

Glimpses of Accomplishments

Tribal Sub-Plan

(2011-12 to 2013-14)



ICAR- Directorate of Seed Research
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Preface

Limited access to improved crop varieties seed is one of the serious limiting factors leading to low farm level productivity of tribal farmers. Seed is the decisive input for sustained agriculture production and is paramount for realizing the potential of all other inputs without which the investment on inputs such as fertilizer, water and pesticides will not pay desired dividends to the farmers. Use of quality seed alone could increase productivity by 15-20 % indicate the critical role of seed in agriculture.

Directorate of Seed Research, Mau (DSR) is implementing TSP across the country in various tribal belts of the country since 2011-12 under three components viz. DSR Main Scheme, AICRP on NSP (crops) and ICAR Seed Project with the objective to develop agriculture and allied activities with especial emphasis on seed for economic upliftment of tribal population. There are 40 implementing centres across the country in 19 states for effective implementation of TSP programme. The total fund release during the year 2011-12, 2012-13 and 2013-14 was Rs. 190.00 lakhs, Rs. 162.88 lakhs and Rs. 170.00 lakhs respectively. The programme was implemented in 79 districts of the country covering more than 18440 tribal farmers. The programme has helped the farmers for production of quality seed, participatory quality seed production, Human Resource Development in seed production and allied activities, distribution of improved agricultural implements and inputs, which boosted the seed production. The present publication, 'Glimpses of Accomplishments Tribal Sub-Plan (2011-12 to 2013-14)' contains holistic progress made under programme.

I thankfully acknowledge the co-operation received from all co-operating centres across the country. The quality and quantum of progress made under Tribal Sub Plan is due to the sincere efforts of personnel associated with the project throughout the country. I express my heartfelt gratitude to the council for the support rendered in this endeavour.

09th Sept, 2014
Mau (UP)

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At a glance

Seed is the decisive input for sustained agriculture production and is paramount for realizing the potential of all other inputs without which the investment on inputs such as fertilizer, water and pesticides will not pay desired dividends to the farmers. Making the tribal farmers enable with quality seed and its wholesome production technology is imminent challenge that needs to be tackled upon. At this juncture, Directorate of Seed Research, Mau (DSR) is implementing TSP across the country in various tribal belts of the country since 2011-12 under three components *viz.* DSR Main Scheme, AICRP on NSP (crops) and ICAR Seed Project.

Implementing centres under the ambit of TSP

State-wise implementing centres of Tribal Sub Plan (TSP) of DSR, Mau under its all three component has been presented below. There were 40 implementing centres across the country in 19 states for effective implementation of TSP programmes.

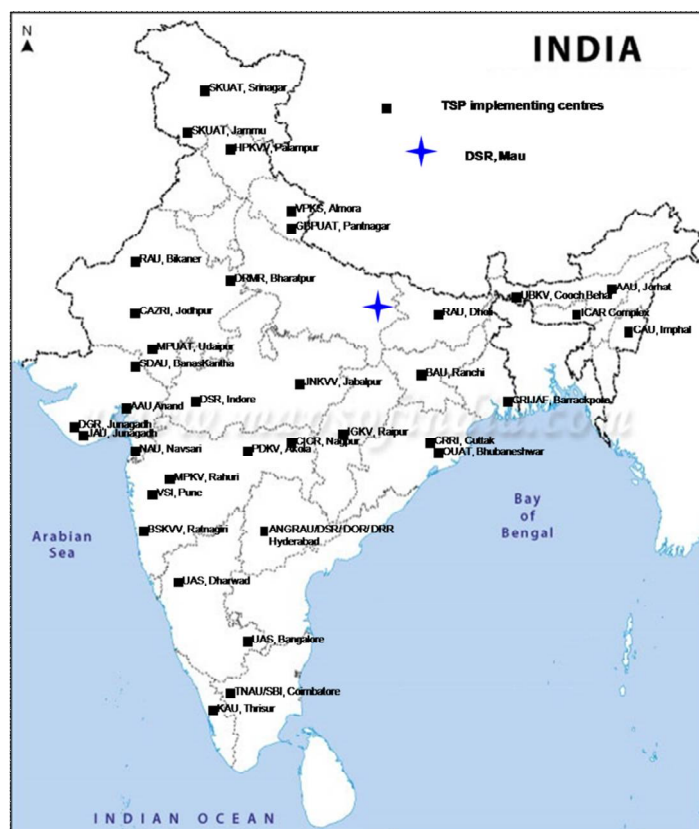


Fig 1: Tribal Sub Plan implementing centers of DSR

Budgetary provision

Directorate of Seed Research, Mau (DSR) has implemented TSP across the country in various tribal belts of the country since 2011-12 through its components *viz.* DSR Main Scheme, AICRP on NSP (crops) and ICAR Seed Project. The fund has been released to various Institutes/ SAUs for upliftment of the economic condition of tribal farmers. The details of fund release had been presented in Fig. 2 & 3.

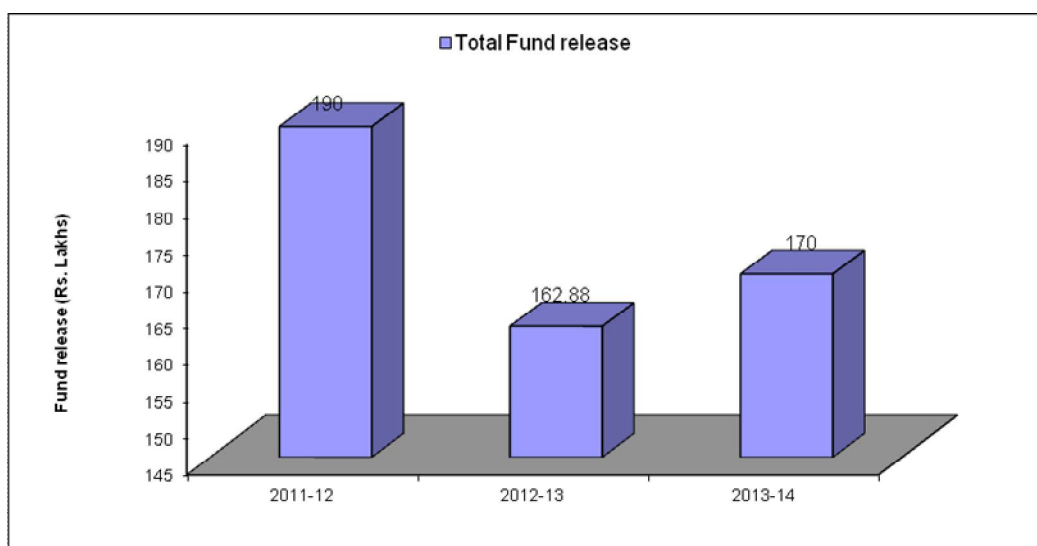


Fig. 2. Year-wise total fund release in TSP from DSR

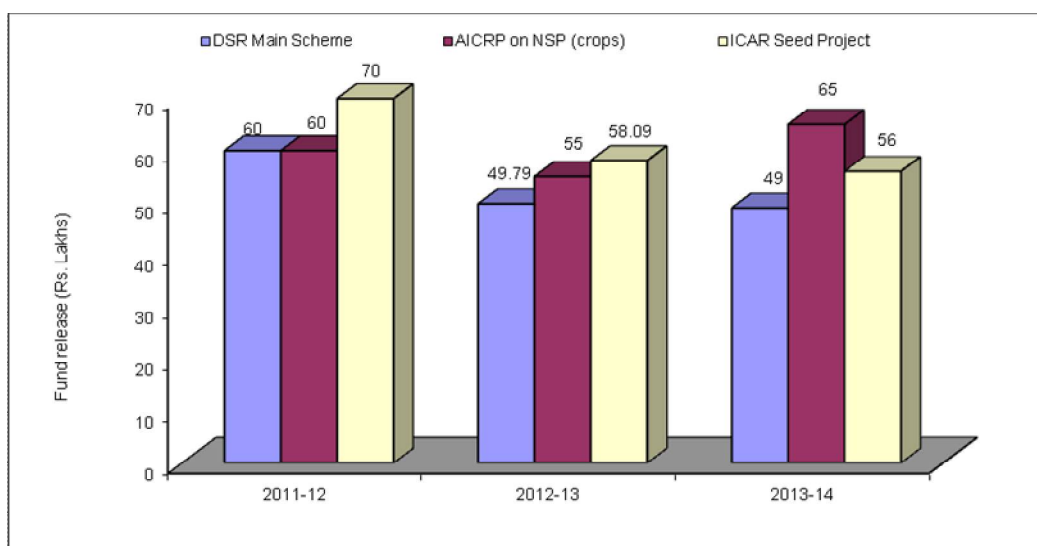


Fig. 3. Year-wise fund release in TSP under different components of DSR

Benefits accrued

The major benefits accrued under the programme was participatory quality seed production of various crops, demonstration of quality seed production activities, training on quality seed production and safe storage, technology dissemination in seed domain through extension material and distribution of physical assets and quality inputs. The total area covered under the programme was around 2781 ha. and major crops were paddy (40.20 %), wheat (15.53 %), ragi (10.79 %), mung (7.44 %). Around 15890 farmers have been trained in quality seed production and safe storage. The physical inputs viz. quality seed, storage bin, farm implements, sprayer have been distributed to around 11793 farmers.

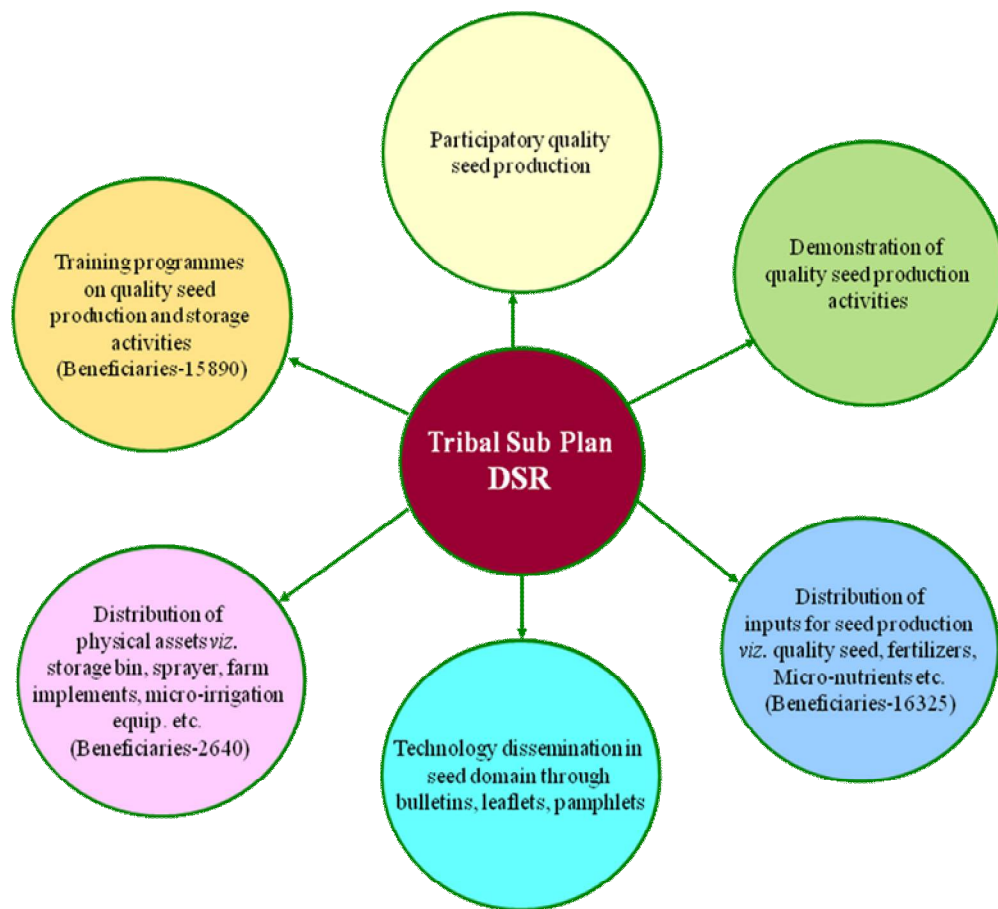


Fig.4. Activities under Tribal Sub Plan of DSR, Mau

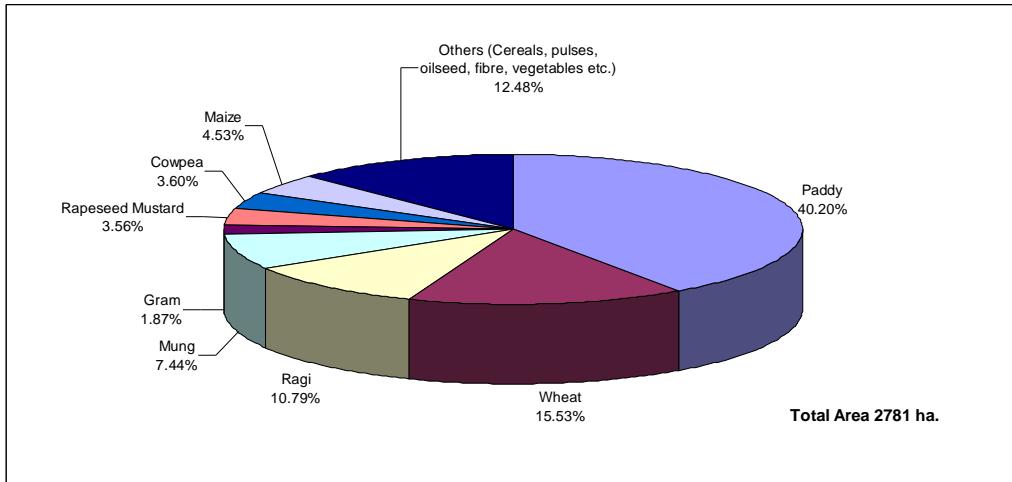


Fig. 5: Area covered under different crops under TSP

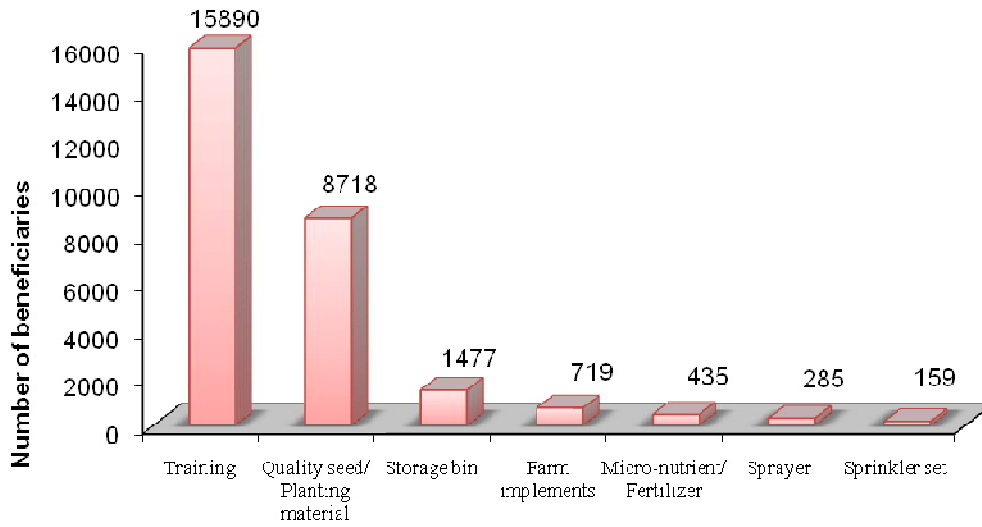


Fig. 6: Number of beneficiaries (in terms of trainings and physical input distribution) under TSP component of DSR

Introduction

Balanced growth and economic development is the ultimate aim of every country and the strategic plans. During fifth five year plan, it was realized by policy makers that the Scheduled Tribes are still way behind the mainstream development process. Apart from this, it was also been realized that the general plan schemes and programmes designed for the overall development of the economy hardly improved their socio-economic status. Similarly, the benefit of such general welfare schemes did not percolate down towards the development of STs Population of the country in any significant manner. In order to address these issues, the Tribal Sub-Plan was initiated during Fifth Five Year Plan for socioeconomic amelioration of the tribal communities. Scheduled Tribes (STs) are the disadvantaged sections of the society due to socio-economic exploitation and isolation since long time. Since long, they have been relegated to low income generating occupations, inferior trades, unhygienic environment and menial occupations. The population of Scheduled Tribes (STs) is 104.3 million (2011 Census) constituting 8.6% of the total population of the country. Among them 90 % of STs live in rural areas and only 10% live in urban areas. STs have their own distinctive culture and are geographically isolated with low socio-economic conditions. More than 80 per cent of the ST population is concentrated in the ten States i.e. Madhya Pradesh (14.69%), Maharashtra (10.08%), Orissa (9.2%), Rajasthan (8.86%), Gujarat (8.55%), Jharkhand (8.29%), Chhattisgarh (7.50%), Andhra Pradesh (5.68%), West Bengal (5.08%) and Karnataka (4.07%). The important development indicators *viz.* literacy (63.1%), rural poverty (47.4%), urban poverty (30.4%) and migration rate (238 migrants per 1000 persons) among tribal show large disparity with the general population.

Agro-technologies generated during the past in agriculture are still out of reach of the tribal farmers. Major cause for this is illiteracy, ignorance about the technology, poor socio-economic status and very poor connectivity of the farmers. In spite of spectacular significant strides made in agriculture, development is yet to take place in remote areas, which have not received any assistance for their upliftment and the farmers of these areas are still dependent upon the old varieties and landraces in different crops, which are available with them since ages. However, these landraces were adapted to limited resources and due to poor maintenance still remain exceedingly poor yielder and with deteriorated seed quality. Hence, these farmers are forced to earn their livelihood in the neighbouring urban areas to fulfil their daily requirements.

In spite of significant achievement through crop improvement research and development, the landraces are still being cultivated with minimum input due to which their potential for producing quality seed might be declining. Limited access of farmers to improved crop varieties is one of the serious limiting factors leading to low farm level productivity. No single agency can fulfil the demand of quality seed of improved varieties. Quality and the integrity of the seed purchased from own seed markets are doubtful and often results in inferior quality of seed produced with

exceedingly low productivity. Limited availability of seeds of the improved varieties in spite of the large quantity of breeder and foundation seeds being produced by the government agencies in public and private sectors seem to be major constraint in agricultural development. Looking into these facts mentioned, it is necessary to educate the tribal communities regarding their upliftment through adoption of modern agricultural technologies developed and these could also help in monetary gains. Directorate of Seed Research, Mau (DSR) is implementing TSP across the country in various tribal belts of the country since 2011-12 under its three components *viz.* DSR Main Scheme, AICRP on NSP (crops) and ICAR Seed Project.

Goal

To develop agriculture and allied activities *viz.* animal husbandry, dairy development, poultry, fisheries etc. that provide a source of livelihood to the tribal farmers by keeping seed as central tenet.

Objectives

- To organize seed production in participatory mode to cater the local demands of quality seed
- To impart training in quality seed production to the farmers and distribute storage structures for improvement of quality of farm saved seed and seed storability
- To make supply of quality seed, storage structure or other inputs (physical assets)

State-wise progress under Tribal Sub Plan of DSR

Madhya Pradesh

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of wheat, pea and gram was undertaken by different implementing centers. Quality seed of wheat, pea and gram varieties was provided to the farmers at the project cost. The training on quality seed production of wheat and pea crops was also provided to the selected farmers. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
Dindori	Wheat	JW 3211, JW 3173, GW-273, HD 2932, HD 2864 and JW-3269	44	Quality seed was provided to farmers for one acre
	Pea	IPF 9925	9	
Chhindwara	Wheat	JW – 3211	24	12.80 quintal breeder seed of wheat and 3.20 quintal of gram was distributed for foundation seed production.
	Gram	JG – 16	7	

Farmers Training programmes

Title of training programme	No. of beneficiaries
Production Technology of Wheat	24
Training on seed treatment	22
Management of Termite in Wheat	24
Production Technology of Pea	25
Management of wilt in Pea	27

Demonstrations

Demonstrated the use of sprayers for proper pest/disease and weed control in crops to the selected farmers in Dindori district. Demonstration for weed management was conducted at beneficiary farmer fields and looking into the performance of weed control farmers satisfied and accepted to follow the improved practices.



Fig.7: seed treatment and sowing of wheat by nari system (JNKVV, Jabalpur)

Publication:

Five extension folders have been published and distributed among farmers as per following details

1. Seed Production Technology of Wheat
2. Seed Production Technology of Gram
3. Seed Production Technology of Moong
4. Seed Production Technology of Rice
5. Seed Production Technology of Pea

Maharashtra

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of Cowpea, Dolichos bean and Snake gourd were undertaken. Quality seeds of cowpea, Dolichos bean and snake gourd were provided to the farmers at the project cost. Farmers were taught about importance of quality seed production and its impact on crop production. The farmers of nearby areas also visited these demonstrations. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks (Area covered in ha)
Thane	Cowpea	Konkan Sadabahar	95	55.5
		Konkan Safed	80	32.0
	Dolichos bean	Konkan Bhushan	84	40.6
	Snake guard	Konkan Shweta	25	7.5
Ratnagiri	Cowpea	Konkan Sadabahar	20	12.0

Farmers training programmes and demonstrations

The trainings included lectures and demonstrations on quality seed production, processing, seed health and storage. Improved methods of cultivation for increasing production, seed treatment, drying, cleaning, grading, bagging and safe storage were demonstrated successfully on Farmers' field. Training programme on seed production and storage activities and demonstrations have been organized as per following details.

Title of training programme	District	No. of training programme	No. of FLDs	No. of beneficiaries
Seed production and storage activities	Thane	20	18	1531
	Raigad	6	3	265
	Ratnagiri	2	1	116
Quality seed production of sugarcane	Ahmednagar	2	-	11
	Nasik	2	-	15
	Nandurbar	1	-	5
	Pune	1	-	5
Recent advances in Cotton production technologies”	Nagpur	2	1	513
Seed production, processing and safe storage technology	Amravati	8	-	881
	Akola	20	-	2131
	Gondia	8	-	659



Fig. 8: Farmers training programme on quality seed production (CICR, Nagpur)

Supply of seed and other physical inputs/ assets

Quality seed of paddy, groundnut, sugarcane, turmeric; sprayer, storage bin etc. have been supplied to the tribal farmers as per following details

Particulars	Quantity	Districts	No. of beneficiaries
Paddy seed (KJT-2, KJT-3, KJT-7, KJT-3, KJT-7, PLG-1)	35 q	Ratnagiri, Raigad, Thane	240
Turmeric rhizomes (Phule Swarupa)	17 q	Thane	350
Sugarcane	8270 per beneficiary (No. of two eye bud sets)	Ahmednagar, Pune, Nasik, Nandurbar,	36
Multi micro nutrient	10 litre per beneficiary		
PSB culture	1 litre per beneficiary		
Storage bin	260 no.	Ratnagiri, Raigad, Thane	260
Knapsack sprayer	116 no.	Thane, Akola, Amravati	125
Groundnut Breeder seed (JL- 24)	29.8 q	Ahmednagar	102

Groundnut decorticator	10 no.		
Cycle hoe	20 no.		

Odisha

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of paddy was undertaken. Quality seeds of paddy were provided to the farmers at the project cost. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
Sambalpur	Paddy	Sahabhagi dhan, Naveen	100	Each tribal farmer was provided with 10 kg. seed as a kit for one variety
Mayurbhanj	Paddy	Sahabhagi Dhan, Naveen and CR Boro Dhan 2 (Chandan)	450	
Kandhamal	Paddy	Naveen	50	
Sundergarh	Paddy	Sahabhagi Dhan, Naveen and Chandan	150	
Kalahandi	Paddy	Naveen	50	
Keonjhar	Paddy	Sahabhagi Dhan, Naveen and Chandan	250	
Malkangiri	Paddy	Sahabhagi Dhan, Naveen	260	
Koraput	Paddy	Naveen	100	

Farmers training programmes and demonstrations

Training programme on seed production & storage activities, farmers fair and demonstrations had been organized as per following details.

District	No. of training programme	No. of FLDs	No. of farmers fair	No. of beneficiaries
Mayurbhanj	03	80	2	380

Rajasthan

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of guar and wheat was undertaken. Quality seeds of guar and wheat were provided to the farmers for seed production. Farmers were taught about importance of quality seed production and its impact on crop production. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
Dausa	Guar	RGC-1002	24	Each tribal farmer was provided with 15 kg seed & one sprinkler set
Banswara	Wheat	Raj-3777	40	Each tribal farmer was provided 70 kg seed

Farmers Training programmes and demonstrations

Training programme on seed production & storage activities, farmers fair and demonstrations has been organized as per following details.

District	No. of training programme	No. of FLDs	No. of farmers fair / visits	No. of beneficiaries
Udaipur	1	-	1	20
Pratapgarh	1	25	2	25
Banswara	3	65	1	165
Dungarpur	1	-	-	100



Fig. 9: Farmers training programme on quality seed production (CAZRI, Jodhpur)

Supply of seed and other physical inputs/ asset

Quality seed of maize, wheat, mung, sorghum, barley, gram; sprayer, storage bin, fertilizers etc. have been supplied to the tribal farmers as per following details

Particulars	Quantity	Districts	No. of beneficiaries
Maize seed (Pratap-5)	2.5 q	Pratapgarh	25
Storage bin	25 no.		
Knapsack sprayer	25 no.		
fertilizer (NPS)	12.5 q		
Wheat seed	10 q	Banswara	65
Storage bin	65 no.		
Knapsack sprayer	25 no.		
Mung seed (SML-668, K-851)	7 q	Banswara, Dungarpur	200
Maize seed (Pratap Chari-6)	3.2 q		
Sorghum seed (CSV-15)	5.66 q		
Ber Seedlings	600 no.		
Barley seed (RD 2052)	50 kg	Banswara	138
Wheat seed (Raj 4037)	44 q		
Gram seed (Pratap Chana 1)	1.5 q		
Sprayers	13 no.		
Plough	9 no.		
Fertilizers	55 q		



Fig. 10: Distribution of quality seed and farm implements (CAZRI, Jodhpur)



Fig. 11: Farmers training programme, distribution of seed bin and traditional seed storage boxes (MPUA&T, Udaipur)

Gujarat

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of green gram and wheat was undertaken. Quality seeds of green gram and wheat were provided to the farmers for seed production. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
Sabar-kantha	Green gram	Gujarat Mung 4	425	Area covered 85 ha.
		Wheat		
		GW 322	100	Area covered 40 ha.
		GW 273	200	Area covered 80 ha.
		GW 496	200	Area covered 80 ha.

Farmers Training programmes and demonstrations

Training programme on seed production & storage activities, farmers fair and demonstrations has been organized as per following details.

District	No. of training programme	No. of FLDs	No. of farmers fair / visits	Remarks
Sabarkantha	9	32	-	Demonstration were made on seed production technology of green gram and wheat
Junagadh	4	2	19	Number of beneficiaries- 370 (farmers were exposed to groundnut (21 ha) and pigeon pea (2 ha) seed production technology)

Somnath	2	19	12	Number of beneficiaries- 59
Tapi	4	-	-	Number of beneficiaries- 882
Narmada	4	-	-	Number of beneficiaries- 300
Dang	4	-	-	Number of beneficiaries- 170
Navsari	1	-	-	Number of beneficiaries- 152
Panchmahal and Dahod	4	-	-	Number of beneficiaries- 100
Vadodara, Panchmahal and Dahod	-	130	-	Number of beneficiaries- 130



Fig. 12: Demonstration of improved practices in seed production and storage (JAU, Junagarh)

Supply of seed and other physical inputs/ assets

Quality seed of wheat, green gram, groundnut, maize, soybean; storage bin, *Trichoderma* culture etc. have been supplied to the tribal farmers as per following details

Particulars	Quantity	Districts
Green gram seed (Gujarat Mung 4)	12.75 q	Sabarkantha
Wheat seed (GW 322)	40 q	
Wheat seed (GW 273)	80 q	
Wheat seed (GW 496)	80 q	
Groundnut seed	16.4 q	Junagadh
Seeds of maize	0.16 q	Vadodara, Panchmahal and Dahod
Seeds of soybean	0.1 q	
<i>Trichoderma</i> culture	0.1 q	
<i>Green gram (Meha)</i>	2.5 q	
<i>Soybean (NRC 37)</i>	1.2 q	
<i>Maize (GM 6)</i>	12.5 q	
<i>GI storage bin</i>	1.3 q	



Fig. 13: Farmers training programme on quality seed, distribution of Bio-fertilizers and storage bin (NAU, Navsari)

Jharkhand

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of Potato, Mustard, mung, wheat, rapeseed and mustard, gram etc. was undertaken. Quality seeds were provided to the farmers. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks (Area covered in ha)
Dhanbad	Potato	Kufri Pukhraj	25	1.5
		Kufri Ashoka	25	1.5
		-	275	9.75
	Mustard	-	106	15.9
	Mung	Pusa Vishal	100	20
Chatra	Mung	K 851	30	18
	Wheat	HUW 234	24	36
	R&M	Shivani	45	10
	Lady finger	Parbani Kranti		4
Latehar	Chillies and cauliflower	-	28	5.6
West Singhbhum	Gram	-	70	7
	Mustard			10
Simdega	Mung bean	Gujarat Moong/ Pusa Vishal	50	11
	Chickpea	KPG 59/ P 1003	32	4
	R&M	Shivani	45	8
Sahibganj	Mung bean	Pusa vishal / SML 668	28	28

Farmers Training programmes and demonstrations

Training programme on seed production & storage activities, farmers fair and demonstrations had been organized as per following details

District	No. of training programme	No. of FLDs	No. of farmers fair / visits	No. of beneficiaries
Chatra	7	174	4	478

Dhanbad	6	531	-	1360
Latehar	2	28	-	75
W. Singhbhum	4	70	-	170
Ranchi	3	-	-	93
Chatra	10	60	-	310
Sahibganj	4	28	-	128
Simdega	13	360	-	675



Fig. 14: Farmers training programme on quality seed production and distribution of quality seed and implements (BAU, Ranchi)

Supply of seed and other physical inputs/ assets

Quality seed of various crops alongwith storage bin, diesel pump sets and sprayers have been supplied to the tribal farmers as per following details

Particulars	Quantity	Districts
Seed bin	123	Chatra, Dhanbad, Latehar,
micro-irrigation facilities (diesel pump sets)	10	W. Singhbhum, Chatra, Sahibganj, Simdega
Rocking sprayers	10	

Chhattisgarh

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of Wheat, Chick pea, Field pea and Linseed was undertaken. Quality seeds were provided to the farmers at the project cost. Farmers were taught about importance of quality seed production and its impact on crop production. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks (quality seed supplied in q)
Kanker, Gariyabandh, Mahasamund	Wheat	Khanchan	50	Wheat (0.40), chickpea (0.30), field pea (0.30) and Linseed (0.10)
	Chick pea	JG 218	50	
	Field pea	Shubhra	50	
	Linseed	RLC 92	50	
Kanker	Chickpea	JAKI 9218	16	4.8
	Fieldpea	Shubhra	8	2.4
	Linseed	RLC 92/ Indira Alsi 32	6	0.6
	Wheat	GW 273	20	8.0

Bastar	Linseed	RLC 92	05	0.5
	Fieldpea	Ambika	07	2.1
	Chickpea	JAKI 9218	16	4.8
	Wheat	GW 273	22	8.8

Farmers Training programmes and demonstrations

Training programme on quality seed production, seed health and storage; farmers fair and demonstrations had been organized as per following details.

District	No. of training programme	No. of beneficiaries
Kanker	3	130
Gariyabandh	2	80
Mahasamund	1	40
Bastar	1	50

Supply of seed and other physical inputs/ assets

Tribal farmers generally use traditional storage structures like Kothi, Dholga, Gunny bags and heaping for keeping their seeds. Improved storage structures like seed bin and sprinkler set were supplied to the tribal farmers as per following details.

Particulars	Quantity (no.)	District
Seed bin	130	Kanker
	80	Gariyabandh
	40	Mahasamund
	50	Bastar
Sprinkler sets	5	Kanker, Gariyabandh, Mahasamund
	100	Kanker and Bastar



Fig. 15: Farmers training programme on quality seed production and distribution of storage bin (IGKV, Raipur)

Andhra Pradesh

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of Castor, Groundnut and Niger was undertaken. Quality seeds were provided to the farmers for seed production. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
Visakhapatnam	Niger	Araku local	36	About 90 quintal of niger seed (Araku local) was produced by the tribal farmers of Araku valley of Visakhapatnam (Area covered 16 ha)
Mahbubnagar	Castor	PCH 111	100	Quality seed was distributed for 0.5 acre to every selected farmers
	Groundnut	Kadiri 9		

A total of 45 quintal of castor hybrid, DCH-519 was produced and farmers were paid Rs 4.95 lakhs which fetched them a net benefit of over Rs.30,000 per acre.

Farmers Training programmes and demonstrations

Training programme on quality seed production, seed health and storage; farmers fair and demonstrations has been organized as per following details.

District	No. of training programmes	No. of FLDs	No. of farmers fairs / visits	No. of beneficiaries
Mahbubnagar	3	14	6	112
Visakhapatnam	6	40	3	236
Warangal	2	2	-	40
East Godavari	2	2	-	50



Fig. 16: Farmers training programme and demonstration on quality seed production (ANGRAU, Hyderabad)

Supply of seed and other physical inputs/ assets

Quality seed, storage bins, winnowing fans and sprayers have been supplied to the tribal farmers as per following details

Particulars	Quantity	Districts
Sprinkler set	10 no.	Mahbubnagar
Axe, spades, sprayers, sickles and storage bins	140 no.	Visakhapatnam, Warangal
Niger seed	1.6 q	Visakhapatnam, East Godavari
Winnowing fans	22 no.	
Storage drums	36 no.	



Fig. 17: Distribution of improved inputs and implements (ANGRAU, Hyderabad)

West Bengal

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of potato and mustard was undertaken. Quality seeds were provided to the farmers for seed production. The details are as follows:

District	Crop	No. of beneficiaries	Remarks
Cooch Behar	Potato	70	3500 kg potato seed tuber was provided for production of certified seed
Cooch Behar and Jalpaiguri	Mustard	120	120 kg mustard seed was provided to farmers for production of quality seed

Farmers Training programmes and demonstrations

Training programme on quality seed production, seed health and storage, farmers fair and demonstrations has been organized as per following details.

District	No. of training programme	No. of FLDs	No. of farmers fair / visits	No. of beneficiaries
Cooch Behar	7	3	3	330
Jalpaiguri	4	1	3	204

Supply of seed and other physical inputs/ assets

Quality seed of jute and paddy, sprayers and other implements have been supplied to the tribal farmers as per following details

Particulars	Quantity	District
Jute seed	2.1 q	Cooch Behar
Paddy seed	7.0 q	
Spade and wheel hoe	70 no.	
Pump set	10 no.	
Wheel hoe	51 no.	Jalpaiguri
Knapsac sprayer	96 no.	Purulia



Fig. 18: Various activities for quality seed production (UBKV, Cooch Behar)

Karnataka

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of paddy was undertaken. Quality seeds were provided to the farmers at the project cost. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
North canara	Paddy	-	200	Each farmers were supplied with 50 kg quality seed for seed production programme and produced seed has been purchased by the university

Farmers Training programmes and demonstrations

Training programme on quality seed production, seed health and storage; farmers fair and demonstrations has been organized as per following details.

District	No. of training programme	No. of beneficiaries
Chamarajanagar	8	480
North canara	1	200



Fig. 19: Farmers training programme and distribution of quality seed and storage bin (UAS, Dharwad)

Supply of seed and other physical inputs/ assets

Quality seed of various crops and storage bins were supplied to the tribal farmers as per following details.

Particulars	Quantity	Area covered (in ha)	No. of beneficiaries
Paddy seed (Jaya)	66 q	88	88
Paddy seed (Abhilash)	63 q	84	84
Bhendi seed (Arka Anamika)	1.35 q	18	90
French bean seed (Arka suvidha)	1.35 q	9	90
Seedlings (Coconut)	350 no.	-	110
Seedlings (Mango grafts)	350 no.	-	110
Ragi seed	49.70 q	Chamarajanagar district	480
Red gram seed	1 q		
Field bean seed	1.85 q		
Hybrid maize seed	1.3 q		
Vegetable seeds	480 pkt.		
Tarpaulins	13 no.		
Storage bins	38 no.		
Seeds of ragi, red gram, field bean & vegetable	-		
Paddy seed	100 q	North canara district	200



Fig. 20: Farmers training programme and distribution of quality seed (UAS, Bangalore)

Assam

Supply of seed and other physical inputs/ assets

Improved agricultural implements were supplied to the tribal farmers, besides community seed storage facility has been developed as per following details

Particulars	Quantity	Remarks
Treadle pump, Cono weeder, seed bin, pesticide/ fungicide sprayer, hand operated seed drill, garden weeder	-	Number of beneficiaries - 300
Community seed storage facility has been developed	1	Whole village

Jammu & Kashmir

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of Wheat was undertaken. Quality seeds were provided to the farmers at the project cost. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks
Kargil	Wheat	HS 375	51	Area covered 5.0 ha.
Leh	Wheat	HS 375	55	Area covered 5.5 ha.



Fig. 21: Farmers training and demonstration on quality seed production (SKUA& T, Srinagar)

Farmers Training programmes and demonstrations

Training programme on quality seed production, seed health and storage, farmers fair and demonstrations has been organized as per following details.

District	No. of training programme	No. of beneficiaries
Pulwama	1	100
Kupwara	1	100
Pulwama, Bandipora, Kupwara	1	275
Kargil	1	51
Leh	1	55
Poonch	3	20
Rajouri	3	136

Supply of seed and other physical inputs/ assets

Quality seed of various crops alongwith seed storage bin and fertilizer were supplied to the tribal farmers as per following details.

Particulars	Quantity	Districts
Seed storage bin	100 no.	Pulwama and Kupwara
Maize and paddy seed	25 q	Pulwama, Bandipora, Kupwara
Seed storage bin	200 no.	
Wheat seed (HS 375)	20 q	Kargil and Leh
Seeds (Wheat and Mustard) Fertilizers and Seed storage bin	Area covered- 11.25 ha	Rajouri

(Capacity : 2 quintals)		
Seeds (Wheat, Mustard & Fodder-Oat) Fertilizers and Seed storage bin (Capacity : 2 quintals)	Area covered- 8 ha	Poonch

Manipur

Farmers' participatory quality seed production

Farmers' participatory quality seed production of high yielding varieties of paddy, maize, groundnut, soybean and rapeseed was undertaken. Quality seeds were provided to the farmers. The details are as follows:

District	Crop	Varieties	No. of beneficiaries	Remarks (Area covered 45.0 ha)
Senapati	Paddy	CAU- R1	134	45
Ukhrul	Paddy	CAU- R1	41	30
Chandel	Paddy	CAU- R1	41	15
Chandel, Churachandpur, Ukhrul , Tamenglong, Imphal West	Paddy	Rc-Maniphou-10, Rc-Maniphou-7	74	60.6
	Maize	Vijay Composite	14	15
	Groundnut	ICGS-76, JL 24	7	4
	Soybean	JS-335	32	15
	Rapeseed	M 27	28	42.5



Fig.22: Seed production activities of different crops (ICAR-RC, Imphal)

Farmers Training programmes and demonstrations

Training programme on quality seed production and storage, farmers fair and demonstrations has been organized as per following details.

District	No. of training programme	No. of FLDs	No. of beneficiaries
Senapati	4	3	151
Ukhrul	2	3	91
Chandel	2	1	96
Bishnupur	1	-	30
Imphal East	1	-	43
Imphal	1	-	40

Supply of seed and other physical inputs/ assets

Quality seed, fertilizer, sprayer and seed storage bin were supplied to the tribal farmers as per following details.

Particulars	Quantity	Districts
Rapeseed-Mustard seed (Ragini)	5.3 q	Senapati
Urea	14 q	
SSP	28 q	
MOP	9 q	
Paddy seed (CAU- R1)	76.5 q	Senapati, Ukhrul, Chandel
Paddy seed (CAU- R2)	15 q	
Knapsack sprayers	10 no.	
RC seed storage bin	100 no.	Chandel, Tamenglong and Churachandpur



Fig. 23: Demonstration on quality seed production and fabrication of RC seed bin (ICAR-RC, Imphal)

Tamil Nadu

Farmers Training programmes and demonstrations

The procedures on pre-sowing and pre-storage seed treatments with chemical and biological means, seed priming were demonstrated to farmers with live specimens and germinated seedlings after respective seed treatments were displayed for comparison along with control. The impact of different storage containers on extending the seed viability and vigour during storage of seeds was emphasized during the demonstration. Method of banana sucker treatments against pest and disease problems was demonstrated. Demonstrations were held on seed priming and seed treatment methods. Training programme on quality seed production and storage, farmers fair and demonstrations has been organized as per below mentioned details.

District	No. of training programme	No. of farmers fair / visits	No. of beneficiaries
Coimbatore	1	4	50
Vellore	2	-	50
Namakkal	2	-	60
Dharmapuri	1	-	60
Krishnagiri	1	-	60

Supply of seed and other physical inputs/ assets

Quality seed of paddy and millets alongwith vegetable seed; fertilizer, sprayer, agricultural implements, etc. were supplied to the tribal farmers as per following details.

Particulars	Quantity	Districts
Seeds of Paddy and Millets	-	Vellore, Namakkal,
Fertilizers	-	Dharmapuri, Krishnagiri
Seeds of Paddy	1.2 q	Coimbatore
Seed of Marigold, Tomato, Bhendi, Brinjal, Dolichos, Chillies, Papaya, Onion etc.	0.3 q	
Spades, Power sprayer, Knapsack sprayers, Potrays and Vermi-compost bags	-	



Fig. 24: Farmers training programme and distribution of quality input (TNAU, Coimbatore)

Kerala

Farmers Training programmes and demonstrations

Training programme on quality seed production and storage, farmers fair and demonstrations has been organized as per below mentioned details.

District	No. of training programme	No. of farmers fair / visits	No. of beneficiaries
Palghat	1	4	50

Supply of seed and other physical inputs/ assets

Quality seed alongwith vermi-compost, sprayer, agricultural implements, etc. were supplied to the tribal farmers as per following details.

Particulars	Quantity	District
Seedlings of sugarcane	-	Palghat
Vermi-compost	80 bags	
Sprayers	6 no.	
hand- hoes	25 no.	
Vegetable seeds	2.65 kg.	Thrissur
Coconut and Mango Seed lings	174 no. & 348 no.	
Nutmeg seedlings	348 no.	
Banana suckers	3480 no.	
Pepper rooted cuttings	600 no.	

Water tanks	6 no.	
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Uttarakhand

Farmers Training programmes and demonstrations

Training programme on '*Pramukh Parvatiya Fasalon ka Beejotpadan*' and '*Gehun Ka Beejotpadan*', farmers fair and demonstrations has been organized as per below mentioned details.

District	No. of training programme	No. of FLDs	No. of beneficiaries
Almora	1	-	26
Udham Singh Nagar	1	1	43

Supply of seed and other physical inputs/ assets

Quality seed alongwith agricultural inputs were supplied to the tribal farmers as per following details.

Particulars	Quantity (kg)	District
Seed of VL Mandua 324	11.2	Almora
Seed of VL Bhindi 2	1.2	
Seed of VL Bean 2	1.3	
Seed of Summer squash Australian Green	0.26	
Wheat seed (VL Gehun 802, VL Gehun 907)	-	Udham Singh Nagar
Fertilizers, weedicide, fungicide etc.	-	

Success Stories

IGKV, Raipur

Agriculture in Chhattisgarh is the pivotal sector for ensuring livelihood security to almost 60 % population. Increasing production of food grains from rainfed region (80% of cultivated area is highly vulnerable to drought) is a great challenge for this state where majority of farmers are marginal. This situation is further complicated by degradation of natural resources and use of traditional methods of cultivation by farmers. In Chhattisgarh, productivity of major crops is very low compared to national average i.e. yield per hectare of all the major crops (excluding pulses) is nearly two-third of the national average.

With the objective of improving the livelihood of tribal farmers through promotion of improved agriculture interventions particularly in quality seed production, seed storage, Tribal Sub Plan (TSP) was implemented under the ambit of DSR. This project was commenced in tribal blocks of **Kanker** and **Bastar** districts with an aim of supplying quality seeds to tribal farmers and thereby enhancing productivity in wheat, chickpea, field pea and linseed. Further, improved seed storage structures (metal bins) were supplied to beneficiaries so that, seed viability and vigour could be maintained for longer duration and losses during storage could be minimized. Training programmes covering various theme areas of quality seed production and safe seed storage practices were organized in kanker and bastar tribal blocks. Tribal farmers are unaware about plant protection measures to be undertaken during crop production, therefore plant protection equipments viz., knapsack sprayers were supplied to identified farmers. Demonstrations on plant protection measures, uses and safe handling of pesticides were organized at farmers' fields and approximately 100 resource poor farmers were benefitted in two tribal blocks. Various farmers' training programmes, field demonstrations and *kisan ghostris* were organized under capacity building programme of this project.

Kanker and Bastar Tribal Tracts

The pattern of livelihood in Bastar and kanker continues to be dictated by tradition. Even today, agricultural practices followed by tribal farmers are conventional and

largely depend upon vagaries of monsoon. Promoting use of quality seeds in this region will give required impetus to the productivity in major field crops. Therefore, Tribal sub plan was implemented in Pusbandha, Puswada, Arod, Aaturgaon and Kanharpuri of kanker while, Chapapadar, Marnar, Badechakava, Sonarpal, Kumhanad, Barda, Muli, RajNagar, Karaha Bhata, Borigaon and Tarapur of Bastar. In areas like Bastar region of state, use of traditional methods in agriculture seriously impeding productivity of wheat, field pea, chickpea and linseed hence, programme was designed to supply farm inputs viz., quality seeds, plant protectants and on-farm seed storage structures to identified tribal farmers. More than 100 tribal families were benefited through this programme and have made positive impact on livelihood of tribal farmers.

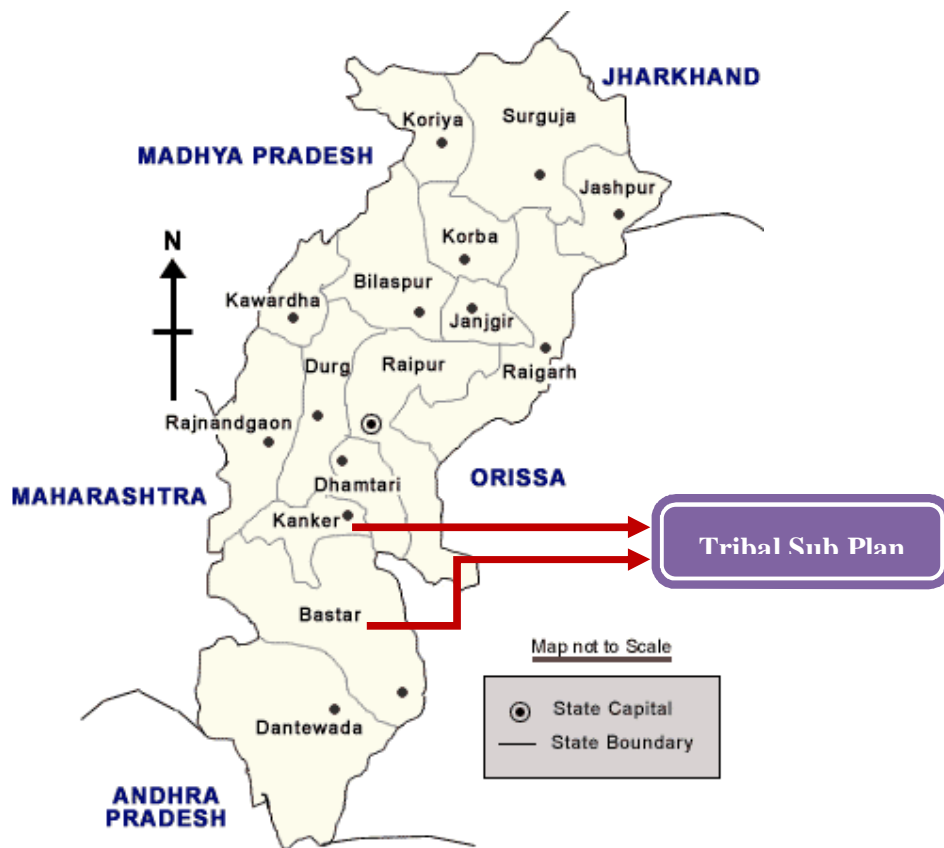


Fig. 25: Kanker and Bastar tribal tracts of Chhattisgarh

Activities undertaken

Demonstrations on Seed Production and Seed Storage activities

Quality seed act as catalyst in improving crop productivity. Tribals are still using farm saved seeds of traditional varieties or landraces available in their locality and

most of the seed supplied comes from the informal seed sector. It was found that, quality attributes viz., purity, germination percentage and seed health status of farm saved seed is inferior as compared to certified seeds. Therefore, with an aim to accelerate use of quality seed by tribal farmers' and to augment seed replacement rate (SRR) & varietal replacement rate (VRR), certified seed of wheat, chickpea, field pea and linseed was supplied during *rabi* 2013-14. In toto, 32 quintal certified seed was distributed to 100 tribal farmers of kanker and bastar region. Response of tribal farmers to these demonstrations was encouraging and were keen to know about principles of seed production in other crops also.

District	Village	Crop	Variety	Class of Seed	Quantity of Seed distributed (q)	No. of Farmers benefitted
Kanker	Pusbandha, Puswada, Arod, Aaturgaon, Kanharपुरi	Chickpea	JAKI 9218	CS	4.80	16
		Fieldpea	Shubhra	FS	2.40	08
		Linseed	RLC 92& Indira Alsi 32	BS	0.60	06
		Wheat	GW 273	FS	8.00	20
Bastar	Chapapadar, Marnar, Badechakava, Sonarpal, Kumhanad, Barda, Muli, Raj Nagar, Karaha Bhata, Borigaon, Tarapur	Linseed	RLC 92	BS	0.50	05
		Fieldpea	Ambika	BS	2.10	07
		Chickpea	JAKI 9218	CS	4.80	16
		Wheat	GW 273	FS	8.80	22
Total					32.00	100

Supply of Quality Seed Storage Structure

Tribal farmers generally use traditional storage structures like Kothi, Dholga & Gunny Bags and as heap for keeping their seeds. Use of traditional methods of seed storage leads to loss in seed viability and vigour and seed stored under traditional storage structures like kothi, Dholga becomes more vulnerable to attack of stored grain pests and diseases. Tribal farmers were ignorant about precaution to be taken

during seed storage, improved storage structures available for safe seed storage and seed treatments to control stored grain pests. Therefore, demonstrations of safe seed storage methods along with supply of cost effective seed storage structures was done at selected villages of kanker and bastar region. Improved seed storage structures like Metal Bins of 0.65 qtls capacity were supplied to more than 100 farmers participated in this Programme.

Plant protection measures

Tribal farmers generally do not practice plant protection measures owing to lack of financial resources and technical knowledge of plant protectants. This has resulted into hefty yield losses and adversely affecting seed health status in different crops. Therefore, under TSP of ICAR Seed project, emphasis was given on distribution of Knapsack Sprayers along with field demonstrations for use of pesticides/ insecticides. Under this programme farmers were trained for use of knapsack sprayers, safety measures to be taken during spraying of pesticides, preparation of formulations of different pesticides and insecticides, crop-wise safe dosage levels etc. Farmers showed keen interest in implementation of plant protection measures on their farm in order to avoid losses caused due to pest and disease in different crops.

Capacity building

Tribal farmers are ill-informed about improved technologies of crop production. Most of them are still dependent on use of traditional technologies and practicing subsistence agriculture. Farm inputs used by such tribal communities are very primitive and yielding meager quantity of farm output, jeopardizing socio-economic upliftment of tribal farmers. Seed is a carrier of improved technologies and most critical input of agriculture. Interventions made with the help of quality seed has resulted in increasing productivity of major field crops. In view of this, special training modules "Quality Seed Production and Seed Storage" were designed to cater the need of tribal farmers. Further, farmers were trained in different operations like roguing, maintaining isolation distances, harvesting methods, safe storage practices and plant protection measures to be undertaken.

ANGRAU, Hyderabad

Tribal farmers of Visakhapatnam and East Godavari follow primitive method of agriculture. Tribal farmers of this region largely depend upon various occupations

viz., hunting, hill cultivation, simple artisan, pastoral and cattle-herder, folk-artist and agricultural and non-agricultural labour. Knowledge, awareness and adoption level of tribal farmers regarding agricultural technologies are very meager and insignificant. The farmers were unaware of the recent agricultural technologies viz., high yielding varieties, certified seeds, seed storage methods, seed treatments and advanced agriculture implements. Therefore set of seed production technologies, demonstration of storage methods, capacity building programmes were implemented at two districts viz; Visakhapatnam and East Godavari. Accordingly tribal villages viz; Adapavalasa, Kusumaguda, Poddaguda, Gadyaguda, Mogiriguda, Vasabanda Tikkilibedda, Baliyaguda, Sagara, Champaguda, Bitraganda, Kooda, Malivalasa, Kiridi valasa, Ranginivalasa, Ktragondi, Panasavalasa, Korengeguda, Sagiri valasa, Malinga valasa, Chamadapadu, Bariya padu, Gondi valasa, Kooda, Odiya valasa, Koyyamamidi, Devudu valasa, Goppulavalasa, Goddiguda, Koraisimiliguda and Champaguda of Dumbriguda mandal of Visakhapatnam district were selected and 100 tribal farmers were identified for implementation of the programme.

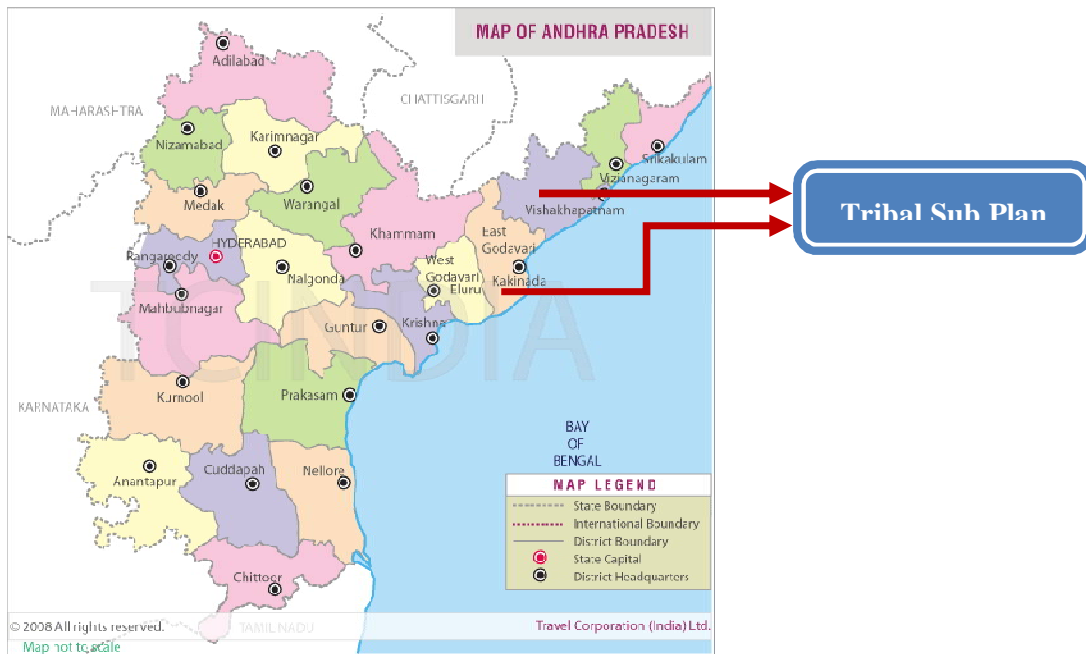


Fig. 26. Visakhapatnam and East Godavari tribal tracts of Andhra Pradesh

Tribal farmers with small and marginal land holdings are benefiting from Tribal Sub Plan being implemented by the DSR, Mau by taking up quality seed production of

niger and maize. About 125 tribal farmers are successfully involved in quality seed production programme and farm income level of this farmers were increased manifold due to adoption of improved technologies.

Supply of quality seed, storage structures and other farm implements

Under this activity, 100 tribal farmers were selected and certified seed of niger crop was distributed to selected farmers. Other farm inputs viz., pesticides, knapsack sprayers, winnowing fans (No.10 for ten villages where grain banks were established), Pick axe, Punja and seed storage bins were distributed to the tribal farmers. Field demonstrations on seed production of niger and maize were conducted in the proposed adopted villages to acquaint the farmers with latest varieties and advanced technologies, which has motivated tribal farmers to use quality seed for sowing.



Fig. 27. Distribution of Winnowing fans, Storage bins at Killoguda, Visakhapatnam



Fig. 28. Distribution of Sprayers, Pesticides at Gangavaram, East Godavari

Capacity building programme

Interventions made through training programmes, field demonstrations and field visits resulted in enhanced adoption rate and knowledge of the tribal farmers. Training programmes were focused on diverse theme areas of seed production and safe storage methods in niger and maize. Two days farmers training programme was organized at Killoguda village, Dumbriguda mandal of Vishakapatnam District. Similarly during summer season two training programmes were organized at Gangavaram village of East Godavari district. Farmers were informed about the improved varieties/ Hybrids and agronomic package of practices for quality seed production of Maize crop. Further, hands on training was given to acquaint farmers' with proper seed drying methods, pre and post storage seed treatments and use of safe seed storage methods.



Fig. 29. Demonstration on seed production of Niger and Maize



Fig. 30. Training on Seed Production of Niger and Maize at Killoguda, Visakhapatnam

Impact

The proposed interventions in agriculture, particularly in seed production and storage have enhanced the knowledge and income level of the tribal families of Chhattisgarh and Andhra Pradesh. A desirable change was brought in socio-economic aspects of tribal farmers with adoption of improved agricultural practices. As most of the tribal farmers use farm saved seeds and depend upon informal seed supply, seed quality of such seeds cannot be assured. Tribal Sub plan was instrumental in supplying various farm inputs viz., certified seed, fertilizers, plant protectants and seed storage structures. Tribal sub plan assisted in linking tribal communities with formal seed supply system and augmented Seed Replacement Rate (SRR) as well as Varietal Replacement Rate (VRR) in major field crops. Such types of technological inventions benefitted for tribal farming communities and made them self reliant.

Summary

Tribal Sub Plan was implemented by Directorate of Seed Research, Mau (DSR) under three components viz. DSR Main Scheme, AICRP on NSP (crops) and ICAR Seed Project. There were 40 implementing centres across the country in 19 states for effective implementation of TSP. The total fund release during the year 2011-12, 2012-13 and 2013-14 was Rs. 190.00 lakhs, Rs. 162.88 lakhs and Rs. 170.00 lakhs respectively. The programme was implemented in 79 districts of the country covering more than 18440 tribal farmers. During the implementation a total number of 239 training programmes on different aspects of seed production, protection and storage technologies were conducted. This programme encompasses around 1697 FLDs and seed production in area of around 897 ha. More than 30 crops were included in the programme covering cereals, pulses, oilseed, fodder, fibre crops, small millets and vegetable crops. The programme has helped in motivation of the tribal farmers for production of quality seed, participatory quality seed production, capacity building and technology dissemination in seed realm especially in seed production activities, distribution of improved agricultural implements and inputs, which boosted productivity and production per se. Quality seed production and distribution activities helped the tribal farmers to get quality seeds of improved varieties which had further reached many other farmers in remote neighbouring villages through informal seed supply system. Tribal Sub Plan scheme operational under the ambit of Directorate of Seed Research meditated in socio-economic up-liftment and prosperity of tribal farmers.

Impact

- This programme was implemented in 79 districts of the country through which more than 18440 tribal farmers' were benefited.
- DSR through its network projects contributed in amelioration of Seed Replacement Rate (SRR) to the tune of 0.4 to 0.8 per cent per annum in major field crops. Tribal Sub Plan component contributed its portion in increment of Seed Replacement Rate and Varietal Replacement Rate.
- The skill and knowledge level of tribal farmers in seed domain improved by the demonstrations and training programmes organized under this scheme.
- Tribal farmers acquainted with high yielding improved varieties of various crops and realized yield potential on their own.
- Availability of quality seed of different crops has increased in remote areas with the participatory quality seed production programme.
- Farmers got training specially for improved technology of quality seed production, storage pests and their management.
- Improved farm implements distributed under the programme were helpful in drudgery reduction.
- Local available seed storage structures have been replaced by improved storage structure, which helps in maintaining seed quality during storage.

"Easy access to quality seeds, increased level of farm returns, enhanced crop productivity and adoption of better crop management practices by tribal farmers reflect the success story of Tribal Sub Plan".

All India population and total ST population (Census 2011)

Sl.	States	Total Population	ST population	ST population (%)
1	Jammu & Kashmir	12541302	1493299	11.91
2	Himanchal Pradesh	6864602	392126	5.71
3	Punjab	27743338	0	0.00
4	Chandigarh	1055450	0	0.00
5	Uttarakhand	10086292	291903	2.89
6	Haryana	25351462	0	0.00
7	NCT of Delhi	16787941	0	0.00
8	Rajasthan	68548437	9238534	13.48
9	Uttar Pradesh	199812341	1134273	0.57
10	Bihar	104099452	1336573	1.28
11	Sikkim	610577	206360	33.80
12	Arunanchal Pradesh	1383727	951821	68.79
13	Nagaland	1978502	1710973	86.48
14	Manipur	2570390	902740	35.12
15	Mizoram	1097206	1036115	94.43
16	Tripura	3673917	1166813	31.76
17	Meghalaya	2966889	2555861	86.15
18	Assam	31205576	3884371	12.45
19	West Bengal	91276115	5296953	5.80
20	Jharkhand	32988134	8645042	26.21
21	Odisha	41974218	9590756	22.85
22	Chhattisgarh	25545198	7822902	30.62
23	Madhya Pradesh	72626809	15316784	21.09
24	Gujarat	60439692	8917174	14.75
25	Daman & Diu	243247	15363	6.32
26	Dadar & Nagar Haveli	343709	178564	51.95
27	Maharashtra	112374333	10510213	9.35
28	Andhra Pradesh	84580777	5918073	7.00
29	Karnataka	61095297	4248987	6.95
30	Goa	1458545	149275	10.23
31	Lakshadweep	64473	61120	94.80
32	Kerala	33406061	484839	1.45
33	Tamilnadu	72147030	794697	1.10
34	Pondicherry	1247953	0	0.00
35	AN Island	380581	28530	7.50
Total		1210569573	104281034*	8.61

* Excluding three sub-division of Senapati district of Manipur

State-wise share of ST population in National ST population (Census 2011)

Sl.	States	ST population	Percentage of total ST population
1	Madhya Pradesh	15316784	14.69
2	Maharashtra	10510213	10.08
3	Odisha	9590756	9.20
4	Rajasthan	9238534	8.86
5	Gujarat	8917174	8.55
6	Jharkhand	8645042	8.29
7	Chhattisgarh	7822902	7.50
8	Andhra Pradesh	5918073	5.68
9	West Bengal	5296953	5.08
10	Karnataka	4248987	4.07
11	Assam	3884371	3.72
12	Meghalaya	2555861	2.45
13	Nagaland	1710973	1.64
14	Jammu & Kashmir	1493299	1.43
15	Bihar	1336573	1.28
16	Tripura	1166813	1.12
17	Uttar Pradesh	1134273	1.09
18	Mizoram	1036115	0.99
19	Arunachal Pradesh	951821	0.91
20	Manipur	902740	0.87
21	Tamilnadu	794697	0.76
22	Kerala	484839	0.46
23	Himanchal Pradesh	392126	0.38
24	Uttarakhand	291903	0.28
25	Sikkim	206360	0.20
26	Dadar & Nagar Haveli	178564	0.17
27	Goa	149275	0.14
28	Lakshadweep	61120	0.06
29	AN Island	28530	0.03
30	Daman & Diu	15363	0.01
Total		104281034*	100.00

* Excluding three sub-division of Senapati district of Manipur

State-wise districts having ST population more than 50 % (Census 2011)

Sl.	Districts	States	Total population	ST population	Percentage of ST population
1	Alirajpur	Madhya Pradesh	728999	648638	89.0
2	Jhabua		1025048	891818	87.0
3	Barwani		1385881	962145	69.4
4	Dindori		704524	455789	64.7
5	Mandla		1054905	610528	57.9
6	Dhar		2185793	1222814	55.9
7	Nandurbar	Maharashtra	1648295	1141933	69.3
8	Mayurbhanj	Odisha	2519738	1479576	58.7
9	Malkangiri		613192	354614	57.8
10	Rayagada		967911	541905	56.0
11	Nabarangapur		1220946	681173	55.8
12	Gajapati		577817	313714	54.3
13	Kandhamal		733110	392820	53.6
14	Sundargarh		2093437	1062349	50.7
15	Koraput		1379647	697583	50.6
16	Banswara	Rajasthan	1797485	1372999	76.4
17	Dungarpur		1388552	983437	70.8
18	Pratapgarh		867848	550427	63.4
19	Dang	Gujarat	228291	216073	94.6
20	Tapi		807022	679320	84.2
21	Narmada		590297	481392	81.6
22	Dahod		2127086	1580850	74.3
23	Valsad		1705678	902794	52.9
24	Khunti		Jharkhand	531885	389626
25	Simdega	599578		424407	70.8
26	Gumla	1025213		706754	68.9
27	Pashchimi Singhbhum	1502338		1011296	67.3
28	Lohardaga	461790		262734	56.9
29	Bijapur	Chhattisgarh	255230	204189	80.0
30	Narayanpur		139820	108161	77.4
31	Dantewada		533638	410255	76.9
32	Bastar		1413199	931780	65.9
33	Jashpur		851669	530378	62.3
34	Kanker		748941	414770	55.4
35	Surguja		2359886	1300628	55.1
36	Dima Hasao	Assam	214102	151843	70.9
37	Karbi Anglong		956313	538738	56.3
38	West Khasi Hills	Meghalaya	383461	375097	97.8
39	East Garo Hills		317917	305180	96.0
40	Jaintia Hills		395124	376099	95.2
41	South Garo Hills		142334	134237	94.3
42	Ribhoi		258840	230081	88.9
43	East Khasi Hills		825922	661158	80.1

44	West Garo Hills		643291	474009	73.7	
45	Tuensang	Nagaland	196596	190916	97.1	
46	Zunheboto		140757	136561	97.0	
47	Kiphire		74004	71429	96.5	
48	Longleng		50484	48615	96.3	
49	Phek		163418	157146	96.2	
50	Mon		250260	238285	95.2	
51	Wokha		166343	156621	94.2	
52	Mokokchung		194622	178431	91.7	
53	Peren		95219	84242	88.5	
54	Kohima		267988	224738	83.9	
55	Dimapur		378811	223989	59.1	
56	Kargil		Jammu & Kashmir	140802	122336	86.9
57	Leh (Ladakh)			133487	95857	71.8
58	Dhalai		Tripura	378230	210608	55.7
59	Champhai	Mizoram	125745	123466	98.2	
60	Serchhip		64937	62889	96.8	
61	Saiha		56574	54642	96.6	
62	Lawngtlai		117894	112354	95.3	
63	Lunglei		161428	153533	95.1	
64	Mamit		86364	82080	95.0	
65	Aizawl		400309	373542	93.3	
66	Kolasib		83955	73609	87.7	
67	Kurung Kumey		Arunachal Pradesh	92076	90764	98.6
68	Upper Subansiri			83448	78323	93.9
69	East Kameng	78690		72400	92.0	
70	Tirap	111975		98372	87.9	
71	Lower Subansiri	83030		72911	87.8	
72	West Siang	112274		92783	82.6	
73	Upper Siang	35320		28468	80.6	
74	Anjaw	21167		16451	77.7	
75	Dibang Valley	8004		5701	71.2	
76	East Siang	99214		69979	70.5	
77	Tawang	49977		34811	69.7	
78	Papum pare	176573		117216	66.4	
79	West Kameng	83947		46380	55.2	
80	Tamenglong	Manipur	140651	134626	95.7	
81	Ukhrul		183998	173606	94.4	
82	Churachandpur		274143	254787	92.9	
83	Chandel		144182	128280	89.0	
84	Senapati		193744	154528	79.8	
85	Lahul and Spiti	Himanchal Pradesh	31564	25707	81.4	
86	Kinnaur		84121	48746	57.9	
87	North District	Sikkim	43709	28715	65.7	
88	Dadar & Nagar Haveli	Dadar & Nagar Haveli	343709	178564	52.0	
89	Lakshadweep	Lakshadweep	64473	61120	94.8	
90	Nicobars	AN Island	36842	23681	64.3	

State-wise districts having ST population between 25% to 50% (Census 2011)

Sl.	Districts	States	Total population	ST population	Percentage of ST population
1	Anuppur	Madhya Pradesh	749237	358543	47.9
2	Umaria		644758	300687	46.6
3	Shahdol		1066063	476008	44.7
4	Betul		1575362	667018	42.3
5	Khargone		1873046	730169	39.0
6	Seoni		1379131	519856	37.7
7	Chhindwara		2090922	769778	36.8
8	Khandwa		1310061	459122	35.0
9	Singrauli		1178273	383994	32.6
10	Burhanpur		757847	230095	30.4
11	Ratlam		1455069	409865	28.2
12	Harda		570465	159678	28.0
13	Sidhi		1127033	313304	27.8
14	Gadchiroli	Maharashtra	1072942	415306	38.7
15	Dhule		2050862	647315	31.6
16	Nashik		6107187	1564369	25.6
17	Kendujhar	Odisha	1801733	818878	45.4
18	Debagarh		312520	110400	35.3
19	Sambalpur		1041099	355261	34.1
20	Nuapada		610382	206327	33.8
21	Jharsuguda		579505	176758	30.5
22	Kalahandi		1576869	449456	28.5
23	Udaipur	Rajasthan	3068420	1525289	49.7
24	Sirohi		1036346	292470	28.2
25	Dausa		1634409	433344	26.5
26	Navsari	Gujarat	1329672	639659	48.1
27	Bharuch		1551019	488194	31.5
28	Panch Mahals		2390776	721604	30.2
29	Vadodara		4165626	1149901	27.6
30	Latehar	Jharkhand	726978	331096	45.5
31	Dumka		1321442	571077	43.2
32	Pakur		900422	379054	42.1
33	Ranchi		2914253	1042016	35.8
34	Saraikela-Kharsawan		1065056	374642	53.2
35	Jamtara		791042	240489	30.4
36	Purbi Singhbhum		2293919	653923	28.5
37	Sahibganj		1150567	308343	26.8
38	Koriya		Chhattisgarh	658917	304280
39	Korba	1206640		493559	40.9
40	Raigarh	1493984		505609	33.8
41	Mahasamund	1032754		279896	27.1
42	Rajnandgaon	1537133		405194	26.4
43	Dhamtari	799781		207633	26.0

44	Khammam	Andhra Pradesh	2797370	765565	27.4
45	Dhemaji	Assam	686133	325560	47.4
46	Chirang		482162	178688	37.1
47	Baksa		950075	331007	34.8
48	Udalguri		831668	267372	32.1
49	Kokrajhar		887142	278665	31.4
50	Punch	Jammu & Kashmir	476835	176101	36.9
51	Rajouri		642415	232815	36.2
52	Reasi		314667	88365	28.1
53	South Tripura	Tripura	876001	344835	39.4
54	North Tripura		693947	179426	25.9
55	West Tripura		1725739	431944	25.0
56	Lower Dibang Valley	Arunachal Pradesh	54080	25974	48.0
57	Changlang		148226	53878	36.3
58	Lohit		145726	47410	32.5
59	Chamba	Himanchal Pradesh	519080	135500	26.1
60	West District	Sikkim	136435	57817	42.4
61	South District		146850	41392	28.2
62	East District		283583	78436	27.7

Guidelines for formulation, implementation and monitoring of Tribal Sub Plan (TSP) as per Planning Commission

(Reference: ICAR PIM letter F. No. 5 (15)/2010- PIM dated 17.01.2012)

The basic objective of the TSP is to channelize the flow of outlays and benefits from the general sectors in the Central Ministries/ Departments for development of Schedules Tribes at least in proportion to the population, both in physical and financial terms.

In this context, the following guidelines may be followed strictly for utilizing the funds particularly in the benefit of the tribal area.

Action Plan: The following points may be taken into account while formulating the Tribal Sub Plan (TSP):

- a) Tribal Sub Plan funds should be non-divertible and non- lapsable.
- b) The nodal dedicated unit should ensure that funds are released to the concerned implementing Institutes in a timely fashion and should ensure immediate release of funds to their field level implementing Institutes/ projects. Any lapse on the part of field level implementing Institutes/ projects in timely utilization of funds and proper implementation of the schemes under TSP may be viewed seriously.
- c) Schemes to develop agriculture and allied activities like irrigation, animal husbandry, dairy development, vocational training, etc. that provide a source of livelihood to the ST population should be included.
- d) Innovative projects that draw upon institutional finance to supplement plan allocations may be drawn up.
- e) Only those schemes should be included under TSP that ensure direct benefits to the individuals or families belonging to the Scheduled Tribes.
- f) Placing the funds earmarked for TSP under separate budget head/ sub-head for each Institute under the specific SMDs on the basis of area identified by the Planning Commission for implementing TSP.

Utilization of funds under Tribal Sub Plan (TSP)

It is suggested that the Institutes could adopt the following procedures while utilizing the funds under TSP:

- The Institutes could adopt the same procedures for utilizing the funds under TSP as is being utilized under NEH head except Pay & Allowances and TA.
- The methods of expenditure of budget outlay under TSP need to be approved in accordance with the financial rules/ norms.
- For this, the financial limit of the Director and Institute Management Committee (IMC) may be adhered to for creation of assets as per the delegation of financial power.

Guidelines for formulation, implementation and monitoring of Tribal Sub Plan (TSP) as per Planning Commission

(Reference: ICAR PIM letter F. No. 5 (15)/2010- PIM dated 07.11.2012)

- Tribal Sub Plan funds are non-divertible and non-lapsable.
- Only those schemes should be included under TSP which ensures direct benefits to individual or families belonging to Scheduled Tribes.
- Expenditure in schemes may be incurred in ST concentrated areas i.e. in the villages, blocks and districts having more than 40 % population, largely benefiting Scheduled Tribes.
- Expenditure to be incurred to develop agriculture and allied activities like irrigation, animal husbandry, dairy development, vocational training etc. that provide a source of livelihood to the ST population.
- The Institutes would adopt the same procedure for utilization of funds under TSP as in being utilized under NEH head except pay & allowances and TA.

GUIDELINES FOR UTILIZATION OF FUNDS UNDER TSP
(Reference: ICAR PIM letter F. No. 5 (6)/2012- PIM dated 19.09.2013)

Type of work to be undertaken under TSP (indicative)

- Only those schemes may be included under TSP which ensures direct benefits to individual or families belonging to Scheduled Tribes
- Schemes to develop agriculture and allied activities like irrigation, animal husbandry, dairy development, vocational training, etc. that provide a source of livelihood to the ST population may be included.
- Innovative projects that draw upon institutional finance to supplement plan allocation may be drawn up.
- Creation of productive assets in favour of the STs for substantial reduction in poverty and un-employment among the STs such as
 1. Creation of farming systems and supporting machineries, farm implements, fishing units etc.
 2. Temporary storage units in the farm site for storing feeds and machinery
 3. Mini feed mill units, hatcheries
 4. Kiosk for dissemination of information for creating awareness
 5. Minor analytical equipment required at the farm site, etc.

These assets could be created in areas where the land in tribal areas are under the control of Self-Help Groups (SHG) or the Village/ Gram Panchayat.

- Human resource development of the STs through specifically providing adequate agricultural education and health services.
- Opening up of coaching-cum-guidance centres in Universities/ Colleges for ST students appearing various competitions concerning agriculture. The expenditure of these coaching-cum-guidance centres may be borne out of TSP funds.
- To tackle the problem of unemployment, starting of training courses (not routine training courses) with capsule training courses consisting of 4-5 months theoretical training.
- Training in agricultural practices for tribals, which may be a government-private venture.

Modus operandi for undertaking the work under TSP

- Outlay for area-oriented schemes directly benefiting villages having a majority of tribal hamlets and villages shall be included in TSP
- Ensuring that the share of resources spent for the benefit of the STs is at least in proportion to their share in population of the country.

- As Krishi Vigyan Kendra (KVK) is located in field and near to the beneficiaries, such initiatives of appropriate asset creation may also be utilized for “Demonstration” to the target beneficiaries of STs. Moreover, state agency could be involved in the transfer of assets.
- A group of 5-10 ST farmers may be constituted for skill development by the State Agriculture Department/ Extension Agencies. This group may be provided a package of small tractors with accessories, tube wells in the electrified villages and pump sets in non-electrified villages. They may be provided with other agricultural inputs like quality seeds, pesticides, fertilizers etc. This farmers group may also be given training for cultivation of suitable crops and for undertaking activities in the sectors of fisheries, animal husbandry, horticulture, etc.
- The institutes could adopt the same procedures for utilizing the funds under TSP as is being utilized under NEH head except pay and allowances and T.A.

The above would be subject to the following conditions:

- The method of expenditure of budget outlay under TSP needs to be approved in accordance with the financial rules/norms.
- For this, the financial limit of the Director and Institute Management Committee (IMC) may be adhered to for creation of assets as per the delegation of financial power.
- TSP funds are non-divertible and non-lapsable.
- TSP funds can be utilized for only those schemes which ensure direct benefits to individuals or families belonging to Scheduled Tribes and outlay for area oriented schemes directly benefiting scheduled tribes hamlets/villages having more than 40% scheduled tribes population.