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SPICE ROUTE INDIA

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ABSTRACT

India has been known from prehistoric times as the land of spices. This led to the landing of the Portuguese navigator, Vasco da Gama at Calicut in 1498. India still continues to be the largest producer, consumer, and exporter of spices in the world. Indian spices flavour foods in over 130 countries and their intrinsic values make them distinctly superior in terms of taste, colour and fragrance. The USA, Canada, Germany, Japan, Saudi Arabia, Kuwait, Bahrain and Israel are the main markets for Indian spices. During the crop year 2009-10 the country produced about 4015.9 thousand tons from 2463.7 thousand hectares of area under spices. About 10-12% of this is exported annually. The demand for organic products is steadily increasing in the western markets at 20-25% every year India's total spice export in 2010-2011 has been 525750 metric tons in quantity and Rs. 6540.70 crores in value. An estimated 500,000 tones of spices and herbs valued at 1500 million US dollars are now imported globally every year. An impressive 46% of this supply comes from India. Even though we were dominating in the export of whole spices by early seventies we started exporting value added products such as oleoresins and concentrates. Now India is a leading exporter of curry powders, oils, oleoresins, encapsulated flavors, paprika colors, cumin etc. As value added products hold a premium price over whole spice, it improves average earning as well as it creates more employment opportunities. From traditional commodity exports, Indian Spices have evolved into a state-of-the-art industry. Absorbing technology, broad basing its products range, developing value added products, identifying niche markets, forging strategic alliances clinching global collaborations and joint ventures.

KEYWORDS

spice route, India.

INTRODUCTION

Spices are aromatic substances of plant origin, used in small quantities as food additives or in drinks, for taste, smell, color, as preservative or antibacterial agents, or as refreshing or invigorating agent. Some of these have a strong, pungent smell and taste; some others have hotter and sharper taste. Some are enchantingly fragrant; some are mildly sweet and in charming colors.

A spice is a dried part of a plant as its bark or leaves, root, fruit, or seed. It might be grated into a powder form, are mashed into a paste. It may even be used undried and eaten as a vegetable, like basil, or in another form as in cosmetics or perfumery. Some seeds like mustard seeds, or cardamom or cumin are used as it is, or in powder form.

HISTORY OF SPICE TRADE THAT CHANGED THE WORLD

The first authentic records about spices, though fragmentary, belong to the pyramid age of Egypt approximately 2600 to 2100 B.C. There are plenty of historical evidences asserting the significance of south India as a source of high quality spices even from the periods of Babylon and Assyrian civilizations. Until the beginning of the Christian era the source of spices was a mystery to the western world.

Spices were an important component of ancient commerce in 13th century, but was monopolised by Middle Eastern and North African middlemen who guarded the Asian provenance of their valuable sources closely and became extremely wealthy for it.

Europe was at the far end of the trading chain for spices, without access to eastern sources or the power to contest exorbitant prices. At one point, when tariffs were at their highest, a pound of nutmeg in Europe cost seven fattened oxen and was a more valuable commodity than gold. So, by the 1400s, when navigational equipment had improved, the kings and queens of Europe set out to change the world trade by funding spice-hunting missions of their own.

First came Christopher Columbus who, in searching for a quicker route to India, bumped into the Americas instead. Also looking for spices, Vasco da Gama was the first to 'round Africa, and a crew led by Ferdinand Magellan fully circumnavigated the globe.

CURRENT SCENARIO

India still continues to be the largest producer, consumer, and exporter of spices in the world. Indian spices flavour foods in over 150 countries and their intrinsic values make them distinctly superior in terms of taste, colour and fragrance. The USA, Canada, Germany, Japan, Saudi Arabia, Kuwait, Bahrain and Israel are the main markets for Indian spices. North America (USA and Canada) and Western Europe are the most important regions having the import demand for many of the spices. Mexico continues to be the major importer of cinnamon and cassia while Saudi Arabia, Bahrain, Kuwait and Israel are the major markets for green cardamom, black pepper, ginger and turmeric.

Tellicherry Garbled Extra Bold (TGEB) pepper, Alleppey Green Extra Bold (AGEB) cardamom, Cochin Ginger (low fibre content), Alleppey Finger turmeric (AFT) etc. have established deep roots in the cookery of many countries. We have near monopoly in seed spices and spice oils and oleoresins. Indian spices have obtained geographical indicators such as Malabar pepper, Alleppey Green Cardamom, Coorg Green Cardamom and Naga chilli.

The medicinal value of spices is getting attention. Value added spices like encapsulated spices; oils and oleoresin are assuming significance in view of convenience. With the reported use of spices oils and oleoresins in soft drinks, food and medicines demand for Indian spice oils and oleoresins is bound to shoot up. India possesses many innate advantages over other spice producing countries - its large genetic base, varied soil and climatic conditions, and skilled human power.

Health conscious consumers in developed countries prefer natural colours and flavours of plant origin to cheap synthetic ones. Thus, spices are the basic building blocks of flavor in food applications. The estimated growth rate for spices demand in the world is around 3.19%, which is just above the population growth rate. There are about 109 spices listed by International Organization for Standardization and India grows about 60 of these spices. Almost all the States in the country produce one or other spices. During the crop year 2009-10 the country produced about 4015.9 thousand tons from 2463.7 thousand hectares of area under spices. Of the total production, nearly 12% was exported.*

DIVERSIFICATION OF USES

Indian spices occupy a special niche in the World spice market. Even though we were dominating in the export of whole spices by early seventies we started exporting value added products such as oleoresins and concentrates. Now India is a leading exporter of curry powders, oils, oleoresins, encapsulated flavors, paprika colors, curcumin etc. As value added products hold a premium price over whole spice, it improves average earning as well as it creates more employment opportunities.

Spices and herbs have tremendous importance in everyday life as ingredients in food, alcoholic beverages, medicine, perfumery, cosmetics, colouring and also as gardening plants.

* Indian institute of spice research

Value added products including spice oils and oleoresins, mint products, curry powder/paste/ condiments, and spice powders contributed around 58% in value towards the total export earnings. During 2009-10, 14,300 tons of curry powder blends valued at `189.2 crores has been exported to UK Saudi, UAE and USA. Export of spice oils and oleoresins has recorded an all time high of 6750 tons valued at ` 708.7 crores in 2009-10. Major spice oils exported are pepper oil, nutmeg oil, mustard seed oil, clove oil, celery seed oil and ginger oil and in case of oleoresins, paprika oleoresin followed by capsicum, pepper, garcinia and turmeric oleoresins are exported. USA is the major importer of spice extracts followed by Germany, UK, South Korea and China. Mint products account for 21% of the total spice export mainly to USA, China, Singapore, Germany, UK, Netherlands and Brazil.

INDIA'S SPICE EXPORT TRADE WITH OTHER COUNTRIES

India exports its spices to more than 150 countries in the world. But, few countries dominate the importers list for Indian spices by virtue of the quantity imported.

TABLE 1: TOP 20 SPICE IMPORTING COUNTRIES FROM INDIA

Country	2006-07		2007-08		2008-09		2009-10	
	Qty in MT	Value in Lakh RS.	Qty in MT	Value in Lakh RS.	Qty in MT	Value in Lakh RS.	Qty in MT	Value in Lakh RS.
ARGENTINA	335	589.62	298	643.14	389	674.65	392	945.38
PERU	233	183.56	167	746.98	1063	1183.65	1496	1642.48
VENEZUELA	120	241.39	214	352.23	440	656.84	474	597
ESTONIA	268	269.04	580	983.17	460	1026.69	327	827.87
UKRAINE	273	426.91	99	85.15	607	538.83	181	323.49
SWITZERLAND	316	878.3	148	644.28	103	719.98	136	704.73
CHILE	160	303.88	430	540.08	553	924.32	563	714.35
TRINIDAD	171	113.31	211	173.74	342	291.65	298	382.64
GREECE	556	491.54	475	476.19	482	510.02	397	448.67
FINLAND	144	463.16	138	313.44	116	334.26	179	507.76
NORWAY	315	478.66	331	645.14	196	649.28	150	397.29
IRELAND	146	337.57	220	370.12	140	320.75	187	444.41
ECUADOR	186	149.73	374	453.05	491	564.63	1331	1538.74
BULGARIA	176	196.93	191	256.63	386	536.53	370	457.55
BENIN	213	309.24	389	582.85	142	555.14	200	812.62
KENYA	136	141.7	214	212.85	347	441.58	354	431.66
FIJI	229	127.95	193	141.62	203	183.97	289	262.27
HONDURAS	244	205.76	133	159.45	212	250.9	575	657.74
MALDIVES	409	319.44	751	452.81	449	382.21	469	407.11
ALGERIA	345	125.89	688	523.74	2254	1607.39	1658	834.94

Source: Spice Board of India

MAJOR SPICES EXPORTED FROM INDIA

Within the past one decade the international trade in spices has grown by leaps and bounds. An estimated 500,000 tonnes of spices and herbs valued at 1500 million US dollars are now imported globally every year. An impressive 46% of this supply comes from India. India's exports of spice extracts have shown spectacular growth attaining over 50 percent of the global market within a short span. Over the past decade, the Indian Spices industry has made quality the cutting edge of its global game plan. In recent years, export of Indian Spices has been taking giant leaps. This remarkable achievement is born of a sea change in the industry scenario. From traditional commodity exports, Indian Spices have evolved into a state-of-the-art industry. Absorbing technology, broad basing its products range, developing value added products, identifying niche markets, forging strategic alliances clinching global collaborations and joint ventures.

TABLE 2: EXPORT OF SPICES FROM INDIA DURING APRIL - MARCH 2011 - 12 COMPARED WITH APRIL - MARCH 2010 - 11

Item	2011-12		2010-11		% change	
	qty in tons	value in lakh Rs.	qty in tons	value in lakh Rs.	qty in tons	value in lakh Rs.
PEPPER	26,700	87,813.45	18,850	38,318.50	42%	129%
CARDAMOM(S)	4,650	36,322.28	1,175	13,216.25	296%	175%
CARDAMOM(L)	935	6,830.00	775	4,462.90	21%	53%
CHILLI	241,000	214,408.00	240,000	153,554.00	0%	40%
GINGER	21,550	20,420.02	15,750	12,131.25	37%	68%
TURMERIC	79,500	73,434.40	49,250	70,285.18	61%	4%
CORIANDER	28,100	16,401.85	40,500	16,663.23	-31%	-2%
CUMIN	45,500	64,442.05	32,500	39,597.75	40%	63%
CELERY	3,650	2,340.05	3,750	2,585.89	-3%	-10%
FENNEL	8,100	7,209.20	7,250	6,588.25	12%	9%
FENUGREEK	21,800	7,275.20	18,500	6,548.10	18%	11%

Source: Spice Board of India

Even though there is decline in the total export performance from the country during FY 2011-12, the Spices export sector attained an all time record both in terms of quantity and value during the said period. Spices exports have registered substantial growth during the last five years, registering an annual average growth rate of 21% in value and 8% in quantity and India commands a formidable position in the World Spice Trade

The details of Indian spices export is given below:

TABLE 3

Year	2007	2008	2009	2010	2011
Spice export Qty in tons	482800	614860	673870	663210	749030
Spice Export value in Lakh Rs.	3158	4315	6338	6157	7870

Source: Spice Board Of India

FIG. 1

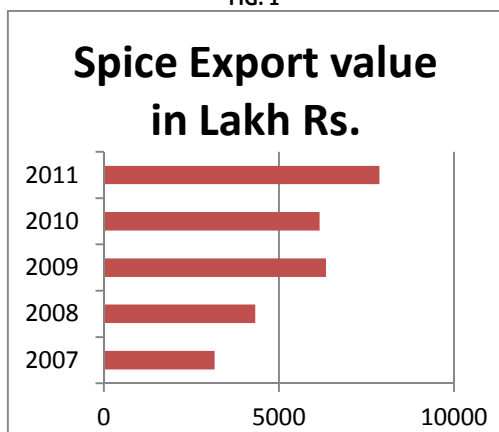
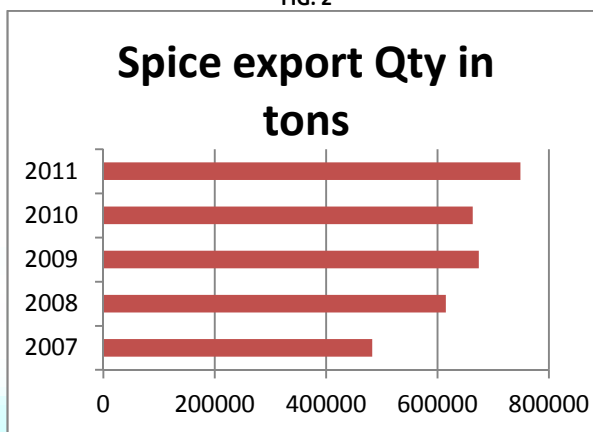


FIG. 2



The total estimated export of Spices from the country during 2011-12 has crossed US\$ 2000 Million mark. During this period a total of 5,75,270 tons of spices and spice products valued Rs.9783.42 crore (US\$2037.76 Million) has been exported as against 5,25,750 tons valued Rs.6840.70 crore (US\$ 1502.85 Million) in 2010-11, registering an increase of 9% in quantity and 43% in rupee terms of value. The increase in dollar terms over the previous year is 36%. The total export of Spices during 2011-12 has also exceeded the target in terms of both quantity and value. Compared to the target fixed 5,00,000 tons valued Rs.6500.00 crore (US\$1450 million) for the financial year 2011-12, the achievement is 115% in terms of quantity and 151% in rupee and 141% dollar terms. During this period, the achievement in export earning is high and mainly due to the rigorous focus and initiatives taken by the Board for value addition and higher end processing of Spices. The better unit price of most of the Spices during the year also helped for achieving the all time record in the export earning.

PROBLEMS OF SPICE PRODUCTION & EXPORT IN INDIA

In many of the spice crops productivity is low in India. Yield in black pepper (260 kg ha⁻¹), small cardamom (174 kg ha⁻¹), ginger (3583 kg ha⁻¹) and turmeric (4382 kg ha⁻¹) are low compared to Malaysia (2925 kg ha⁻¹ in black pepper) and Guatemala (250 kg ha⁻¹ in small cardamom). Poor soil fertility, use of low level of inputs like manures, fertilizers and crop protection chemicals, high labour cost and crop loss due to diseases, lack of resistant varieties and post harvest losses are the major reasons for low productivity.

India is facing stiff price competition from other major spices producing countries like Vietnam, Guatemala, China etc. in the export of different spices. In the case of Pepper, being the largest producer and having higher productivity, Vietnam is in a position to offer their produce at a lower price as compared with Indian pepper. Similarly for Cardamom, being the largest producer and having negligible domestic consumption, Guatemala is selling their produce at a lower price. China also now offers Chilli at a lower price than the Indian produce.

The biggest handicaps that Indian spices face in the international market are the high cost of the product and high level of microbials including mycotoxin and toxic chemicals in the finished product. India will need to make concerted efforts to produce clean spices at competitive prices.

ACTION PLAN

India can withstand competition only by increasing productivity and reducing cost of cultivation leading to low cost per unit of production. Considerable efforts will have to be made to improve the present post harvest processing and storage systems and in educating the farmers and traders in handling/processing the produce hygienically. Higher productivity, clean spices through improved post harvest techniques and reasonable threshold price affordable to food industry are the keys to future spice trade and promotion of spices in consumer packs, ethnic foods or ethnic medicine. Spices are high value and low volume commodities of commerce in the world market. All over the world, the fast growing food industry depends largely on spices as taste and flavour makers.

Government has approved establishment of Spice Parks to establish common infrastructure facilities in the major spices growing centres for cleaning, processing, colour sorting, grading & packing facilities etc, primarily to empower the spice farmers through value addition and quality improvement of spices. At present two spice parks viz. Chhindwara in Madhya Pradesh and Puttadi in Idukki district of Kerala have started functioning. Spice Park at Jodhpur in Rajasthan has been inaugurated on 7.4.2012.

Beside the Quality Evaluation Laboratory already functioning in Head Office of Spices Board, Cochin, Government has approved establishment of seven Regional Quality Evaluation Lab-cum-Training centre in major Port cities of the country for testing and evaluating the quality of Spices being exported from the Country at Mumbai (Maharashtra), Guntur (Andhra Pradesh), Chennai and Tuticorin (Tamil Nadu), New Delhi, Kandla(Gujarat) and Kolkata(West Bengal).

New initiatives of Spices Board –

- Electronic auction facility for cardamom to be launched by Spices Board. This will bring transparency in the bidding process.
- Regional quality control laboratories proposed at Guntur, Mumbai, Chennai and Delhi.
- Spices park proposed at Chhindwara (MP), Idukki (Kerala), Erode (TN), Guntur (AP), Barabanki (UP), Kota/Jalore (Rajasthan)
- Total expected investment for building of infrastructure in this sector during the 11th Plan is around Rs.1000 crores.

CONCLUSION

India has been known from prehistoric times as the land of spices. This led to the landing of the Portuguese navigator, Vasco da Gama at Calicut in 1498. India still has a virtual dominance in the international spices trade. India still continues to be the largest producer, consumer, and exporter of spices in the world. Thus we can still say that spice route still passes from India.

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