



RICE EXPORT FROM INDIA: TRENDS, PROBLEMS AND PROSPECTS

Ramakrishna. B ^{*1}, Dr. Chaya K Degaonkar ²

^{*1} Research Scholar, Department of Studies and Research in Economics, Gulbarga University, Kalaburgi, Karnataka, INDIA

² Professor, Department of Studies and Research in Economics, Gulbarga University, Kalaburgi, Karnataka, INDIA

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ABSTRACT

In India, agriculture is the main occupation. About 58 per cent of the population depends upon agriculture. It is the backbone of the Indian economy. In agriculture, rice is one of the most important food crops of India. It feeds more than 50 per cent of the world's population. Rice continues to play vital role in the national exports. India is one of the important countries in the world in export of rice. Indian rice exports are reached first place in the world markets. This study has analysed the trends and variability of rice export, assess the prospects of rice export and the various problems/constraints of rice export from India to various countries in the world. The study based on secondary data. The time series data on export of rice from India for the period 2001-02 to 2013-14. This paper indicates that there is good market for some Indian rice varieties, especially basmati rice in the world market. Pakistani basmati, as a sole competitor of India, does not have the unique aroma and taste as the Indian varieties. During 2012-13 the foreign earning from basmati rice has increased considerably. Despite considerable area being under rice cultivation in the country, the share of India in world rice export is very low which can be attributed to the fact that the average productivity of rice in the country is low and even in some rice producing states, the productivity is 40 to 50 per cent lower than the national average, in spite of having good potential capacity. The reasons of low productivity of rice in the country may be due to use of less quantity of chemical fertilizers, pesticides, more area under traditional varieties and more dependence on rain. If we want to increase our exports share in the world rice market, the production growth rate should be adequate surplus in the country. This requires careful analysis of low productivity of rice in the country. Besides, more important, the critical analysis is necessary to enquire into the constraints involved in rice export from India.

Keywords:

Rice, Exports, Trends, Problems and Prospects, India.

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1. INTRODUCTION

In India, agriculture is the main occupation. About 58 per cent of the population depends upon agriculture. It is the backbone of the Indian economy and is the oldest and largest occupation of India. It is the centre around which the entire economy revolves. Agriculture is still one of the priority sectors of the State's economy, particularly rural economy, notwithstanding its diminishing share in the State domestic product. Several policies and programmes are being planned and implemented by government from time to time to improve productivity. Besides improved techniques for the development of agriculture and higher agriculture production, timely and sufficient rainfall and weather conditions are also crucial factors. During the study years (2001-02 to 2013-14), the total cropped area has increased due to sufficient rainfall.

In agriculture rice is one of the most important food crop of India and 2nd in throughout the world. It feeds more than 50 per cent of the world's population. It is the staple food of most of the people of South-East Asia. Asia accounts for about 90 per cent and 91 per cent of world's rice area and production respectively. Among the rice growing countries, India having the largest area under rice in the world and in case of production it is next to China. However, productivity of India is much lower than that of Egypt, Japan, China, and Vietnam, USA and Indonesia and also the average productivity of the world. It contributes 42 per cent of total food grains production and 45 per cent of the total cereal production in the country. One-third world's paddy cultivation area, i.e., 83 million hectares in India. It is grown in almost all the states of India but is mostly concentrated in the river valleys, deltas and low lying coastal areas of north eastern and southern India. The rice producing states are Assam, west Bengal, Bihar, Madhya Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, Gujarat, Uttar Pradesh and Jammu and Kashmir, which together contribute over 95 per cent of the crop. Of these, west Bengal, Orissa, Andhra Pradesh, Tamil Nadu and Bihar are the major cultivators.

Rice continues to play a vital role in the national exports. The percentage share of rice in total national export was 1.01 per cent during 2010-11. The percentage share of agriculture export in total national export was 10.47, whereas the percentage share of rice export in total agriculture export was 9.64 per cent during 2010-11. Thus, rice export contributes nearly 10 per cent of total agriculture export from the country.

Rice is also an important cereal food crop in South East Asia. Thailand, Vietnam, Myanmar, China and Japan are the important countries besides India growing rice. Among the exporting countries Thailand, Vietnam, India and Pakistan are the important countries exporting rice in sizeable quantity. India ranks first in the export of rice in the world followed by Vietnam and Thailand. However, India is largest rice exporter in the world during 2012-13. China and Indonesia are likely to boost their import of rice, which will facilitate to India to increase its rice export. Besides, the Govt. of India has also fixed high target of export of rice from India including broken rice. The Govt. of India has also fixed the export price of rice quite competitive in the international market. These measures are expected to contribute in boosting the export of rice from India.

The Govt. has also created four zones in addition to earlier 28 zones to boost the export of agriculture products from the country, these new zones are -

- Apple zone in Himachal Pradesh
- Mango zones in Andhra Pradesh
- Flower zone in Tamil Nadu
- Basmati rice export zone in Punjab.

With the creation of these four new zones the exports of agriculture products from the country have risen to 32 zones, which will cover the export of various agriculture products in the country. Therefore, the special emphasis is being laid down to strengthen these zones for increasing agricultural products including export of basmati rice from India. The basmati export zone has been set up in Punjab to tap the potential of basmati rice to increase its export in the international market. In fact Indian basmati rice is well recognized in the international markets because of its quality. Keeping in view the export potential of basmati rice, the Govt. of India has launched aggressive export promotion policy to further develop the basmati rice by adoption of improved production technology including improved high yielding new seeds. The scheme for export of basmati zone will cover Gurdaspur, Amritsar, Kapurthala, Jalandhar, Hoshiarpur and Nawanshahar districts of Punjab.

The estimated outlay of the scheme is Rs.23.3 crore, in which the centre's share would be Rs.11.85 crore, the share of State Govt. of Punjab would be Rs.1.85 crore. Balance amount Rs.9.6 crore will be met from private entrepreneurs. The aim of this programme is to increase export of basmati rice in particular and overall export of rice in general.

2. OBJECTIVES

- 1) To study the trends and variability of rice export from India.
- 2) To assess the prospects of rice export from India
- 3) To know the various problems/constraints of rice export from India to various countries in the world.
- 4) To suggest suitable strategies to increase export of rice from India.

3. METHODOLOGY

The study is based on secondary data. The data is collected from various sources such as Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and industry, Govt. of India, Directorate of Rice Development, Patna, Ministry of Agriculture, Govt. of India, Department of Agriculture, Govt. of India, Economic Survey of India, and also Books, Magazine, Journals, Articles, Papers, Internet, etc. The time series data on export of rice from India for the period 2001-02 to 2013-14 were obtained from various publications of the government of India. The secondary data were analysed with suitable statistical techniques like ratio, average and simple growth rate.

RICE EXPORT SCENARIO

India is one of the important countries in the world in export of rice. India's exports are expected yet to go up further during future financial years. Hence, now Indian rice exports are reached first place in the world markets. The below table no. 1 shows that year wise rice (basmati and

non-basmati) export from India to various countries in the world during the years 2001-02 to 2013-14.

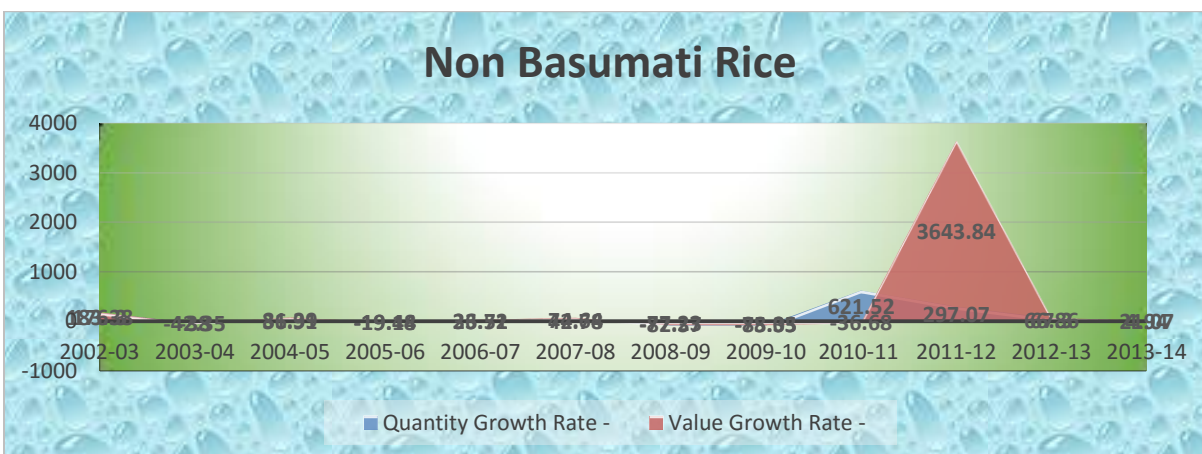
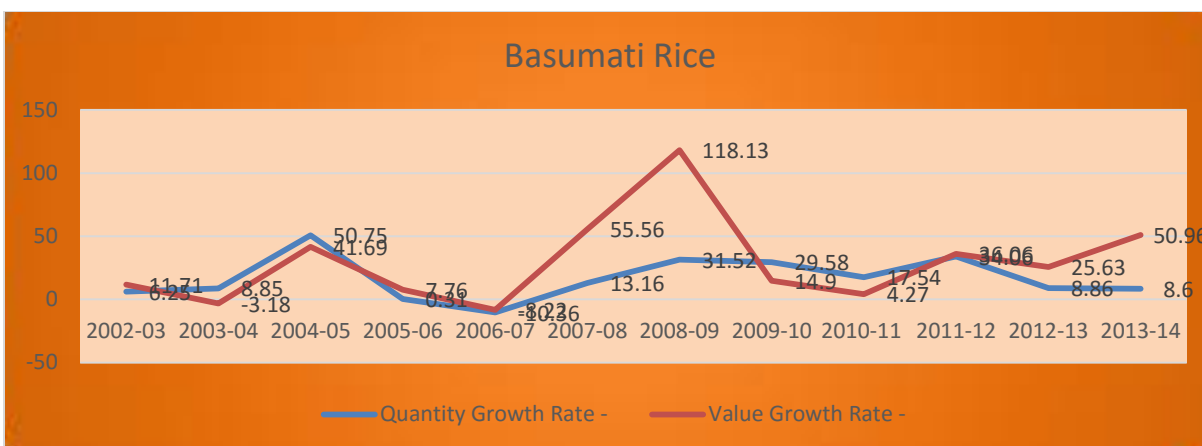
Table 1: Export of Basmati and Non-Basmati Rice during 2001-02 to 2013-14

Year	Quantity in Thousand Tonnes, Values Rs in Crore											
	Basmati				Non-Basmati				Total			
	Quantity	% age of growth	Value	% age of growth	Quantity	% age of growth	Value	% age of growth	Quantity	% age of growth	Value	% age of growth
2001-02	667.07	-	1842.77	-	1541.49	-	1331.37	-	2208.56	-	3174.14	-
2002-03	708.79	6.25	2058.47	11.71	4259.08	176.30	3772.77	183.38	4967.87	124.94	5831.24	83.71
2003-04	771.49	8.85	1993.05	-3.18	2640.57	-38.00	2174.94	-42.35	3412.06	-31.32	4167.99	-28.52
2004-05	1163.00	50.75	2823.9	41.69	3615.1	36.91	3945.02	81.39	4778.10	40.04	6768.92	62.40
2005-06	1166.57	0.31	3043.1	7.76	2921.6	-19.18	3178.17	-19.44	4088.17	-14.44	6221.27	-8.09
2006-07	1045.73	-10.36	2792.81	-8.22	3702.22	26.72	4243.1	33.51	4747.95	16.14	7035.91	13.09
2007-08	1183.36	13.16	4344.58	55.56	5286.08	42.78	7410.03	74.64	6469.44	36.26	11754.61	67.07
2008-09	1556.41	31.52	9477.03	118.13	931.89	-82.37	1687.37	-77.23	2488.3	-61.54	11164.40	-5.02
2009-10	2016.87	29.58	10889.46	14.90	139.54	-85.03	365.3	-78.35	2156.41	-13.34	11254.76	0.81
2010-11	2370.68	17.54	11354.77	4.27	1006.81	621.52	231.29	-36.68	2471.36	14.61	11586.06	2.94
2011-12	3178.24	34.06	15449.69	36.06	3997.73	297.07	8659.13	3643.84	7175.97	190.37	24108.82	108.08
2012-13	3459.92	8.86	19409.39	25.63	6688.04	67.30	14448.81	66.86	10147.95	41.42	33858.2	40.44
2013-14	3757.38	8.60	29300.12	50.96	7018.58	4.94	17493.16	21.07	10775.95	6.19	46793.28	38.20

Source: 1. Agricultural Statistics at a glance, 2013.

2. DGCIS Annual Export, 2013.

3. APEDA.

**Figure 1:****BASMATI RICE**

India is exporting Basmati Rice to various countries in the world. A total quantity of 667.07 thousand tonnes of basmati rice was exported to different countries from India during 2001-02. However, the export increased to 3757.38 thousand tonnes during 2013-14, registering an increase 463.27 per cent during the last 13 years. The export increased during 2012-13 to 2013-14 and a

total quantity from 3459.92 to 3757.38 thousand tonnes. The basmati rice registering increase of 8.60 per cent over the export. The export of basmati rice from 2004-05 to 2007-08 was almost static with slight increase or decrease over the years.

The export earnings from basmati rice decreased during 2006-07 over the previous year. Thus, export earnings decreased by 8.22 per cent during 2006-07 as compared to 2005-06. During 2001-02 export earnings from the export of basmati rice was Rs. 1842.77 crores, which increased significantly to Rs. 29300.12 crores during 2013-14, registering an increase of 1490.00 per cent over 2001-02.

NON-BASMATI RICE

India is also exporting substantial quantity of non-basmati rice to various countries in the world. However, the export of non-basmati rice has been fluctuating year to year due to Govt. policy. The export of non-basmati rice from India during 2001-02 was 1541.49 thousand tonnes, the export rose to 5286.08 thousand tonnes during 2007-08 and it came down to 1006.81 thousand tonnes during 2010-11 in the last ten years. The increase in export of non-basmati rice during 2013-14 was 7018.58 thousand tonnes. The export declined from 2001-02 to 2013-14 and decrease was 355.31 per cent.

During 2001-02, export earnings from the export of non-basmati rice was Rs 1331.37 crores and it increased to Rs. 7410.03 crores during 2007-08 registering the increase of 456.57 per cent over the year 2001-02. The export earnings during 2009-10 and 2010-11 were Rs. 365.3 crores and Rs. 231.29 crores respectively. The earning of non-basmati rice was the lowest during the year 2010-11 in last ten years. During 2013-14, export earning of non-basmati rice was Rs. 17493.16 crores the registering the increase the earning of 1213.92 per cent over the year 2001-02.

India has exported total Rice (Basmati and Non-Basmati rice) to various countries in the world. A total quantity of rice 10775.95 thousand tonnes was exported to different countries from India and export earnings from the export of total rice (Basmati and Non-Basmati) were Rs. 46793.28 crores during 2013-14.

Thailand was the world's leading exporter of basmati and non-basmati rice for decades. However, due to farmers support price policy locally called pledging price, Thai importers have fallen during 2012. It is estimated that Thailand due to this change in policy has lost 50 per cent of its customers. During 2012, it is estimated that India exported 10 million tonnes of rice both basmati and non-basmati rice which is the largest in the world. Vietnam 7.2 million tonnes and Thailand 6.5 million tonnes.

COUNTRY-WISE EXPORT OF RICE FROM INDIA TO OTHER COUNTRIES IN THE WORLD

Rice is exported from India to many countries in the world. In fact, India is facing stiff competition in the international markets for the export of rice. India is the world's largest rice exporting country. Thailand is another large exporter of rice, but currently the demand for

Thailand rice has steeply declined in the international market due to which India is likely to be the world's largest exporter of rice.

India, Thailand and U.S.A. are the only countries making parboiled rice and exporting it. India, Thailand and Vietnam are also exporting 100 per cent broken rice. Data in respect of parboiled and broken rice exports separately from India are not available. Hence, export of rice from India has been divided into two categories i.e., basmati rice and non-basmati rice and the same are discussed in this paper.

BASMATI RICE

The leading aromatic fine quality rice in world trade popularly known as Basmati rice is fetching good export price in the international markets for its three distinct quality features viz.-pleasant aroma, superfine grains and extreme grain elongation. About two third of basmati rice produced in India is exported. Basmati rice is exported to various countries in the world from India. The exports of basmati rice during 2011-12 to 2013-14 are discussed below:-

During 2011-12 U.A.E was the major importer of basmati rice from India followed by Saudi Arabia, Iran, Kuwait and Iraq and percentage shares of these countries of total exports from India were 22.93%, 22.69%, 19.35%, 6.29% and 4.78% respectively. Thus, more than 76 per cent quantity of basmati rice was exported to UAE, Saudi Arabia, Iran, Kuwait and Iraq during 2011-12 and remaining quantity was exported to other countries in the world. A total quantity of 31,78,174.42mts of basmati rice was exported from India during 2011-12.

During 2012 -2013, these five countries remained as major basmati rice importers from India and their percentage shares of total quantity of basmati rice exported from India was 6.78 per cent, 19.69 per cent, 31.28 per cent, 4.72 per cent and 5.90 per cent respectively. The export to Saudi Arabia, Kuwait and U.A.E declined during 2012-2013 as compared to previous year. In fact, the export to Iran and Iraq increased as compared to 2011-12. The percentage share of five countries comprising of Saudi Arabia, Kuwait, U.A.E, Iran and Iraq were 68.37 per cent of total quantity of basmati rice exported from India during 2012-13 as against 76.04 per cent during 2011-12. The export of basmati rice almost remained the same as it was during 2011-12 with slight fluctuation. A total quantity of 34,59,898.92mts of basmati rice was exported from India during 2012-13, which was 8.86 per cent higher than the export of previous year.

The export of basmati rice to Iran increased to 14,40,654.37mts during 2013-14 as against 10,82,216.47mts in the previous year. The percentage share of Iran of total quantity of basmati rice exported from India during 2013-14 was 38.34 per cent as against 31.27 per cent in the previous year. In fact, total quantity exported to Iran increased during 2013-14, but the percentage share of Iran of total quantity exported from India increased due to decrease in the percentage share of other importing countries. Other major importing countries of basmati rice from India were U.A.E, Saudi Arabia, Kuwait and Iraq during 2013-14.

The export to Saudi Arabia during 2013-14 was 8,26,289.81mts, which was 21.29 per cent higher than previous year and the percentage share of Saudi Arabia of total quantity of basmati rice exported from India during 2013-14 was 21.99 per cent as against 19.69 per cent in the

previous year. Similarly the export to Iraq and Kuwait also increased from 2, 04,261.89mts and 1, 63,317.07mts during 2012-13 to 2, 19,634.00mts and 1, 75,444.79mts during 2013-14 respectively. However, the export to U.A.E. declined to 1, 49,041.96mts during 2013-14 as against 2, 34,679.47mts during previous year. A total quantity of 37, 57,271.44mts of basmati rice was exported from India during 2013-14, which was 8.59 per cent higher than the export of previous year. Country-wise export of basmati rice from India during 2011-12 to 2013-14 is given in Table no 2.

Table 2: Country-wise Export of Basmati Rice during 2011-12 to 2013-14
Qty in MT, Value in Rs. Crores

Country	2011-12		2012-13		2013-14		%age growth on previous year	%age share in 2013-14
	Qty	Value	Qty	Value	Qty	Value		
Iran	6,14,922.16	2,843.21	10,82,216.47	6,463.50	14,40,654.37	10,975.71	69.81	37.46
Saudi Arabia	7,21,245.48	3,380.88	6,81,238.69	3,659.08	8,26,289.81	6,717.06	83.57	22.93
Iraq	1,51,961.25	672.87	2,04,261.89	1,076.67	2,19,634.00	1,599.72	48.58	5.46
Kuwait	1,99,869.77	1,362.92	1,63,317.07	1,059.68	1,75,444.79	1,513.06	42.78	5.16
United Arab Emirates	7,28,823.29	3,432.79	2,34,679.47	1,311.20	1,49,041.96	1,189.22	-9.30	4.06
Yemen Republic	92,112.14	402.91	1,72,348.74	878.19	1,46,839.58	1,107.79	26.14	3.78
United States	91,816.94	503.88	91,546.37	561.69	1,03,377.64	870.45	54.97	2.97
United Kingdom	1,41,666.21	629.46	1,92,433.35	849.98	1,18,888.17	785.85	-7.54	2.68
Jordan	52,928.98	242.46	89,645.35	441.37	79,077.81	624.09	41.40	2.13
Oman	18,292.27	94.33	40,101.59	244.36	43,141.93	355.46	45.47	1.21
Others	29,23,024.09	1,883.9	32,38,605.61	2,863.66	36,35,051.7	3,561.55	24.37	47.82
Total	31,78,174.42	15,449.61	34,59,898.92	19,409.38	37,57,271.44	29,299.96	50.96	100.00

Source: DGCIS Annual Export, 2013



Figure 2:

NON-BASMATI RICE

The export of non-basmati rice from India was on its peak during 2007-08 and a total quantity of 6469.44 thousand tonnes was exported to different countries in the world. Again the export crossed to 2488.3 thousand tonnes during 2008-09, but during subsequent years, the export of non-basmati rice again came down significantly due to various reasons. The export of non-basmati rice during 2011-12 to 2013-14 are discussed below -

During 2011-12 Benin, Bangladesh, Senegal, South Africa and Liberia were the major importers of non-basmati rice from India. In fact, more than 8 per cent of total export of non-basmati rice from India was exported to Senegal alone during 2011-12. A total quantity of 3, 33,929.00 mts of non-basmati rice was exported to Senegal during 2011-12, which was 8.35 per cent of total quantity exported from India during the same year. Next major country was Cote D Ivoire for import of non-basmati rice from India. A total quantity of 2, 13,720.00 mts of non-basmati rice was exported to Benin during 2011-12, which was 5.35 per cent of total quantity exported from India during the same year. The export to United Arab Emirates was 2, 07,470.76 mts of non-basmati rice, which was 5.19 per cent of total quantity of non-basmati rice exported from India during 2011-12.

Similarly, the export of non-basmati rice to South Africa was 1, 92,120.97 mts. which was 4.81 per cent of total quantity of non-basmati rice exported from India during 2011-12. The export to Bangladesh and Nepal were 1, 44,703.47 mts and 1, 40,864.16 mts of non-basmati rice during 2011-12, which were 3.62 per cent and 3.52 per cent of total quantity exported from India during the same year respectively. The export to other countries was considerably less as compared to quantity exported to the countries discussed above. A total quantity of 39, 97,719.58 mts of non-basmati rice was exported from India to various countries in the world during 2011-12.

Senegal remained major importer of non-basmati rice from India during 2012-13 also but total export of non-basmati rice to Senegal increased to 155.96 per cent during 2012-13 as compared to previous year. A total quantity of 8, 54,741.01 mts. of non-basmati rice was exported to Senegal during 2012-13 as against 3, 33,929.00 mts. exported during 2011-12. The percentage share of Senegal of total quantity of non-basmati rice exported from India during 2012-13 was 12.78 percent as against 8.35 percent in the previous year.

Next to Senegal, Cote D Ivoire was the major country, which imported non-basmati rice from India during 2012-13. A quantity of 5, 96,843.86 mts. of non-basmati rice was exported from India to Cote D Ivoire during 2012-13 as against 2, 82,326.85 mts during previous year, which was 111.40 per cent higher. The percentage share of Cote D Ivoire of total quantity of non-basmati rice exported from India during 2012-13 was 8.92 per cent as against 7.06 percent during the previous year.

The exports to Benin, South Africa, Nepal, Guinea and UAE were 5,76,544.80 mts, 4,30,702.04 mts, 3,96,586.72 mts, 2,81,845.00 mts and 2,62,071.85 mts of non-basmati rice during 2012-13, which were 8.62 per cent, 6.44 per cent, 5.93 per cent, 4.21 per cent and 3.92 per cent of total quantity exported from India during the same year, considerably less as compared to the countries discussed above. A total quantity of 66,87,990.85 mts of non-basmati rice was exported

from India to various countries in the world during 2012-13, which was 67.30 per cent more as compared to 39,97,719.58mts exported during the previous year.

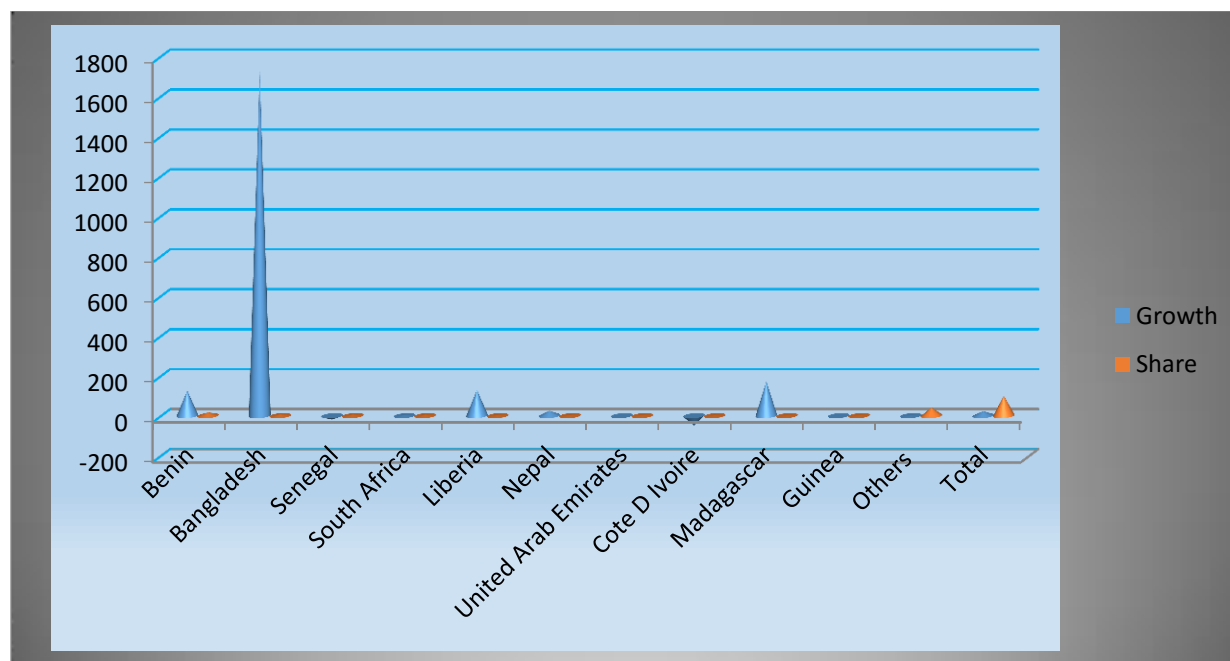
The major quantity of non-basmati rice was exported to Benin during 2013-14 as it was during the previous year. A total quantity of non-basmati rice exported to Benin during 2013-14 was 102.34 per cent more as compared to previous year but the percentage share of Benin of total quantity of non-basmati rice exported from India during 2013-14 was 16.35 per cent, which was more as against 8.62 per cent during the previous year. A total quantity of 71, 33,183.37mts of non-basmati rice was exported from India to Benin during 2013-14 as against 66, 87,990.85mts exported during the previous year.

Other major countries that imported non-basmati rice from India during 2013-14 were Senegal, Bangladesh, Nepal, South Africa, Liberia and Cote D Ivoire. Total quantity exported to these countries during 2013-14 where 6, 51,983.32mts, 6, 51,640.60mts, 4, 04,127.29mts, 3, 94,304.61mts, 3, 23,390.38mts and 2, 61,503.70mts respectively and their percentage share in total quantity of non-basmati rice exported from India during the same year were 9.14 per cent, 9.13 per cent 5.67 per cent, 5.53 per cent, 4.53 per cent, and 3.66 per cent respectively. A total quantity of 71,33,183.37 mts. of non-basmati rice was exported from India to various countries in the world during 2013-14, which was 6.66 per cent more as compared to 66,87,990.85mts. exported during previous year. Country wise exports of non-basmati rice during 2011-12 to 2013-14 are given in Table no 3.

Table 3: Country-wise Export of Non -Basmati Rice during 2011-12 to 2013-14
Qty in MT, Value in Rs. Crores.

Country	2011-12		2012-13		2013-14		%age growth on previous year	%age share in 2013-14
	Qty	Value	Qty	Value	Qty	Value		
Benin	2,13,720.00	452.75	5,76,544.80	1,302.45	11,66,593.92	2,945.56	126.16	16.59
Bangladesh	1,44,703.47	271.98	31,333.01	83.36	6,51,640.60	1,518.94	1722.14	8.56
Senegal	3,33,929.00	589.34	8,54,741.01	1,463.43	6,51,983.32	1,185.92	-18.96	6.68
South Africa	1,92,120.97	407.97	4,30,702.04	926.5	3,94,304.61	970.64	4.76	5.47
Liberia	31,278.38	59.37	1,66,305.50	334.28	3,23,390.38	767.77	129.68	4.33
Nepal	1,40,864.16	210.22	3,96,586.72	578.61	4,04,127.29	724.1	25.14	4.08
United Arab Emirates	2,07,470.76	499.03	2,62,071.85	760.15	2,24,916.32	705.81	-7.15	3.98
Cote D Ivoire	2,82,326.85	556.36	5,96,843.86	1,175.89	2,61,503.70	598.89	-49.07	3.37
Madagascar	34,829.55	64.7	1,02,269.67	205.61	2,50,822.27	559.72	172.22	3.15
Guinea	15,003.36	28.81	2,81,845.00	576.57	2,21,773.25	535.84	-7.06	3.02
Others	39,16,608.29	5,518.57	66,56,657.84	7,042.02	25,82,127.71	7,236.78	2.77	40.77
Total	39,97,719.58	8,659.10	66,87,990.85	14,448.87	71,33,183.37	17,749.97	22.85	100.00

Source: DGCIS Annual Export, 2013

**Figure 3:**

4. PROSPECTS OF RICE EXPORT FROM INDIA

India is facing stiff competition in the International markets from Thailand, Vietnam, U.S.A. and Pakistan. There was a considerable growth in the export of rice from India during the recent past, particularly in the case of non-basmati rice. There are several factors responsible for this growth. In fact exports depend not only on our ability to sell, but also on the willingness of importers to buy. Sometimes major markets/importers used to cut down their import due to their internal economic problems or good crop harvest and trade also cut down inventories and people reduce spending. All these measures reduce imports during that particular year. The prospects of export of basmati and non-basmati rice from India are discussed herewith:

BASMATI RICE

Awareness about basmati rice is spreading among different strata of the society in the country and abroad. Basmati rice is possessing unique grain, cooking, eating and digestive qualities. Hence, majority of people in the country and abroad have developed liking for basmati rice. Because of its superfine quality, basmati rice is most preferred and also meant for high premium value in the national and international markets. Thus, basmati rice is also stated to be 'Pearl' of rice.

There are other sources of aromatic short grain varieties with similar starch content characteristics, grown different states of the country. Katarni rice is grown in Bihar, Randhunipagal and Bhadshahbhog are grown in West Bengal, each one of these varieties is fetching higher price in the local markets. These varieties are having localized preference and their demand preference could not spread widely elsewhere. Even some of these are possessing more aroma than the typical basmati varieties. In fact, the harmonious combination of various

factors deciding the appearance, taste, keeping quality texture of cooked rice etc and makes the particular varieties unique/popular in the domestic and international markets.

As mentioned above basmati rice is the most sought after rice in the domestic and international markets and it also fetches high premium. Commercially Taraori Basmati, Basmati-370 and Basmati Type-3 are very popular. All these three varieties are similar in starch characteristics but based on grain dimensions Taraori Basmati is preferred much over Basamati-370. Similarly Basamati-370 is preferred more over Basmati Type-3. Pusa Basmati-1 has been well accepted by the trade and there are good prospects for export. In fact, Pusa Basmati-1 is at present most profitable variety in rice, in spite of being highly susceptible to major insects, pests and diseases. Under proper crop management condition farmers can get 4-6 tonnes paddy yield per hectare. This variety is much favored by the farmers, traders and consumers. During cooking it has got linear expansion. It is also easily digestible. Hence, this variety is much preferred by the consumers in India and abroad.

With the every coming year, domestic as well as international demand for basmati rice is increasing. If desired aroma in basmati rice along with other quality characteristics is maintained, these measures may help to boost the export of basmati rice from India.

NON-BASMATI RICE

Non-basmati rice exports have also suffered much due to the competition from exporting countries like Thailand, Vietnam and Pakistan because of their low cost of production. In the recent past export of non-basmati rice was fluctuating year after year due to various reasons. The export of non-basmati rice was on its peak during 1995-96 it came down during 1998-99 due to many reasons. Sometime, export is also affected if good harvest is there in the importing countries, they reduce their import accordingly. If rice exporters made their sincere efforts with Govt. supporting export policy, non-basmati rice export is expected to increase in future.

5. PROBLEMS/ CONSTRAINTS OF RICE EXPORT FROM INDIA

India is facing stiff competition in the world markets for export of rice. Besides, there are many domestic problems for rice exporters. If these internal problems are relaxed to the extent possible, the exporters may find easy way to boost rice export and such measures will go a long way to sustain the exports. Some of the major problems are discussed below: -

- 1) As per the state Govt. policy, various taxes are imposed on rice exports, such as the states are imposing Purchase Tax (on indirect export), Market Fees, Rural Development Fund, Administrative Charges etc. These taxes are rendering the pricing of rice internationally in competitive. Thus, Indian rice becomes costlier in the international market as compared to other competing countries in the world and Indian rice exports get setback many times. In fact, in Pakistan rice meant for exports specially the branded ones, duties are extremely low or duty free.
- 2) There is lack of proper infrastructural facilities. Many times exporters, when they carry their stock to sea port and if the stock is not loaded due to some reason or the other, exporters do not find godown or proper place to store their stocks properly and safely at

sea port, exporters have to face lot of difficulties, besides, it adds additional expenditure to the exporters.

- 3) Due to increase in the cost of inputs used for paddy cultivation the production cost goes up and the Minimum Support Price (MSP) for paddy is enhanced every year by the govt. of India to safeguard the interest of the growers. When paddy is converted to rice, it becomes costlier and thus makes it internationally uncompetitive.
- 4) Rice production meant for export purpose is having subsidy in other countries, which reduces the cost of production and thereby reducing the cost of rice. Therefore, the export price of rice of such countries is more competitive in the international markets compared to Indian rice.
- 5) The major rice producing nations have decreased the price to capture the international markets but Indian rice prices are inelastic due to relatively high cost of production and become uncompetitive in the international markets. Much of basmati rice export prospects have been lost in the recent part to other competing countries like Pakistan etc because of high prices.
- 6) Rice mills have not been fully modernized to ensure high milling recovery and reduce the percentage of broken rice. The conventional rice mills are having Rubber Roll Sheller in which percentage of broken rice is more than the modern rice mills that are having under Runner Sheller. Hence, head rice obtained from milling of conventional mills becomes costly due to recovery of higher percentage of broken rice. Therefore, conventional mills are required to be modernized to get recovery of higher percentage of head rice suitable for export.
- 7) Lack of proper arrangements for production of sufficient quantity of quality seeds needed for cultivation of rice for export purposes.
- 8) The export is also suffering much due to the competition from other exporting countries like Thailand, Vietnam and Pakistan because the cost of production in these competing countries is low as compared to the cost of production in India. In fact, trade segment believes that Indian rice can face the global competition if subsidy is provided.
- 9) In these days basmati rice is facing aroma problem, because intensity of aroma in traditional basmati varieties is not so high as it used to be. In fact, basmati varieties are highly prone to lodging and lodging affects the natural grain development. In such situation both aroma and linear kernel elongation are affected.
- 10) Post-harvest handling of produce is another important aspect. Generally, farmers are harvesting the crop at different moisture levels and keeping the produce at higher moisture level for a longer period will impair the intensity of aroma.
- 11) In absence of genetically pure seed of basmati varieties, in majority of basmati rice fields, a variation in plant height, grain size and maturity of the crop is found. This is one of the major reasons for poor quality of basmati rice. In fact, at the time of rice processing the grain size can be taken care of, but it is a waste. However, using good quality seed the loss can be converted into profit.

6. SUGGESTIONS FOR INCREASE RICE EXPORT

Rice export constitutes a considerable share in the national exports. India is major exporters during 2012-13 and its influence on the global rice trade will be significant. Keeping in view the importance of rice in the national export items, concerted efforts are required to be made to

further promote the export of rice. There is a good scope for India to take advantage of the new trade opportunities for promoting the export of rice. This can be achieved if production is made as per the requirements of international markets by increased investment in Research and Development coupled with export friendly trade policies.

The following are few of the measures suggested to increase the export of rice in future:

- 1) Breeding programme may be initiated to develop high yielding export quality rice (Basmati, Non-Basmati, Long Grain Rice, etc.) to enable the exporters to sustain their export in future.
- 2) Survey may be conducted to identify export quality belts/zones for production of rice to meet the requirement of exports.
- 3) Extension activities may be strengthened to educate the cultivators for production of quality rice to match the standards of international markets.
- 4) Low cost production technology may be developed to bring down the cost of production to enable the exporters to compete with competing countries in the international markets.
- 5) Proper arrangements may be made for procurement and processing of rice export purpose as per the requirement of international markets.
- 6) Proper arrangements may be made for production of pure quality seeds and making them available to the farmers at subsidized rates.
- 7) In case of basmati varieties, crop should not be allowed to lodge and there should be proper water management in the field. If these are not attended properly, such situation may affect both aroma and linear kernel elongation.
- 8) Post-harvest operation is also very important. After harvesting, if produce is allowed to remain at higher moisture level for a longer period, it will impair the intensity of aroma.

7. CONCLUSION

The declining share of India's agricultural export in world export trade may be attributed to the stagnant output, low yield rates, non-competitiveness in the world market and lack of knowledge on harvesting and post harvesting technology. India still depends on her traditional export crops. The analysis indicates that there is good market for some Indian rice varieties, especially basmati rice in the world market. Pakistani basmati, as a sole competitor of India, does not have the unique aroma and taste as the Indian varieties. During 2012-13 the foreign earning from basmati rice has increased considerably. Despite considerable area being under rice cultivation in the country, the share of India in world rice export is very low which can be attributed to the fact that the average productivity of rice in the country is low and even in some rice producing states, the productivity is forty to fifty per cent lower than the national average, in spite of having good potential capacity. The reasons of low productivity of rice in the country may be due to use of less quantity of chemical fertilizers, more area under traditional varieties and more dependence on rain. If we desire to increase our exports share in the world rice market, the production growth rate should be adequate surplus in the country. This requires careful analysis of low productivity of rice in the country. Besides, more important, the critical analysis is needed to enquire into the constraints involved in rice export from India.

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