

Challenges to Indian agriculture - A study

Dr. Arjun Waykar

Associate Professor, Swami Vivekanand Sr.College , Mantha , Dist- Jalna (India)

ARTICLE DETAILS

Article History

Published Online: 16 Aug 2019

Keywords

Challenges, Minimum Support Prices (MSP), Kharif, holding.

Corresponding Author

Email: waykarab[at]gmail.com

ABSTRACT

The agricultural sector is of special importance in the Indian economy. Despite the importance of agriculture sector, the government has not taken this sector seriously first. The government's neglect has created a number of serious challenges in the field of agriculture. For example, low productivity, small size of the agricultural, farmers suicide and other challenges are there.

The government has taken several measures to solve the above challenges, like increasing productivity per hectare, the alternative source of income, the sufficient minimum support price, availability of infrastructure, the size of farm land, cheap loans to create awareness among the farmers etc.

1. Introduction

The agricultural sector is a special importance in the Indian economy. The agricultural sector is the spine of the Indian economy. Indian agriculture is the basis of human life and an important source of employment. The Indian agricultural sector has a large share in international trade and gross national income. From ancient times till today, the main business of Indian people has been agriculture. Agriculture has a special importance as it is the responsibility of supply of raw materials to industries and food to the Indian people. On the whole, it seems that agriculture is the soul of the Indian people.

Despite the unique importance of agriculture in the Indian economy, the Government of India has not paid special attention to agricultural development. There are many challenges facing Indian agriculture today, which farmers cannot cope with. Today globalization has reached all sectors of the economy as well as agriculture. The adverse effects of this have been affecting agriculture. Today, Indian agriculture has to compete globally. Since the Indian agricultural sector is very backward, there are many new challenges facing this area. It is very difficult to cope with this.

2. Objectives

- 1) To study the challenges facing the Indian agricultural sector.
- 2) To suggest measures to meet the challenges facing the agricultural sector.

3. Research Methodology

To achieve the objectives of the study it is necessary to use appropriate research methodology. This research paper collects and analyzes data from various sources of information and concludes it. The following research methodology is used for the proposed study.

4. Sources of data

Secondary instrument material is used for the study. It mainly collects and analyzes information using various reports, reference books, magazines, journals and information on the website, etc.

The Indian agricultural sector faces many challenges today. Some of the key challenges can be summarized as follows.

- 1) Low productivity of Indian agriculture: The following table shows the productivity of major crops in different countries.

Table-1: Crop yield per hectare (kg) in certain selected countries of the world.

Country	Paddy	Country	Wheat	Country	Pulses	Country	Cotton
India	2960	India	2720	India	600	India	600
China	6350	China	3830	China	3330	China	3830
America	7210	England	7080	Japan	2000	Australia	4060
Japan	6660	France	6630	France	2750	England	7080

Source: Economics of Agricultural Development - Dr. T.V.Powle, Dr.S.R.Takle, Dr. Vilas Khandare

From Table 1, it is shown that in 2008 the production of paddy per hectare in India was 2960 kg. while in the US it was 7210 kg. wheat production in India was 2720 kg. and in England at the same time it was 7080 kg. Production of pulses was only 600 kg in India whereas this was 3330 kg. in China. Cotton production in India was only 600 kg and in England 7080 kg. per hectare. Therefore, there is a huge challenge of low

productivity in the face of Indian agriculture and hence India's agricultural production cannot compete in the global market.

- 2) **Size of farm land in India:** According to some economists, if the size of farm land is small, productivity is high and some economists say, this is the opposite. In fact, agricultural productivity depends on the size of the farm as well as many other factors.

Table-2: Holding during Agriculture Census 2010-11

Sr. No.	Size Class (in Ha.)	Total Farmers (in '000)	Area (in '000 hec.)	Avg. size per holding(in hec.)
1	Marginal (0-1)	92826 (67.1)*	35908 (22.5)*	0.39
2	Small (1-2)	24779 (17.9)*	35244 (23.6)*	1.42
3	Semi-Medium (2-4)	13896 (10.0)*	37705 (23.6)*	2.71
4	Medium (4-10)	5875 (4.2)*	33828 (21.2)*	5.76
5	Large (10 & above)	973 (0.7)*	16907 (10.6)*	17.38
6	Total	138348 (100)*	159592 (100)*	1.15

Source: All India Report on Agriculture Census 2010-11.

*Percentage to total

From Table 2 it appears that the average cultivable area in India is 1.15 hectares. Of the total farmers, the marginal farmers with less than one hectare of agriculture area are the highest, which is 92826 million, which is about 67.1 percent of the total number of farmers and the area occupied by them is 22.5 percent. Farming cannot be profitable as this area is small. The total farmers with less than five acres of land holdings are 11.7605 crore and their total cultivable area is 46.1 percent. In

India, the number of smallholder farmers is high. They do not have enough capital to invest in agriculture. The result of all this is that productivity is low and production costs are high and Indian farmers cannot survive in competition.

3) Slow growth rate of agriculture: The growth rate of Indian agriculture is extremely low. Instead of increasing agricultural growth, it appears to be declining.

Table-3: Growth of the Agricultural Sector

Period	In Agriculture and allied sector	GDP
1951-61	3.3	3.8
1961-71	2.2	3.7
1971-81	1.7	3.3
1981-91	3.9	5.7
1991-01	2.8	6.7
2002-07	2.1	7.5
2005-11	3.1	7.0
2012-2016	1.6	-

Source :-Datt&Sundharam ,Indian Economy,67 th Revised Edition by-GauravDutt&AshwaniMahajan, Page-531.

From the table no.3above, it appears that the growth rate of India's agricultural sector was 3.3 percent in the period of 1951-61years. During the period from 2012 to 2016 it has decreased to 1.6 percent. How can India compete with other countries in the world at such a low growth rate?

4) Low irrigation: In India the monsoons are only four months and uncertain, rest eight month irrigation is necessary to protect

crops from drought. Irrigation in India includes minor and major dams on the rivers, canals, wells, tube wells are here. Irrigation is very important for Indian agriculture. The average rainfall in India is less than 50 inches, it is seasonal and its uneven distribution. The maximum irrigation is required for maximum production in the field.

Table-4:Gross and Net Irrigated Area in India (Million Hectares)

Year	Net Irrigated Area	Gross Irrigated Area	Total Cropped Area	Gross Irrigated Area as percent of sown area
1950-51	21	23	133	17
1970-71	31	38	166	23
1990-91	48	62	186	34
1999-00	57	76	193	39
2000-01	55	76	186	40
2006-07	61	85	193	44
2007-08	62	87	195	44.6
2008-09	63	88	195	45.3

Agricultural statistics at a glance (2010)

In table 2 gives an idea of progress of irrigation since 1950-51 to 2008-2009. Net irrigated area has increased 21 million hectares in 1950-51 to 63 million hectares in 2008-2009. In this time gross irrigated area increased from 23 million hectares to 88 million hectares in 2008-2009. The benefit of irrigation is available for more land now than 1950-51. In 1950-51 gross irrigated area only of cropped land is 17 percent but in 2008-2009 as much as 45.3 percent of all cropped area. But in

Maharashtra 17 percent gross area is irrigated, so how to competes the Maharashtra to other world.

5) Less agricultural credit supply on high interest rate: Low debt at high interest rates Indian farmers are poor so they cannot invest in their own capital and do not have to spend their daily expenses. The organizational system is not sufficient to meet this need so there is no alternative to a lender.

Table 5: Sources of agricultural credit (In %)

Source	1951-52	1961-62	1970-71	1981-82	1991-92	2002-03	2010-11
Government	3.3	2.6	3.6	4.0	6.1	3.0	4.0
Cooperative Societies	3.1	15.5	22.7	28.6	21.6	26.0	24.9
Commercial Bank	0.9	0.6	4.0	28.0	33.7	27.0	43.1
Money Lenders	90.9	67.4	68.4	38.8	32.7	41.0	21.9
Others	1.8	13.9	1.3	0.6	5.9	3.0	6.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: IJESRT INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH TECHNOLOGY AGRICULTURAL FINANCE IN INDIA- AN OVERVIEW Ajit Kumar Mishra*1 and Upasana Mohapatra2 , 6(8): August, 2017.

There has been decline in the percentage of agricultural financed by non institutional like money lenders. In 1950-51 the share of commercial bank is 0.9 percent but in 2010-11 increased to 43.1 percent. The Government share of debt supply was 3.3 percent in the 1951-52 and gone up to 4 percent. The co-operative society's contribution to the agricultural sector was 3.1 percent, and it increased to 24.9 percent. In short the contribution of the institutional sector in providing loans to agriculture is increasing while the share of non-institutional sector is decreasing. As the agricultural sector receives less credit than other sectors, investment in agriculture is less and the result is a decline in productivity. Overall India fails to compete with other countries in the world.

6) Minimum Support Prices: The biggest problem for Indian farmers is the sale of the produce. The sale of farm produce is of special importance in boosting the income of the farmers and promoting economic development. In India, there is a huge chain of intermediaries between the consumers and the peasants, which simultaneously robs the farmers and the consumers. The farmer gets up to 50 percent of the value paid by the customer and the rest goes to the brokers' pockets. To combat this problem, the government has to buy the commodities at a minimum support price. The dream of doubling the income of farmers can be fulfilled only if good prices are paid based on the cost of production.

Table -6 Minimum Support Prices (MSP) for Kharif, Rabi and other crops of various seasons (Rs. per Quintal)

Sr. No.	Commodity	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Increase in MSP 2019-20 over 2014-15
1.	Kharif Common Paddy	1360	1410	1470	1550	1750	1815	33.45
2	Fine Paddy	1400	1450	1510	1590	1770	1835	31.07
3	Tur	4350	4625	5050	5450	5675	5800	33.33
4	Moong	4600	4850	5225	5575	6975	7050	53.26
5	Urad	4350	4625	5000	5400	5600	5700	31.03
6	Yello Soyabean	2560	2600	2775	3050	3399	3710	44.92
7	Groundnut	4000	4030	4220	4450	4890	5090	27.25
8	Maize	1310	1325	1365	1425	1700	1760	34.35
9	Bajra	1250	1275	1330	1425	1950	2000	60.0
10	Cotton medium staple	3750	3800	3860	4020	5150	5255	40.13
11	Cotton long staple	4050	4100	4160	4320	5450	5550	37.03
12	Rabi Wheat	1450	1525	1625	1735	1840	-----	26.89*
	Gram	3175	3500	4000	4400	4620	-----	45.51*
Other	Sugarcane	200	230	230	255	275	275	37.50

Source :- Directorate of Economics and Statistics. *Increase in MSP 2018-19 over 2014-15

From the above table, it seems that the price of Bajra has increased by the highest 60% in the last five years. Wheat prices rose by 26.89 percent. In the last five years, the prices of all the crops have average increased by 33.09 percent, which is 6.62 percent on an annual basis. The cost of goods purchased by the farmers and their overall agricultural expenditure has more than doubled during this period, while the salaries of the salaried servant have increased by 50 to 75 percent. This means that there is a slight increase in the income of the farmers, which you want to double in 2020. It is estimated that it will take another 50 years if the current speed is to double the

income of the farmers. This is the biggest challenge facing agriculture.

7) Farmers suicide in India: Even after 72 years of independent India, the peasants here have not received justice. All Indians should be ashamed that farmers are committing suicide due to constant drought, inadequate monsoon rains, inadequate supply of agricultural credit, high cost of agricultural inputs, defective sales arrangements, and unproductive use of loans.

Table 7 :Farmers suicide in India :

Sr. No.	Year	India	Maharashtra	Marathwada
1	2005	17371	3926 (23%)*	121 (03%)**
2	2006	17060	4453 (26%)*	379 (08%)**
3	2007	16632	4238 (25%)*	325 (08%)**
4	2008	16796	3802 (23%)*	283 (07%)**
5	2009	17368	2872 (17%)*	226 (08%)**
6	2010	15964	3141 (20%)*	182 (06%)**
7	2011	14027	3337 (24%)*	162 (05%)**
8	2012	13754	3786 (28%)*	195 (05%)**
9	2013	11772	3146 (27%)*	1205 (38%)**
10	2014	12360	4004 (32%)*	547 (14%)**
11	2015	12602	4291 (34%)*	1109 (26%)**

Source :-National Crime Records Bureau -2015.,Farmer Suicide in Marathwada: A Study by Prof. Dr. Vicar a. B. Article byPrinting Area ,International Research Journal,Special Issue December 2017 page no.61

* Farmer suicides in Maharashtra are associated with suicide in India

** The proportion of farmers in Marathwada suicides with suicide in India

Table no. 7 It seems that India has the highest number of suicides in the year 2005. Maharashtra has the highest number of suicides in 2006. In 2015 year Maharashtra alone 34 percent of the total suicides occurred in the country. In Maharashtra, 25 % of the suicides are reported in only Marathwada region. This is one of the biggest challenges facing Indian agriculture.

8) Other challenges:

- Transportation Problem
- Warehousing Problem
- Low level of Technical Education
- Lack of Market understanding
- Climate change

Measures to meet the challenges:

- 1) Increasing productivity per hectare - The productivity of Indian agriculture is very low compared to other countries. Indian agriculture is heavily dependent on nature for irrigation. It is necessary to increase productivity by modernizing the field.

- 2) To create awareness among the Farmers-awareness regarding the packages, new irrigation systems, new technologies in cultivation, new loan provisions .
- 3) PradhanmantriFasalBimaYojna- Government launched pradhanmantriBimaYojna launched in 2016. This scheme will provide financial support to farmers and cover for their losses.
- 4) To increase the alternate source of Income-Small and medium farmers should be encouraged to develop their skills and provide them capital and technical assistance.
- 5) Increasing the size of farm land- In India 85% farmers have hold less than 5 acers of land .small land holders enable the implement modern agricultural techniques. Small farmers cannot provide irrigation facilities to his farming. He cannot get sufficient financial facilities all these reasons his productivity is very less.
- 6) To increase the sufficient minimum support price- In India from 2014-15 increase the minimum support price approximately 33 % only. As the people of other sectors, it is necessary to increase the prices of the

farm product so that the income of the farmers will increase. Farmers' production costs should go up, and there should be some costs left over.

- 7) Cheap Loans - Farmers still have to pay for non-institutional credit. The lending rate of the lender is four times higher than the bank interest rate. The government should provide adequate credit to the agriculture sector at low or free interest rates.
- 8) Availability of Infrastructure - There should be abundant supply of paved roads, trains, air transport in rural areas. Agriculture requires free, full-time, abundant electricity and good market conditions are needed.

5. Conclusion

The challenges facing Indian agriculture show that there are many serious challenges facing Indian agriculture, such as small size of farmland, high cost of production, low productivity, ignorance of farmers, many scams in insurance scheme, costly loan etc.

At the government level, efforts are being made to solve the challenges facing agriculture. The government is emphasizing on providing cheap loans to farmers through national banks, providing infrastructure in rural areas, providing affordable electricity, paying crop insurance, assisting in export facilities, enhancing irrigation facilities etc.

References

1. Printing area , International Research Journal, Special Issue- Dec. 2017
2. Arthashalakra, Jan. 2010.
3. Ajantha, Volume VIII, Issue-I, January-March-2009.
4. Report-National Crime Records Bureau -2015.
5. Datt&Sundharam ,Indian Economy,67 th Revised Edition by-GauravDutt&AshwaniMahajan,
6. www.agricoop.nic.in
7. <https://www.thehindu.com>
8. <https://www.indiastat.com>
9. Directorate of Economics and Statistics