

Rice in Pakistan: Present Scenario, Trade, Problems and Prospects

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ABSTRACT

Pakistan is the 11th largest producer and 4th largest exporter of rice. Rice accounts for 3.2% of the value added in agriculture sector and 0.7% of GDP in Pakistan. During the fiscal year 2015-16, rice export earned foreign exchange of US\$ 1.86 billion. During the same period, rice was planted on an area of 2.8 million hectares. Production of rice during 2015-16 was estimated at 6.9 million tons. As rice is the second staple food and contributes about 2.8 million tons to Pakistan's domestic consumption, each household in Pakistan spends on an average about 3.8 percent of its total food expenditure on rice and rice flour. Pakistan exports both high-quality Basmati rice which sells at a substantial premium in high-income markets as well as intermediate and low quality non-aromatic long grain milled rice to developing countries, mostly in East Africa where it competes with China and Vietnam, and in South Asia. Pakistan's Basmati rice typically sells at a lower price than India's Basmati. For all rice, Sub-Saharan Africa, Afghanistan, Bangladesh, Indonesia, Middle East and the EU are leading export markets for Pakistan.

INTRODUCTION

Rice is one of the most important cash crops in Pakistan and also at the global level. It is the second staple food crop of Pakistan, after wheat and it's the second largest earner of foreign exchange after cotton. Rice is basically Asian crop because 90% of rice production and consumption is focused in this region^[1]. Pakistan cultivates a high quality of rice to fulfill the domestic demands and also for exports. Rice plays a vigorous role in the agro-based and dominates a prominent position in agricultural economy of the country. Pakistan is the 11th largest producer and 4th largest exporter of rice. Rice accounts for 3.2% of the value added in agriculture sector and 0.7% of GDP in Pakistan. During the fiscal year 2015-16, rice export earned foreign exchange of US\$ 1.86 billion. During the same period, rice was planted on an area of 2.8 million hectares. Production of rice during 2015-16 was estimated at 6.9 million tons. As rice is the second staple food and contributes about 2.8 million tons to Pakistan's domestic consumption, each household in Pakistan spends on an average about 3.8 percent of its total food expenditure on rice and rice flour^[1].

In Pakistan rice grown can be divided into two types which are "fine rice" commonly known as Basmati and "course rice". Basmati is world famous and dominated in the global market, due to its strong aroma, grain elongation on cooking^[2]. The main growing areas of Basmati rice in Punjab are Districts Gujranwala, Hafizabad, Sheikhpura, Sialkot, Narowal, Nankana Sahib, Chiniot, Gujrat, Mandi Bahaudin and Kasur. Similarly, the main growing areas of course rice in Sindh are Districts Jacobabad, Larkana, Badin, Thatta, Shikarpur and Dadu while in Baluchistan, Districts Nasirabad and Jaffarabad are also included in rice producing area. The most important varieties grown in Pakistan are Basmati 385, Super Basmati, Basmati 2000, Basmati 515, Shaheen Basmati, PS2, Chenab Basmati, Kissan Basmati, Punjab Basmati, PK-386, IRRI-6, KS 282, KSK-133, IRRI-9^[3].

About 475 million metric tons rice is produced in the world. However, about forty one million tons is marketed in the international trade. China (Area is 30 million ha, with the production of 205 million tons) is the major rice producing country, followed by India (Area is 44 million ha, with the production of 159 million tons), Indonesia (Area is 12 million ha, with the production of 59 million tons), Bangladesh (Area is 11.8 million ha, with the production of 52 million tons) and so on. While Pakistan stands at 8th position in Area, 10th in production and 8th in yield among the 10 top rice exporting countries with the area, production and yield of 2.7 million ha, 10 million tons and 3.64 t/ha respectively^[4].

Rice is widely adopted crop and, therefore, is grown in all the provinces. Rice growing areas in Pakistan are spread from latitude 24° to 36°, from sea level in the south to 2500 meter high altitude in Northern mountain and valleys and terraces, from arid hot plains to coastal tropical humid areas in southern Sindh. In Punjab it is grown in Gujranwala, Hafizabad, Sheikhupura, Sialkot, Narowal, Hafizabad, Nankana Sahib, Chiniot, Gujrat, MandiBahaudin and Kasure Districts. In Sindh it is grown in Jacobabad, Larkana, Badin, Thatta, Shikarpur and Dadu Districts while Nasirabad and Jaffarabad districts of Baluchistan are also included in rice producing area [5].

AREA, PRODUCTION AND YIELD OF RICE

Rice is an important food and cash crop in Pakistan and it is the second staple food after wheat. It accounts for 3.1 percent in the value added in agriculture and 0.6 percent of GDP. During 2015-16, rice crop was cultivated on an area of 2748 thousand hectares showing a decrease of 4.9 percent over last year’s area of 2891 thousand hectares. Rice production remained 6811 thousand tonnes, showing a decline of 2.7 percent over corresponding period of last year’s record production of 7003 thousand tonnes. Rice area decreased due to less economic returns to the farmers on account of decline in rice prices both domestically and globally during last year’s crop. Depressed prices and rising cost of production encouraged farmers to substitute rice with fodder and maize. The heavy downpours in July, 2015 also affected paddy cultivation. This sharp drop in prices mainly reflects pressure of large carryover stock from a record FY 2015 rice harvest. Specifically, abundant rice supply (owing to healthy crop in both FY 2014 and FY 2015), and sluggish exports particularly of Basmati, has led to a steep rise in rice stocks. In the case of Basmati rice, Pakistan’s exports are already facing tough competition from India in the UAE market [6]. As for the export of non-basmati varieties is concerned, severe drought in Thailand—the largest exporter of non-basmati varieties created opportunities for Pakistan to increase exports. The rice exports particularly Basmati rice also remained subdued in 2015-16 compared to last year [7]. Whereas other varieties of rice exports improved in quantity by 9.9 percent. The area, production and yield of rice for the last five years are shown in **Figure 1**.

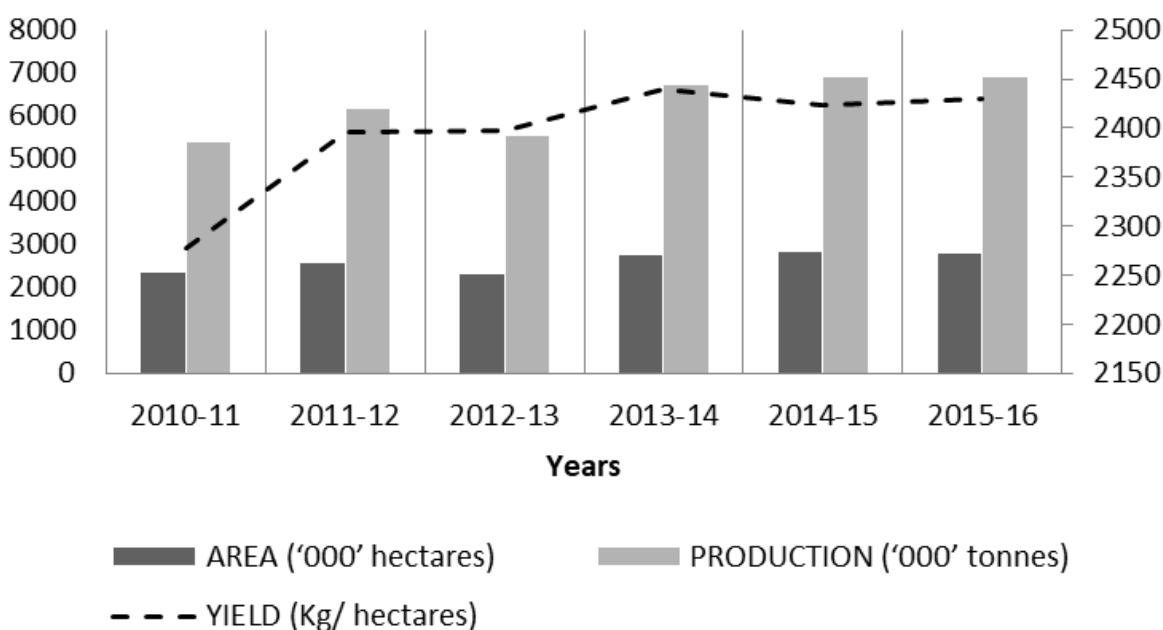
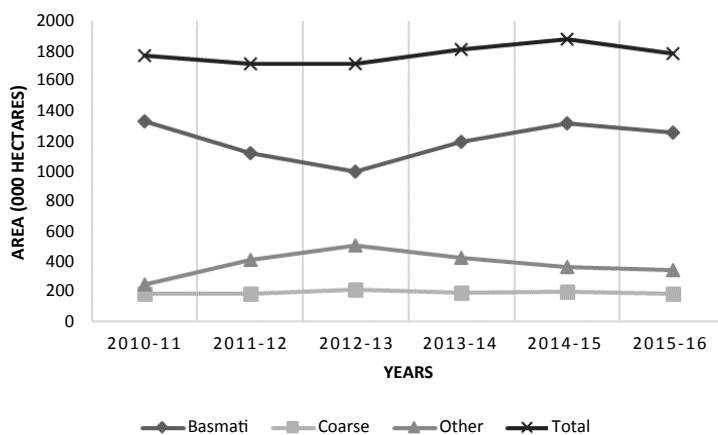
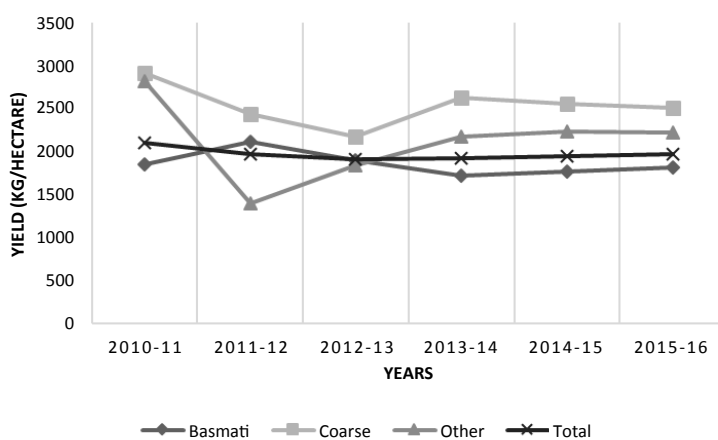


Figure 1. The area, production and yield of rice for the last five years.

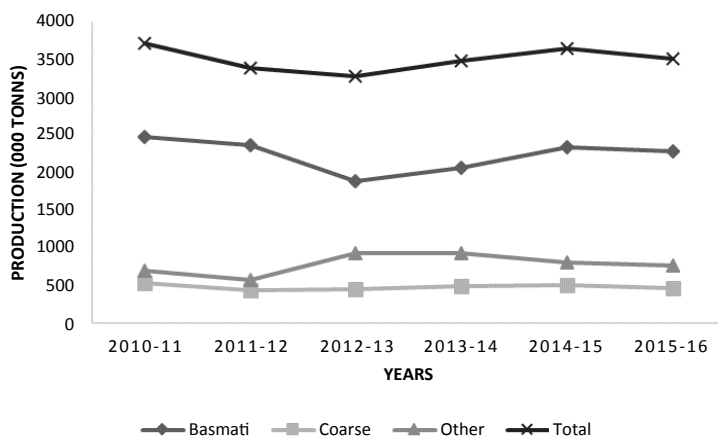
The reasons/causes for ups and downs in area and production of rice during 2014-15 over last year vary from province to province are given in **Table 1**. For example, in Punjab, at overall level area and yield both increased by 0.9 and 1.0 per cent respectively resulting in higher rice production of around 2.0 percent. However, in some districts i.e. Sargodha, Jhang, Chinot, Gujrat, M. B. Din, Sialkot, Norowal, Gujranwala, Hafizabad etc. Area of IRRI and Others Rice varieties was damaged by heavy rain/flood while production of basmati remained higher than last year because of corresponding increase in area and comparative better yield [8]. In Sindh area and production remained higher by 4.8% and 1.1% over last year area and production, however yield smashed by 3.6%. Increase in area of rice is reported due to safety from flood and heavy rain and shifting of cotton area to paddy crop in Sindh. In KPK, rice crop positioned its area and production at 65.0 thousand hectare and 19.5 thousand tones respectively, showing increases of 17.5 & 19.5% respectively over last year’s area and production. Whereas, in Balochistan both area and production of rice stood behind the previous area and production by 2.9 & 2.8 percent respectively. The area, yield and Production of rice by variety from 2010-11 to 2015-16 are given below.



a



b



c

Figure 2. (a-c) Shows the area (hectares) under rice crop planted during the years 2010-16.

Data depicted graphically in **Figure 1** showed that Pakistan Per hectare yield of rice was estimated about 2430 kg/hectare and for Punjab 1967 kg/hectare respectively. In comparison with the last year 2014-15 per hectare yield of the Punjab province was 1924 kg/hectare which is slightly down of the year 2015-16. Likewise, data depicted in **Figures 2a-c** shows during the year 2015-16, the area was planted about 2.8 million hectares under rice crop, whereas, in the Punjab Province area about 1.780 million hectares was planted, which is 64 per cent of the total cultivated rice area in Pakistan. The total production of the rice had been estimated to 6.90 million tones and in the Punjab province production of rice was estimated about 3.502 million tones which is 51 per cent of the total production of rice in Pakistan ^[9].

EXPORT OF RICE FROM PAKISTAN (FROM JUNE 2000 TO JULY 2015)

The statistics from the below table indicated that Pakistan has exported about 4.262 million tons of rice (about 503,037 tons

of basmati and about 3.759 million tons of non-basmati) in fiscal year 2015-16 which is up about 14% from around 3.731 million tons (about 676,630 tons basmati and about 3.054 million tons of non-basmati) exported during the same period in FY 2014-15.

In terms of value, Pakistan’s exports earned about \$1860 million in fiscal year 2015-16, up about 0.6% from about \$1848.701 million earned during the same period in FY 2014-15. The above table showed that the highest exports recorded so far were in 2009-10 when earning from rice exports touched at \$2.26 billion. Since then, exports trend shows more or less stagnant. During the period July, 2009 to June 2010, rice exports touched 4.60 million tons against 2.93 million tons during the corresponding last year period 2008-09. However, the overall value increased by only 10.82 percent to \$2.26 billion against \$2.04 billion during the corresponding last year period ^[10]. The reason for highest export in 2009-10 is that during this period Pakistan’s rice export market increased by 31 countries in one year. While in 2008-09, the country exported the commodity to 76 countries only. The number reached to 109 in 2009-10 (Table 1).

Table 1. Statistics indicating export of Basmati and Non-Basmati rice in Pakistan.

Years	BASMATI		NON-BASMATI		TOTAL	
	Qty. (MT)	Value (million US \$)	Qty. (MT)	Value (million US \$)	Qty. (MT)	Value (million US \$)
2000-2001	347,074	170.83	1,792,224	291.21	2,139,298	462.04
2001-2002	410,425	197.44	1,134,065	189.71	1,544,490	387.15
2002-2003	483,777	252.23	1,103,256	194.11	1,587,033	446.34
2003-2004	593,320	315.22	1,006,400	212.77	1,599,720	528.00
2004-2005	656,117	360.91	2,076,396	493.93	2,732,513	854.85
2005-2006	741,998	423.62	2,849,740	678.47	3,591,738	1102.09
2006-2007	771,099	474.50	2,221,236	569.86	2,992,335	1044.37
2007-2008	850,638	826.15	1,671,055	781.12	2,521,693	1607.28
2008-2009	924,358	1018.78	2,005,703	1025.74	2,930,061	2044.52
2009-2010	1,050,052	866.65	3,557,501	1399.14	4,607,553	2265.80
2010-2011	1,137,943	952.69	2,563,664	1138.45	3,701,607	2091.14
2011-2012	968,941	844.21	2,755,905	1237.02	3,724,846	2081.23
2012-2013	630,035	626.69	2,858,978	1210.89	3,489,013	1837.58
2013-2014	733,860	846.24	2,627,899	1051.57	3,361,759	1897.82
2014-2015	676,630	681.54	3,054,680	1167.15	3,731,310	1848.70
2015-2016	503,037	455.24	3,759,005	1405.00	4,262,000	1860.00

Source: Rice Exporter Association of Pakistan.

Causes and shortcomings for decrease in export of rice

1. Pakistani rice is very prominent in the global market but mixing of one variety with another upsets the quality of rice which results in loss of market and national repute.
2. Due to lack of technology for harvesting and threshing by the farmers, which results in damage to the quality of rice.
3. There are few brands of Pakistani rice. Mostly Pakistani exporting companies are exporting rice without any brand name. Due to such negligence, a certain quantity of Pakistani rice is being repacked under the Indian brand names and Pakistani exporters don not get good price of even high quality product. This issue can only be eliminated by proper packing and branding of Pakistani rice.
4. Due to availability of huge amount of stocks in importing countries, demand of rice has decreased because the importing countries purchased a big quantity of rice on the perception that the international prices of rice would increase in future. So the price in the global market has also decreased due to decrease in demand of rice.
5. The storage capacity issues, high local price and government intervention will hit the rice export from Pakistan, which is already facing declining trend on aggressive competition in global market. Pakistan Government does not offer any subsidy to the growers and rice exporters while in our neighboring country, subsidy on rice from Indian government to farmers as well as rice exporters have seriously affected the rice export of Pakistan.
6. High prices of fertilizer and pesticides, adoption of old traditional system to dry the paddy, lack of supplies of certified seeds, energy crises and high power tariffs are also badly hit national trade.

WORLD’S TOP TEN RICE EXPORTERS

India is the world’s leading Rice Exporter. India exported about 10.0 million tons in FY 2015-16. Thailand is 2nd largest rice exporter. Thai Jasmine rice is very popular in the international market due to its fragrance and taste. Thailand exports rice about 11.0 million metric tonnes and earns about more than 80 billion baht each year. After Thailand, Vietnam and Pakistan are the

third and fourth world’s largest exporters of rice respectively. Pakistan have much importance and popular in the international market due to its long grain aromatic basmati rice. The world’s top ten rice exporters in the year 2016 is given below (Table 2).

Table 2. World’s top ten rice exporters.

Rank	Country	Export (000 metric tons)
1	India	10,000
2	Thailand	9,500
3	Vietnam	5,800
4	Pakistan	4,262
5	United States	3,556
6	Myanmar	1,500
7	Cambodia	1,000
8	Uruguay	880
9	Brazil	650
10	Argentina	550

Rice exports by country totaled US\$ 19.9 billion in 2016 down by an average -16.7% for exporting countries from 2012 when overall rice shipments were valued at \$23.9 billion. Year over year, the value of global rice exports also dipped by -12.2% from the \$22.7 billion worth of exported rice during 2015. From a continental perspective, Asian countries accounted for the highest dollar value worth of rice exports during 2016 with shipments amounting to \$14.5 billion or two-thirds (66.4%) of all rice exports. North American exporters supplied 9.6% of global rice exports, followed by Europe at 8.4% then Latin America (excluding Mexico) and the Caribbean at 6.6%. African rice exporters were responsible for a smaller percentage at 1.7%. Global net rice exports are projected to grow by 9.3 mmt over the baseline period. Aggregated net exports of India, Vietnam, Myanmar, and Cambodia will grow by 9.9 mmt while those of Thailand and the U.S. will contract by 1.7 mmt. Table 2 shows the changes in world export shares of major exporting countries, indicating that Thailand’s share increases from 24% to 35%; U.S.’ share increases from 6% to 10%; while India’s share contracts from 22% to 10% [11].

WORLD’S TOP TEN RICE IMPORTERS

The bulk (31.6%) of the total rice net import demand is projected to come from the Philippines, Nigeria, Bangladesh, Iran, and Indonesia; and 16.7% from Iraq, Saudi Arabia, Ivory Coast, Malaysia and Senegal. However, 33.2% of the growth in net rice imports is accounted for by the Philippines and Bangladesh; 32.8% by Africa; and 16.7% by the Middle East. Table 3 shows changes in world shares of major importing countries from 2010 to 2021. The table shows that China is the biggest importer of rice in the world who imports rice about 5.0 million tons annually. After China, Nigeria and EU are the second and third largest rice importing countries in the world respectively [12]. The world’s top ten rice importers in the year 2016 is given below.

Table 3. World’s top ten rice importers.

Rank	Country	Imports (000 MT)
1	China	5,000
2	Nigeria	2,000
3	EU-27	1,800
4	Saudi Arabia	1,550
5	Indonesia	1,250
6	Philippines	1,200
7	Côte D'ivoire	1,200
8	Iran	1,050
9	Malaysia	1,050
10	Iraq	1,050

Source: United States Department of Agriculture.

WORLD’S TOP TEN RICE PRODUCERS

China is the first world’s largest producer which produce about 146.5 million metric tonnes rice annually. After China, India is world’s second largest producer which produce about 106.5 million metric tonnes annually. So these two countries are considered the hug of this widely consumed staple food. China and India both are considered world’s largest agricultural countries and have much importance around the world. The world’s top ten rice producers in the year 2016 are given below (Table 4).

Table 4. World's top ten rice producers.

Rank	Country	Production (Million Tons)
1	China	146.5
2	India	106.5
3	Indonesia	36.6
4	Bangladesh	34.5
5	Viet Nam	27.80
6	Thailand	18.60
7	Myanmar-Burma	12.5
8	Philippines	12.0
9	Brazil	8.02
10	Japan	7.79

Source: United States Department of Agriculture, 2016.

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