

Original Research Article

Area, Production and Productivity of Paddy in Madhya Pradesh, India

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ABSTRACT

In M.P. rice is grown in the area of about 1929.976 thousand ha with production of 5360.905 thousand tons and productivity 2789 kg/ha in the year 2013-14, which is far below than the average national productivity (3623 kg/ha) (GoI 2015). Amongst different districts Balaghat (13.04%) had the highest area of rice followed by Seoni (7.42%), Mandla (6.71%), Rewa (6.40%), Katni (5.75%), Satna (5.70%), Anuppur (5.53%), Shahdol (5.28%), Jabalpur (4.35%), Dindori (4.29%), Sidhi (3.79%), Raisen (3.17%), Damoh (3.16%), Gwalior (2.95%), Panna (2.92%), Hoshangabad (2.91%), Umariya (2.49%), Singroli (2.48%), Betul (2.25%), Chhindwara (1.09%), Sehore (1.06%), Narsingpur (0.98%), Sheopur Kalan (0.90%), Shivpuri (0.70%), Tikamgarh (0.65%), Jhabua (0.65%), Chhatarpur (0.60%). These 25 districts out of 51 covered 97.23 per cent of rice area of the state. The remaining 24 districts covered only 2.77 per cent of the total rice area. In case of production maximum share was found in Balaghat (12.28%) district and minimum share was found in Chhatarpur district (0.28%) in the state. In case of productivity all the districts comes under below average of the state except Seoni, Rewa, Katani, Satna, Shahdol, Jabalpur, Raisen, Gwalior, Hoshangabad, Sehore, Narsingpur, Sheopur Kalan And Shivpuri.

Keywords

Area, Production and productivity, Paddy, Rice area

Introduction

Agriculture is the backbone of India's economy, providing direct employment to about 67 per cent of the working people in the country. Agriculture contributes about 16.1 per cent to GDP and one – fourth of India's exports are agricultural products. Rice one of the important staple foods which cover 65 per cent of the population in India. It is the largest consumed calorie source among the food grains. With a per capita availability of 74.2 kg. It meets 31.4 percent of the total calorie requirement.

India is the second largest producer of rice in the world next to china paddy being the major cereal crop of India, it is grown in almost all the provinces of the country but more than 86 per cent of the total production accounts for the states of Andhra, Pradesh, West-Bengal, Tamilnadu, Uttar Pradesh, Bihar, Orissa, Madhya Pradesh, Chhattisgarh, Punjab and Assam.

Rice production, processing and marketing constitute the biggest industry in the country. Due to low productivity of rice, growers are not receiving higher income, but there is one way to enhance the income by value added product / processed product of rice like poha,

boil rice and raw rice. So, there is role of Indian rice milling industry. Indian rice milling industry is the oldest and largest agro-based industry. Rice milling in India is carried out by small, medium and large size rice mills. Most of the small size mills are huller mills. Other various types are battery huller mills, cum – Sheller mills and modern mills. It is estimated about 10 per cent of paddy rice is damaged and or lost in processing, storage and transport with present methods and machinery. Sixty to eighty per cent head yield is obtained with 10 - 25 broken and admixture of bran and husk whereas with modern techniques, 68 -72 per cent head rice with 5 -7 broken and better utilizable by – products. The estimated loss in terms of money due to ill rice recovery and excess broken etc. With present methods would run into crores of rupees. Since, paddy is the staple of practically all paddy growers and also it is seasonal with two harvests per year. There should be some facility in storage which can be protected from various hazards like damage caused due to spontaneous heating, damage by birds, rodents and insects.

Materials and Methods

Selection of area

The study is based on both primary and secondary data. The primary data have been collected from districts Balaghat selected randomly on the basis of highest rice mills in Madhya Pradesh. A total number of 8 modern and traditional rice have been selected from each selected districts for detailed information. A primary survey has been carried out from each selected mill or unit with pre-tested interview schedule. The primary data related to the reference year of 2014-15 the secondary information has been collected on applied aspects of rice processing and by-product utilization like drying, storage, non-parboiling, milling, barn stabilization etc.

Nature of data

1. Primary data
2. Secondary data

Both primary and secondary data have been collected for the study period 2014-15.

Collection of data

The necessary input and output data regarding paddy processing for 8 paddy processors were collected by survey method, with the help of pre-tested interview schedule (Appendix) the data were recorded by interviewing the selected paddy processor randomly on the basis of the schedules. The required secondary data were browsed from the published sources and records of processing units.

Analysis of data

Analysis of data was done through different statistical tools such as trend analysis, Growth (%), mean, standard deviation coefficient of variation and percentage change

Trend analysis

Linear equation

$$y = a + bx$$

Where,

Y= Dependent variable

a = Constant

b = Regression coefficient/Rate of change

x = Independent variable

Results and Discussion

Area, production and productivity of paddy in Madhya Pradesh, basic characteristics of the sample processing unit, conversion ratio of rice mills at owner cum traders basis and on

custom hiring basis, processing cost of rice mills, economics of paddy processing, marketing of processed rice, relative share in different milling techniques, the capacity

utilization and reasons for underutilization along with the constraints and steps to overcome these constraints in the processing of rice mills are discussed in this chapter.

Table.1 District wise area, production and productivity of paddy in Madhya Pradesh (2013-14)

DISTRICT	Area (000 'Ha)	% age	Production. (000' tonnes)	% age	Yield (kg / ha.)	% age change over M.P.
BALAGHAT	251.60	13.04	658.17	12.28	2616.00	-0.06
SEONI	143.30	7.42	408.20	7.61	2848.00	0.02
MANDLA	129.50	6.71	340.16	6.35	2628.00	-0.06
REWA	123.60	6.40	354.77	6.62	2872.00	0.03
KATNI	110.90	5.75	414.64	7.73	3738.00	0.34
SATNA	110.00	5.70	405.10	7.56	3683.00	0.32
ANUPPUR	106.64	5.53	236.95	4.42	2222.00	-0.20
SHAHDOL	101.94	5.28	355.67	6.63	3489.00	0.25
JABALPUR	83.90	4.35	245.55	4.58	2928.00	0.05
DINDORI	82.70	4.29	158.80	2.96	1929.00	-0.31
SIDHI	73.10	3.79	180.12	3.36	2464.00	-0.12
RAISEN	61.20	3.17	178.89	3.34	2923.00	0.05
DAMOH	61.00	3.16	96.70	1.80	1583.00	-0.43
GWALIOR	57.00	2.95	245.87	4.59	4311.00	0.55
PANNA	56.40	2.92	99.52	1.86	1764.00	-0.37
HOSHANGABAD	56.10	2.91	184.75	3.45	3295.00	0.18
UMARIA	48.09	2.49	133.04	2.48	2766.00	-0.01
SINGROLI	47.95	2.48	112.68	2.10	2350.00	-0.16
BETUL	43.40	2.25	101.75	1.90	2344.00	-0.16
CHHINDWARA	21.10	1.09	33.24	0.62	1574.00	-0.44
SEHORE	20.50	1.06	69.15	1.29	3364.00	0.21
NARSINGHPUR	18.90	0.98	64.36	1.20	3406.00	0.22
SHEOPUR	17.40	0.90	75.50	1.41	4341.00	0.56
KALAN						
SHIVPURI	13.60	0.70	40.10	0.75	2937.00	0.05
TIKAMGARH	12.60	0.65	16.84	0.31	1335.00	-0.52
JHABUA	12.50	0.65	17.90	0.33	1423.00	-0.49
CHHATARPUR	11.65	0.60	15.20	0.28	1306.00	-0.53
Total Paddy Growing District	1876.57	97.23	5243.62	97.81	2682.93	-0.04
Other Districts	53.40	2.77	117.28	2.19	2005.54	-0.04
M.P. State	1929.976	100.00	5360.905	100.00	2789	0.00

Fig.1 Contribution of area in different districts of M.P.

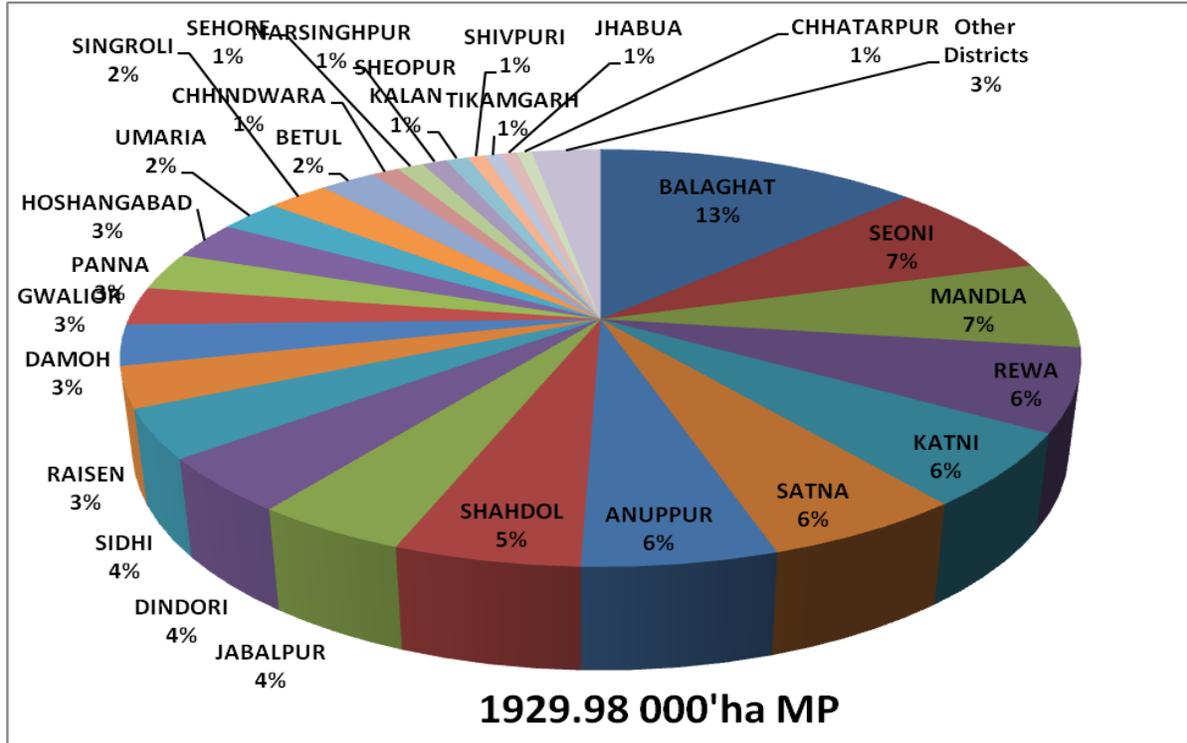
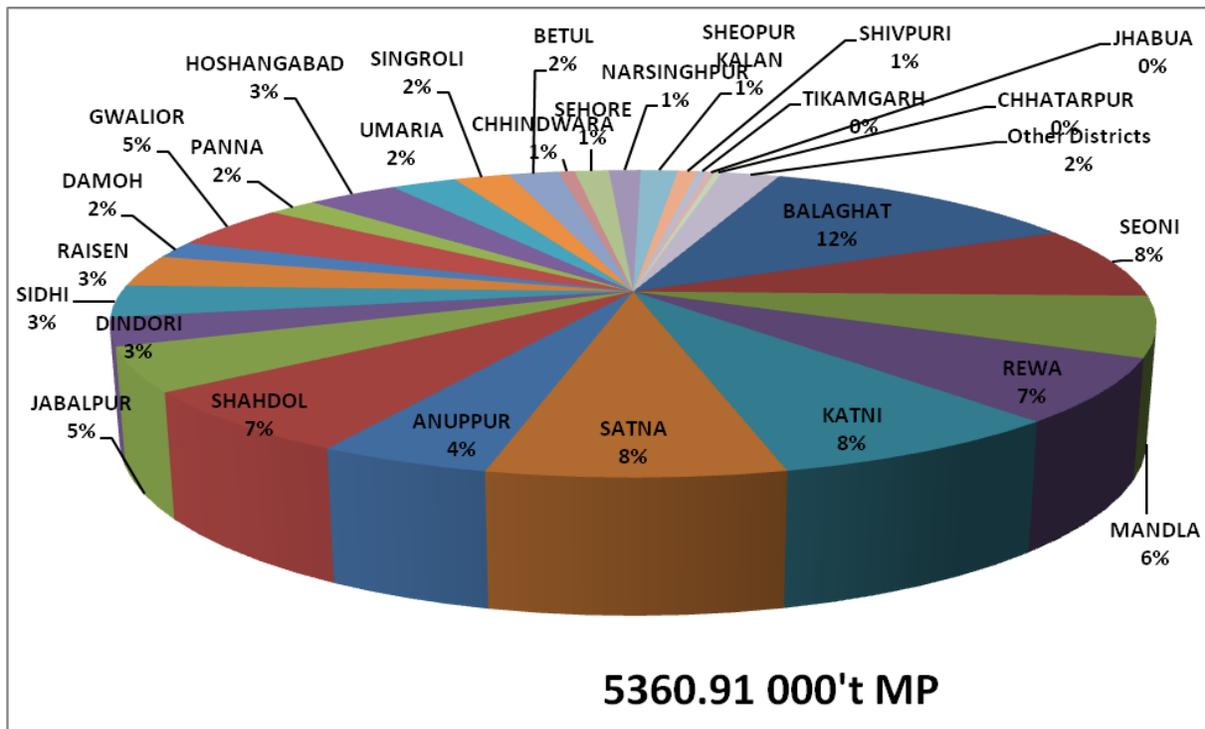


Fig.2 Contribution of rice production in different districts of M.P.



Area, production and productivity of paddy in the state

In M.P. rice is grown in the area of about 1929.976 thousand ha with production of 5360.905 thousand tons and productivity 2789 kg / ha in the year 2013-14, which is far below than the average national productivity (3623 kg / ha).

Amongst different districts Balaghat (13.04%) had the highest area of rice followed by Seoni (7.42%), Mandla (6.71%), Rewa (6.40%), Katni (5.75%), Satna (5.70%), Anuppur (5.53%), Shahdol (5.28%), Jabalpur (4.35%), Dindori (4.29%), Sidhi (3.79%), Raisen (3.17 %), Damoh (3.16%), Gwalior (2.95%), Panna (2.92%), Hoshangabad (2.91%), Umariya (2.49%), Singroli (2.48%), Betul (2.25%), Chhindwara (1.09%), Sehore (1.06 %), Narsingpur (0.98%), Sheopur Kalan (0.90%), Shivpuri (0.70%), Tikamgarh (0.65%), Jhabua (0.65%), Chhatarpur (0.60%).

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In case of productivity all the districts comes under below average of the state except seoni, rewa, katani, satna, shahdol, Jabalpur, raisen, Gwalior, hoshangabad, sehore, narsingpur, sheopur kalan and shivpuri.

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