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Contribution of Haryana state in food security of India

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Abstract

The present study was undertaken in Haryana State during the year 2016-17. The results of the study revealed that wheat and rice are the major cereal crops of Haryana state. In case of wheat and rice, the contribution of Haryana State in central pool was 24.13 and 8.05 percent during the year 2015-16. Though the percent of wheat and rice contribution to central pool was fluctuated but it was recorded highest in case of wheat during the year 2005-06 i.e. 30.41 percent whereas, in case of rice it was highest during the year 2015-16 i.e. 8.05 percent during the study period. The availability of food is very important because Haryana is the major state in India which is providing food to a huge population so proper attention is needed in availability of food to ensure the future food sustainability in India.

Keywords: Food security, staple foods, cereals, pulses and central pool

Introduction

Food is essential to the survival of people and grain is the principal food. Freedom from hunger is the most fundamental human right. Food and Agriculture Organization (FAO) stated that food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Food security concerns are very important for developing countries like India, where a large percentage of its population is poor and devotes a high share of total household expenditure to food. Since the beginning of the planned era, removal of poverty and ensuring food security has been the agenda for economic policy planners, in India. The agriculture sector has provided livelihood to majority of the people in the country. However, still 15.2 percent of the population is undernourished.

India has moved away from dependence on food aid to become a net food exporter, with a five-fold increase in food grain production from 50 million tonnes in 1950-51 to about 277 million tonnes in 2017-18. The post-independence period in India experienced a historically unprecedented growth of agricultural production after a century of stagnation. Haryana along with Punjab have been main driver of the unprecedented growth and play important role in securing food security of India. Haryana was earlier a part of Punjab now plays an important role in country's food grain production. Its net irrigated area was 3.54 percent against 58.48 percent of Punjab. After the formation Haryana emerge as leading state in field of agriculture production. The agricultural economy of Haryana is dominated by food grains.

India's food basket is dominated by wheat and rice. With the advent of green revolution Haryana has emerged as one of the major food grains producing state in the country. In 2012-13 country's 120.78 million hectares area was under food grains production. Punjab and Haryana are smaller state of India in terms of area, but both are important states in terms of food grains production. In 2012-13, 4.40 million hectares area under food grain production in Haryana; it is 3.64 percent of total country area under production of food grains. In 2012-13, India produced 257.13 million tones of food grains. Haryana which covers only three percent of food grain area produced 16.23 million tonnes of food grain in 2012-13 and this constitutes 6.31 percent of total food grains production; almost double share compare to area. Rice and wheat are the main staple foods, on which country's food security depends. In terms of production, Haryana contributes 3.98 million tonnes which constitutes 3.78 percent of total nation rice production. Haryana is the second state in terms of productivity after Punjab. To ensure the food self-sufficiency in future, there is need to sustainable growth rate in food grains production.

The Haryana state with only 1.34 percent of the geographical area of country constituted about 12.30 percent of wheat production and 3.97 percent rice production during 2015-16.

Haryana is the second largest contributor of food grains to national food basket of India. The productivity trend has remained positive for all the principal crops during the post reform period, however the growth of yield/productivity of many crops i.e. rice, wheat, pulses and oilseeds, has stagnated in the recent period. (Meena, 2016) ^[3]. Due to over exploitation of land and water resources, Haryana agriculture is facing various serious problems like depletion of ground water, insect- pest in food grains, etc.

Keeping in view, the above facts in consideration, the present study was undertaken in Haryana State.

Methodology

The present study was undertaken in Haryana State during the year 2016-17. The secondary data related to production of cereals and coarse cereals and percent share of Haryana State in central pool were collected for the periods 1995-96 to 2015-2016. The whole study period from 1995-96 to 2015-16 has been divided into five different sub-periods i.e. 1995-96 to 1999-00, 2000-01 to 2004-05, 2005-06 to 2009-10, and 2010-11 to 2015-16.

Results and Discussion

Percentage share of Haryana in wheat production of India

Wheat crop is traditional crop of Haryana state. Contribution of wheat to central pool is shown in the Table 1. The production of wheat was about 62.10 million tonnes in India and 7.29 million tonnes in Haryana state in the year 1995-96 and contribution of Haryana state was 11.74 percent. The contribution of Haryana state to the central pool was highest during the year 2010-11 which was 13.33 percent and also production which was 11.58 million tonnes during the study period. Overall, range of contribution from Haryana state varies between 11-13 percent of the total production.

Table 1: Percentage share of Haryana state in wheat production of India

Year	India (million tonnes)	Haryana (million tonnes)	Percentage share of Haryana
1995-96	62.10	7.29	11.74
2000-01	76.37	9.67	12.66
2005-06	69.36	8.85	12.76
2010-11	86.87	11.58	13.33
2015-16	92.29	11.35	12.30

Percentage share of Haryana in rice production of India

Rice is second major crop in Haryana state as well as India. Results of the study revealed that production of rice in Haryana during the year 1995-96 was 1.85 million tonnes and share of Haryana to India's rice production was 2.40 percent. During 2000-01, production of rice in India was 84.98 million tonnes where as in Haryana state rice production was 2.70 million tonnes with a share to total production of 3.18 percent. In the year 2005-06 the production of rice in the country was 91.79 million tonnes, in Haryana state the rice production was 3.19 million tonnes and the share to central pool was 3.48 percent. During 2005-06, the production in India and Haryana state was 95.97 and 3.47 million tonnes respectively, the share also increased from 3.18 to 3.48 percent. Further, during 2010-11 to 2015-16, the share of Haryana state in rice production increased from 3.62 to 3.97 percent. In 2015-16, production of rice in country was 104.41 million tonnes and in Haryana 4.15 million tonnes, highest during the study

period. Thus, production of rice in the country and Haryana state were highest during 2015-16 and also shows continuous increase in production both in India as well as Haryana state during the study period. And this is due to central government focus on rice and wheat because these are the staple food for Indian people (Table 2).

Table 2: Percentage share of Haryana state in rice production in India

Year	India (million tonnes)	Haryana (million tonnes)	Percentage share of Haryana
1995-96	76.98	1.85	2.40
2000-01	84.98	2.70	3.18
2005-06	91.79	3.19	3.48
2010-11	95.97	3.47	3.62
2015-16	104.41	4.14	3.97

Percentage share of Haryana in bajra production in India

The share of Bajra from Haryana state to the total bajra production was 7.62 percent during the year 1995-96 as can be seen from Table 3. It increased to 9.76 percent during 2000-01. During 2005-06 the production of bajra increased to 0.71 million tonnes in Haryana state and also production of Bajra in the country increased to 7.68 million tonnes. During the year 2010-11, production of bajra becomes 10.37 million tonnes in the country and share of Haryana also increased to 15.36 percent. In the year 2015-16 production of bajra declined to 8.07 million tonnes in the country and share of Haryana also decreased to 8.05 percent. Production of Bajra was highest during 2010-11 in the country and also in the Haryana during the study period.

Table 3: Percentage share of Haryana state in bajra production in India

Year	India (million tonnes)	Haryana (million tonnes)	Percentage share of Haryana
1995-96	5.38	0.41	7.62
2000-01	6.76	0.66	9.76
2005-06	7.68	0.71	9.11
2010-11	10.37	1.18	15.36
2015-16	8.07	0.65	8.05

Wheat procurement for central pool from Haryana

The contribution of wheat from Haryana state to the central pool was 45.52 percent during the year 1995-96 as can be seen from table 4. It increased to 59.74 percent during the year 2015-16. Wheat crop is major cereal crop in Haryana state. During the year 2000-01, production of wheat was 9.67 million tonnes in the state and 4.50 million tonnes from this production was contributed to central pool. In the year 2005-06 procurement was 4.53 million tonnes from a production of 8.85 million tonnes. During 2010-11, production of wheat in Haryana state increased to 11.58 million tonnes (Highest in the study period) and procurement as percentage of production increased to 54.84 percent. In spite of highest production during 2010-11, highest procurement as percentage of production was during 2015-16 which was 59.74 percent.

Table 4: Wheat procurement for central pool from Haryana state

Year	Production (million tonnes)	Procurement (million tonnes)	Procurement as percentage of production
1995-96	7.29	3.10	42.52
2000-01	9.67	4.50	46.54
2005-06	8.85	4.53	51.19
2010-11	11.58	6.35	54.84
2015-16	11.35	6.78	59.74

Source: Statistical abstract of India, www.indiastat.com
Agricultural Statistics at a Glance (Various issues)

Rice procurement for central pool from Haryana

The contribution of rice from Haryana state to the central pool was 37.30 percent during the year 1995-96 as shown in the Table 5. It increased to 66.27 percent during the year 2015-16. Rice crop is the second major cereal crop in the state. During 2000-01, production of rice was 2.70 million tonnes and 1.48 million tonnes from this production was contributed to central pool. During 2005-06, production of rice was 3.19 million tonnes and 2.05 million tonnes from this production is contributed to central pool. The production of rice during 2010-11 was 3.47 million tonnes and contribution to central pool was 1.69 million tonnes. In the year, 2015-16 production of rice in the state was 4.15 million tonnes and contribution to central pool was 2.75 million tonnes. Procurement as percentage of production was highest during the year 2015-16 which was 66.27 percent. The overall data shows that the production of rice increased over a period of time, but the

procurement percentage of rice shows slight decrease during 2010-11.

Table 5: Rice procurement for central pool from Haryana state

Year	Production (million tonnes)	Procurement (million tonnes)	Procurement as percentage of production
1995-96	1.85	0.69	37.30
2000-01	2.70	1.48	54.81
2005-06	3.19	2.05	64.26
2010-11	3.47	1.69	48.70
2015-16	4.14	2.75	66.43

Source: Statistical abstract of India, www.indiastat.com
Agricultural Statistics at a Glance (Various issues)

Contribution of wheat and rice in central pool of India, 1995-96 to 2015-16

Contribution of wheat and rice of Haryana in central pool is presented in Table 6. Wheat contribution to central pool in 1995-96 was 3.10 million tonnes which increased to 6.68 million tonnes during 2015-16. The data in the table 4.14 shows that contribution to central pool increases over the study period but percentage share shows that it increases during 1995-96 to 2005-06 from 25.16 percent to 30.41 percent, but declined to 24.13 percent in 2015-16. This is because contribution of other states increased in contribution to central pool so percentage contribution of wheat decreased to the central pool from Haryana. Similar study were also carried out by Meena, R., N *et al.*, in year 2013^[4]

Table 6: Contribution of wheat and rice of Haryana state in central pool

Year	Wheat			Rice		
	Central pool (million tonnes)	Contribution to central pool (million tonnes)	Percentage share to contribution	Central pool (million tonnes)	Contribution to central pool (million tonnes)	Percentage share to contribution
1995-96	12.32	3.10	25.16	13.72	0.69	5.03
2000-01	16.36	4.50	27.50	21.26	1.48	6.96
2005-06	14.78	4.53	30.41	27.65	2.05	7.43
2010-11	28.34	6.35	28.19	34.20	1.69	4.93
2015-16	28.01	6.78	24.13	33.54	2.75	8.05

Source: Statistical abstract of India, www.indiastat.com
Agricultural Statistics at a Glance (Various issues)

In the year 1995-96, rice contributed from Haryana to central pool was only 0.69 million tonnes, it increased to 2.75 million tonnes during 2015-16. Rice contribution to central pool showed an increasing trend upto 2005-06, but declined to 1.69 million tonnes and increased to 2.75 million tonnes during 2015-16. Also percent contribution is highest during this period which was 24.43 percent.

Conclusions

The present study was undertaken in Haryana State during the year 2016-17. The secondary data related to production and percent share of major food grain crops of Haryana State in central pool were collected for the periods of 1995-96 to 2015-2016. The wheat crop is major cereals crop in the state of Haryana and its contribution to the central pool was 25.16 percent during the year 1995-96 which was increased to 30.41 percent in the year 2005-06 but declined to 24.13 percent in 2015-16. The overall data shows the production of wheat increased over a period of time, the percent of wheat contribution to central pool was fluctuated as it increases or decreases at various times because wheat is stable food for Haryana people and its marketed surplus increased or decreased accordingly. The rice crop is second major cereal

crop in the state of Haryana. The contribution of rice from Haryana state to the central pool was 5.03 percent in the year 1995-96 which increased to 8.05 percent in the year 2015-16. The highest contribution of rice production from Haryana state was in the year 2015-16. The overall data shows that production of rice increased over the study period, the percent of rice contribution to central pool was fluctuated at various times because of rice is second stable food for Haryana people and its marketed surplus increased or decreased accordingly. For food security, the availability of food is very important because Haryana is the major state in India which is providing food to a huge population so proper attention is needed in availability of food to ensure the future food sustainability in India.

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