

“Constraints and Potentials /Prospects in Agricultural Sector in Maharashtra”

Dr. Shivaji R. Pawar, Associate Professor and Head, Department of Commerce, Arts and Commerce College ,Kasegaon.

Abstract

For inclusive growth nation, growth in agriculture and allied sectors remains a necessary condition. According to Census 2011 about 58 per cent employment in the country is provided by agriculture sector. Agriculture including allied activities, accounted for 14.5 per cent of gross domestic product (GDP) in 2014-15 as compared to 14.7 per cent in 2016-17. In terms of composition, out of the total share of 14.5 per cent that agriculture and allied sectors had in GDP in 2014-15, agriculture alone accounted for 12.3 per cent, followed by forestry and logging at 1.4 percent and fishing at 0.7 per cent .

The enormous pressure to produce more food from less land with shrinking natural resources is a tough task for the farmers. To keep up the momentum of growth a careful economic evaluation of inputs like seeds, fertilizers, irrigation sources etc. and involvement of women in agriculture activities are of considerable importance. Indian agriculture has potential and prospects in the areas of agro business such as fruits, flowers, exporting the cereals etc.

The agriculture sector contributes near about 7.8% in State Value addition, whereas 25% labour workforce is depend upon agricultural sector out of which 27% are landless labours.

In this paper researcher has given attention to understand the area under principal crops in Maharashtra as well as the production of these crops in the Maharashtra. It also focuses on overall problems faced by the Indian agriculture in respect of productivity and prospect for Indian agriculture productivity with reference to Constraints and Potential and Prospects in Agricultural Sector in Maharashtra.

Keywords: *Gross domestic product, Census, landless, agriculture, allied activities*

INTRODUCTION:

Agriculture including allied activities, accounted for 14.5 per cent of gross domestic product (GDP) in 2014-15 as compared to 14.7 per cent in 2016-17. Notwithstanding the declining trend in agriculture's share in the GDP, it is critical from the income distribution perspective as it accounted for about 58 per cent employment in the country according to Census 2011. Hence growth in agriculture and allied sectors remains a necessary condition for inclusive growth. In terms of composition, out of the total share of 14.5 per cent that agriculture and allied sectors had in GDP in 2014-15, agriculture alone accounted for 12.3 per cent, followed by forestry and logging at 1.4 percent and fishing at 0.7 per cent . Reasonable growth in agriculture is important both from the nutritional point of view as well as to control food prices and overall headline inflation. Agriculture has been a way of life and continues to be the single most important livelihood of the masses. Agricultural policy focus in India across decades has been on self-sufficiency and self-reliance in food grains production. Considerable progress has been made on this front. Food grains production rose from 52 million tonnes in 1951-52 to 244.78 million tonnes in 2007-08, and 15413 tonnes in 2010-11. however, it was declined upto 8328 tonnes during the year 2015-16.

Though in the Indian agriculture the factors like high soil productivity, supply of balanced crop nutrients, efficient water management, improved crops, better plant protection, post-production management for value-addition and marketing, are responsible for higher yield as compared to most of the other countries, we are far lagging behind in productivity per hector as compared to some developed and developing countries.

In 21st century agriculture, application of modern biotechnologies like DNA finger printing, tissue culture, terminator gene technology and genetic cloning will hold the key in raising the productivity.

The enormous pressure to produce more food from less land with shrinking natural resources is a tough task for the farmers. To keep up the momentum of growth a careful economic evaluation of inputs like seeds, fertilizers, irrigation sources etc. and involvement of women in agriculture activities are of considerable importance. Indian agriculture has potential and prospects in the areas of agro business such as fruits, flowers, exporting the cereals etc.

Objectives of the study:

To understand the Challenges and Opportunities of Agricultural in India is the main objective of the study. The present study is undertaken for following objectives.

1. To understand the Challenges of Agricultural in India
2. To understand the Potential of Agricultural in India
3. To understand the area under major crops in Maharashtra
4. To study the Production of principal crops in Maharashtra
5. To suggest remedies if any

Methodology:

The study is depending upon secondary data which is gathered from library and web sites. The information related to study is collected through various books, journals and newspapers. The paper examines the growth of the agriculture products as well as the various problems faced by the Indian agriculture. It also covers the percentage of productivity of some selected crops and area under these crops.

Result and Discussion

In Indian agriculture the factors like high soil productivity, supply of balanced crop nutrients, efficient water management, improved crops, better plant protection, post-production management for value-addition and marketing, are responsible for higher yield as compared to most of the other countries.

Achievements of Indian agriculture like development of HYVs, new hybrids of different crops, research in the area of vaccine production, varietal development through somoclonal variations, developing better quality products and transgenic in crops such as brinjal, tomato, cauliflower and cabbage have strengthened the field. In 21st century agriculture, application of modern biotechnologies like DNA finger printing, tissue culture, terminator gene technology and genetic cloning will hold the key in raising the productivity.

The agriculture sector contributes near about 7.8% in State Value addition, whereas 25% labour workforce is depend upon agricultural sector out of which 27% are landless labours.

In this paper researcher has given attention to understand the area under principal crops in Maharashtra as well as the production of these crops in the Maharashtra. It also focuses on overall problems faced by the Indian agriculture in respect of productivity and

prospect for Indian agriculture productivity with reference to Problems and Prospects of Agriculture Productivity in Maharashtra. The table no. 1 shows the area under principal crops in Maharashtra during 1960-61 to 2015-16.

Table No. 1 : Area under principal crops-(In thousand hectares)

Crops	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11	2015-16
Rice	1,300	1,352	1,459	1,597	1,512	1516	1503
Wheat	907	812	1,063	867	754	1307	911
Jowar	6,284	5,703	6,469	6,300	5,094	4060	3217
Bajra	1,635	2,039	1,534	1,940	1,800	1035	801
All cereals	10,606	10,320	19,976	11,136	9,824	8985	7667
All pulses	2,349	2,566	2,715	3,257	3,557	4038	3544
All foodgrains	12,955	12,886	13,691	14,393	13,382	13023	11210
Sugarcane Area	155	204	319	536	687	1041	835
Cotton	2,500	2,750	2,550	2,721	3,077	3942	4207
Groundnut	1,083	904	665	864	490	395	309

Source: Economic Survey of Maharashtra 2016-17

From the table no. 1, it is clear that the area under some principal crops is increased day by day. But still in some cases it is fluctuating and not satisfactory. The area under cash crops such as sugarcane, cotton, pulses are increased, where as cereals, jowar, bajra cropping pattern is declined notably. It is also cleared from the above table that, area under principal crops as mentioned in the above table is declined during the year 2015-16 as compared to the year 2010-2011 excluding cotton.

The table no. 2 shows the Production of principal crops in Maharashtra during 1960-61 to 2016-17

Table No. 1 : Production of principal crops-(In thousand tonnes)

Crops	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11	2015-16
Rice	1,369	1,662	2,315	2,344	1,930	2691	2593
Wheat	401	440	886	909	948	2301	981
Jowar	4,224	1,557	4,409	5,929	3,988	3452	1205
Bajra	489	824	697	1,115	1,087	1123	333
All cereals	6,755	4,737	8,647	10,740	8,497	12317	6896
All pulses	989	677	825	1,441	1,637	3096	1432
All foodgrains	7,744	5,414	9,472	12,181	10,134	15413	8328
Sugarcane	10,404	14,433	23,706	38,154	49,569	85691	69235
Cotton (lint)	1,673	484	1,224	1,875	3,064	7473	3914
Groundnut	800	586	451	979	470	470	334

Source: Economic Survey of Maharashtra 2016-17

*Cotton: 170 kg bundle, 000 bundles

From the above table it is clear that the production of principal crops in Maharashtra is varying as per crops. The growth of production is not satisfactory. It is not increased in proportion to increase in area under principal crops. It also found that the production level of principal crops is notably declined during 2015-16 as compared to the year 2010-11.

Table No. 1 : Comparison of Area under principal crops and Production of principal crops

Crops	Area (2010-11) (000 hectares)	Production (2010-11) (000 tonnes)	Area (2015-16) (000 hectares)	Production (2015-16) (000 tonnes)	Per hector Productivity 2010-11 (tonnes)	Per hector Productivity 2015-16 (tonnes)
Rice	1516	2691	1503	2593	1.78	1.73
Wheat	1307	2301	911	981	1.76	1.08
Jowar	4060	3452	3217	1205	0.85	0.37
Bajra	1035	1123	801	333	1.08	0.42
All cereals	8985	12317	7667	6896	1.37	0.90
All pulses	4038	3096	3544	1432	0.77	0.40
All foodgrains	13023	15413	11210	8328	1.18	0.74
Sugarcane	1041	85691	835	69235	82.31	82.91
Cotton (lint)	3942	7473	4207	3914*	1.89	0.93
Groundnut	395	470	309	334	1.19	1.08

Source: Compiled from Economic Survey of Maharashtra 2016-17

The table no.3 shows the area under principal crops and production of principal crops in Maharashtra during 2015-16. It also clears that per hector production of principal crops during 2010-11 . Production of sugarcane shows significant but still it is unsatisfactory and poor as compared to other countries. Production of Pulses and Bajara is very poor. It is also found that the level of productivity is also declined during last five years. The productivity of the cereals is reduced at 0.90 during 2015-16 tonnes from 1.37 tonnes during 2010-11. Whereas, productivity of the pulses is declined from **0.77 to 0.40** and all foodgrains from 1.18 to 0.74 tonnes per hector in 2015-16 as compared to 2010-11. Though, productivity of the sugarcare is lightly increased i.e. 82.91 tonne per hector during 2015-16 from 82.31 tonne per hector during 2010-11, however it is very low as compared to other developed states and other countries also.

Constraints / Problems:

In the new millennium, the challenges in Indian agricultural sector are quite different from those met in the previous decades. The enormous pressure to produce more food from less land with shrinking natural resources is a tough task for the farmers. To keep up the momentum of growth a careful economic evaluation of inputs like seeds, fertilizers, irrigation sources etc are of considerable importance.

Irrigation needs: Considering the irrigation needs in Indian agriculture, emphasis be given to promote the proven cost-reducing micro-irrigation technology of drips irrigation which helps conserve water reduces fertilizer inputs and ensures higher productivity. Farmer awareness programmes coupled with subsidy incentive may prove helpful strategies. The sustainable method of irrigation needs to be popularized. Salinity and waterlogging problems in the commands of major irrigation systems need to be minimized by recognizing and incorporating corrective measures. Further, proper drainage facilities involving farmer's groups need to be created. Watershed approach to management of water in rainfed areas should continue to get the due thrust.

Diffusion of fertilizer : Diffusion of fertilizer consumption in Indian agriculture has been quite widespread. The imbalances in the use of N, P and K have become highly

conspicuous. The intensity of fertilizer use has gradually gone up from about 3 kg/ha. In early Sixties to about 88 kg/ha in 1997-98. Therefore, wider distribution of fertilizer needs to be promoted by covering regions with low use of fertilizers such as central and eastern regions of Uttar Pradesh (in the case of wheat and rice) through creation of an extensive network of rural infrastructure (including roads and credit) for establishing an appropriate interface of input markets and output markets in these regions.

Good quality seed:In Indian agriculture, multiplication, distribution and availability of good quality seed is crucial to accelerated food production. With entry of MNCs in seed production and distribution and consequent effects of patenting under the WTO regime, providing quality seeds to farmer at an affordable cost will be a measure challenge in future. To meet the growing competition companies should adopt modern processing technologies and seed growers have to be trained in cost reducing methods of growing quality seed material.

Development of infrastructure :Indian agriculture has to become more cost-effective to meet the growing challenges and opportunities arising out of WTO agreements and the consequent globalization impacts. For this, future growth of agriculture has to be yield based. Development of infrastructure is essential to support this growth.

Farm credit system:The farm credit system in Indian agriculture, evolved over decades has been instrumental in enhancing production and marketing of farm produce and stimulating capital formation in agriculture. Credit for Indian agriculture has to expand at a faster rate than before because of the need to step-up agricultural growth to generate surplus for exports, and also because of change in the product mix towards animal husbandry, aquaculture, fish farming, horticulture and floriculture, medicinal plants, which will necessitate larger investments.

Potential and Prospects:

Indian agriculture has potential and prospects in the following areas of agri business.

1. India is the third largest producer of fruits and the 2nd largest grower of vegetables. The total production is about 27.83 MT in fruits and 54 MT in vegetables. The farmers can grow any type of vegetable and fruits throughout the year.
2. Flowers are estimated to be grown in about 35,000 ha in India of which 10,000 ha are under modern flowers like rose, carnation, orchid, etc. Major flowers grown are jasmine, marigold, rose, etc. In many countries including Israel flowers are cultivated under green house conditions. In India, the land and climate are suitable to grow all types of flowers throughout the year in one part or the other.
3. Exporting the cereals India has attained self sufficing in food. It is now exporting rice and wheat to some countries including China. There is a vast scope of exporting the cereals to various countries.
4. Though India's irrigated area is about one third of the world, the area under drip and sprinkler irrigation is very meagre compared to total drip and sprinkler area in the world. The area under drip is 1,60,000 ha and under sprinkler, it is about 0.60 Mha. It is estimated that in the next 7 years, the area under drip and sprinkler will be about 1 Mha and 5 Mha respectively.
5. India's share in the world market has risen to 0.7%. If the trend continues it is expected that the trade may go upto 1.5%. This is because of rising exports and the opening up of the domestic market rapidly. India will make its presence felt on the world trade scene.
6. In Indian agriculture, rural women play a vital role and participate in all stages of crop production, as they constitute 50% of rural labour force. They contribute in agricultural

operations like, transplanting, manuring and fertilizing, harvesting, threshing, winnowing, drying and carrying the product. To better exploit the emerging opportunities, there is need for changing property rights in favour of women, evolving technologies to suit women farmers, increasing the number of women extension workers, educating and training women farmers.

Conclusion:

India is an agricultural country, one third population depends on agriculture sector directly or indirectly. Agriculture continues to be the mainstay of the Indian economy. Indian agriculture contributes to the national Gross Domestic Product is about 25 per cent. With food being the crowning need of the mankind, much emphasis has been on commercializing agricultural production. Hence, adequate production and even distribution of food has lately become a high priority global concern. With the changing agricultural scenario and global competition, there is a need of exploiting the available resources at maximum level.

Though in the Indian agriculture the factors like high soil productivity, supply of balanced crop nutrients, efficient water management, improved crops, better plant protection, post-production management for value-addition and marketing, are responsible for higher yield as compared to most of the other countries, we are far lagging behind in productivity per hector as compared to some developed and developing countries. In 21st century agriculture, application of modern biotechnologies like DNA finger printing, tissue culture, terminator gene technology and genetic cloning will hold the key in raising the productivity.

The enormous pressure to produce more food from less land with shrinking natural resources is a tough task for the farmers. To keep up the momentum of growth a careful economic evaluation of inputs like seeds, fertilizers, irrigation sources etc. and involvement of women in agriculture activities are of considerable importance. Indian agriculture has potential and prospects in the areas of agro business such as fruits, flowers, exporting the cereals etc.

References:

1. Economic Survey of Maharashtra 2010-11
2. Economic Survey of India 2010-11
3. Economic Survey of Maharashtra 2016-17
4. Economic Survey of India 2016-17
5. District Survey of Sangli District 2016-17
6. Web sites- Ministry of Agriculture Maharashtra State
7. Web sites- Ministry of Agriculture, Govt of India
8. Daily Newspapers
9. Interview of selected farmers and social workers