



**Department of Agriculture  
Government of Tripura**

# **RKVY PROJECTS ON AGRICULTURE DEPARTMENT**

**( Stream-I)**

**AGRICULTURE SUB-DIVISION WISE  
BREAKUP OF TARGETS OF 2013-14**

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4	Scheme for promotion of Farm Mechanization under RKVY by providing subsidy @ 50 % or maximum limit @ Rs. 45000/ per nos, for Power Tiller	500 Nos	225.00	21-25
<b>Total Agriculture</b>			<b>2712.18</b>	

Check list cum Data sheet for stream-I Projects

**1. Name of the Project: Popularizing cultivation of Paddy through System of Rice Intensification (SRI)**

Sl. No.	Field Name	Details/Data
1	Project Name (to be modified if so modified by the SLSC)	Popularizing cultivation of Paddy through System of Rice Intensification (SRI)
2	Project ID (State initials/Financial year/Sector/Running Serial Number for the year)	<b>TR/RKVY-CROP/2013/188</b>
3	Approved cost (Total cost of the project as per DPR/concept)	Rs. <b>1985.55</b> Lakhs
4	Project Duration and phasing of cost (Current year, 2years, 3 years, as the case may be, along with phasing of cost)	2013-14
5	Proposed cost for the current year	Rs. <b>1985.55</b> Lakhs
6	Sector (S) Sector (S) to which the project belongs out of the sector list approved with break-up of cost , if more than one sector are specified)	Agriculture
7	Scheme (S) (Classification of the Project in terms of Schemes of Agriculture Ministry with breakup of cost in schemes if more than one scheme is specified; if it does not belong to any particular scheme state Specific Innovative Scheme)	
8	Break up of scheme components (As per the scheme components of GOI scheme/Approved norms of SLSC in case of innovative State scheme)	
9	Implementing Department (S) in the State (Concerned Administrative Department of the State)	Department of Agriculture
10	Implementing Agency (Implementing Agency of the Project in the State)	Department of Agriculture
11	Administrative Department in GOI (Which Department in India E.G.DAC. DAHD, the project would primarily fall in jurisdiction of)	Department of Agriculture & Co-operation
12	Area of Operation of project (Entire state regions or specific district as the case may be)	Entire State
13	Expected Outputs (List project outputs)	Popularization of SRI
14	Physical Targets (Specify physical target out of specified list in terms of crops/area etc.)	50170 hectares
15	Expected Outcome of the project ( Describe expected outcome of project)	25-30 % Increase in per Ha production in terms of Rice
16	Expected Beneficiaries (Specify number of beneficiaries in terms of gender, SC/ST etc. on broad basis and also area/crop etc. benefiting) criterion.	
17	Expected contribution to Growth of agriculture and allied sector.	
18	Any other information (as considered appropriate in terms of the Project).	To attain Self Sufficiency in Rice Production

**Popularizing cultivation of Paddy through System of Rice Intensification (SRI):**

Total area under System of Rice Intensification (SRI) paddy has been increased to 87,978 hectares during 2012-13, from 86,630 hectares during 2011-12 which is 44.57% of total Paddy area covering 3 seasons viz, Aush, Aman and Boro.

Assistance is proposed to be given at recommended dose of SRI for critical inputs like chemical fertilizers, bio-fertilizers etc. amounting to Rs.3918/- per hectare.

**Physical and Financial breakup of assistance for SRI:**

Recommend dose of N:P:K: @ 40:20:20 per Ha								
Sl.No.	Physical item	Unit	Recommend dose	Quantity to be assisted per hectare	Cost per Unit in Rs.	Financial assistance per hectare(Rs)	Financial assistance per Kani. (Rs)	
<b>1) Fertilizer</b>								
i)	Urea	Kg	86.8	86.8	Rs. 5.45	Rs. 473.00	Rs. 75.68	
ii)	SSP	Kg	125	125	Rs. 10.23	Rs. 1277.00	Rs. 204.32	
iii)	MOP	Kg	33.2	33.2	Rs. 17.15	Rs. 570.00	Rs. 91.20	
<b>Total of Chemical fertilizer component</b>						<b>Rs. 2320.00</b>	<b>Rs. 371.20</b>	
<b>2) Bio-Fertilizer</b>								
i)	Azotobactor	kg	4	4	30	Rs. 120.00	Rs. 19.20	
ii)	Azospirillum	Kg	4	4	30	Rs. 120.00	Rs. 19.20	
iii)	PSB	Kg	4	4	30	Rs. 120.00	Rs. 19.20	
<b>Sub total</b>						<b>Rs. 360.00</b>	<b>Rs. 57.60</b>	
<b>3) Materials for recommended Nursery Bed preparation: (250 sq.mt. Nursery)</b>								
i)	Rice hull dust	Kg.	25	25	4	Rs. 100.00	Rs. 16.00	
ii)	Well dried FYM	Kg.	40	40	5	Rs. 200.00	Rs. 32.00	
iii)	Plant protection and Seed treatment chemicals, other Misc. expenditure.						Rs. 228.00	Rs. 36.48
<b>Sub total</b>						<b>Rs. 528.00</b>	<b>Rs. 84.48</b>	
<b>4) Assistance for critical inter cultural operation to adopt the basic principle of SRI :</b>								
i) Operation of timely transplanting, proper spacing, Weeding etc. @ Rs. 710/- per ha						<b>Rs. 710.00</b>	<b>Rs. 113.60</b>	
<b>Grand Total (Sl. No. 1 +2+3+4 )</b>						<b>Rs. 3,918.00</b>	<b>Rs. 626.88</b>	

**Agri. Sub-Division wise breakup is as below:**

Sl. No.	Agri. Sub-Divisions	Area of SRI for 2013-14 under RKVY ( in Ha)	Fin. Target (Rs. In Lakh)
1	SA, Khowai	2172	85.10
2	SA, Teliamura	2153	84.35
3	SA, Jirania	1990	77.97
4	SA, Mohanpur	1967	77.07
5	SA, Dukli	1458	57.10
6	SA, Bishalgarh	4529	177.45
7	SA, Melaghar	4940	193.55
<b>Total West</b>		<b>19209</b>	<b>752.59</b>
8	SA, Amarpur	3146	123.26
9	SA, Matabari	5411	212.00
10	SA, Bagafa	2433	95.32
11	SA, Rajnagar	3768	147.63
12	SA, Satchand	1621	63.51
<b>Total South</b>		<b>16379</b>	<b>641.72</b>
13	SA, Kadamtala	2028	79.46
14	SA, Panisagar	2097	82.16
15	SA, Kumarghat	3452	135.25
<b>Total North</b>		<b>7577</b>	<b>296.87</b>
16	SA, Salema	2793	109.43
<b>Total Dhalai</b>		<b>2793</b>	<b>109.43</b>
<b>Total Non ADC</b>		<b>45958</b>	<b>1800.61</b>
17	Tulashikhar	345	13.52
18	Mandwai	571	22.37
19	Rupaicharri	639	25.04
20	Chowmanu	1241	48.62
21	Gandacherra	233	9.13
22	Kanchanpur	1183	46.35
<b>Total ADC</b>		<b>4212</b>	<b>165.03</b>
<b>State Total</b>		<b>50170</b>	<b>1965.64</b>

TOTAL INVOLVEMENT UNDER RKVY: **Rs. 1985.55 lakhs** (including 1% contingency)

**IMPLEMENTING AGENCY:** Department of Agriculture through Dy. Directors of Agriculture of the Districts and Superintendents of Agriculture at the Agriculture Subdivision level.

Check list cum Data sheet for stream-I Projects

**2. Providing Support for Hybrid Paddy Cultivation (Cost of Hybrid Paddy Seed)**

Sl. No.	Field Name	Details/Data
1	Project Name (to be modified if so modified by the SLSC)	Support for Hybrid Paddy Cultivation through providing 50 % cost of Hybrid Seed
2	Project ID (State initials/Financial year/Sector/Running Serial Number for the year)	<b>TR/RKVY-CROP/2013/189</b>
3	Approved cost (Total cost of the project as per DPR/concept)	Rs. <b>38.75</b> Lakhs
4	Project Duration and phasing of cost (Current year, 2years, 3 years,.... As the case may be, along with phasing of cost)	2013-14
5	Proposed cost for the current year	Rs. <b>38.75</b> Lakhs
6	Sector (S) Sector (S) to which the project belongs out of the sector list approved with breakup of cost sectorally if more than one sector are specified)	Agriculture
7	Scheme (S) (Classification of the Project in terms of Schemes of Agriculture Ministry with breakup of cost in schemes if more than one scheme is specified; if it does not belong to any particular scheme state Specific Innovative Scheme)	
8	Break up of scheme components (As per the scheme components of GOI scheme/Approved norms of SLSC in case of innovative State scheme)	
9	Implementing Department (S) in the State (Concerned Administrative Department of the State)	Department of Agriculture
10	Implementing Agency (Implementing Agency of the Project in the State)	Department of Agriculture
11	Administrative Department in GOI (Which Department in India E.G.DAC. DAHD, the project would primarily fall in jurisdiction of)	Department of Agriculture & Co-operation
12	Area of Operation of project (Entire state regions or specific district as the case may be)	Entire State
13	Expected Outputs (List project outputs)	Increase of Rice production at least by 15 -20%
14	Physical Targets (Specify physical target out of specified list in terms of crops/area etc.)	4385 ha.
15	Expected Outcome of the project ( Describe expected outcome of project)	Self Sufficiency in rice production by increasing per hectare productivity
16	Expected Beneficiaries (Specify number of beneficiaries in terms of gender, SC/ST etc. on broad basis and also area/crop etc. benefiting) criterion.	
17	Expected contribution to Growth of agriculture and allied sector.	
18	Any other information (as considered appropriate in terms of the Project).	

**Name of the project: Providing Support for Hybrid Paddy Cultivation (seed cost).**

Productivity of Rice has to be increased by utilizing following tools of Agricultural technologies:

- i) Crop Management
- ii) Varietal Technology: HYV and Hybrid

National level agenda is blending of above two technologies to realize maximum potentiality per unit land and per unit time. Keeping conformity with the national agenda and having highly positive response in terms of yield per ha in Tripura Department of Agriculture would like to continuation of this programme under support from RKVY.

System of Rice Intensification (SRI) is one of the most innovative processes to increase rice productivity. If hybrid technologies are blended with Crop management approaches like SRI, farmers get higher production as well as higher economic return. It has been observed that Hybrid Paddy cultivation through SRI method gives nearly 46-48% higher yield and can save irrigation water up to 30%. Moreover, seed cost of Hybrid can be reduced through SRI as only 10 kg per hectare is required in place of 20 kg per hectare, if cultivate in any method other than SRI.

**Requirement of Funds under RKVY for Hybrid Paddy Seeds during 2013-14:**

➤ Per ha seed cost( 5kg/ha, @ Rs. 350/kg) { In Rs}	Rs. 1750/-
➤ Assistance given from RKVY per ha ( In Rs)	Rs. 875/-
➤ Total fund required from RKVY ( 4385 ha X Rs. 875.00)	<b>Rs. 38.37 lakhs</b>
Contingency @ 1% against the total project cost Rs. 38.75 lakhs	

**Agri. Subdivision wise breakup is as below:**

Sl. No.	Agri. Sub-Divisions	Phy. Target ( In ha)	Fin Target (in Lakh)*
1	SA, Khowai	257	2.25
2	SA, Teliamura	274	2.4
3	SA, Jirania	149	1.3
4	SA, Mohanpur	212	1.86
5	SA, Dukli	127	1.11
6	SA, Bishalgarh	391	3.42
7	SA, Melaghar	499	4.37
8	SA, Amarpur	365	3.19
9	SA, Matabari	465	4.07
10	SA, Bagafa	204	1.79
11	SA, Rajnagar	263	2.3
12	SA, Satchand	132	1.16
13	SA, Kadamtala	142	1.24
14	SA, Panisagar	142	1.24
15	SA, Kumarghat	250	2.19
16	SA, Salema	98	0.86
	<b>Total Non ADC</b>	3969	34.75
17	Tulashikhar	15	0.13
18	Mandwai	49	0.43
19	Rupaicharri	74	0.65
20	Chowmanu	120	1.04
21	Gandacherra	32	0.28
22	Kanchanpur	125	1.09
	<b>Total ADC</b>	416	3.62
	<b>State Total</b>	<b>4385</b>	<b>38.37</b>

TOTAL INVOLVEMENT UNDER RKVY: **Rs 38.75 Lakhs** (including 1% contingency)

**IMPLEMENTING AGENCY:** Department of Agriculture through Dy. Directors of Agriculture of the Districts and Superintendents of Agriculture at the Agriculture Subdivision level.



Check list cum Data sheet for stream-I Projects

**3. Assistance for Maximizing Productivity of Jhum Cropping system through use of Seeds of HYV/improved varieties and other critical inputs:**

Sl. No.	Field Name	Details/Data
1	Project Name (to be modified if so modified by the SLSC)	Assistance for Maximizing Productivity of Jhum Cropping system through use of Seeds of HYV/improved varieties and other critical inputs:
2	Project ID (State initials/Financial year/Sector/Running Serial Number for the year)	<b>TR/RKVY-CROP/2013/190</b>
3	Approved cost (Total cost of the project as per DPR/concept)	Rs. 341.38 Lakhs
4	Project Duration and phasing of cost (Current year, 2years, 3 years,) As the case may be, along with phasing of cost)	2013-14
5	Proposed cost for the current year	Rs. 341.38 Lakhs
6	Sector (S) Sector (S) to which the project belongs out of the sector list approved with breakup of cost sector ally if more than one sector are specified)	Agriculture
7	Scheme (S) (Classification of the Project in terms of Schemes of Agriculture Ministry with breakup of cost in schemes if more than one scheme is specified; if it does not belong to any particular scheme state Specific Innovative Scheme)	
8	Break up of scheme components (As per the scheme components of GOI scheme/Approved norms of SLSC in case of innovative State scheme)	
9	Implementing Department (S) in the State (Concerned Administrative Department of the State)	Department of Agriculture
10	Implementing Agency (Implementing Agency of the Project in the State)	Department of Agriculture
11	Administrative Department in GOI (Which Department in India E.G.DAC. DAHD, the project would primarily fall in jurisdiction of)	Department of Agriculture & Co-operation
12	Area of Operation of project (Entire state regions or specific district as the case may be)	Entire state ( as per feasibility)
13	Expected Outputs (List project outputs)	Increase in production of Jhum Cropping System
14	Physical Targets (Specify physical target out of specified list in terms of crops/area etc.)	10,000 hectares.
15	Expected Outcome of the project ( Describe expected outcome of project)	Per ha average Jhum paddy Productivity to reach 1200 kg
16	Expected Beneficiaries (Specify number of beneficiaries in terms of gender, SC/ST etc. on broad basis and also area/crop etc. benefiting) criterion.	Approx 10,000 beneficiaries (100 % ST Farmers)
17	Expected contribution to Growth of agriculture and allied sector.	
18	Any other information (as considered appropriate in terms of the Project).	

### **Maximizing Productivity of Jhum Cropping system:**

Shifting cultivation is an agricultural system in which plots of land are cultivated temporarily, and then abandoned. This system often involves clearing of a piece of land followed by several years of wood harvesting or farming, until the soil loses fertility. Once the land becomes inadequate for crop production, it is left to be reclaimed by natural vegetation, or sometimes converted to a different long-term cyclical farming practice. The ecological consequences are often deleterious, but can be partially mitigated if new forests are not invaded. Of these cultivators, many use a practice of slash-and-burn as one element of their farming cycle. Others employ land clearing without any burning, and some cultivators are purely migratory and do not use any cyclical method on a given plot. Sometimes no slashing at all is needed where re-growth is purely of grasses, an outcome not uncommon when soils are near exhaustion and need to lie fallow.

The present yield level of the Jhum cropping system remains at 750 - 850 kg of paddy and other crops yield contribute another 250 -300 kg which is not sufficient enough to cater to the need of food for a jhumia family per annum. Now to boost up the yield of Jhum cropping system it is proposed to replace the seeds of Paddy, Maize, Arhar and other crops along with the application of water soluble N:P:K, Seed treating and plant protection materials of biological origin. The details of physical and financial component of the programme for maximizing the productivity of Jhum are given below:

**Assistance for Maximizing Productivity of Jhum Cropping system through use of Seeds of HYV/improved varieties and other critical inputs:**

Sl. No.	Physical item	Quantity required (Kg/ha)	Per Unit Cost (in Rs.)	Proposal for assistance under RKVY (Rs.)
1	Distribution of HYV/Improved Paddy/Arhar/ Sesamum/Maize seeds ( other seeds of Vegetables / Chills/ Cucurbits etc to be arranged by jhumias)	As recommended by the Department	As per Approved rate of Department	1200.00
2	Application of Bio-fertilizer(s) for seed dressing and Basal application during the 1 <sup>st</sup> weeding (30DAS) at the base of the plants. ( 2 Kg of each strain for seed dressing and 4 Kg as Basal dose.)	Azospirillum- 4 Kg.	30.00	120.00
		PSB - 4 Kg.	30.00	120.00
		Potassium Mobilizer- 4 Kg	30.00	120.00
3	a) Seed treatment through <i>Pseudomonas fluorescence</i> (PF),	1 Kg @ 10 gm/kg of seed.	40.00	40.00
	b) Assistance for ITK(Indigenous technology Knowledge) for Pest Control	LS	LS	100.00
4	Assistance for 2 weeding.	12 man days	100.00	1200.00
5.	Application of Water Soluble N:P:K as foliar spray	2.40 Kg	Rs 200.00	480.00
	Total	-	-	<b>3380.00</b>

Total Area to be covered

: 10,000 Ha

**Agriculture Sub-division-wise break-up of Maximizing Productivity of Jhum**

**Cropping system:**

Sl. No.	Agri. Sub-Divisions	Targeted Area ( In Ha)	Amount (In Lakhs) ( Assistance @ Rs. 3380/- per ha)
1	SA, Khowai	200	6.76
2	SA, Teliamura	800	27.04
3	SA, Jirania	100	3.38
4	SA, Mohanpur	200	6.76
5	SA, Dukli	0	0
6	SA, Bishalgarh	400	13.52
7	SA, Melaghar	300	10.14
8	SA, Amarpur	850	28.73
9	SA, Matabari	400	13.52
10	SA, Bagafa	150	5.07
11	SA, Rajnagar	200	6.76
12	SA, Satchand	50	1.69
13	SA, Kadamtala	100	3.38
14	SA, Panisagar	100	3.38
15	SA, Kumarghat	200	6.76
16	SA, Salema	1350	45.63
	<b>Total Non ADC</b>	<b>5400</b>	<b>182.52</b>
17	Tulashikhar	400	13.52
18	Mandwai	200	6.76
19	Rupaicharri	200	6.76
20	Chowmanu	1000	33.8
21	Gandacherra	1600	54.08
22	Kanchanpur	1200	40.56
	<b>Total ADC</b>	<b>4600</b>	<b>155.48</b>
	<b>State Total</b>	<b>10000.00</b>	<b>338.00</b>

Total Project Cost ( @ Rs. 3,380/ha X 10,000 ha)	: Rs. 338.00 Lakhs
Administrative/ Contingencies (1%)	: Rs. 3.38 Lakhs
<b>Grand Total Project Cost</b>	<b>: Rs. 341.38 Lakhs</b>

Name of the Implementing Department : Department of Agriculture through  
Superintendents of Agriculture  
(Implementing Officer at Agri-Subdivision)

#### 4. Assistance for Agricultural Crop Production in FRA areas

Sl. No.	Field Name	Details/Data
1	Project Name (to be modified if so modified by the SLSC)	Assistance for Agricultural Crop Production in FRA areas
2	Project ID (State initials/Financial year/Sector/Running Serial Number for the year)	<b>TR/RKVY-CROP/2013/191</b>
3	Approved cost (Total cost of the project as per DPR/concept)	<b>Rs. 121.50 Lakhs</b>
4	Project Duration and phasing of cost (Current year, 2years, 3 years, as the case may be, along with phasing of cost)	<b>2013-14</b>
5	Proposed cost for the current year	<b>Rs. 121.50 Lakhs</b>
6	Sector (S) Sector (S) to which the project belongs out of the sector list approved with break-up of cost , if more than one sector are specified)	Agriculture
7	Scheme (S) (Classification of the Project in terms of Schemes of Agriculture Ministry with breakup of cost in schemes if more than one scheme is specified; if it does not belong to any particular scheme state Specific Innovative Scheme)	
8	Break up of scheme components (As per the scheme components of GOI scheme/Approved norms of SLSC in case of innovative State scheme)	
9	Implementing Department (S) in the State (Concerned Administrative Department of the State)	Department of Agriculture
10	Implementing Agency (Implementing Agency of the Project in the State)	Department of Agriculture
11	Administrative Department in GOI (Which Department in India E.G.DAC. DAHD, the project would primarily fall in jurisdiction of)	Department of Agriculture & Co-operation
12	Area of Operation of project (Entire state regions or specific district as the case may be)	Entire State
13	Expected Outputs (List project outputs)	Forest lands under crop production
14	Physical Targets (Specify physical target out of specified list in terms of crops/area etc.)	5,000 hectares.
15	Expected Outcome of the project ( Describe expected outcome of project)	Increase in production
16	Expected Beneficiaries (Specify number of beneficiaries in terms of gender, SC/ST etc. on broad basis and also area/crop etc. benefiting) criterion.	Approx 3500 beneficiaries
17	Expected contribution to Growth of agriculture and allied sector.	
18	Any other information (as considered appropriate in terms of the Project).	

## **Assistance for Agricultural Crop Production in FRA areas**

“The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006” was passed in the parliament, on 13 December 2006. The President of India assented to the Bill on 29 December 2006 and the Act came into force.

The Act recognizes the rights, responsibilities and authority of the forest dwelling schedule tribes and other traditional forest dwellers for sustainable use, conservation of biodiversity and maintenance of ecological balance and thereby strengthening the conservation regime of the forests while ensuring livelihood and food security of the forest dwelling schedule tribes and other traditional forest dwellers. It also recognizes the rights on ancestral land and their habitat which were not adequately acknowledged in the consolidation of the State forests during the pre independence period and also during the post independence period resulting in historical injustice to the forest dwelling schedule tribes and other traditional forest dwellers who are engaged to the very survival and sustainability of the forest ecosystem.

The Act, addresses the main aspects of land occupation which had been the major point of impediment in establishing the food security and livelihood status of the dwellers, recognizes and vests the occupational rights of an individual or family or community on the date of commencement of the Act and restricts to the area under occupation to an extent not exceeding four hectares. The right to hold and live in the forest land under the individual or common occupation for habitation or self cultivation for food security and livelihood, by a member or members of a forest dwelling schedule tribes and other traditional forest dwellers has been established.

It also lays emphasis on the right to use up minor forest produce including all non-timber forest produce of plant origin including bamboo, cane, coconut, honey, medicinal plants & herbs, roots, tubers and the like.

In light of the above, the Act offers a wide opportunity to address the long standing insecurity of tenurial and access rights of the forest dwelling schedule tribes and other traditional forest dwellers including those who in the past were forced to relocate their dwelling due to State development interventions and present them with a viable mechanism to establish their food security and livelihood status as becoming of a rightful citizen of the Indian sovereign.

On the basis of reconnaissance survey of area under Forest Dwellers Act, 2006 it has been estimated that nearly 15 - 20% and 25 - 30 % area can be brought under sustainable and eco-friendly use for Agricultural crops, Vegetable and other Horticultural plantation crops. The areas distributed/allotted among the tribal farmers under the Act can broadly be categorized as Rain-fed Upland ecosystem. Though Rain-fed upland is generally low yielder but yield can be increased through proper interventions like selection of crops, varieties, management practices and many other frontier agri-production technologies.

Under the provision of the Act Govt. of Tripura has identified 1.17 lakhs Tribal families and allotted 1.78 lakhs hectare of land among them. The land allotted to the families, with appropriate technological interventions shall result in the gainful utilization of the same leading to the consolidation of their socio-economic status. District wise statement of families identified and land allotted are given in the table below.

District	Nos. of Patta issued (Nos.)	Area allotted (ha)
North Tripura	24,037	43,618.76
Dhalai	27,624	56,368.46
West Tripura	22,292	29,017.33
South Tripura	43,396	48,214.96
<b>STATE TOTAL</b>	<b>117,349</b>	<b>177,219.51</b>

**Objective:**

To provide sustainable livelihood opportunities to the forest dwellers while retaining their symbiotic relationship with the Forest and ensuring their socioeconomic development as well as retaining the ecological balance of the area.

**Strategy:**

To bring 25,000 hectares FRA areas under Agricultural crops over a period of three years. 1<sup>st</sup> year 2011-12 assistance given for 10,000 ha for cost of inputs (seed cost, chemical fertilizer etc), land leveling and 2<sup>nd</sup> year 2012-13 assistance given for 10,000 ha only for seed cost. This year 2013-14 assistance proposed for 5,000 ha for seed cost, fertilizer etc.

**Cropping System in Uplands:**

As rice is the staple food of the entire population of forest dwellers under the Forest Right Act, it becomes imperative to improvise the existing rice based cropping system for the areas allotted to the dwellers under the Act. Advocacy of rice cultivation in the rain-fed upland ecosystem holds prime importance in the present day context as well as in the days to come as availability of land for rice cultivation in the lowland is almost exhausted. As the increasing demand for rice is out pacing the present production scenario, tapping the potential of upland resources presents a viable direction in meeting the challenges which lies ahead. The urgent need for developing a strategy interweaving the Indigenous Traditional knowledge and Improved Technological packages based on persistent trials and research shall be the best tools to address the situation. Certain Package of practices developed through research has already available with us to start with which shall be adopted. The yields of upland rice are generally lower due to various factors like : scarcity of suitable varieties; irregular rainfall distribution; difficulty of weed control; scant knowledge of proper fertilizer application; and poor control of insects. Cultural practices for upland rice have been studied far less compared to that of low land rice. However methods are now available to encounter the problems. Proper upland rice varieties, application of weedicides, application of water soluble NPK fertilizers, application of plant protection chemicals are among the few interventions that have been included in the project to overcome the factors and an average yield of 2 MT rice per hectare is estimated.

### Economics of Agricultural Crops:

Name of Crop	Cost of Cultivation (Rs.)	Gross Return (Rs.)	Net Return (Rs.)	B: C Ratio
Paddy (Direct Seeded)	12600	26000	13400	2.06
Maize	12781	22500	9719	1.76
Arhar	13400	42000	28600	3.13
Sesamum	8300	30000	21700	3.61
Pulses	9548	27000	17452	2.83

**Action Plan:** Under Agriculture sector the proposed activities will predominantly be confined to land development and input cost. It is estimated that an amount of Rs. 30,000 per hectare will be required for agricultural activities among which land development activities like Clearing and Land leveling, terracing, contour bunding etc. will require about Rs. 20,000 and Rs. 10,000 per hectare will be involved to meet the cost of inputs like seed, fertilizer, plant protection chemicals etc. It is proposed to provide 16% assistance from RKVY @ Rs.4812/- per hectare as cost of inputs like fertilizer, Seed etc. Component-wise break-up is mentioned below.

#### a) Seed Cost:

Component	Seed required ( Kg/ha)	Per kg Seed cost (Rs/kg)	Total Seed Cost per ha (In Rs)
Upland Paddy seed- 50 kg @ Rs. 16/- per kg = Rs. 800/-	50	16	800
Arhar seed- 10 kg @ 100/-per kg =Rs. 1000/-,	10	100	1000
Maize Seed- 15 kg @ 80/-per kg=Rs. 1200/-	15	80	1200
Sesamum-5 kg @ 60/-per kg =Rs. 300/-	5	60	300
Summer Moong- 30 kg @ Rs. 100/per kg= Rs. 3000/-	30	100	3000
Black Gram-30kg@ Rs. 60/ per kg= Rs. 1800/-	30	60	1800
Cow pea-30kg@ Rs. 60/ per kg= Rs. 1800/-	30	60	1800



**b) Fertilizer Cost:**

Crop	Actual recommended NPK(Kg/Ha)	Cost of Chemical Ferti.			Cost of Bio Ferti. (For seed treatment only)			Total Cost (in Rs)
		Item	Quantity (Kg)	Fin.(Rs)	Item	Quantity (Kg)	Fin. (Rs)	
Moong	20:40:20	Urea	43.4	236.53	Azotobactor	2	60	3483
		SSP	250	2557.5	PS	2	60	
		MOP	33.2	569.38				
		<b>Total</b>	<b>326.6</b>	<b>3363</b>	<b>Total</b>	<b>4</b>	<b>120</b>	
Blackgram	20:40:20	Urea	43.4	236.53	Azotobactor	2	60	3483
		SSP	250	2557.5	PSB	2	60	
		MOP	33.2	569.38				
		<b>Total</b>	<b>326.6</b>	<b>3363</b>	<b>Total</b>	<b>4</b>	<b>120</b>	
Arhar	20:40:00	Urea	43.4	236.53	Azotobactor	2	60	2914
		SSP	250	2557.5	PSB	2	60	
		MOP	0	0				
		<b>Total</b>	<b>293.4</b>	<b>2794</b>	<b>Total</b>	<b>4</b>	<b>120</b>	
Cowpea	20:40:20	Urea	43.4	236.53	Azotobactor	2	60	3483
		SSP	250	2557.5	PSB	2	60	
		MOP	33.2	569.38				
		<b>Total</b>	<b>326.6</b>	<b>3363</b>	<b>Total</b>	<b>4</b>	<b>120</b>	
Sesamum	40:30:30	Urea	86.8	473.06	Azotobactor	2	60	3365
		SSP	187.5	1918.125	PSB	2	60	
		MOP	49.8	854.07				
		<b>Total</b>	<b>324.1</b>	<b>3245</b>	<b>Total</b>	<b>4</b>	<b>120</b>	
Maize	60:30:30	Urea	130.2	709.59	Azotobactor	4	120	3722
		SSP	187.5	1918.125	PSB	4	120	
		MOP	49.8	854.07				
		<b>Total</b>	<b>367.5</b>	<b>3482</b>	<b>Total</b>	<b>8</b>	<b>240</b>	
Paddy	60:30:30	Urea	130.2	705.684	Azotobactor	4	120	3718
		SSP	187.5	1918.125	PSB	4	120	
		MOP	49.8	854.07				
		<b>Total</b>	<b>367.5</b>	<b>3478</b>	<b>Total</b>	<b>8</b>	<b>240</b>	

## Total input cost:

Name of the Crop	Area to be covered during 2013-14	Seed Cost per ha (In Rs)	Fertilizer Cost per ha (In Rs)	Per ha input cost (In Rs) (3+4)	Total input cost (Rs. in lakh) (2X5)	Proposed assistance @50% from RKVY (Rs. in lakh)	Administrative cost @ 1% (Rs. in lakh)	Grand Total (Rs. in lakhs) (7+8)
1	2	3	4	5	6	7	8	9
Upland Paddy	1000	800	3718	4518	45.18	22.59	0.22	22.81
Arhar	400	1000	2914	3914	15.66	7.83	0.08	7.91
Maize	500	1200	3722	4922	24.61	12.31	0.12	12.43
Sesamum	1200	300	3365	3665	43.98	21.99	0.21	22.2
Summer Moong	900	3000	3483	6483	58.35	29.18	0.29	29.47
Black Gram	700	1800	3483	5283	36.98	18.49	0.18	18.67
Cow pea	300	1800	3483	5283	15.85	7.93	0.08	8.01
<b>Total</b>	<b>5000</b>			<b>4812*</b>	<b>240.61</b>	<b>120.32</b>	<b>1.18</b>	<b>121.50</b>

\*Average Per ha input cost

**Agri. Subdivision & District wise breakup is as below: ( Phy. In ha & Fin. In Lakh)**

Name of Agri.Sub-Division	Arhar		Moong		Blackgram		Sesamum		Upland Paddy		Maize		Cow Pea		Total	
	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin
Panisagar	4	0.08	8	0.26	7	0.18	11	0.2	10	0.23	5	0.12	3	0.08	48	1.15
Kadamtala	1	0.02	3	0.1	4	0.11	3.5	0.06	10	0.23	5	0.12	3	0.08	29.5	0.72
Kanchanpur	82	1.6	185	6	145	3.83	247.5	4.54	120	2.71	60	1.48	36	0.95	875.5	21.11
Kumarghat	11	0.22	25	0.81	20	0.53	33	0.6	20	0.45	10	0.25	6	0.16	125	3.02
<b>North District</b>	<b>98</b>	<b>1.92</b>	<b>221</b>	<b>7.16</b>	<b>176</b>	<b>4.65</b>	<b>295</b>	<b>5.4</b>	<b>160</b>	<b>3.62</b>	<b>80</b>	<b>1.97</b>	<b>48</b>	<b>1.27</b>	<b>1078</b>	<b>25.99</b>
Chawmanu	32	0.63	72	2.33	56	1.48	96	1.76	100	2.26	50	1.23	30	0.79	436	10.48
Salema	58	1.14	130	4.21	101	2.67	173.5	3.18	135	3.05	68	1.67	41	1.08	706.5	17
Gandacherra	37	0.72	84	2.72	65	1.72	112	2.05	160	3.61	78	1.92	46	1.22	582	13.96
<b>Dhalai District</b>	<b>127</b>	<b>2.49</b>	<b>286</b>	<b>9.27</b>	<b>222</b>	<b>5.87</b>	<b>381.5</b>	<b>6.99</b>	<b>395</b>	<b>8.92</b>	<b>196</b>	<b>4.82</b>	<b>117</b>	<b>3.09</b>	<b>1724.5</b>	<b>41.45</b>
Khowai	6	0.12	14	0.45	11	0.29	18.5	0.34	20	0.45	10	0.25	6	0.16	85.5	2.06
Tulashikhar	11	0.22	22	0.71	19	0.5	31.5	0.58	40	0.9	20	0.49	12	0.32	155.5	3.72
Teliamura	18	0.35	40	1.3	31	0.82	52.5	0.96	80	1.81	40	0.98	24	0.63	285.5	6.85
Jirania	4	0.08	9	0.29	7	0.18	12	0.22	10	0.23	5	0.12	3	0.08	50	1.2
Mandai	6	0.12	13	0.42	10	0.26	17.5	0.32	20	0.45	10	0.25	6	0.16	82.5	1.98

Name of Agri.Sub-Division	Arhar		Moong		Blackgram		Sesamum		Upland Paddy		Maize		Cow Pea		Total	
	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin	Phy.	Fin
Mohanpur	4	0.08	15	0.49	10	0.26	20	0.37	20	0.45	10	0.25	6	0.16	85	2.06
Bishalghar	8	0.16	17	0.55	13	0.34	22	0.4	40	0.9	20	0.49	12	0.32	132	3.16
Melaghar	8	0.16	17	0.55	14	0.37	23	0.42	30	0.68	15	0.37	9	0.24	116	2.79
<b>West District</b>	<b>65</b>	<b>1.27</b>	<b>147</b>	<b>4.77</b>	<b>115</b>	<b>3.02</b>	<b>197</b>	<b>3.61</b>	<b>260</b>	<b>5.87</b>	<b>130</b>	<b>3.2</b>	<b>78</b>	<b>2.07</b>	<b>992.00</b>	<b>23.81</b>
Matabari	12	0.23	29	0.94	23	0.61	38.5	0.71	40	0.9	20	0.49	12	0.32	174.5	4.2
Amarpur	43	0.84	96	3.12	70	1.86	127	2.33	85	1.93	43	1.06	26	0.68	490	11.82
Bagafa	22	0.43	49	1.59	38	1	65	1.19	15	0.34	8	0.2	5	0.13	202	4.88
Rajnagar	8	0.16	18	0.58	14	0.37	24	0.44	20	0.45	10	0.25	6	0.16	100	2.41
Satchand	12	0.23	26	0.84	20	0.53	34.5	0.63	5	0.11	3	0.07	2	0.05	102.5	2.46
Rupaichari	13	0.25	28	0.91	22	0.58	37.5	0.69	20	0.45	10	0.25	6	0.16	136.5	3.29
<b>South District</b>	<b>110</b>	<b>2.15</b>	<b>246</b>	<b>7.98</b>	<b>187</b>	<b>4.95</b>	<b>326.5</b>	<b>5.99</b>	<b>185</b>	<b>4.18</b>	<b>94</b>	<b>2.32</b>	<b>57</b>	<b>1.5</b>	<b>1205.50</b>	<b>29.07</b>
<b>STATE</b>	<b>400</b>	<b>7.83</b>	<b>900</b>	<b>29.18</b>	<b>700</b>	<b>18.49</b>	<b>1200</b>	<b>21.99</b>	<b>1000</b>	<b>22.59</b>	<b>500</b>	<b>12.31</b>	<b>300</b>	<b>7.93</b>	<b>5000</b>	<b>120.32</b>

TOTAL RKVY Share: **Rs. 121.50 lakhs.** (Including 1% contingency)

**5. Scheme for promotion of Farm Mechanization under RKVY by providing subsidy @ 50 % or maximum limit @ Rs. 45000/ per no, for Power Tiller**

Sl. No.	Field Name	Details/Data
1	Project Name (to be modified if so modified by the SLSC)	Scheme for promotion of Farm Mechanization under RKVY by providing subsidy @ 50 % or maximum limit @ Rs. 45000/ per nos, for Power Tiller
2	Project ID (State initials/Financial year/Sector/Running Serial Number for the year)	<b>TR/RKVY-AMEC/2013/192</b>
3	Approved cost (Total cost of the project as per DPR/concept)	<b>Rs. 225.00 Lakhs</b>
4	Project Duration and phasing of cost (Current year, 2years, 3 years, as the case may be, along with phasing of cost)	<b>2013-14</b>
5	Proposed cost for the current year	<b>Rs. 225.00 Lakhs</b>
6	Sector (S) Sector (S) to which the project belongs out of the sector list approved with break-up of cost , if more than one sector are specified)	Agriculture
7	Scheme (S) (Classification of the Project in terms of Schemes of Agriculture Ministry with breakup of cost in schemes if more than one scheme is specified; if it does not belong to any particular scheme state Specific Innovative Scheme)	
8	Break up of scheme components (As per the scheme components of GOI scheme/Approved norms of SLSC in case of innovative State scheme)	
9	Implementing Department (S) in the State (Concerned Administrative Department of the State)	Department of Agriculture
10	Implementing Agency (Implementing Agency of the Project in the State)	Department of Agriculture
11	Administrative Department in GOI (Which Department in India E.G.DAC. DAHD, the project would primarily fall in jurisdiction of)	Department of Agriculture & Co-operation
12	Area of Operation of project (Entire state regions or specific district as the case may be)	Entire State
13	Expected Outputs (List project outputs)	
14	Physical Targets (Specify physical target out of specified list in terms of crops/area etc.)	Power Tiller 500 Nos
15	Expected Outcome of the project ( Describe expected outcome of project)	Increase in production
16	Expected Beneficiaries (Specify number of beneficiaries in terms of gender, SC/ST etc. on broad basis and also area/crop etc. benefiting) criterion.	500 beneficiaries
17	Expected contribution to Growth of agriculture and allied sector.	
18	Any other information (as considered appropriate in terms of the Project).	

**Scheme for promotion of Farm Mechanization under RKVY by  
providing subsidy @ 50 % or maximum limit @ Rs. 45000/ per nos,  
for Power Tiller**

**Introduction:** Power is needed on the farm for operating different tools, implements and during various farm operations. While mobile power is used for doing different field jobs, the stationary power is used for lifting water and operating irrigation equipment; operating threshers, shellers / decorticators, cleaners, graders and for other post harvest operations. The mobile farm power comes from human, draught animals, power tillers, tractors and self propelled machines; whereas the stationary power is obtained from oil engines (diesel, petrol, and kerosene) and electric motors.

Availability of adequate farm power is very crucial for timely farm operations for increasing production and productivity and handling the crop produce to reduce losses. With the increase in intensity of cropping the turnaround time is drastically reduced and it is not possible to harvest and thresh the standing crop, on one hand, and prepare seed bed and do timely sowing operations of subsequent crop, on the other hand, in the limited time available, unless adequate farm power is available.

Similarly for precision farming, increasing area under irrigation, conservation tillage, straw management and diversification in agriculture, more power is required for water lifting and precision placement/application of agricultural inputs—seed, fertilizer, irrigation water, plant protection chemicals etc and meeting the requirements of diversified agriculture.

There has been positive correlation between farm power availability and increased productivity. Those states where availability of farm power is more, in general, could realize the higher productivity as compared to others.

The time series population of agricultural workers during the period 1951 to 2001 reflects that while the population of agricultural workers as percentage of rural population has gone down from about 69.4% in 1951 to about 58.4% in 2001 but in absolute terms, due to increase in overall population, the number of agricultural workers available in rural areas has increased from about 97.2 million numbers in 1951 to about 235.1 million numbers in 2001.

These agricultural workers are engaged in different farm operations and depend on agriculture for their livelihood, even when they are not fully employed throughout the year. Due to too much involvement of labour in different farm operations, the cost of production of most of the crops in our country is quite high as compared to developed countries.

**Rationale of the Proposal:** Considering the average command area of a pair of draught animals, a power tiller of 7.46 kW and a tractor of about 26.1 kW as 2 ha, 6 ha and 15 ha respectively, about 500 pairs of bullocks, or 167 power tillers or about 67 tractors or a combination of the three sources would be required per 1000 ha of cultivated area. Except for Punjab, Haryana, Uttar Pradesh, and Bihar other states do not have adequate farm power to do timely tillage and seedbed preparations. Similarly it is seen that during last 7 years the average sale of tractors was about 74.84% mainly in the northern States of Uttar Pradesh (Including Uttaranchal), Madhya Pradesh (including Chhattisgarh), Punjab, Rajasthan, Haryana, Gujarat and Bihar (including Jharkhand) and only about 19.63% in southern States of Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu. This also shows that in future also the southern States (Tamil Nadu, Andhra Pradesh, Karnataka and Kerala), Orissa, West Bengal, Himachal Pradesh, Jammu and Kashmir, Assam and States of NEH region will depend mainly on animate source of power and to a little extent on power tillers. It has been experienced that those states, which have higher horsepower availability on the farm, in general, have higher productivity.

The per unit cost of using energy from different sources of farm power differ greatly.

Hence they should be used very judiciously. In India, use of human and draught animals is very predominant in agriculture in most parts of the country and hence the cost of production is quite high as compared to advanced countries where mechanical power is predominantly used. As far as possible, human energy should be used for very precise work or for operating machines where brainpower is to be used for decision-making and not for physical work.

## **Future requirements of farm power to sustain agricultural production:**

For growing population we need more production of food grains. ICAR in its Vision 2020 document has projected the demand of food grains as about 293.6 million tons by 2020. Since the cultivated area cannot be increased, the increased production will be possible only by increased productivity and increased intensity of cropping. This will call for precision farming and timely farm operations which will require high capacity and precision equipment for which farm power availability will have to be increased substantially. In order to make agricultural production competitive and cost effective the use of mechanical and electrical sources of power will increase in future and the use of draught animals and human power will slowly be going down.

The productivity of dry land agriculture, which constitutes about 66% of the total cultivated area, is quite low. The productivity of this region has to be increased substantially. In dry land agriculture, timeliness in farm operations, especially the seedbed preparation and sowing/planting for establishing good crop stand in deficient/receding soil moisture condition is of crucial importance. Unless adequate mobile farm power is not available on the farm, the sowing operation gets delayed resulting poor crop stand and yields. In these areas farmers should use Power Tillers/ Mini Tractors /Tractors and Seed drills/planters for timely sowing operations. Such devices will have to be made available to even marginal and small farmers on custom basis to do their seedbed preparation and sowing operations in time.

It is visualized that by 2020 the requirement of farm power will be on the following pattern to attain the production target of required food grain, vegetables etc.

Farm power availability: 2.00 kW/ha

Share of Animate power will be 5%: 0.10 kW/ha

Share of Mechanical power: 1.40 kW/ha will be 70% (Mobile 50% and Stationary 25%)

Share of electrical power will be 25%: 0.50 kW/ha.

Considering the future requirement of Farm Power and more than 94 % of small and marginal farmers of Tripura, intervention through RKVY to provide assistance to the farmers of the state become dire necessities to increase production as well as cropping intensity in addition to overall socio economic condition of the every farm household. It is proposed to provide subsidy for Power Tiller and Mini Tractor @ 50% which will able to initiate great momentum in the scenario of Agricultural Development of the State.



**Proposed Physical Target of Power Tiller (Subsidy @ 50% or maximum limit to Rs. 45000/ per No)**

**Agri. Sub-Division wise breakup is as below: (Fin Rs. in Lakhs)**

<b>Sl. No.</b>	<b>Agri. Sub-Divisions</b>	<b>Physical Target</b>	<b>Financial Target</b>
1	SA, Khowai	20	9.00
2	SA, Teliamura	24	10.80
3	SA, Jirania	10	4.50
4	SA, Mohanpur	24	10.80
5	SA, Dukli	10	4.50
6	SA, Bishalgarh	22	9.90
7	SA, Melaghar	30	13.50
<b>Total West</b>		<b>140</b>	<b>63.00</b>
8	SA, Amarpur	25	11.25
9	SA, Matabari	35	15.75
10	SA, Bagafa	25	11.25
11	SA, Rajnagar	25	11.25
12	SA, Satchand	25	11.25
<b>Total South</b>		<b>135</b>	<b>60.75</b>
13	SA, Kadamtala	20	9.00
14	SA, Panisagar	30	13.50
15	SA, Kumarghat	30	13.50
<b>Total North</b>		<b>80</b>	<b>36.00</b>
16	SA, Salema	25	11.25
<b>Total Dhalai</b>		<b>25</b>	<b>11.25</b>
<b>Total Non ADC</b>		<b>380</b>	<b>171.00</b>
17	Tulashikhar	7	3.15
18	Mandwai	7	3.15
19	Rupaicharri	0	0.00
20	Chowmanu	15	6.75
21	Gandacherra	10	4.50
22	Kanchanpur	30	13.50
<b>Total ADC</b>		<b>69</b>	<b>31.05</b>
<b>Total</b>		<b>449</b>	<b>202.05</b>
<b>Target for the returnees</b>		<b>51</b>	<b>22.95</b>
<b>Total of the State</b>		<b>500</b>	<b>225.00</b>

TOTAL RKVY Share: **Rs. 225.00 lakhs.**

**IMPLEMENTING AGENCY:** Department of Agriculture through Dy. Directors of Agriculture of the Districts and Superintendents of Agriculture at the Agriculture Subdivision level.