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Impact evaluation of the scheme on SRI implementation in Mahasamund district of Chhattisgarh

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Abstract

To present study was conducted during 2017-18 in Mahasamund district of Chhattisgarh with the objectives to identify the progress of "Increase productivity of Rice through System of Rice Intensification Scheme" in the state, to suggest way and means to increase productivity of rice in the state. The total respondents of beneficiaries and non-beneficiaries was 100. The statistical tools absolute change and relative change were used to analyze the data. It was found that Mahasamund district highest physical (171.66%) and financial (155.71%) achievement was found in the initial year (2013-14) where as in Chhattisgarh state it was found that highest physical (100.74%) and financial (97.96%) achievement in recent year (2016-17). the major suggestion of SRI prior supply of the informative materials and supply of machines should be done to enhance SRI and follow up may also be done at the village level and should be entrusted with supervision, guidance and training.

Keywords: SRI, Mahasamund, financial

Introduction

Rice is the staple food for about 50 per cent of the world's population that resides in Asia, where 90 per cent of the world's rice is grown and consumed. In Asia, India has the largest area under rice (41.66 million ha) accounting for 29.4 per cent of the global rice area of the total harvested area, about 46 per cent is irrigated with 28 per cent rainfed lowland, 12 per cent rainfed upland and 14 per cent flood prone. Rice is one of the largest traded commodities in the world with a total quantity traded touching 16.4 million tonnes. The southeast countries account for about 40 per cent of the rice trade in the world (Mangal 2004) [4]. Among all the countries, India is the second biggest rice producing country after China which produced 89.13 million tonnes in 2010-11. In India, rice is an important ingredient of household food-basket, yet its yield level is low, stagnant and uncertain (Barah, 2009) [2]. In India, research institutes have initiated experimental trails on SRI across the country in several states including, Tamil Nadu, Andhra Pradesh, Orissa, Tripura, Punjab, Haryana, West Bengal, Chhattisgarh, Karnataka, Assam, Bihar, Himachal Pradesh, Uttarakhand, Jammu and Kashmir and Madhya Pradesh to promote among farmers SRI in paddy cultivation (Grihtlahre *et al.*, 2012) [3].

A State funded scheme to "increase productivity of rice through system of rice intensification (SRI) technique" was started on 20 September 2012 by Govt. of Chhattisgarh in all the districts of state with main objective to promote SRI technique among the farmers full enhancement of paddy productivity and to make the agriculture extension towards farmer oriented. In the Scheme expenses for the nursery preparation and transplanting will be bared by the State. 20000-hectare area covered under SRI technique, Marker and Rotary weeder used and area and production were measured for the SRI technique.

Objective of Study

1. To identify the progress of "Increase productivity of Rice through System of Rice Intensification Scheme" in the state.
2. To suggest ways and means to increase productivity of rice in the state.

Data and Methodology

The study was conducted on Chhattisgarh state consists of 27 districts. Out of which, Mahasamund district of Chhattisgarh has been purposively selected for the study as this district has the maximum area (2,454 hectare) area under SRI (2017). Mahasamund district consist of 5 blocks: Saraipali, Basna, Pithora, Bagbahara and Mahasamund. Out of which Saraipali block has been selected purposively for study as the block had highest area. A list of

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all the villages were prepared with respect to area under Rice cultivation and 3 villages having maximum area under SRI were selected for study. A list of all the beneficiaries under SRI were prepared (50) beneficiaries. An equal number of non-beneficiaries (50) were selected for the study. Thus, the total sample size for the study were 100 Rice growers.

Nature of Data

For the present study the secondary data pertains to agriculture year 2017-18.

Analytical Approach

Identify the progress of the scheme

Target Vs Achievement: Mean and Percentage Increase over years

- a) Absolute change: current year- base year
- b) Relative change: (current year- base year/base year) ×100

Result and Discussion

Progress of the Schemes

Progress of the scheme consisting of the physical and financial target and achievement of Mahasamund district and Chhattisgarh state.

Mahasamund District

Physical Progress

The physical Target and achievement have been observed to found and presented in Table 1 and Fig 1 It is observed from the data that in Mahasamund district highest physical achievement reported during the year 2014-15 i.e. 171.66 percent and the lowest was during the year 2013-14 98.33 percent. During 2015-16, 2016-17 and 2017-18 (100%) have been achieved.

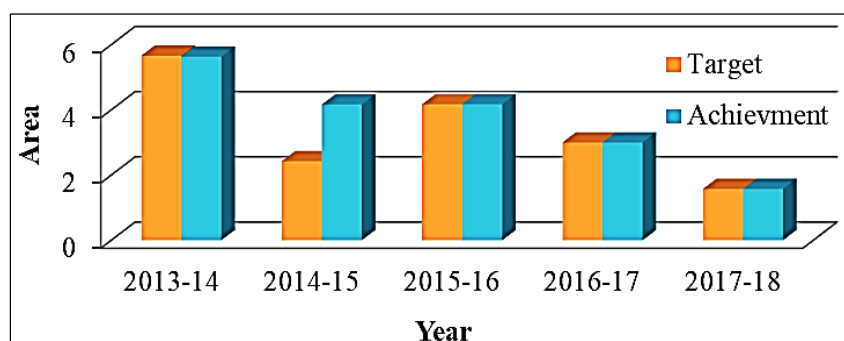


Fig 1: Physical target and achievement of scheme in Mahasamund District

Table 1. Progress of Physical Target and Achievement of the scheme in Mahasamund district. Unit (000ha)

Year	Total Rice	Target	Achievement	Percent Target achieved
2013-14	234.64	5.665	5.633	99.43
2014-15	234	2.428	4.168	171.66
2015-16	236	4.176	4.176	100
2016-17	247.56	3.002	3.002	100
2017-18	242.46	1.578	1.578	100

(Source: Annual report of the scheme Dept. of Agriculture Mahasamund)

Financial Progress

The financial target and achievement have been observed to found and presented in Table 2 and fig 2. It is observed from the table the data show that the highest financial achievement during the year 2014-15 i.e. 155.71 percent and the lowest was in the year 2017-18 i.e. 86.26 percent. In the year 2013-14 financial achievement was 92.30 percent, 2015-16 financial achievement was 99.58 percent and 2016-17 financial target was 99.71 percent.

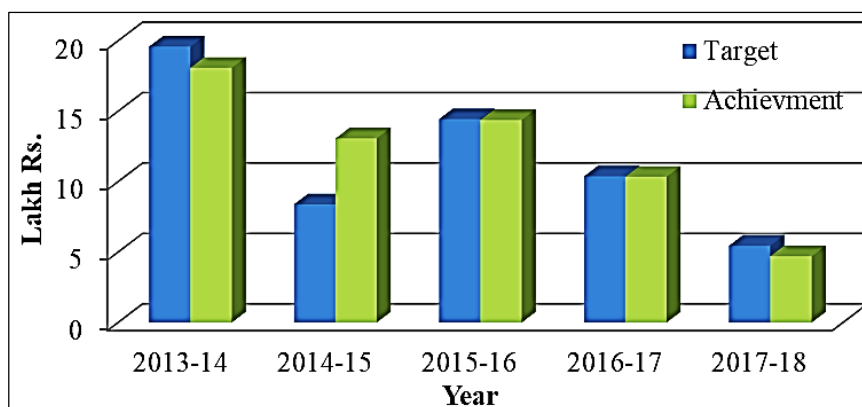


Fig 2: Financial target and achievement of scheme Mahasamund District

Table 2: Progress of Financial Target and Achievement of the scheme in Mahasamund district Unit (Lakh rupees)

Year	Target	Achievement	Percent target achieved
2013-14	19.6	18.09	92.30
2014-15	8.4	13.08	155.71
2015-16	14.45	14.39	99.58
2016-17	10.388	10.358	99.71
2017-18	5.46	4.71	86.26

(Source: Annual report of the scheme Dept. of Agriculture Mahasamund)

Chhattisgarh

Physical Progress

The physical target and achievement have been observed to found and presented in Table 3 and fig 3. It is observed from the data show that the highest physical achievement was

reported during the year 2016-17 i.e. 100.74 percent and the lowest was reported during the year 2013-14 i.e. 93.17 percent. In the year 2014-15 physical achievement was i.e.

98.93 percent. During 2015-16, 2017-18 100 percent target have been achieved in Chhattisgarh state.

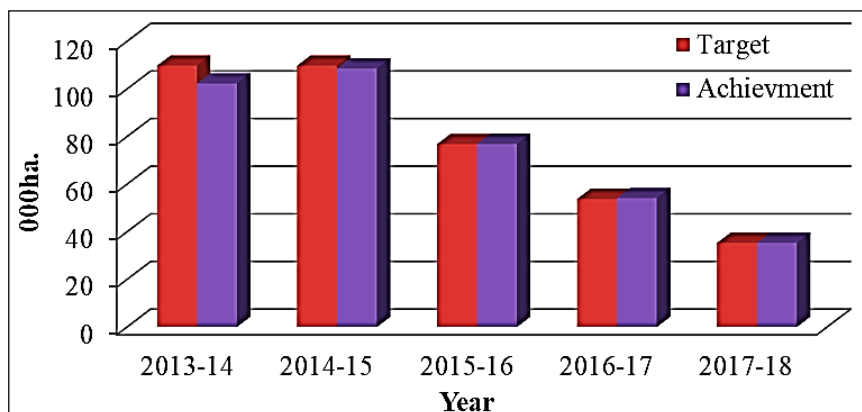


Fig 3: Physical target and achievement of scheme in the state

Table 3: Progress of physical target and achievement of the scheme in Chhattisgarh state Unit (000ha)

Year	Total Rice	Target	Achievement	Percent Target achieved
2013-14	3987.7	109.839	102.34	93.17
2014-15	4035.7	109.843	108.666	98.93
2015-16	3959.7	76.89	76.959	100.09
2016-17	4052.6	53.823	54.223	100.74
2017-18	4003.44	35.401	35.401	100

(Source: Annual report of the scheme Dept. of Agriculture Mahasamund)

Financial Progress

The financial Target and achievement have been observed to found and presented in Table 4 and fig 4. It is observed from the data show that the highest financial achievement was achieved during 2016-17 i.e. 97.96 percent and lowest was in the year of 2013-14 i.e. 85.63 percent. In the year 2014-15 financial achievement was achieved 94.04 percent, 2015-16 financial achievement was 93.53 percent and 2017-18 financial achievement was 95.16 percent.

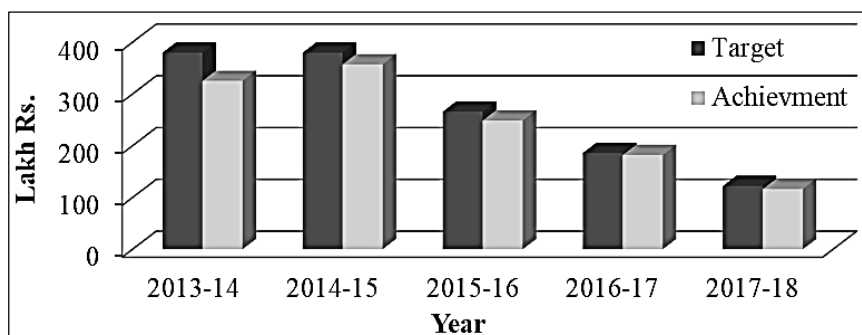


Fig 4: Financial target and achievement of scheme in the state

Table 4: Progress of financial target and achievement of the scheme in Chhattisgarh state Unit (Lakh rupees)

Year	Target	Achievement	Percent Target achieved
2013-14	379.988	325.377	85.63
2014-15	380	357.34	94.04
2015-16	266	248.78	93.53
2016-17	186.2	182.4	97.96
2017-18	122.43	116.51	95.16

(Source: Annual report of the scheme Dept. of Agriculture Mahasamund)

Suggestions

On the basis of finding, the following suggestion are given below.

- There is not enough awareness among paddy growers about SRI superiority in terms of yield and return advantages. Effort should be made to create awareness about System of Rice Intensification method in the study area.

- Timely guidance should be given by the concerned persons in the transfer of technology to the farmer's field that would be of immense help in this direction.
- Follow up may also be done at the village level and this should be entrusted with supervision, guidance and training.
- Prior supply of the informative materials and supply of machines should be done to enhance SRI.
- Arranging Field days and exposure visits to increase knowledge and adoption of SRI by paddy.
- The major suggestion regarding SRI method of paddy cultivation were need to develop chemical and mechanical weed control, make sure the availability of cono weeder and marker in the market.
- Training of farmers at panchayat or village level, proper display of SRI at village or panchayat and regular studies are essential to promote the use of SRI.

Conclusion

Progress of the scheme consisting of the physical and financial target and achievement of Mahasamund district and Chhattisgarh state. Mahasamund district highest physical achievement reported during the year 2014-15 (171.66%) and the lowest was during the year 2013-14 (98.33%). It is reported that in Mahasamund district the highest financial achievement during the year 2014-15 (155.71%) and the lowest was in the year 2017-18 (86.26%). Chhattisgarh state highest physical achievement was reported during the year 2016-17 (100.74%) and the lowest was reported during the year 2013-14 (93.17%). Chhattisgarh state highest financial achievement was achieved during 2016-17 (97.96%) and lowest was in the year of 2013-14 (85.63%). We can see that in Mahasamund district highest physical and financial achievement was found in the initial year (2013-14) where as in Chhattisgarh state it was found in recent year (2016-17).

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