	1917.35	7.83	5.86	0.16
2007	27947.37	137.26	3760.38	5.96	2490.32	10.60	7.59	0.13
2008	21948.41	207.99	3748.94	6.41	2903.85	13.95	12.06	0.27
2009	23693.22	304.02	5275.28	6.41	3025.30	24.46	9.22	0.24
2010	22167.17	308.09	5627.45	11.69	3907.72	43.62	6.91	0.27
2011	20782.24	249.03	7150.54	17.21	6093.09	79.80	11.52	0.59
2012	35710.69	248.49	8151.23	16.98	6017.63	68.03	9.87	0.22
2013	38852.27	217.48	6737.73	10.73	4414.87	54.70	14.93	0.17
2014	39045.81	240.52	7766.40	10.15	5789.85	78.46	9.25	0.31
2015	33431.34	243.08	6248.06	7.79	6431.85	83.43	119.87	1.08
2016	35919.27	230.10	4114.30	6.20	5400.66	71.19	779.40	5.79
2017	35814.06	366.98	7179.62	11.01	6266.98	103.00	839.17	5.71
2018	36924.01	376.58	7842.99	16.48	5517.35	79.38	857.38	5.94
2019	35814.06	398.98	7965.34	17.05	5142.37	76.49	913.93	6.14

Source: <https://comtrade.un.org>

Table-3: Comparative analysis of export of small cardamom by major exporters

	Export in Quantity				Export in Value			
	Guatemala	Indonesia	India	Sri Lanka	Guatemala	Indonesia	India	Sri Lanka
Average	28830.82	4963.15	3864.27	181.55	205198650.15	8411495.35	43161451.55	1375308.45
CV	26.60	44.54	45.44	184.27	52.46	60.20	75.66	165.19

in quantity and value of export with respect to all countries and the values are found to be very significant.

During the study period, India recorded 96.51% increase in quantity and 344.88% increase in value. , Guatemala recorded 149.77 % increase in quantity and 402.22% increase in value. Indonesia had the highest growth increase of 352.31% for quantity while the value increased by and 296.95%. The superior quality of Indian small cardamom has brought India good revenue when compared with the value

received by other countries for their small cardamom export. The countries like Guatemala, Indonesia export its major part of its production to generate high revenue while India has to share its major production volume to satisfy its internal consumption. The coefficient of variation of India's export quantity is 45.44 and 75.66 for value. Among the four countries compared, Guatemala has comparatively stable variation in its export in terms of quantity and value. The fluctuation is significant for Sri Lanka with respect to both export quantity and value among the countries accounted for comparison.

Table.4 also shows there is an appreciable growth in the export of small cardamom from India. The export quantity of 2616.879 tonnes during the year 2000 increased to a quantity of 5142.371 tonnes in the year 2019. During the study period in the years 2002 to 2004 there existed a gradual fall in cardamom exports. The year 2004 had the lowest export quantity and maximum annual decrease during the study period. The main reasons for these decreases were unexpected changes in the climatic conditions, pest impact, poor rainfall, and the need to meet internal demand and consumption of the country. A significant increase in production in 2011 and 2012 is also reflected in export during 2011 and 2012. There is demand for cardamom produced in India due to its high quality relative to cardamom produced by other countries. The increase in consumption of cardamom by the world's population established a stable export market for small cardamom. As reflected in Table.4, the highest percentage (35.87%) of annual increase in India's exports of small cardamom occurred in the year 2011. The fall of currency values of countries such as Sri Lanka and Indonesia also increased their competitiveness in the export trade. Table 3 also evidences a good increase in the value of small cardamom export from India. The trade value US \$ 17.2 million in the year 2000 increased dramatically to US \$ 76.49 in the year 2019. The small cardamom export value witnessed a decline of -2.871%, and -17.301% during the years 2006 and 2012 respectively because of financial down fall at the global level. The internal consumption of small cardamom in India also increased over the study period with the increased production. This made it difficult to balance the export demand for small cardamom of India with local demand. The Table 3 also shows that during the study period the trend value got increased from US \$ 4.7 million in the year 2000 to US \$ 91.07 million in the year 2019.

The Indian small cardamom export escalation rate, with its variability magnitude, is as given below. The regression or trend coefficient is positive with significance at a level equal to one percent with respect to the export quantity of small cardamom from India. The export earnings of small cardamom in India exhibit a positive regression or trend coefficient with a significance level equal to one percent. The analysis also shows that there is an increase in the volume of small cardamom export of 18.85 % per annum and the export earnings have increased by 39.31 % per annum throughout the study period. The analysis also exhibits the tremendous unexpected growth in India's export trade. The variation level is as significant as 46.62 percent with respect to exported volume of small cardamom, and 77.73 percent with respect to earnings received due to the export of small cardamom from India. The R^2 value also recorded 0.763 and 0.758 respectively,

Table 4: Export of Small Cardamom from India during 2000 -2019

S.NO	Year	Quantity in Tonnes				Value in US Dollars			
		Quantity	Increase/Decrease	Percentage of Increase/Decrease	Trend Value	Export Value	Increase /Decrease	Percentage of Increase/Decrease	Trend Value
1	2000	2616.87	-	-	1354.37	17193908	-	-	-4755407

2	2001	2182.04	-434.83	-19.93	1618.57	14084889	-3109019	-22.07	288473
3	2002	1903.51	-278.53	-14.63	1882.77	10937389	-3147500	-28.78	5332353
4	2003	1714.17	-189.33	-11.05	2146.97	9986031	-951358	-9.53	10376232
5	2004	1578.95	-135.22	-8.56	2411.17	8025276	-1960755	-24.43	15420112
6	2005	1970.63	391.68	19.88	2675.37	8051890	26614	0.33	20463992
7	2006	1917.35	-53.28	-2.78	2939.57	7827192	-224698	-2.87	25507872
8	2007	2490.31	572.96	23.01	3203.77	10600499	2773307	26.16	30551752
9	2008	2903.84	413.52	14.24	3467.97	13953283	3352784	24.03	35595632
10	2009	3025.29	121.44	4.01	3732.16	24463575	10510292	42.96	40639512
11	2010	3907.71	882.42	22.58	3996.36	43621033	19157458	43.92	45683391
12	2011	6093.09	2185.37	35.87	4260.56	79801712	36180679	45.34	50727271
13	2012	6017.63	-75.46	-1.25	4524.76	68031608	-11770104	-17.30	55771151
14	2013	4414.87	-1602.75	-36.30	4788.96	54697034	-13334574	-24.38	60815031
15	2014	5789.85	1374.98	23.75	5053.16	78460033	23762999	30.29	65858911
16	2015	6431.84	641.997	9.98	5317.36	83433162	4973129	5.96	70902791
17	2016	5400.65	-1031.18	-19.09	5581.56	71192110	-12241052	-17.19	75946671
18	2017	6266.97	866.317	13.82	5845.76	102993220	31801110	30.88	80990550
19	2018	5517.35	-749.62	-13.59	6109.96	79382345	-23610875	-29.74	86034430
20	2019	5142.37	-374.98	-7.29	6374.16	76492842	-2889503	-3.78	91078310

Source::www.fao.org

Parameters	Volume of Small Cardamom Export	Export Earnings of Small Cardamom
Constant	7.361	15.66
Standard error	0.117	0.230
Co-efficient	0.075	0.144
Standard error	0.010	0.019
R ²	0.763	0.758
CGR in %	18.85	39.31
Co-efficient of Variation	46.62	77.73

for export volume and export value of small cardamom from India. Thus the analysis shows the export trade of small cardamom by India continues its growth in a favorable path, both in terms of quantity and revenue to the country.

Conclusion

This article has analyzed India's production and trade in small cardamom export by considering the volume and values of the exports. Although India takes an important position in the small cardamom trade in recent years, the performance of India in small cardamom export is not satisfactory and has lost its supremacy in trade to competitive countries because of increases in internal consumption, climatic fluctuation, rainfall etc. India has its own international market in small cardamom trade. The superior quality of Indian cardamom is highly preferred in Arab and European countries which allow India to market its small cardamom at higher prices than the competitive countries that leads to good revenue to the country. The Central Government and the States cultivating cardamom should refine their policies and strategies in promoting cardamom production and trade in both internal and in international markets. The trade policies should be liberalized with respect to small cardamom trade. Also research and development in cultivation procedures and modern technology adoption should be executed through the respective promoting authorities for improving the small cardamom quality as per the international standards. The

international trade can also be improved through bilateral trade with the neighboring small cardamom producing countries.

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