

KVK, GANJAM-1, ORISSA
NICRA Technology Demonstration Component (TDC)
Action Plan 2017-18

1.0

A. Basic information

<i>S.No.</i>	<i>Item</i>	<i>Detail</i>
1.1	Zone	Zone-V
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 2017-18

S.N o.	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
	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
	vermicomposting	No recycling of farm waste	Vermicomposting from farm waste	yield
	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

2	Crop production			
	Paddy-sahabhagidhan	Drought	Sahabhagi dhan in upland	Yield, dry sell
	Poly mulching in vegetable	Moisture conservation	Mulching with 30 micron polythene	No.of weeds/m ² ,moisture content
	Pigeon pea-asha	Cyclone contingent crop	Pigeon pea as cyclone contingent crop in upland	Additional benefit
	Green gram-IPM02-3	Short duration YMV tolerant var	Grown in residual soil moisture	Yield, moisture content
	Black gram	Short duration	Grown in residual soil moisture	Yield, moisture content
	Sweetcorn	Higher income & green plants as fodder	Growing of cash crop in check dam area	Yield & extra income
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
	Silage &hay	Feeding in stress period	Chaffing, anaerobic fermentation	Ph of silage,milk yield &Quality
	Low cost goatery shed	Better hygienic condition for disease tolerance	Bamboo stage-2ft ht., side wall concrete & covered with iron mesh	Diseases incidence & body growth rate
	Improved cattle shed	Better hygienic condition for disease tolerance	Concrete flooring with bamboo & straw thatching	Diseases incidence & milk yield
4	Institutional interventions			
	Custom hiring	Late agronomic operation	Use of farm implements	Efficiency, yield increase

*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)

S.No.	Item	Unit cost* (Rs)	No. of units	Amount (Rs)
1.	Moisture meter	25000	01	25000
	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.

S.No.	Intervention*	Dimensions	No. of beneficiaries	Convergence value, if any (Rs)	Value of farmers share, if any(Rs)	Cost to project (Rs)
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)

Item (specify the interventions)	Unit cost Rs/acre	No. of demos	Coverage		Amount (Rs)	Remarks
			Area (acres)	No. of farmers		
	A	B	C	D	A x C	
Raising of farm Bund height-Paddy	4000	06	3	06	12000	Water 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	11100	20	13.1	20	51000	
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**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 demonstrations	Coverage		Amount (Rs)	Remarks (purpose of intervention)
	Crop	Variety (s)			Area (ac)	No. of farmers		
			A	B	C	D	A x C	
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 pea	Asha	1200	10	10	10	12000	Cyclone contingent crop
Agroforestry								
Seed for legume catch crops (specify)	Green gram	IPM-02-3	2000	25	25	25	50000	To cope with less moisture content
IFS	Paddy-veg-poultry-mushroom		4000	02	02	02	8000	For optimum utilization of resources

	m							
Sub Total 3.2 A				42	42	42	50000	

***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						
	Aerobic						
	SRI						
Community nursery							
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 amendements, 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		65	33/10 units	65	40000	

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)
<i>Kharif</i>	Hybrid napier		0.4	2000	04	8000	Fodder availability in summer
<i>Rabi</i>							
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	800	10	8000	To provide feed in stress period

b) Feed block demos-hay	700	10	7000	To provide feed in stress period
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		25	49000	

**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	

**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-	1500		1500	10	15000	Higher income

Rainbow rooster						
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-Sahabhagidhan	6	3600	01	3600	122/june-july
Sub-total 5.2				01	3600	

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	november	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			150	9000

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 of cultivation.	August	15	9000
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	900	15	5400	For popularization

	Paddy				
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	

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 2017-18 (Tentative)

<i>Sub total</i>	<i>Item</i>	<i>Amount (Rs)</i>
2.0	Procurement of farm machinery/implements for CHC	25000
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)	51000

3.2. A	Stress tolerant/ Improved varieties	50000
3.2. B	Improved agronomic practices and other crop interventions	40000
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	49000
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	9000
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 twenty eight thousand five hundred only)	728500

Date: 05.07.2017

Date:

Signature of SS&H, KVK/ In-charge NICRA
Signature of Nodal Officer, NICRA-ZPD Zone