

Changing Scenario of Land Holding and Productivity in Agriculture Sector of Maharashtra

Dr.CHANDRA MOHAN, Associate Professor
Department of Economics,
Radhabai Kale Mahila Mahavidyalaya Ahmednagar, 414 001

Abstract

Agriculture and allied activities contribute 12 percent to the GSDP of Maharashtra. More than 50 percent of the population is dependent on this sector. The cultivation area of the state is 54 percent of the geographical area. Around one-third of the state is under a rain shadow. Irregular rainfall, changes in environment, land holding, cropping pattern, the number of land holders, increased costs of inputs, market uncertainties, lack of capital, and an adequate crop insurance model are the main challenges before this sector. It is the need of the day to face these challenges through appropriate policy measures and makes the agriculture sector sustainable as well as an attractive sector to provide job opportunities and control the migration from rural areas to urban areas. With this view point, the researcher is analysing the changing nature of the agriculture sector in the state and trying to make appropriate suggestions in order to successfully cope with these challenges.

Keywords: Land holding, cropping pattern, productivity, crop insurance, irrigation etc.

Introduction

The agriculture sector depends on the monsoon. The Government of Maharashtra received the Best Agriculture State Award 2024 on July 10, 2024, by the 5th Agriculture Leadership Awards Committee headed by Justice P. Sathasivam, former Chief Justice of India and Governor of Kerala. However, there are various concerns with respect to this sector in the state. In 2023, 19 talukas received excess rainfall, 190 talukas received normal rainfall and 146 received deficit rainfall. The irrigation potential of all the projects up to June 2022 was 55.60 lakh ha, of which the actual irrigated area was 42.33 lakh ha. (76.1 percent). An average holding was 4.28 ha. in 1971, which declined to 1.34 ha. in 2015-16. The area constituted by marginal and small farmers was 45 percent, but the number of operational holdings accounted for 79.5 in the same year. In 2023-24, the total cropped area of Kharif was 155.64 lakh ha. (54 percent of total land). Out of total area, 33.7 percent was occupied by oilseeds, 27.21 percent by cotton, 19.51 percent by cereals, 10.35 percent by pulses, and 9.23 percent by sugarcane.

For the Rabi crops, the total cropped area was 58.60 lakh ha. Out of total, 51.36 percent was under cereals, 47 percent under pulses, and 1.25 percent under oilseeds. The fruits and vegetables and others were cultivated on 21.17 lakh ha. in the same year. As far as organic farming is concerned, Maharashtra stood at second rank in the country with 27 percent area under organic farming in India. In 2023-24, per ha. use of fertilizers was 108 kg. and pesticides 1.32 kg. Notably, it is decreased as compared to the last two years. (2.05 kg. and 3.96 kg. respectively). Total agriculture loan given was Rs. 154121 crores in 2023-24. It was divided as crop loan (39.05 percent) and agriculture term loan. Under PMFBY, a total 242.22 lakh farmers participated. It had covered 162.84 lakh ha. area, Rs. 74812.24 Cr. sum insured, Rs. 10119.51 cr. Premium and 67.19 lakh farmers were eligible for compensations with a proposed amount of Rs. 3244.8a crore. Here, the proposed amount is only 4.33 percent of the total insured sum amount and 32.06 percent of the premium paid. [*Economic Survey of Maharashtra, 2021-2022, 2022-2023.*]

Objectives of the study

1. To analyse the land holdings, productivity and its trends in Maharashtra.
2. To make suitable suggestions in order to make agriculture sector more efficient as well as sustainable.

Research Methodology

This research is analytical and mainly based on secondary data from various sources like reference books, economic surveys of the government of Maharashtra, related articles and publications, websites, observations and opinions of the experts, etc. The statistical tools like CAGR, and percentages are used.

Discussion

Landholding is one of the significant aspects that is affected by the population of the region as well as related rules framed by the government. It also affects the productivity, cropping pattern, way of cultivation, and inspiration of the farmers. Keeping all these points in mind, the status and changes in the landholdings and productivity of various crops are analysed in this research paper.

1. The cropping pattern in Maharashtra:

The cropping pattern in Maharashtra is changed in the State. It turned towards cash crops. Its details are shown in table no. 01.

Table no.01: Current cropping pattern in the Maharashtra [2023]

Sr. No.	Crops	% in 1960-61	% in 2020-21	2023 [000 Hectare]	% in 2023
1.	Cereals	60.60	32.05	3036.5	19.51
2.	Pulses	13.42	20.80	1611.04	10.35
3.	Oilseeds	10.67	21.39	5245.05	33.70
4.	Cotton	14.28	20.58	4234.47	27.21
5.	Sugarcane	0.89	5.18	1437.01	9.23
6.	Tobacco	.14	00	00	00
	Total	100	100	15564.07	100.00

Economic Survey of Maharashtra, 2021-2022, 2022-2023.

The table no.01 shows that cropping pattern in Maharashtra has changed over the time period of the last 63 years. The farmers are preferring to cultivate cash crops instead of millet. Notably, the area under cereals and pulses is decreasing substantially and increasing for oilseeds, cotton, and sugarcane. Its implications are as follows:

- The cropping pattern changes, and the area under cereals is decreased drastically.
- The area under cotton was increased almost twice and three times for oilseeds during the analysis period.
- The area under pulses has decreased, and fortunately there will be no cultivation of tobacco in Maharashtra in 2023.

2. Land Holding Status and Trends:

The land holding is one of the crucial facts that affects on productivity and production. Its detail shown in the table no. 02.

Table no.:02: Change in land holding pattern in of Maharashtra

Sr. No.	Area holding (ha)	1970-71		1980-81		1990-91		2000-01		2010-11		2015-16	
		Land Holders [00]	Cultivated area [00] ha	Land Holders [00]	Cultivated area [00] ha	Land Holders [00]	Cultivated area [00] ha	Land Holders [00]	Cultivated area [00] ha	Land Holders [00]	Cultivated area [00] ha	Land Holders [00]	Cultivated area [00] ha
1	0 <2	21202	18618	34668	33070	6002 3	56009	89113	78758	10761 3	89251	12155 0	92198
	%	42.83	8.79	50.52	15.48	63.3 8	26.77	73.42	39.00	78.56	45.15	79.52	44.96
2	>2 to <4	10872	31306	16858	48178	2125 8	58797	22740	61090	21591	57655	23270	60256

	%	21.96	14.78	24.57	22.55	22.45	28.10	18.74	30.25	15.76	29.17	15.22	29.38
3	>4 to <10	12291	77174	13917	84493	11710	68564	8653	48701	7106	39928	7337	40994
	%	24.83	36.44	20.28	39.55	12.37	32.77	7.13	24.12	5.19	20.20	4.80	19.99
4	>10 to <20	4180	56302	2819	37213	1530	19749	773	9961	590	7524	576	7251
	%	8.44	26.58	4.11	17.42	1.62	9.44	0.64	4.93	0.43	3.81	0.38	3.54
5	>20	961	28394	363	10662	176	6129	97	3418	81	3314	121	4365
	%	1.94	13.41	0.53	4.99	0.19	2.93	0.08	1.69	0.06	1.68	0.08	2.13
Total		49506	211794	68625	213616	94697	209248	121376	201928	136981	197672	152854	205064

Economic Survey of Maharashtra, 2021-2022, 2022-2023.

The table no. 02 reveals that:

- The proportion of marginal and small farmers in Maharashtra increased from 42.83 percent to 79.52 percent during 1970-71 to 2015-16.
- The land held by marginal and small farmers was increased from 8.79 percent to 44.96 percent of the total cultivable land during the same period.
- It is also implying that still there were land holders who held land more than 20 hectares, and their share was 2.13 percent of the total land cultivated in 2015-2016.
- The proportion of land holders' range between 10- 20 hectars was decreased from 8.44 to 0.38 percent, and the proportion of land held by them decreased from 26.58 percent to 3.54 percent during the analysis period.
- The land holding trend invites the sincere attention of the policymaker with respect to the division of land and scatteredness.

3. Principal crops and productivity in Maharashtra:

The productivity shows the efficiency of the agriculture sector. In Maharashtra, the per-hectare yield of cereals and cotton was much below the triennial average of India. It was only 63 percent of average for cereals and 88 percent of the cotton. For the crops like pulses, oilseeds, and sugarcane, the per-hectare yield was more than the triennial average of India. Its detail is shown in table no. 3.

Table no.03: Yield per hectare in KG in the Maharashtra										
Sr. No.	Crop	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11	2020-2021	Increased times	India *
1	Cereals	637	459	788	964	865	1370	1724	2.71	2727

2	Pulses	421	264	304	442	460	767	967	2.30	811
3	Oilseeds	NA	438	426	666	820	1344	1422	3.25	1260
4	Sugarcane [MT]	67	87	92	86	83	89	98	1.46	80
5	Cotton	114	30	82	117	100	322	378	3.32	425

Economic Survey of Maharashtra, 2021-2022, 2022-2023.

*Triennial average yield [2017-18 to 2019-20]

Table no. 03 reveals that,

- The productivity of cotton was increased more, i.e., 3.32 times, during the analysis period. However, it was less than the triennial average of India, i.e., 425 KG per hectare.
- There is tremendous scope for increasing productivity, especially for cereals, as the availability of them is decreasing in the country.

Agricultural productivity is the result of monsoons, irrigation facilities, quality of seeds, use of fertilizers and pesticides, farmers aspirations, and support by the government, especially through MSP, etc. In this regard, some aspects that are man-made like crop insurance and irrigation facilities are discussed below.

A. The crop insurance:

The Government of Maharashtra had offered crop insurance on only single rupee since June 23, 2023. Its details shown in table no. 04.

Year	No. of participated farmers in lakh	Area covered [Lakh ha]	Amount of Insurance [Rs. Crore]	Premium [Rs. Crore]	Proposed no. of farmers in Lakh	% farmers proposed for compensation	Proposed compensation [Rs. Crore}	Proportion of proposed compensation amount to the premium paid in Rs.
2021-22	96.38	57.1	21862.28	5179.61	64.45	66.87	3484.32	67.27
2022-23	104.06	62.99	29867.98	4961.51	76.03	73.06	3877.7	78.16
2023-24	242.22	162.84	74812.24	10119.51	67.19	27.74	3244.81	32.06

Economic Survey of Maharashtra, 2021-2022, 2022-2023.

Table no. 04 shows that,

- An involvement of the farmers as well as covered area under PMFBY is increasing in the state. There is only Rs. one required for taking crop insurance is one of its reasons.
- It shows the proposed compensation amount is only 32.06 percent of the premium and 27.74 percent of the involved farmers.

- c. The proportion of proposed farmers to receive compensation was decreased drastically.
- d. The crop insurance scheme is more beneficial for insurance companies than farmers.

B. Irrigation:

Water is indispensable for agriculture production. Recently, India's irrigation ratio is around 51 percent. However, it was only 17.9 percent in 2009-2010 in Maharashtra. Its detailed account is given in table no. 5.

Sr. No	Year	Area irrigated - Wells	Area irrigated- Other Sources	Net Area irrigated	Gross Area irrigated	Intensity of irrigated cropping	No. of irrigation Wells [000]	Net Area irrigated per Well [Ha]	Gross Cropped Area	% of gross irrigated area to gross cropped area
1	1660-61	595	477	1072	1220	114	542	1.1	18223	6.5
2	1970-71	768	579	1347	1570	117	694	1.11	18737	8.4
3	1980-81	1055	780	1835	2415	132	826	1.28	19642	12.3
4	1990-91	1672	999	2671	3319	124	1017	1.64	21859	15.2
5	2000-01	2262	987	3249	3852	119	1318	1.72	21619	17.8
6	2009-10	2159	1162	3321	4050	122	NA	NA	22612	17.9
7	CAGR	0.026	0.018	0.023	0.024	0.001	0.018	0.009	0.004	0.020

Economic Survey of Maharashtra, 2021-2022, 2022-2023.

Table no. 05 shows that,

- a. The irrigation ratio is very low and stagnant in Maharashtra despite substantial expenditure on it since the last 20 years.
- b. The intensity of irrigation is also stagnant since the last 50 years in the state.

4. Conclusion

The cropping pattern has changed in the last 62 years in the state and turned towards cash crops. Nevertheless, the land of the state is not being used for crops like

tobacco. Around one third area is under the cultivation of oilseeds. The area under sugarcane was only .89 percent in 1961, which was increased up to 9.23 percent in 2023. The proportion of marginal and small farmers in Maharashtra was increased from 42.83 percent to 79.52 percent during 1970-71 to 2015-16. It shows the subdivision and fragmentation of the land. On the other hand, still there are land holdings of greater than 20 hectares that occupied 2.13 percent of the cultivable land in 2023. The productivity for cereals was only 63 percent of the national average. Overall, the productivity of cereals, pulses, oilseeds, sugarcane, and cotton increased by 2.60 times during the last 62 years. It was comparatively more (3.32 times) for cotton and less for sugarcane (1.46 times). The irrigation ratio is stagnant, and the crop insurance scheme looks like it is prepared for insurance companies as it is more beneficial to the companies instead of farmers. Therefore, micromanagement and effective implementations of schemes specially related to irrigation and crop insurance are necessities of the agriculture sector of Maharashtra.

References:

1. <https://currentaffairs.adda247.com/maharashtra-wins-best-agriculture-state-award-for-2024/>
2. <https://agriwelfare.gov.in/>
3. Economic Survey of Maharashtra, 2021-2022, 2022-2023.
4. Indian Economy, V.K. Puri, S.K. Mishra, Bharat Garg, Himalaya Publishing House, 40th edition. 2022-2023.
5. The Economics of Development and Planning, R.K. Lekhi, Joginder Singh.