

KVK, GANJAM-1, ORISSA
NICRA Technology Demonstration Component (TDC)
Action Plan 2016-17

1.0

A. Basic information

S.No.	Item	Detail
1.1	Zone	Zone-VII
1.2	Name of KVK (district)	Ganjam-1, Odisha
1.3	Name of Tehsil	Jagannath prasad
1.4	Name of Village	Chopara
1.5	Climatic vulnerability	Drought, Terminal moisture stress

B. Module-wise resilient practice/technology to be demonstrated for the year 2016-17

S.No.	Module	Climatic constraint addressed	Key intervention	Measurable indicator (s)
1	Natural resource management			
	Check dam repairing	delay in monsoon by 2 weeks, terminal moisture stress	community nursery in check dam area	Irrigation area, no.of farmers benefitted
	Repair of Defunct well	Water table decreased	Desilting & renovation of open well	Water table at monthly interval
	Desilting of farm pond	Delay in monsoon leads to late transplanting, no life saving irrigation in dry spell	Community nursery near farm pond area, life saving irrigation to Paddy & rabi crop	Irrigation area, no.of farmers benefitted
	Summer deep ploughing- Paddy	Less moisture content of soil	Deep Summer Ploughing by mb lough	Moisture content at different growth stages, weed/m ²
	Raising of farm Bund height- Paddy	Loss of moisture & soil during runoff water	Raising of farm bund height by 2 ft.	Moisture content at different time, yield
	vermicompos	No recycling of farm	Vermicomposting	yield

	ting	waste	from farm wasre	
	Zero tillage- Black gram	Less Moisture in soil for rabi crop	Tractor drawn seed cum fertilizer drill	Moisture content at different time, yield
	percolation tank	Dry spell & No irrigation facility to 2 nd crop	Percolation tank- 15m*10m* 1.5 m	Moisture content at different time, yield
	Green manuring by sun hemp	Acidic soil & less moisture content of soil	sunhemp@ 20kg/ha. & incorporated in soil at 35-0-35 DAS	N level, moisture content, yield
2	Crop production			
	Paddy- sahabhagidh an	Drought	Sahabhagi dhan in upland	Yield, dry sell
	Paddy- Swarna sub- 1	Flood in low lands	Swarna sub-1 in low land	yield
	Maize- hybridsuer- 36	Delay monsoon	Maize in waste uland	Additional benefit
	Pigeon pea- asha	Cyclone contingent crop	Pigeon pea as cyclone contingent crop in uland	Additional benefit
	Green gram- TARM-1	Short duration drought resistant var	Grown in residual soil moisture	Yield, moisture content
3	Livestock & Fisheries			
	Feeding management	Feed waste	Floating feed @ 1 % body wt.	yield
	Yearling rearing	Less water table	Rearing of yearling	Mortality rate
	Mineral mixture feeding	Less milk	Mineral mixture feeding	Milking rate increase
	Rainbow poultry bird rearing	High mortality & less growth	Rainbow poultry bird rearing	Mortality rate,growth rate
	vaccination	Different disease occurred	Vaccination at regular interval	Mortality rate
4	Institutional interventions			

	Custom hiring	Late agronomic operation	Use of farm implement	Efficiency, yield increase
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***add rows if required**

Activities and costs

2.0 Non-recurring contingencies – Equipment

Proposal for Procurement of farm machinery/ implements for Custom Hiring Centre (CHC)

<i>S.No.</i>	<i>Item</i>	<i>Unit cost* (Rs)</i>	<i>No. of units</i>	<i>Amount (Rs)</i>
1.				
	Add row if required			
	Total NRC 2.0			

** Wherever possible, subsidy extended by State Government for the machinery to be utilized and accordingly rate adjusted. Wherever required, include equipment for village level small weather station, GPS, rain gauge and any other critical equipment for community interventions.*

3.0 Contingencies

3.1 Module 1 – NRM interventions

A) *Repair / Renovation of existing water harvesting structures & drainage channels etc.*

<i>S.No.</i>	<i>Intervention*</i>	<i>Dimensions</i>	<i>No. of beneficiaries</i>	<i>Convergence value, if any (Rs)</i>	<i>Value of farmers share, if any(Rs)</i>	<i>Cost to project (Rs)</i>
1	Check dam repairing	50m * 20 m	34			15000
2	Repair of Defunct well	30 m3	6			18000
3	Desilting of farm pond	80m * 35 m	12			10000
	Sub-total 3.1		52			43000

**de-silting, deepening & clearing of irrigation/drainage channels, repair of defunct wells etc.*

B) *In situ conservation – Resource Conservation Technologies (RCTs)*

<i>Item (specify the interventions)</i>	<i>Unit cost Rs/acre</i>	<i>No. of demos</i>	<i>Coverage</i>		<i>Amount (Rs)</i>	<i>Remarks</i>
			<i>Area (acres)</i>	<i>No. of farmers</i>		
	A	B	C	D	A x C	
Summer deep ploughing- Paddy	2000	10	05	10	10000	Moisture conservation
Raising of farm	4000	06	3	06	12000	Water

Bund height-Paddy						conservation
vermicomposting	1600	05		05	8000	Resource conservation
Zero tillage-Black gram	1500	05	10	05	15000	Moisture conservation
percolation tank	4000	04	0.1	04	16000	Ground water recharge
Sub-total 3.1		30	18.1	30	61000	

**Support for improved planting methods, in-situ conservation practices; Specify crops for planting methods and all practices*

3.2 Module II – Crop production interventions

A) Stress tolerant / Improved varieties / Short duration / Legume crops

Intervention	Description		Cost (Rs)/acre	No. of demos	Coverage		Amount (Rs)	Remarks (purpose of intervention)
	Crop	Variety (s)			Area (ac)	No. of farmers		
			A	B	C	D	A x C	
Drought	Paddy	Sahabdagidhan	700	15	15	15	10500	drought
Flood	Paddy	Swarna sub-1	700	10	10	10	7000	flood
High temperature stress								
Short duration varieties (specify)								
Any other stress (specify, add rows if required)								
Crop diversification (to other crops)	Maize	Hybrid super 36	800	10	10	10	8000	Crop diversification
	Pigeon	Asha	1200	10	10	10	12000	Cyclone

	ea							contingent crop
Agroforestry								
Seed for green / brown manuring	Sunhem p	Local	800	10	10	10	8000	Amelioration of soil acidity
Seed for legume catch crops (specify)	Green gram	TARM-1	1500	10	10	10	15000	To cope with less moisture content
Intercropping systems (specify)	Paddy-Pigeon pea	Sahabhagi dhan-Asha	3000	05	02	05	6000	drought
IFS	Paddy-veg-poultry-mushroom		4000	02	02	02	8000	For optimum utilization of resources
Sub Total 3.2 A				72	72	72	74500	

***Add rows for each interventions if required**

B) Improved agronomic practices and other crop interventions

Intervention		Cost (Rs)/acre	No. of demos	Coverage		Amount (Rs)	Remarks (Purpose of intervention)
				Area (ac)	No. of farmers		
		A	B	C	D	A x C	
Water saving paddy cultivation methods	DSR	600	10	10	10	6000	Less CH₄ gas emission
	Aerobic						
	SRI						
Community nursery		4000	01	3	30	4000	For delay monsoon
Critical inputs for Integrated crop management (specify crop)		1000	15	15	15	15000	for higher income
Critical inputs for							

Integrated Farming systems (specify inputs and crops)						
Other inputs (soil amendments, soil test based nutrient management, bio-fertilizers, other soil and plant health related etc)	600	10	10	10	6000	Soil health management
Harvesting and post harvesting related interventions						
Facilitating insurance for crops (specify)						
Income generation activities (Mushroom etc)	300/10 beds	10	10 units	10	3000	for higher income
Income generation activities (Vegetables etc.)	2000	30	08	30	16000	for higher income
Facilitation of marketing of farm produce						
Any other (specify), add rows if needed						
Sub-total 3.2 B		76	46/10 units	105	50000	

4.0 Module 3 – Livestock & Fisheries interventions

4.1 Year round fodder production strategies (annual/perennial fodder) in the village

Season	Name of fodder	Variety	Area (ha)	Unit cost of demo (Rs)*	No. of demos	Amount (Rs)*	Remarks (purpose of intervention& farmers covered)
Kharif	Hybrid napier		0.4	2000	04	8000	Fodder availability in summer
Rabi							
Summer							

	Sub-total 4.1		0.4	2000	04	8000	

*if applicable

4.2 Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture (MM) blocks / feed enrichment

Details of feed demo*	Unit cost of demo (Rs)	No. of demos	Amount (Rs)	Remarks (purpose of intervention& farmers covered)
a) Silage demos				
b) Feed block demos				
c) Mineral mixture demos	5000	02	10000	To increase milk production
d) Unconventional feed resources (eg., red gram stalks, cotton stalks etc) used in preparation of complete feed				
e) Any other (specify), add rows if needed				
f) Feeding management & disease control programme in livestock (Total Mixed Ration, Mineral block, medicines & disinfectant solution)	8000	03	24000	To increase immunity
Sub-total of 4.2		05	34000	

*Specify fodder & animal type for demos; here indicate cost of demo, if any; cost of establishment of new units to be given in item 2.0 (equipment), if any.

4.3 Improved housing /shelter for protection of livestock against extreme weather

Type of shelter improvement*	Unit cost of demo (Rs)	No. of demos	Amount (Rs)	Remarks (purpose of intervention& farmers covered)
Cattle-Concrete flooring& Roof thatching by straw	4000	02	8000	Sanitation
Goat & sheep- bamboo house	5000	02	10000	Sanitation

Sub-total of 4.3		04	18000	
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**Specify animal type and material used; Plan innovative demonstrations using locally available material*

4.4 Livestock / Fisheries units

A	B	C	D	E	F	G
Enterprise/unit*	Unit cost (Rs)	Convergence share in unit cost, if any** (Rs)	Project share in unit cost (Rs)	No. of units	Cost to Project (D x E) (Rs)	Remarks (purpose of intervention & farmers covered)
Poultry- Rainbow rooster	1500		1500	10	15000	Higher income
Pisciculture	7000		7000	02	14000	Higher income
Sub-total of 4.5				12	29000	

** Stress tolerant breeds/piggery/goatery/duckery/backyard poultry/ fisheries/bee keeping etc.*

5.0 Module 4 – Community interventions

5.1 Establishment of fodder banks (hay)

Name of the SHG	Fodder type	Quantity of storage (t)	Unit cost (Rs.)	No. of units	Amount (Rs.)	Remarks (purpose of intervention & farmers covered)
Sub-total 5.1						

5.2 Establishment of Seed banks

Name of the SHG	Crop and variety	Quantity of storage (t)	Unit cost (Rs.)	No. of units	Amount (Rs.)	Remarks (No. of beneficiaries & Period of use)
	Paddy-Sahabthagidhan	6	3600	01	3600	122/june-july

Sub-total 5.2				01	3600	
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6.0. Capacity Building & Training Programmes

6.1 Training Courses proposed

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
IPM	Management of Pest & diseases in paddy	August	25	5000
Income generation	Paddy straw Mushroom cultivation	June	25	5000
Income generation	Oyster mushroom cultivation	Oct.	25	5000
Resource conservation	Vermicomposting	Nov.	25	5000
Feed management	Application of Floating feed in Pisciculture	Dec.	25	5000
Sub-total 6.1			125	25000

6.2 Field Days proposed

Theme	Title of training course	Proposed month	No. of participants	Cost to project (Rs.)
Variety-Paddy	Integrated crop management	October	50	3000
Variety-Paddy	Integrated crop management	December	50	3000
Crop diversification	ICM on Maize	September	50	3000
Short duration – Green gram	ICM on Green gram	February	50	3000
Sub-total 6.2			200	12000

6.3 Exposure Visits proposed

Place of visit	Purpose of visit	Proposed month	No. of participants	Cost to project (Rs.)
CHES, BBSR & CRRRI Cuttack	Awareness regarding improved method	August	15	9000

	of cultivation.			
Centre of Excellence, Mendhasal, ICAR-IIWM Mendhasal	Awareness regarding protected cultivation, Water saving methods	October	15	9000
Sub-total 6.3			30	18000

7.0 Up-scaling of Successful Interventions (Based on previous year demonstrations)

Sl.No.	Name of technology	Unit cost/ha (Rs.)	No. of farmers covered	Cost to project (Rs.)	Remarks (justification)
1.	Seed cum fertilizer drill	1600	10	6400	For popularization
2.	Application weedicide in Paddy	900	15	5400	For popularization
3.					
Sub-total 7.0			25	11900	

8.0 Plan for contingency situations involving various crops during the cropping season 2016-17

Sl. No	Possible contingency situation	Measures envisaged	Unit cost/acre	No. of farmers to be covered	Cost to project (Rs.)	Remarks
1.	Late onset of monsoon	Crop diversification	1200	10	12000	
2.	Prolonged breaks during the season	Irrigation from check dam & farm pond	-	46	-	
3.	Early withdrawal of monsoon	Short duration Green gram var.	1000	10	10000	
4.	Intense storms					
5.	Temporary flooding/ Water logging due to heavy rains					
6.	Any other, ..					

Sub-total 8.0				66	22000	
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9.0 Contractual Manpower (SRFs)

Category	Rate/month (Rs.)	No. of positions	No. of months	Amount (Rs.)
SRF	18000	01	12	216000
Sub-total 9.0		01	12	216000

10.0 Media Products to be developed (brochure/bulletin)

Item description	No. of copies	Amount (Rs.)
Achievement of NICRA	500	10000
Sub-total 10.0	500	10000

Summary of budget Estimates for 2016-17 (Tentative)

<i>Sub total</i>	<i>Item</i>	<i>Amount (Rs)</i>
2.0	Procurement of farm machinery/implements for CHC	0
3.1. A	Repair/ Renovation of existing water harvesting structures & drainage channels etc.	43000
3.1. B	<i>In situ</i> conservation – Resource Conservation Technologies (RCTs)	61000
3.2. A	Stress tolerant/ Improved varieties	74500
3.2. B	Improved agronomic practices and other crop interventions	50000
4.1	Year round fodder production strategies (annual/perennial fodder) in the village	8000
4.2	Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture blocks / feed enrichment	34000

4.3	Improved housing /shelter for protection against extreme weather	18000
4.4	Livestock/fisheries units	29000
5.1	Establishment of fodder banks (hay)	0
5.2	Establishment of seed banks	3600
6.1	Training courses	25000
6.2	Field days	12000
6.3	Exposure visits	18000
7.0	Up-scaling of successful interventions	11900
8.0	Plan for contingency measures for various crops during the cropping season 2016-17	22000
9.0	Contractual manpower (SRFs)	216000
10.0	Media products to be developed	10000
11.0	Any other contingencies (POL & repairing-40000, TA-50000, Ext. Activities-10,000)	100000
	Grand total(Rupees seven lakhs thirty six thousand only)	736000

Date: 28.04.2016

Date:

Zone __

Signature of PC, KVK/ In-charge NICRA

Signature of Nodal Officer, NICRA-ZPD