

NICRA

Annual Progress Report

2025-26



Krishi Vigyan Kendra, Kendrapara
ICAR-ATARI, Kolkata, Zone-V

ICAR-ATARI, Kolkata
Odisha University of Agriculture & Technology

National Innovations in Climate Resilient Agriculture Technology Demonstration Component

Annual Report 2025-26

Name of KVK: Kendrapara

Nature of Climatic Vulnerability: Flood, Moisture stress, cyclone & heat wave

Name of Adopted Villages: Gajapitha

Brief description of the villages: NICRA adopted village Gajapitha is situated besides river Baghuni, a subsidiary of Chitroptala river which is a branch river of Mahanadi. Flood, Cyclone and heat wave are the regular phenomenon of this village. It belongs to Marshaghai block of Kendrapara district. Agriculture and its allied sectors are the main livelihood option of this village. Major crops of this village are rice, jute and vegetables. Good numbers of livestock population are their major resource (Cow, Buffalo, Sheep, Goat and Poultry). Initially there were only four numbers of farm ponds in this village and the numbers increased after NICRA project intervention. Farm women were being trained on mushroom cultivation, apiary, horticultural QPM production, off season flower cultivation, fodder and seed bank production, vermi-compost preparation, vermiwash and vermin production.

Name of PI/Co-PI/Associated Scientist/SRF:

Dr. Susmita Mohanty (Senior Scientist & Head, PI, NICRA, KVK, Kendrapara)

Dr. Tapas Ranjan Sahoo (Scientist Horticulture, Co-PI, NICRA, KVK, Kendrapara)

Sri Matruprasad Mohanty (SRF, NICRA, KVK, Kendrapara)

I. Module I: NRM

Table. Performances of demonstration of in-situ moisture conservation technologies

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)	Economics of demonstration (Rs/ha)		
				Gross Cost	Net Return	BC R
Green manuring (dhaincha) in rice	20	10	46.2	60450	48120	1.79
Brown manuring in rice						
Summer Ploughing in rice						
Azolla in Paddy						
Zero Tillage in wheat / Maize/ Others crops						
Repair of bund						
Horticultural production through land embankment development						
Organic mulching in vegetables (Brinjal)	10	1	215	137300	142200	2.03
Mulching						
Any intervention not covered in above						
Total						

Mention the variety and Enclosed 2/3 photos

Table. Performances of water harvesting and recycling for supplemental irrigation

Technology demonstrated	No. of farmers	Area (ha)/ Unit	Output (q/ha)	Economics of demonstration (Rs/ha)		
				Gross Cost	Net Return	BCR
Renovation of pond for fish production and irrigation						
Renovation of canal						
5% Model						
Bora bandh						
Renovation of Well for irrigation						
Bund making leveling in paddy field						
New water harvesting structure						
Raising of land embankment						
Ground water recharge	55	8	-	35000 (pit digging)		
Desiltation of defunct water harvesting structures						
Renovation of irrigation channel						
Newly Check dam						
Renovation of common pond						
Any intervention not covered in above						
Total						

Enclosed 2/3 photos

Table. Performance of artificial ground water recharge technologies demonstrated

Technology demonstrated	No. of farmers	Area (ha)	Output (q/ha)	Economics of demonstration (Rs./ha)		
				Gross Cost	Net Return	BCR
Field bunding for rice	10	6	45.2	57800	46160	1.79
Water management through bunding of rice						
Ground water recharge through SRI by sub-soiler						
Any intervention not covered in above						
Total						

Enclosed 2/3 Photos

Table. Performance of different water saving irrigation methods

Technology demonstrated	No. of farmers	Area (ha)	Output (q/ha)	Economics of demonstration (Rs./ha)		
				Gross Cost	Net Return	BCR
Irrigation system (micro Irrigation system)						
Application of biofertilizer in rice/crops						
Vermi-compost from biodegradable wastes	5	5 unit	3q/ unit	2700	3300	2.2
Production of crops on farm bund						
RBF in crops						
LEWA in crops						
Sprinkler irrigation in crops						
Any intervention not covered in above						
Total						

Mention the variety and Enclosed 2/3 photos

Table. Performance of other demonstrations

Technology demonstrated	No. of farmers	Area (ha)	Output (q/ha)	Economics of demonstration (Rs./ha)		
				Gross Cost	Net Return	BCR
Demo 1						
Demo 2						
Demo 3						
Others if any						
Total						

Enclosed 2/3 photos

Table: KVK wise rainwater harvesting structures developed

RWH structures	No.	Storage capacity (cu.m)	No. of farmers	Protective irrigation potential (ha)	Increase in cropping intensity (%)
Desilting Pond					
New Pond created					
Pond Renovation					
Canal					
Checkdam					
5% model					
Pyne					
Well					
Inlet Channel					
Desilting drainage channel					
Bora bandh (Temporary check dam)					
Repaired well					

RWH structures	No.	Storage capacity (cu.m)	No. of farmers	Protective irrigation potential (ha)	Increase in cropping intensity (%)
Jalkund					
Small ditches for jute retting					
Land-shaping and rain water harvesting structure					
Others if any					
Total					

Enclosed 2/3 photos

II. Module

II: Crop Production

Table. Performance of different flood tolerant varieties

Technology demonstrated Crops with varieties	No. of farmers	Area (ha)	Yield(q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Flood tolerant rice variety Swarna sub 1	15	8	40.6	46.4	14.28	58500	48220	1.82
Flood tolerant rice variety CR 1009 sub1	15	8	41.2	47.6	15.5	59400	50080	1.84
Total	30	16						

Mention the variety and Enclosed 2/3 photos

Table. Performance of different salt tolerant paddy varieties

Technology demonstrated (Crops with varieties)	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Crop 1								
Crop 2								
Crop 3								
More if any								
Total								

Enclosed 2/3 photos

Table. Performance of different drought tolerant varieties

Technology demonstrated (Crops with varieties)	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Crop 1								
Crop 2								
Crop 3								
More if any								
Total								

Mention the variety and Enclosed 2/3 photos

Table. Performance of advancement of planting dates in different crops

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Crop I								
More if any								
Total								

Mention the variety and Enclosed 2/3 photos

Table. Performances of water saving technologies

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Water saving technology through SRI								
Aerobic Rice								
Direct seeded brown manured rice								
DSR	20	12	38.6	43.8	13.4	55900	44840	1.8
Sowing of rice / wheat / Maize with ZTD machine								
Others if any								
Total								

Mention the variety and Enclosed 2/3 photos

Performance of Community nurseries

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Rice (Swarna sub 1)	25	0.8						
Total	25	0.8						

Mention the variety and Enclosed 2/3 photos

Table. Performance of different location specific intercropping systems

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
ICM in Rice-blackgram paira cropping system	15	8	64 (REY)	45	42.2	81800	65400	1.79
Total	15	8						

Mention the variety and Enclosed 2/3 photos

Table. Performance of different crop diversification in NICRA villages

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Bitter gourd in trellis with hanging soil less culture	5	0.2	120	92	30.43	1,19,000	1,80,000	2.51
Round the year marigold cultivation	10	0.8	133	-	100	1,30,000	2,69,000	3.1
Total	15	1						

Mention the variety and Enclosed 2/3 photos

Table. Performance of other demonstration under crop production module

Technology demonstrated	No. of farmers	Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
IPM in Rice	15	6	44.2	38.9	13.6	55400	46260	1.83
Borer complex management in Greengram	15	4	4.9	3.4	44.11	21600	15150	1.7
Short duration greengram in post flood situation	20	8	5.1	4.2	21.42	21200	17050	1.8
Total								

Mention the variety and Enclosed 2/3 photos

III. Module

III : Livestocks and Fisheries

Table. Performance of different fodder demonstration in community lands

Technology demonstrated	No. of farmers	Unit/ Area (ha)	Output (q/ha)		% increase	Economics of demonstration (Rs/ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Hybrid Napier CO4	15	0.8	140	-	-	-	-	-
Fodder 2								
Total								

Mention the variety and Enclosed 2/3 photos

Table. Performance of improved fodder

Technology demonstrated	No. of farmers	Unit/ Area (ha)	Yield (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Total	15	0.8						

Mention the variety and Enclosed 2/3 photos

Table. Performance of various vaccination camps organized

Technology demonstrated	No. of farmers	Unit/ No./ Area (ha)	Measurable indicators of output* (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Vaccination camp against FMD Cattle & PPR against goat								
Vaccination for PPR in goat and Ranikhet in Poultry.								
Deworming								
Mineral mixture								
Proper De-worming								
Vaccination camp against other diseases								
Others if any								
Total								

Enclosed 2/3 photo

Table. Performance of composite and cat fish in the renovated ponds

Technology demonstrated	No. of farmers	Unit/ No. / Area (ha)	Measurable indicators of output* (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Post flood stocking of IMC yearling to minimize culture duration	10	1 ha	40.2	31.8	26.41	212000	270400	2.27
Total	10	1 ha						

Enclosed 2/3 photo

Table. Performance of livestock demonstration in NICRA adopted villages

Technology demonstrated	No. of farmers	Unit/ No. / Area (ha)	Measurable indicators of output* (q/ha)		% increase	Economics of demonstration (Rs./ha)		
			Demo	Local		Gross Cost	Net Return	BCR
Stress tolerant poultry Rainbow roaster	20	20 unit	2.3 kg/ 5 month	1.7 kg/ 5 month	35.29	160	300	2.87
Stress tolerant duck (Khaki Campbell)	10	10 unit	1.9 kg/ 5 mnth	1.4 kg/ 5 month	35.71	140	240	2.71
Total	30	30 unit						

Enclosed 2/3 photo

Table. Performance of improved shelters for poultry and dairy animals

Technology demonstrated	No. of farmers	Unit/ No. / Area (ha)	Measurable indicators of output (q/ha)		% increase	Economics of demonstration (Rs./unit)			
			Demo	Local		Gross Cost	Gross Return	Net Return	BCR
Portable poultry house	5	5 no	24 kg/ house (10% mortality)	8 kg (80% mortality)	300	2440	4800	2360	1.96
Total	5	5 no							

Enclosed 2/3 photo

IV. Module**IV: Institutional Intervention****Table. Details of the various institutional interventions**

Interventions	No. of KVKs	Details of activity			No. of farmers	Unit/ No. /Area (ha)
		Name of crops / Commodity groups / Implements	Quantity(q) / Number / Rent / Charges	Technology used in seed / fodder bank & function of groups		
Seed bank	1	Rice (Swarna Sub 1)	210 q	The farmers return just double the quantity of seed, that they have taken from bank after harvesting. The seeds are preserved in grain bank which is again distributed among the farmers of the same and adjacent village in next season	50	5
Fodder bank	1	Hybrid Napier CO4	140q		25	1
Commodity groups						
Custom hiring center	1	Power tiller, Reaper, Multi crop planter, Seed drill, Axial flow thresher, Power sprayer, Mini flour mill	Power tiller-400/hr Reaper-800/hr Thresher-700/ hr Transplanter-400/ hr		121	43
Collective marketing						

Interventions	No. of KVKs	Details of activity			No. of farmers	Unit/ No. /Area (ha)
		Name of crops / Commodity groups / Implements	Quantity(q) / Number / Rent / Charges	Technology used in seed / fodder bank & function of groups		
Climate literacy through a village level weather station						
More if any						
Total						

V. Village Climate Risk Management Committee (VCRMC)

A VCRMC has been formed by taking members from the village who are actively participating in the decision-making process of NICRA activities in the village. The VCRMC meeting is being conducted monthly for smooth facilitation of NICRA on going activities in the NICRA village. In every meeting the members are discussed about the last month activities along with coming month activities to be taken up in the villages. Apart from that the members are actively participating in the management of seed bank, fodder bank, community plantation, Community nursery, CHC etc. The members also facilitate the selection of appropriate beneficiaries and site for implementation of the proposed program.

VI. Custom Hiring Centres:

Table. Revenue generated through Custom hiring Centres (CHCs) and VCRMC in KVKs

Name of KVK	Revenue generated (Rs.)	
	From CHC during the year	Total fund under VCRMC as on 31.03.2026
Kendrapara	26450	26450
Total	26450	26450

VII. Capacity Building

Thematic area	Topic of the training	No. of Courses	No. of beneficiaries		
			Male	Female	Total
Natural Resource Management	Vermicomposting from bio degradable wastes	1	14	16	30
Crop Management	ICM in DSR	2	56	04	60
	Mechanical Transplanted Rice	1	27	03	30
Nutrient Management					
Integrated Crop Management					
Crop Diversification	Round the year marigold cultivation	1	22	08	30
Resource conservation Technology					
Pest and disease management	Climate resilient pest & disease management in rice	1	22	08	30
Nursery raising					

Thematic area	Topic of the training	No. of Courses	No. of beneficiaries		
			Male	Female	Total
Employment Generation					
Nutrition garden					
Repair & Maintenance of farm machinery & implements					
Integrated Farming System					
Livestock and Fishery Management					
	Fish pond management in post flood situation	1	18	12	30
Fodder and feed management					
Lac cultivation					
Farm implements and machineries					
Value addition					
Employment generation					

VIII. Extension Activities

Name of the activity	Number of Programmes	No. of beneficiaries		
		Male	Female	Total
Agro advisory Services	24			
Awareness	3	128	52	180
Diagnostic visit	8	48	12	60
Exposure visits	1	12	08	20
Field Day	4	94	26	120
Group Discussion				
Method demonstrations				
KMAS Services				
Farmers day				
SHG				
Campaign				
Popular extension literature				
Animal Health Camp	1	58	13	71
World earth day				
Krishak Chaupal				
Kishan Gosthi				
Woman health and nutrition				
Technology week				
NICRA Workshop at ATARI, Kolkata				
Scientist visit to field	26	112	15	127
Others if any				
Total				

Enclosed 2/3 photographs

IX. Soil Health Card Prepared and Distributed

Table- SHC card distribution at NICRA adopted villages

KVK	Year	No of soil samples collected	No. of samples analysed	SHC issued	No of Farmers involved
Kendrapara	2025-26	20	20	60	60

Enclosed 2/3 Photographs

X. Convergence with Other Ongoing Development Programmes

Table: Convergence of Ongoing Development Programmes/Schemes in NICRA implementing KVKs

KVK	Development Scheme /Programme	Nature of work	Amount (Rs.)
Kendrapara	Comprehensive Rice- fallow management program, Govt. of Odisha		4500000

Enclosed 2/3 Photographs

XI. Dignitaries visited NICRA Villages during 2025-26

Name of KVK	Name of VIPs/Experts	Date of visit
NA		

Enclosed 2/3 Photographs

XII. Success stories of NICRA Village Farmers with photographs

Round the year marigold cultivation to meet the local flower and QPM demand

Without marigold flower, nobody can think of worshipping decoration of temples, marriage pandals, political rallies, celebration of functions and performing rituals etc. Beauty of this flower is its affordability, keeping quality and round the year availability. Considering the round the year local demand, under NICRA project KVK, Kendrapara introduced summer marigold cultivation at NICRA adopted village Gajapitha. For the cultivation, three numbers of women self-help groups (WSHG) were selected from the village. Hands on training to the members were conducted. The members of the WSHG were trained how to cultivate offseason marigold as well as produce planting material. After proper handholding, they were being provided with three thousand rooted cuttings of marigold variety Bidhan Marigold - 2 were distributed to the members. They planted these rooted cuttings as per the recommended cultural practice. They obtained yield of 95 quintals of flower per hectare. The members of the WSHG were also produced planting materials, by maintaining 10 % mother marigold plants. The members of SHG produced 15,000 seedlings, on an average, per month, and sold it for Rs.15,

000.00 (One Rupee per seedling). Cost of production was Rs.0.45 per seedling with a net profit of Rs. 0.55 per seedling.



XIII. Newspaper coverage

XIV. Publication

XV. Expenditure Statement of NICRA-TDC Budget during 2025-26

Name of KVK	FINAL RE				Expenditure	Closing Balance 31.03.2026
	Contingencies	SCSP	NRC	Total		
Kendrapara	610000	115000	300000	1025000	1025000	0

XVI. Awards/Recognition etc. (with photos)

XVII. Any other activities (not covered above) (with photos)