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RESEARCH ARTICLE

TREND AND PATTERN OF EXPORT OF SELECTED SPICES IN INDIA SINCE 2001

*Ahamed Kabeer, M.

Department of Economics, Central University of Kerala, India

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ABSTRACT

India has traditional producer, consumer and exporter of spices, there are about 109 spices listed by international organization for standardization. India grows about 60 of these spices almost all the state in India produce one or other spices. India is considered as the home of spices as no country in the world grows as much kind of spices as India. India exports spices to more than 120 countries in the world. Main objective of the present study is to examine export performance of selected spices in India during 2001 to 2010 by using average growth rate and compound annual growth rate. Study found that the most of the selected spices in India both in terms of value and quantity shows a positive trend, among the selected Indian spices pepper, ginger, and cardamom small registered negative compound annual growth rate both in terms of quantity and value. India needs to increase spices production to meet increasing domestic demand and world demands well.

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INTRODUCTION

India is considered as the home of spices as no country in the world grows as much kind of spices as India. After meeting the domestic need, it exports substantial quantities of spices to different countries of world. Export of India spices increasing after liberalization in respect to quantity and value. The first authentic record about the spices belonging to pyramid age of Egypt 2600 to 2100 BC, There are a number of historical evidence asserting the significance of south India was a source of high quality spices even from the period of Babylonian and Asian civilization. (Bhagwati 1970) USA, Malaysia, Canada, Germany, Japan, Saudi Arabia, Kuwait, Bahrain, and Israel are the main market for Indian spices. Indian spices have obtained geographical indicator such as Malabar pepper, Aleppy green cardamom, Coorg green cardamom, and Nayachilli. Various Indian spices are Black pepper, Cardamom, Ginger, Turmeric, Chilli, and Vanilla. Tree spices are Nutmeg, Cambodge, Slananise, Cinnamon, Kokam, Caper, Cassia, Curry Leaf, Sweetbag, Tejpat, Tamarind, Juniper, Clove, Pimento and Junipe. Seed Spices are Coriander, Mustard, Spins, Cumin, Poppy, Fennel, Fenugreek, Anise, Ajowan, Celery, Pomegranete, Dill and caraway. Herbal Spices are Marjoram, Parsey, Savory, Rosemary, Tarragon, Covaqe, Oriqanum, Saje, Basil, Pepper mint. Other spices are Garlic, Greater, Galanqa Sweet, Flag, Long pepper, Horse radish, and Hyssop. India accounts for 25-30 per cent of world's pepper production, 35 per cent of ginger and about 90 per cent of turmeric production. Among the Indian states, Kerala tops in pepper

(96%), Cardamom (53%), Ginger (25%) production in the country. Andhra Pradesh leads in Chilli and Turmeric production in the country with 49% and 57%. In coriander, cumin and fenugreek production in the country, Rajasthan emerges as the largest producer with 63%, 56 % and 87% respectively. (Spices Board)

Objective

1. To study trend and pattern of area, and production of selected spices in India since 2001
2. To examine trend and pattern of export of selected spices in India since 2001

Data source and methodology

The present study is entirely based on secondary data source. Secondary data were collected from spices board of India Cochin, Indian Institute of Spices Research, Calicut, Directorate General of Commercial Intelligence and Statistics, Kolkata, journals, economic survey reports, and publications of Reserve Bank of India. Simple average growth and Compound average growth were used to examine trend and pattern of spices export in India.

Export Performance of selected spices in India

Pepper (Kurumulak)

Indigenous India pepper is rightly called the king of spices. It is the one of the oldest and best known spices in the world. Pepper mainly cultivated in Kerala and Karnataka. Both black

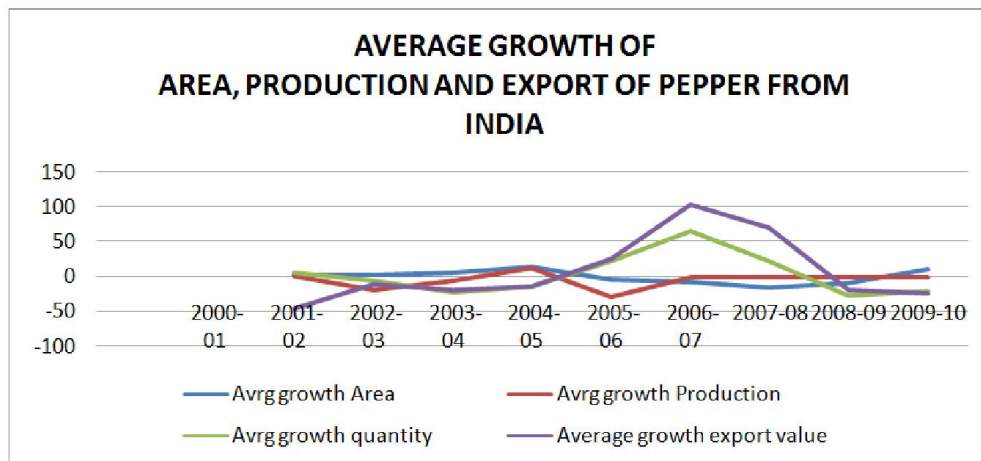
and white pepper have been used in the east for the treatment of stomach aches, digestive problem and fever for over 40,000 years. The Chinese used pepper to treat malaria, and cholera

Area of paper production continuously increasing from 2000 - 01 to 2004-05 213,860, and 267, 1112 hectares respectively. During the year of 2006-07 to 2008-09 registered sharp decline in the area of production. Production of paper increased 79,000 tons to 80,000 during the year of 2000-01 to 2001-02. In 2003-04 shows sharp decline in production from 65,000 to 62,000 tons. During the year of 2004- 05 spices production increased to 70,000 tons, the next year it decline to 50,000 tones and it remain constant throughout the year. Quantity of pepper export increased from 21,830 tons to 22,877 during the year of 200-01 to 2001-02 but at the same time sharp decline registered in value Rs 380crore to 203crore. 2002-03 onwards both quantity and value in declining up to 2005-06 after that from 2007-08 to 2009- 10 again quantity and value declined. In the year 2006-07 registered high export quantity in tons and value in crore 28,780 and 30620 respectively. High average growth rate of area in hector registered in the year of 2004-05 thereafter to 2008-09 registered negative growth rates.

In the case of production of papper (Figure 1) negative growth rate registered in the year of 2002-3, 2003-04, and 2005-06. During the year 2005-06 to 2009-10 average growth rates was zero. High pepper export average growth in quantity (65.58) registered during the year of 2006-07. Sharp increase of average growth in value registered during the year of 2006-07 from 24.02 to 102.85.

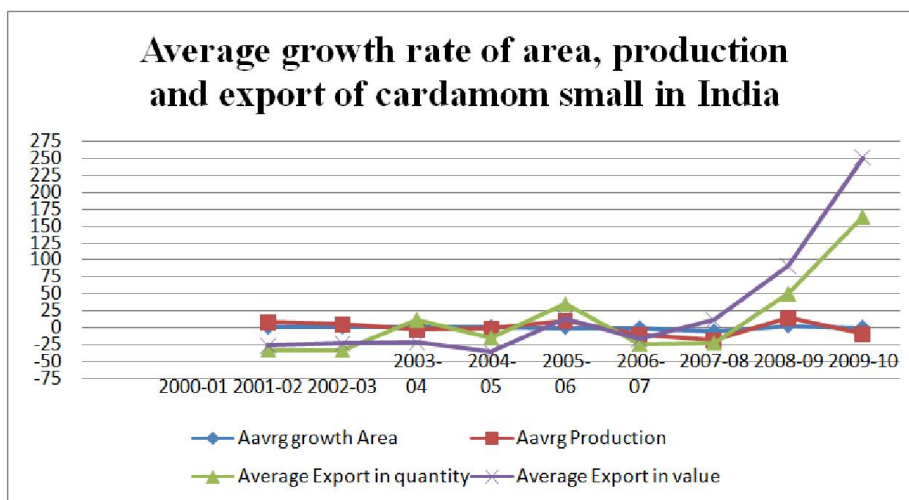
Cardamom small (yelakki)

Cardamom is regarded as the queen of spices. India is traditional exporters of cardamom to the Middle East countries. It is mostly used in to the preparation of Gahwa which is symbol of hospitality among Arabs. Cultivation of cardamom is mostly concentrated in the ever green forest of western Ghats in south India Cardamom small production area in hector was continuously increasing year by year from 2000-01 to 2006 - 07. (Figure 2) The year 2007-08 registered 69,300 hector of land used for production which was low in comparison with other years. Production of cardamom (small) increased from 10480 tons to 11580 tons in the year of 2000-01 to 2003-04. Then after it declined except in 2005-06, this year registered high production of small cardamom in India. Quantity and value of cardamom export declined from 2000-01 to 2003-04



Source: Calculated from Spices Board of India data

Figure 1.



Source: Calculated from Spices Board of India data

Figure 2.

from 1,545 tons to 682 ton and from Rs 84 core to 47 core. During the year 2003-04 registered slight increase in quantity of export but at the same time value of export continued in declining trend. However 2006-07 onwards up to 2009-10 both quantity and value continuously in increasing trend

In the case of production of cardamom small negative growth rate was registered all the year except the year of 2001-02, 2004-05, and 2007-08. Average growth rate of cardamom small in export registered both in terms of quantity and value high growth rate during the year of 2009-10. 163.33 and 250.61 respectively.

Cardamom large (Yelakki)

Large cardamom is cultivated in the sub Himalayan region of north east in India. It used as a flavor rant in dishes like palaver, Biryani and meat. It is also used for Ayurveda and Unanimidicine. During the year 2000-1 to 2001-02 area in hector increased from 26,358 to 30, 008. 2003-04 onwards to 2007-09 area remain constant as 30,039 after it declined to 27,734 hector. During the year 2000-01 to 2001-2 production of cardamom (large) increased from 5,200 tons to 5,850 tons then it declined to 5,300 tons then after again it increased to 6,154 thereafter this production continuously declined to 2006-07. After slight increase in production during the next year again it in declining trend till 2009-10. During the year from 2000-01- to 2001-02 export in quantity is increased from 1,506 to 1,577 tone but at the same time value of export declined from Rs 24 .51 to 23.29 crore. (Figure 3) Thereafter both quantity and value of export had shown a in declining trend to 2005-06. After this year quantity in export was increased but at the same time value continuously showed declining trend.

In the case of cardamom (large) area of production average growth was registered stagnant growth rate all most all the year and negative growth registered with regarded to production in all most every year. Export growth also fluctuating year by year.

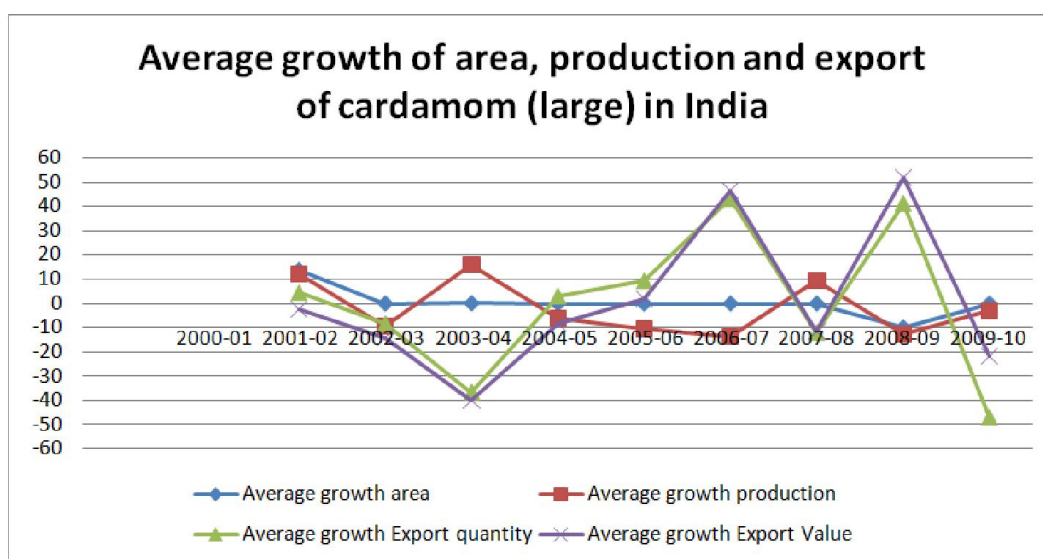
Chilli (Mulak)

Chilli is a native of South America and is widely distributed all countries. It was first introduced in India by Portuguese towards the end of 15 century. Now chilli is grown all over the world countries except colder nation. It is mainly used as ingredient in curry powder and used for medicine. Area of production during the year from 2000-01 to 20003-04 continuously increasing from 884,040 hector to 824,400 hector. (Figure 4) The year from 2005-06 to 2006-07 registered sharp increase in area in hector from 742,200 to 809,437. In the case of production of chilli in India, it registered slight increase and decrease year by year expect 2002-03. Export performance of chilli both in quantity and value continuously increasing except the year of 2005-06 and 2008-09. During the year from 2006-07 to 2007-08 registered sharp increasing of quantity and value of export, from 148,500 to 209,000 tons and Rs 807 crore to Rs 1097 crore respectively.

High average growth of area in hector registered 9.06 in the year of 2006-07 but at the same time 2003-04 shows high average growth of production 42.27, in the same year area growth was negative. In the case of export only two year 2005-06 and 2008-09 was registered negative growth. The period 2007-08 registered high export (40.72). During 2005-06 export performance of Chilli both in quantity and value registered negative growth (-18.03), (-19.24) but the next year 2006-07 average growth bounced back to (31.21,) and (100.43).

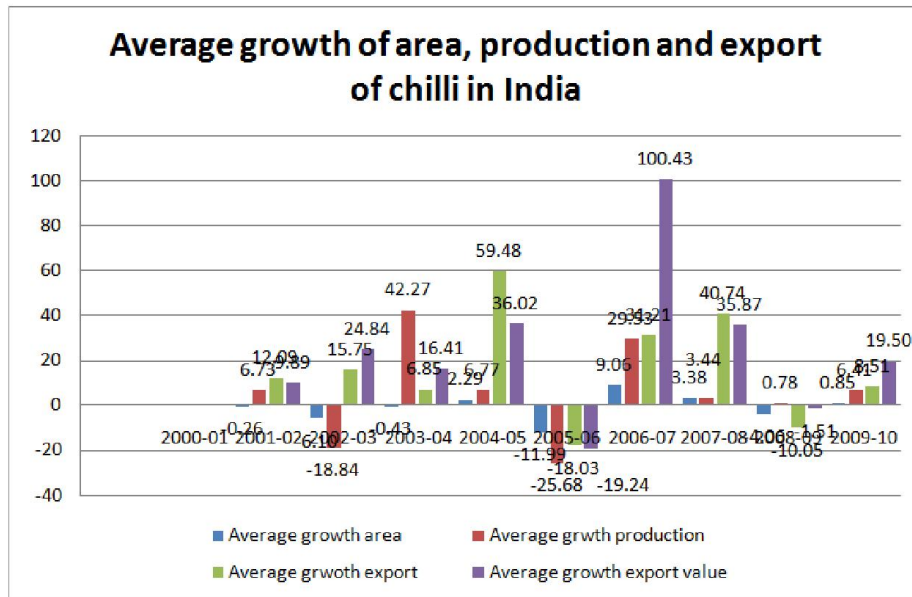
Ginger (Inji)

It is a tropical plant with the centre of origin in India and Malaysia. Now it widely cultivated in India, Jamaica, Nigeria, and Japan. In India ginger cultivation mostly concentrated in Kerala, Meghalaya, Mizoram, Sikkim, Nagaland, and Orissa. It is mainly used for food preparation and medicinal purposes. Ginger exporting countries are Bangladesh, USA, Saudi Arabia, Morocco and UK.



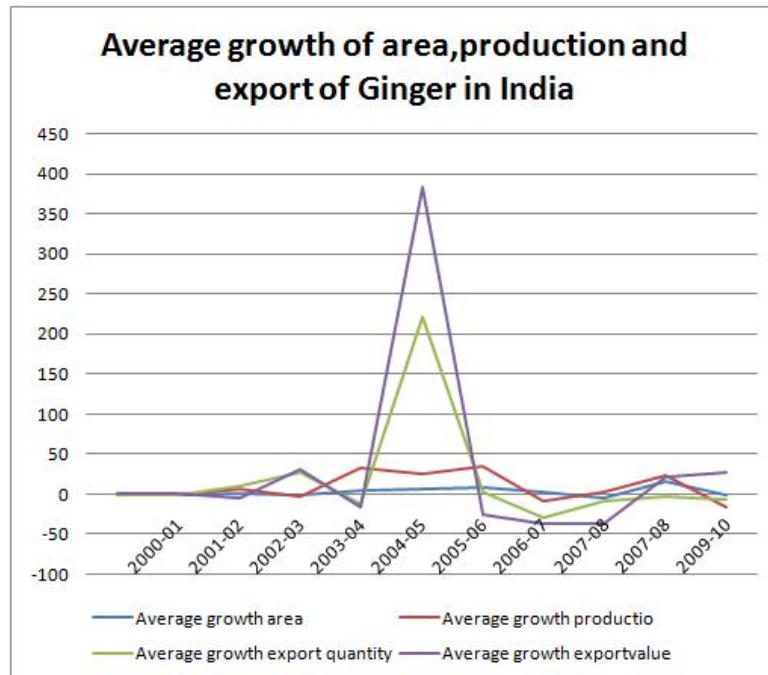
Source: Calculated from Spices Board of India data

Figure 3.



Source: Calculated from Spices Board of India data

Figure 4.



Source: calculated from spices board of India

Figure 5.

Ginger Area of cultivation in hector continuously increasing 2000-01 onwards up to 2006-07, the next year area declined and then again it increased sharply. (Figure 5) 2007-08 registered high average growth (16.29) and only 2007-08, and 2009-10 registered negative average growth rate of area in hector. Production of ginger increased from 2002-03 to 2005-06. In 2008-09 it increased again and this year registered high production compared to all other years. 2003-04 recorded high average growth rate of 28.96 and 2005-06 registered growth rate of 25.31.

2000-01 to 2002-03 export in quantity is increased but at the same time value of export was in declining trend. During the year of 2004-05 registered high export both in quantity and value. 2004-05 recorded high growth of export (195.78), (163.12) and most of other years show negative growth rate of export.

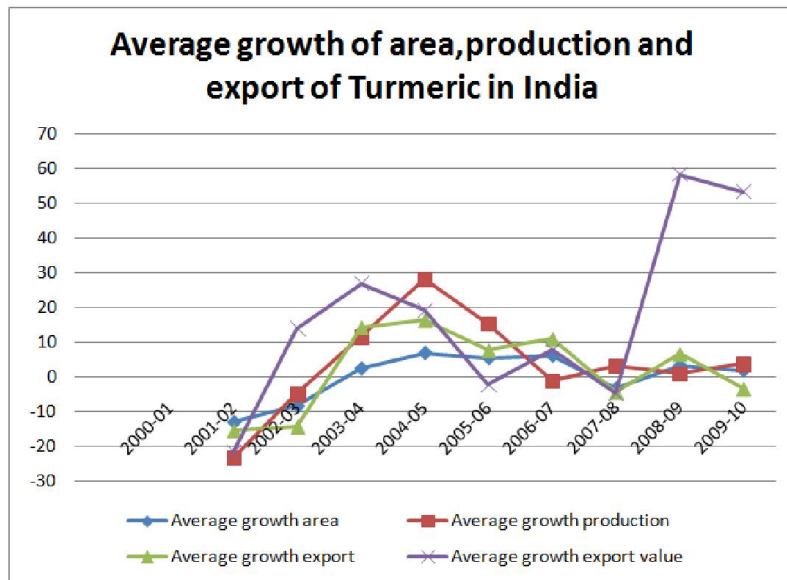
Turmeric (Manjal)

India is a leading producer and exporter of turmeric. Turmeric is mainly cultivated in the state of Andhra Pradesh, Maharashtra, Orissa, Tamilnadu, Karnataka and Kerala.

Turmeric is mainly used for food, textile industry, and medicinal use. Major exporters of Turmeric's are UAE, Malaysia, Japan, USA, Iran, and Bangladesh. Area of cultivation in hectares shows continuously in increasing trend from 2001-02 to 2006-07. (Figure 6) The year 2008-09 used large area for the production of turmeric in India. In the case of production, fluctuating is increasing and decreasing each year. Export performance in terms of quantity is showing decreasing trend in the initial year. 2003 onwards its shows an increasing trend up to 2006-05. 2008-09 shows high export in quantity but at the same time 2009-10 registered high export in terms of value.

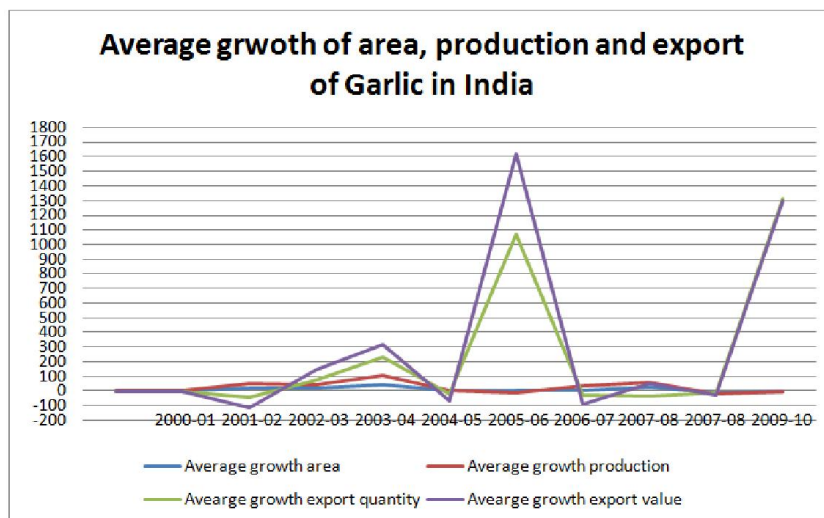
In the year 2004-05 and 2006-07 show high average growth of area in hectares 6.96 and 6.23 respectively. High average growth in production (28.06) and export in quantity (16.34) registered in the year of 2004-05. In the case of export value growth rate shows sharp increasing from -4.73 to 58.32 in the year of 2008-09.

Cultivation of garlic is mostly concentrated in Madhya Pradesh, Gujarat, Rajasthan, Orissa, Uttar Pradesh, Maharashtra, Punjab, and Haryana. Garlic exporting countries are Bangladesh, Thailand, Indonesia, Malaysia, and Pakistan. 2000-01 onwards the area used for cultivation and production of garlic was continuously increasing up to the year of 2003-04, and after this next two years show a slight decline in both area and in production then again shows an increasing trend. (Figure 7) 2005-06 registered high export both in terms of quantity and value. The year 2001-02 shows low export of garlic both in terms of quantity and value. The year 2003-04 shows high average growth in area and production of garlic 42.95 and 62.89 respectively. The year 2009-10 shows high average growth of export in quantity (1314.47) against 12.59 in previous year. During the year 2004-05 growth of export value was negative (-44.28) but at the same time 2005-06 registered high average growth of export (551.90).



Source: calculated from spices board of India data

Figure 6.



Source: calculated from spices board of India data

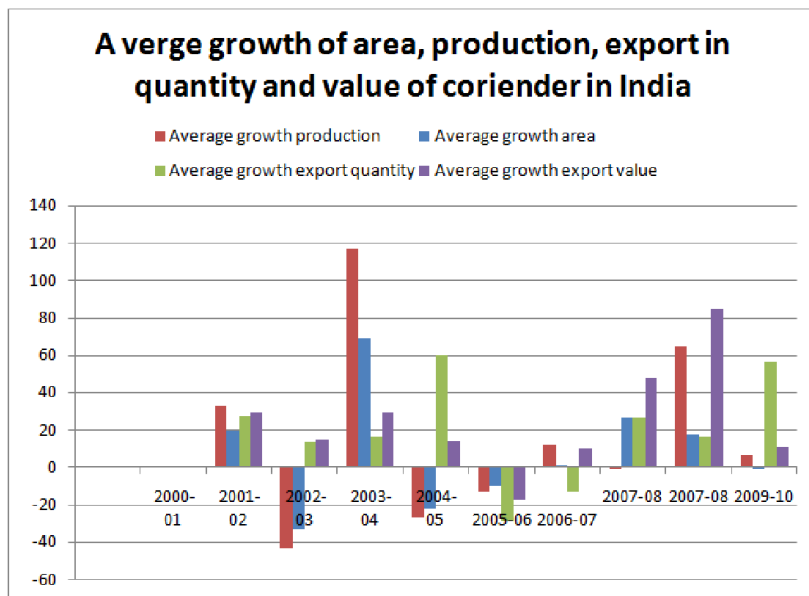
Figure 7.

Coriander is a native of Mediterranean and commercially produced in India, Russia and USA. It used as ingredient in bakery products, soda, syrup and liquor. Major coriander producing states in India are Rajasthan, Gujarat, Madhya Pradesh, and Tamilnadu. Major exporters of coriander are Malaysia, UAE, UK, Saudi Arabia and Pakistan. The year 2008-09 used large area for cultivation but at the same time high production registered in the year of 2009-10. (Figure 8) As far as export is concerned both in terms of quantity and value were continuously increasing from 2000-10 to 2004-05. The year 2009-10 shows high export both in terms of quantity and value.

The year 2003-04 was registered high average growth of area and production of coriander 68.59 and 116.81 respectively. Average growth rate of export both quantity and value registered better growth rate in most of the years.

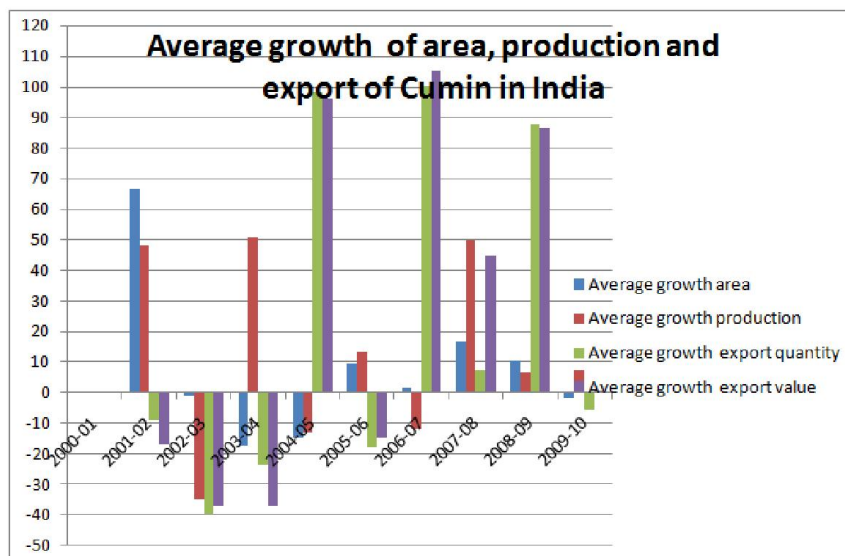
Cumin is indigenous to India, Syria, and Iran. It is mainly use as ingredient in curry powders, cakes, and cheese. It is mainly used for medicinal purpose. Cumin producing Indian states is Gujarat, Rajasthan, and Uttar Pradesh. It is mainly exported to Brazil, UK, USA, Nepal, UAE, and Malaysia. The years 20002-03 and 2008-09 shows that high areas were used for the cultivation of cumin in India during this time. Production data shows increasing and decreasing trend till 2007-08, and thereafter it shows a continuously increasing trend. (Figure 9) Export performance in quantity shows continuous declining from 2000-01 to 2003-04. Next year shows slight increase and thereafter it decline followed by an increase.

2001-02 registered high growth rate of both production in tons and area in hectors, in the case of production most of these years show better average growth rate. First three years export



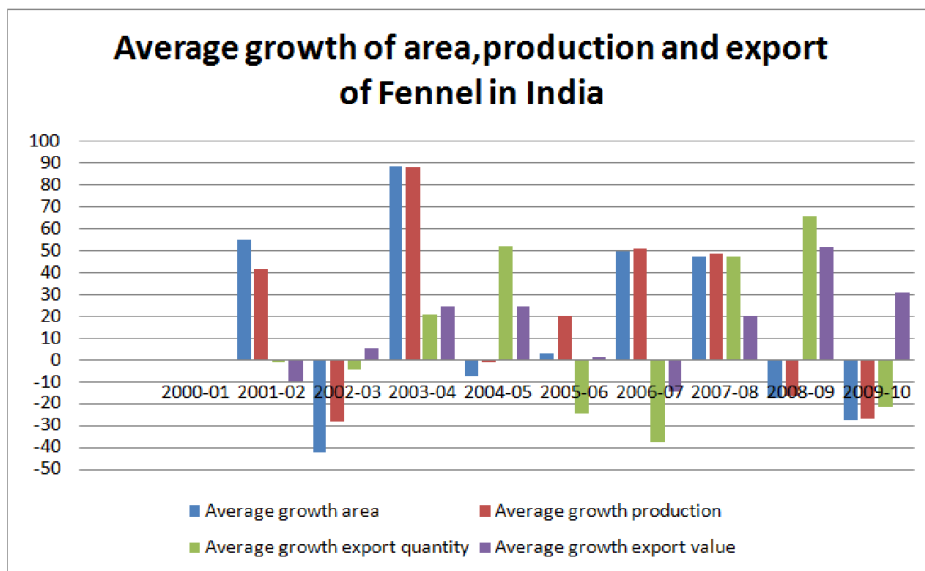
Source: calculated from spices board of India data

Figure 8.



Source: calculated from spices board of India data

Figure 9.



Source: calculated from spices board of India data

Figure 10.

growths were negative and 2006-07 records high growth (100.32), (105.21) of export of cumin in India.

Table 1. CAGR of selected Indian spices

Products	CAGR of export quantity (2000-2010)	CAGR of export value (2000-2010)
Pepper	-1.00%	-1.92%
Cardamom(large)	2.49%	6.98%
Cardamom(small)	-4.01%	-3.39%
Chilli	12.57%	18.88%
Ginger	-1.33%	-15.94%
Turmeric	1.29%	12.73%
Garlic	-0.31%	9.60%
Coriander	14.24%	19.78%
Cumin	10.17%	11.90%
Fennel	4.41%	12.02%

Source: calculated from spices board of India data

Fennel (Perumjeerakam)

It is mainly cultivated in northern India including Gujarat, Rajasthan, and Uttar Pradesh. It is used for flavouring soup, meat dishes, and liquors. Major fennel exporting countries are Pakistan, USA, Malaysia, Saudi Arabia, UK, and UAE. Production and area in hector are fluctuating year by year. First it goes up, and next year both declined, and this tendency continued till 2008-09. The year 2007-08 shows high production of fennel in India. In the case of export performance initial year to 2002-03 registered declining both in quantity and

value. The year 2008-09 registered high export of quantity in tons (65.24) but at the same time 2009-10 shows high value in crore (56.23) of export. During the year 2004-05 registered high average growth of area in hector (87.95) and production in tons (87.49). (Figure 10) In the case of export average growth high was high (65.24), (51.40) in the year of (2008-09), it went down to negative growth of (-21.61) in 2009-10.

Table 1. Indicates that among the selected Indian spices pepper, ginger, and cardamom small registered negative compound annual growth rate both in terms of quantity and value. Similarly garlic registered negative growth in quantity (-0.31%) and positive growth rate in export value (9.60%). Coriander registered highest compound annual growth rate of 14.24% in quantity and 19.78% of in export value, followed by chilli, cumin, and fennel.

Conclusion

India is an agrarian economy, and today Indian economy is facing all kinds of challenges because of new economic scenario that has emerged due to new economic policy. The most critical factor to meet this challenge will be exporting capability of the country, in high competitive environment, when every country is struggling to export. Indian spices are contributing to a great extent to the socio economic progress of the country and earning substantial amount of foreign exchange. India has centuries old trade relation with foreign countries. Indian spices demand has considerably increased in consuming countries in spite of sever competition and erratic fluctuation in price. India needs to increase area of spices production and productivity to meet increasing international and domestic demand.

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