

# **Turning into Seed self sufficiency**

## **Quality Seed - A key to success**

### **Background & Objectives**

"*Subeejam Shukshetre Jaayate Sampradayte*" means good seed in a good field produces abundantly. To be able to produce more and prosper, farmers must use pure and healthy seeds as per the certification norms which have a standard germination percentage. Good quality seeds are those which have genetic and physical purity, health standards, and moisture content in accordance with seed certification standards. Quality seed increases production of crops by about 20%. Farmers make arrangements for many inputs but quality seed is the most essential input among all the inputs. If the seed is of bad or inferior quality, then labour and other expenses are in vain.

Chhattisgarh was carved out of Madhya Pradesh and granted statehood on 1<sup>st</sup> November, 2000. It has total geographical area of 13.79 mha. constituting 4 percent of total geographical area of India. Rice is the principal crop of Chhattisgarh. However productivity of various crops in the state is much below the national average. Among other factors, inadequate production and usage of quality seed have been considered main constraints in increasing productivity, in the State.

For achieving self-sufficiency in Quality Seeds, the State prepared a Seed Rolling Plan for the first time in 2005 by involving all stakeholders, i.e., State Seed Corporation, State Agriculture University, Agriculture Department and Seed Certification Agency. Timely procurement of breeder seeds from SAUs & Research Stations, identification & training of seed growers and production as per seed rolling plan were the thrust areas of the Plan. The main objective of the programme was to increase the Seed Replacement Rate (SRR). Seed Replacement Rate is the percentage of area sown out of total area of crop planted in the season by using certified/quality seeds other than farm saved seed.

## **Intervention**

This involved following activities:

- Procurement of Breeder seeds from Govt. of India.
- Multiplication of Breeder seeds to the foundation s seeds through State Agriculture University, State Agriculture Department and C.G. State Seed & Agriculture Development Corporation farms.
- Distribution of foundation seed to the growers to multiply as certified seeds.
- Receipt of raw seeds from growers.
- Processing of raw seeds in seed processing plant
- Certification of processed seeds for sale to farmers through State Seed Certification Agency.

Total outlay on these activities was Rs 85.49 crores from 2007-08 to 2011-12, of which Rs 75.02 crore was met from RKVY and the balance from "Assistance for the Creation of Seed Infrastructure Facilities under the Central Sector Scheme".

Seed growers training programmes were organised as an incentive measure to encourage quality seed production and distribution which earlier was the main drawback in quality seed production by seed growers. Seed exchange programme was introduced to promote use of quality seed among SC, ST, small and marginal farmers on exchange basis

However, one of the main constraints to achieving desired SRR has been lack of infrastructural facilities to achieve the desired goal. Construction of new seed processing centres, strengthening of old processing centres, construction of seed godowns, subsidy on seed production & distribution have been undertaken in a big way under RKVY.

- New seed processing centres in the unrepresented districts at Korla and Korba were established. Four new seed processing centres have been started at Chaple (Raigarh district), Dharampura (Bilaspur district), Gariyaband (Raipur district) and Saraipali (Mahasamund district) to facilitate the seed growers in their pursuits.

- The capacity of seed godowns was enhanced to 45000 M ton from existing 17000 M ton.
- Availability of additional 21 seed grading machines increased the seed grading capacity by 58 TPH, thereby enhancing seed availability twice over. A total of 70575 MT of packed certified seeds was made available during 2011-12 as against earlier 17930 MT in 2007-08

(Rs in lakh)

Project	2007-08		2008-09		2009-10		2010-11		2011-12	
	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
<b>Godowns (Nos.)</b>	01 No.	35.00	17 No.	680.00	02 No.	80.00	07 No.	262.50	03 No.	132.00
<b>Grading Machines (Nos.)</b>	04 No.	80.00	08 No.	240.00	02 No.	64.00	04 No.	100.00	03 No.	84.00
<b>Production Subsidy to Seed Growers (Lakh MT)</b>	-	-	0.299 lakh MT	599.00	0.372 lakh MT	743.36	0.407 lakh MT	814.34	0.503 lakh MT	1005.43
<b>Distribution Subsidy to The farmers (Lakh MT)</b>	-	-	-	-			0.178 lakh MT	534.19	0.246 lakh MT	774.98

## Outcome

As rice is the main crop of the state, covering nearly 76% of the net cultivated area, a case study was undertaken to assess the impact of initiatives under RKVY particularly with regard to Seed Replacement Rate (SRR) in Paddy. The results show an overall increase in area, production and use of quality seeds in Paddy.

Particulars	2001-02	2006-07	% Increase over 2001 -02	2010-11	% Increase over 2001 -02
<b>Area under seed production programme (in hectare)</b>	2462	11702	375	49029	1891
<b>Production of quality seed within state (in MT)</b>	2780.3	12419.9	346	52425	1785

<b>Distribution of quality seed (in MT)</b>	6612.5	12804.3	93	58416.4	783
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Due to these interventions, state has achieved high SRR ensuring higher productivity in a sustainable way as depicted below.

<b>Particular</b>	<b>Base year 2001-02 Qty.</b>	<b>2006-07</b>		<b>2010-11</b>	
		<b>Qty.</b>	<b>% increase over Base year</b>	<b>Qty.</b>	<b>% increase over Base year</b>
<b>Production of Quality Seed of Rice (lakh MT)</b>	0.028	0.124	347	0.531	1813
<b>SRR of Rice (Percent)</b>	2.00	8.50	325	28.41	1320
<b>Productivity of Rice (Kg. /Ha.)</b>	1331	1447	8.7	1751	31.5
<b>Production of Rice (lakh MT)</b>	50.04	54.42	8.7	61.59	23

Notable initiatives like area expansion under SRI, improvement in Seed Replacement Rate, use of hybrid seed and micro nutrients have resulted in highest production of rice of 61.59 lakh MT in Kharif season 2010-11 which is 50% more than the production of Kharif 2009-10. State Govt. of Chhattisgarh was presented the "Krishi Karman" Award by the Department of Agriculture & Cooperation, Government of India for achieving its highest ever rice production in 2010-11.

