ICAR – Central Research Institute for Dryland Agriculture
Santoshnagar, Hyderabad – 500059
Technology Intervention Component of NICRA

Annual Report of TDC for the year 2024-25

Village: Jatipura, Pandasura **KVK and District: Puri** **State: Odisha**

Table-1: Information about the NICRA villages and the focus of activities in these villages

Details of Villages	**Village 1**	**Village 2**	**Village3**	**Village4**	**Village5**
Name	Jatipura	Panadasura			
Year adopted in NICRA	2021-22	2024-25			
*Interventions were takenup	Yes	Yes			
*Scaling up of promising technologies	Yes	No			

Table-2: Summary of Interventions taken up during 2024

Villages	FST1	FST2	FST3	FST4
	No. of farmers involved in Interventions	No. of farmers involved in Interventions	No. of farmers involved in Interventions	No. of farmers involved in Interventions
	Irrigated Low land with animal	**Irrigated Medium land with animal**	**Irrigated medium land with pond and animal**	
Jatipura	70	29	6	-
Pandasura	20	22	15	11
Total	90	51	21	11

Table-3: Natural Resource Management Interventions taken up in farming system typology during the year 2024-25 (in all the villages)

Resilient practice	**No. of Interventions**	**Farmers covered**	**Area covered (ha)**
Strengthening of bund for sequential paddy cum fish farming	1	17	6.8
Cleaning of water hyacinth from pond for fish farming	1	10	0.2
Community vermi compost unit	1	17	05 nos
Intervention of mulching in chilli	1	8	0.64

Mechanized line transplanting of Rice	1	12	4.0
Community mushroom unit	1	17	300 beds
Incorporation of Dhaincha for green manuring	1	10	2.0

Table-4: Crop Production Interventions taken up in farming system typology during the year 2024-25 (in all the villages)

Resilient practice	No. of Interventions	Farmers covered	Area covered (ha)
Intervention of salt tolerant Rice variety CR Dhan 412	1	5	2.4
Intervention of deep water Rice variety CR Dhan 508	1	5	1.0
Intervention of flood tolerant Rice variety Bina Dhan 11	2	18	3.6
Intervention of Colocasia (Muktakesi)	2	10	0.4
Intervention on Yam (Orissaelite)	1	10	0.4
Intervention of Tomato variety Arkarakhyak (Triple disease resistant)	2	5	0.4
Intervention on Marigold variety Seracole	1	5	0.2
Intervention of Brinjal variety Akshita	1	5	0.4
Interventions on Waterchestnut (Balasore Green)	1	4	0.2

Table-5: Livestock and Fisheries Interventions taken up in farming system typology during the year 2024-25 (in all the villages)

Resilient practice	No. of Interventions	Farmers covered	No. of animals covered	Area covered (ha)
Stocking of IMC Yearlings and prawns (IMC & Chinese carps 2 (Community based)	1	17	-	6.8

Intervention of disease resistant poultry bird " Kuroiler" " Rhode Island Red"	1	08	160	160 nos
Renovation of cowshed	01	02	10	500 sqft
Azolla as an alternative feed for milching cow	1	10	20	10 nos cement tank of size (5'x2.5'x1.5')

Table-6: Impact of Climate Resilient Technologies (CRTs) in each Farming system typology (FST1*, Irrigated Lowland with Animal) during 2024

Villages	**Crop/ Perennials**	**Technology adopted/ demonstrated**	**Area impacted by climatic stress, crop and stage**	**Rainfed**					
				Kharif and rabi (NICRA farmers)			***Kharif and rabi (non-NICRA farmers)***		
				Area (ha)	**Productivity (q/ha)**	**Net return (Rs./ha)**	**Area (ha)**	**Productivity (q/ha)**	**Net return (Rs./ha)**
Jatipura									
	Crop based(Paddy)	Flood tolerant paddy variety "Bina Dhan 11"	45ha, cyclonic winds ,Rice –Grain filling and maturity stage	1.0 (Rabi)	50.3	54430	1.0	43.2	41470
				1.0 (Rabi)	51.1	55130	1.0	44.1	41870
				1.0 (Rabi)	51.6	55865	1.0	52.0	42300
		Deep water Rice variety CR Dhan 508	15ha Rice-Prolong submergence at tillering stage	0.5 (Kharif)	46.2	47855	0.5	40.5	38411
				0.5 (Kharif)	46.8	48000	0.5	40.4	37000
				0.6 (Kharif)	45	44000	0.6	39	38500
		Salt tolerant Paddy variety CR Dhan 412	EC is more than 3.5ds/m Vegetative and reproductive stage	1.0 (Kharif)	44.5	29000	1.0	33.5	16000
				0.2 ha (Kharif)	43.2	26500	0.2	31.8	14670
	NRM based (Bund renovation)	Renovation of community pond	Community						

		(cleaning of pond)							
		Sequential Rice cum Fish farming	Community	6.8	Carp fish – 6.4 Weed fish – 1.0 Scampi – 0.30	46400	nil	Fallow	
		Vermicompost production in low cost Poly bags	Community	5units (6'x4'x2') individual	45q (4.5q Vermicompost /cycle/Bed Annum+ 5kg Vermiculture)	31210	nil		
		Paddy straw mushroom cultivation under shade net (community)		Community based 300 beds round the year	2.4q	18000	nil		
	Total					456390			270221

Villages	**Crop/ Perennials**	**Technology adopted/ demonstrated**	**Area impacted by climatic stress, crop and stage**	**Rainfed**					
				Kharif and rabi (NICRA farmers)			***Kharif and rabi (non-NICRA farmers)***		
				Area (ha)	**Productivity (q/ha)**	**Net return (Rs./ha)**	**Area (ha)**	**Productivity (q/ha)**	**Net return (Rs./ha)**
Pandasura									
	Crop based(Paddy)	Flood tolerant paddy variety "Bina Dhan 11"	25ha, cyclonic winds ,Rice –Grain filling and maturity stage	1.0 (Rabi)	50.6	66500	1.0	45.2	55000
				1.0 (Rabi)	51.6	67500	1.0	46.2	56800
				1.0 (Rabi)	51.2	67000	1.0	45.6	55500

Table-7: Impact of CRTs in each FST2* (Farming system typology – Irrigated Medium land with Animal)) during 2024

Villages	**Crop/ Perennials**	**Technology adopted/ demonstrated**	**Area impacted by climatic stress, crop**	**Rainfed**					
				Kharif and rabi (NICRA farmers)			***Kharif and rabi (non-NICRA farmers)***		
				Area (ha)	**Productivity (q/ha)**	**Net return (Rs./ha)**	**Area (ha)**	**Productivity (q/ha)**	**Net return (Rs./h**

			and stage						**a)**
Jatipura									
Famer1	Crop based	Flood Tolerant variety Bina Dhan11 (Kharif)	10-15)ha affected by lodging and submergence due to low pressure and cyclonic wind wave	0.4	49	34800/-	0.4	40.4	24600/-
		Triple disease resistant Tomato variety "Arka rakhyak"	Heat stress affects reproductive stage	1.0	339.42	237524	1.0	281.14	161988
	NRM based	Mulching in Chilli	Through out the crop period	1.0	147.3	278900	1.0	124.8	220400
	Animal based	Rearing of rhode island red bird	Suitable for backyard and egg laying capacity is high	20 birds per unit	1.8kg/ bird	3120	20 birds per unit	1.2kg/ bird	2500
	Total					**554344**			**409488**
Farmer2	Crop based	Flood Tolerant variety Bina Dhan11 (Kharif)	(10-15)ha affected by lodging and submergence due to low pressure and cyclonic wind wave	1.0	48	50620	1.0	43	44450/-
		Triple disease resistant	Heat stress affects	1.0	431	235992	1.0	325	178500

		Tomato variety "Arka rakhyak"	reproductive stage						
	NRM based	Mulching in Chilli	Through out the crop period	1.0	144.2	275800	1.0	127.3	222900
	Animal based	Rearing of rhode island red bird	Suitable for backyard and egg laying capacity is high	20 birds per unit	1.4kg/ bird	2740	20 birds per unit	1.0kg/ bird	2100
	Total					**565152**			**447950**
Farmer3	Crop based	Flood Tolerant variety Bina Dhan11 (Kharif)	(10-15)ha affected by lodging and submergence due to low pressure and cyclonic wind wave	1.0	45	41200	1.0		33800/-
		Triple disease resistant Tomato variety "Arka rakhyak"	Heat stress affects reproductive stage	1.0	367	177000	1.0	311	161988
	NRM based	Mulching in Chilli	Through out the crop period	1.0	151.4	283000	1.0	128.6	224200
	Animal based	Rearing of rhode island red bird	Suitable for backyard and egg laying capacity is high	20 birds per unit	1.5kg/ bird	2770	20 birds per unit	1.1kg/ bird	2100
	Total					**503970**			**422088**

Villages	**Crop/ Perennials**	**Technology adopted/ demonstrat**	**Area impacted by**	**Rainfed**	
				Kharif and rabi (NICRA farmers)	***Kharif and rabi (non-NICRA farmers)***

		ed	climatic stress, crop and stage	Area (ha)	Productivity (q/ha)	Net return (Rs./ha)	Area (ha)	Productivity (q/ha)	Net return (Rs./ha)
Pandasura									
Famer1	Crop based	Flood Tolerant variety Bina Dhan11 (Kharif)	(20-35)ha affected by lodging and submergence due to low pressure and cyclonic wind wave	1.0	46	49200/-	1.0	40	40000/-
		Colocasia, Muktakesi	Resistant to shallow submergence	1.0	176.2	191900	Fallow	-	-
	NRM based	Mulching in Pointedgourd	Throughout the crop period	1.0	133.8	193590	1.0	98.3	127194
		Mechanized line transplanting of Rice		1.0	49	51620	1.0	45	38000
	Total					486310			205194
Farmer2	Crop based	Flood Tolerant variety Bina Dhan11 (Kharif)	(20-35)ha affected by lodging and submergence due to low pressure and cyclonic wind wave	1.0	45.4	49880	1.0	41.2	44640/-
		Colocasia, Muktakesi	Resistant to shallow	1.0	170.8	184300	Fallow	-	-

			submergence						
	NRM based	Mulching in Pointedgourd	Throughout the crop period	1.0	125.6	168600	1.0	92.2	108735
		Mechanized line transplanting of Rice		1.0	47.2	46850	1.0	43.3	35200
	Total					449630			188575
Farmer3	Crop based	Flood Tolerant variety Bina Dhan11 (Kharif)	(20-35)ha affected by lodging and submergence due to low pressure and cyclonic wind wave	1.0	47.6	50720	1.0	42.3	45060/-
		Colocasia, Muktakesi	Resistant to shallow submergence	1.0	174.3	181769	Fallow	-	-
	NRM based	Mulching in Pointedgourd	Throughout the crop period	1.0	122	133590	1.0	96.5	117185
		Mechanized line transplanting of Rice	Village is affected by labour migration	1.0	48.3	48920	1.0	43.9	36478
	Total					414999			198723

Table-8: Impact of CRTs in each FST3* (Farming system typology– Irrigated Medium Land with pond and animal) during 2024

Villages	**Crop/ Perennials**	**Technology adopted/ demonstrated**	**Area impacted by climatic stress, crop and stage**	**Irigated**					
				Kharif and rabi (NICRA farmers)			***Kharif and rabi (non-NICRA farmers)***		
				Area (ha)	**Productivity (q/ha)**	**Net return (Rs./ha)**	**Area (ha)**	**Productivity (q/ha)**	**Net return (Rs./ha)**
Jatipuraa									
Farmer1	Crop based	Marigold Variety Seracole		1.0	149.8	187806	-	-	-
		Yam,Orissaelite		1.0	194.3	288950	-	-	-
	Livestock based	Composite carp culture in pond		1.0	37.0	165000	1.0	27.2	117000
		Fodder cultivation in Hydroponics		5 nos	1180 litre milk /year/cow	15820	5 nos	1108lit milk /year	12260
		Renovation of Cow shed		5	1206litmilk /year/cow	15780		1152 lit/milk /year	11880
	Total								
Farmer2	Crop based	Marigold Variety Seracole		1.0	152.0	188340	-	-	-
		Yam,Orissaelite		1.0	193.8	282625			
	Livestock based	Composite carp culture in pond		1.0	39.0	185000	1.0	28.6	131000
		Fodder cultivation in Hydroponics		5 nos	1210 litre milk /year	16480	5 nos	1120lit milk /year	12620
		Renovation of cowshed		5	1206litmilk /year/cow	15780		1152 lit/milk /year	11880
	Total								
Famer3	Crop based	Marigold Variety Seracole		1.0	151.2	177278	-	-	-
		Yam,Orissaelite		1.0	193	279770	-	-	-
	Livestock based	Composite carp culture in pond		1.0	34.0	135000	1.0	24.2	91000
		Fodder cultivation in Hydroponics		5 nos	1215 litre milk /year	16605	5 nos	1126lit milk /year	12770
	Total					1970234			400410

Villages	Crop/ Perennials	Technology adopted/ demonstrated	Area impacted by climatic stress, crop and stage	Irigated					
				Kharif and rabi (NICRA farmers)			*Kharif and rabi (non-NICRA farmers)*		
				Area (ha)	**Productivity (q/ha)**	**Net return (Rs./ha)**	**Area (ha)**	**Productivity (q/ha)**	**Net return (Rs./ha)**
Pandasura									
Farmer1	Crop based	Marigold Variety Seracole		1.0	148	186700	-	-	-
	NRM based	Mulching in Brinjal, JK 8031		1.0	346.8	325500	1.0	293.7	253350
		Bittergourd in single line trellis		1.0	149.8	187806	1.0	122.6	134806
	Livestock based	Azolla as an alternative for milching cows		1 nos	1440 litre milk /year/cow	16820	1nos	1080lit milk /year	15000
	Total								
Farmer2	Crop based	Marigold Variety Seracole		1.0	149.8	187000	-	-	-
	NRM based	Mulching in Brinjal, JK 8031		1.0	345	323810	1.0	292.2	252056
		Bittergourd in single line trellis		1.0	151	189240	1.0	125.8	138000
	Livestock based	Azolla as an alternative for milching cows		1nos	1350 litre milk /year	14120	1nos	936lit milk /year	11690
	Total								
Famer3	Crop based	Marigold Variety Seracole		1.0	153.0	188940	-	-	-
	NRM based	Mulching in Brinjal, JK 8031		1.0	342.8	321745	1.0	293	252746
		Bittergourd in single line trellis		1.0	145	185670	1.0	125.0	137200
	Livestock based	Azolla as an alternative for milching cows		5 nos	1296 litre milk /year	18240	5 nos	1226lit milk /year	16770
	Total					2145591			1211618

Table-8: Impact of CRTs in each FST3* (Farming system typology– Irrigated low Land without animal) during 2024

Villages	Crop/ Perennials	Technology adopted/ demonstrated	Area impacted by climatic stress, crop and stage	Irigated					
				Kharif and rabi (NICRA farmers)			*Kharif and rabi (non-NICRA farmers)*		
				Area (ha)	Productivity (q/ha)	Net return (Rs./ha)	Area (ha)	Productivity (q/ha)	Net return (Rs./ha)
Pandasura									
Farmer1	Crop based	Green manuring (Dhaincha)		1.0	44.1	39400	-	-	-
		Waterchestnut		1.0	143.7	183450			
	Total								
Farmer2	Crop based	Green manuring (Dhaincha)		1.0	45.2	41600			
		Waterchestnut		1.0	142.5	178125			
	Total								
Famer3	Crop based	Green manuring (Dhaincha)		1.0	44.8	40800			
		Waterchestnut		1.0	143.9	184263			
	Total					667638			

Table-10: Performance of Custom Hiring Center during the year 2024-25

Equipment in the custom hiring center as on 01.04.2025	Amount of rent obtained	Farmers covered	Area covered (ha)
Power weeder	1960	20	6.0
DieselPumpset	2750	17	24
Electric Pumpset	3000	45	22
Mini Rice Mill	4500	35	
Power Sprayer	400	8	5.0
Battery Sprayer	-		
Raingauge	-		
Paddy Reaper	2500	10	10

Post hole digger	600	8	4.0
Pulverizer	200	3	
4-row drum seeder (2 nos)			
Rice rubber roll Sheller			
Rice Transplanter	8000	26	10
Dal Mill			
Power Tiller	2000	10	4
Pulse Thresher			
Submersible Pumpset	1000	17	6.8
Rice rubber roll Sheller			
Fishing net	500	17	6.8
Dinolite Digital Microscope			
Sitting type maize sheller			
Sitting type groundnut decorticator (2 nos)			
Seed treatment drum (2 nos)			
Manual Sprayer			
Brush cutter	500	10	2.0
Post hole digger with handle	600	10	3.0
Rose Cane			
Garden Rake			
Hand Hoe			
Small Spade			
Khurpi			
cycle weeder	400	5	12
Total	28910	241	115.6

Table-11: Performance of seed systems during the year 2024-25

Crop & variety	Seed produced (tons)	Farmers involved	Revenue obtained by farmer (Rupees)
Bina Dhan 11	0.1	10	Own use

Table-12: Performance of fodder systems during the year 2024-25

Fodder crop & variety	Fodder produced (tons)	Farmers involved	Area involved (ha)	Revenue obtained by farmer (Rupees)
Nil				

Table-13: Capacity Building (HRD) taken up during the year 2024-25

Title of the program	No. of training programmes	Number of beneficiaries			Date	
		Male	Female	Total	From	To
Operation & maintenance of Rice Transplanters	1	30	0	30	24.06.2024	24.06.2024
Climate resilient Rice varieties	1	30	0	30	11.07.2024	11.07.2024
Scientific mushroom cultivation	1	10	20	30	14.08.2024	14.08.2024
Mulching in vegetable crops	1	23	7	30	1.11.2024	1.11.2024
Integrated Fish farming	1	30	0	30	24.03.2025	24.03.2025

Table-14: Other extension activities being taken up during the year 2024-25

Name of the activity	Details about the activity	Number of programmes	Time of the programme conducted (From--- to ---)	No. of beneficiaries		Remarks
				Male	Female	
Crop cutting	Grain yield estimation from (5x5) sqm plot of Bina Dhan field	5	6.11.2024 to 13.11.2024	8	-	
Diagnostic visit	Need based pest management in Paddy	4	14.8.24 8.10.24 21.10.24	18	-	

			7.11.24			
	Disease management in fish	1	28.8.24	11	-	
	Panama wilt in Banana inspection	1	8.11.24	17	-	PP chemicals and some ITKs were advised to follow
	Yield reduction from mushroom bed	1	30.8.24	-	11	
Scientist visit to farmer's field	monitoring of NICRA activities	32	Weekly twice visit to NICRA village	168	56	
Group Discussion	Fortnightly discussion with VCRMC members about ongoing activities in NICRA village	14	Every fortnightly discussion with VCRMC	15	5	
Field Day	Sequential Rice cum Fish farming	1	25.01.2025	65	35	
Method Intervention	1.Operation of Engine operated post hole digger 2.Release of fish fingerlings and yearling 3.Supplementary feed for cows 4.Mulching in vegetable crops 5.Use of trap for pest management in crops 6.Broad base furrow method for vegetables 7.MAT nursery raising for using Rice transplanters 8.Round mushroom bed using crumbled straw	8	4.12.2025 11.07.2024 31.07.2024 12.08.2024 17.09.2024 15.1.2025 24.02.2025	47	15	

Table-15: Summary of Upscaling of technologies takenup during the year 2024 and the amount mobilized through convergence from various departments

Village name	Technology scaling up/out	No. of farmers	Coverage (ha) /	Convergence with the	Approx. amount

		reached	number	programme	mobilised
Jatipuraa, pandasura	Distribution of Sakhigopal local coconut varieties	30	5.0	MGNREGS	10,000
	Vaccination in Cow against FMD	20	47	O/o of VS, Puri Sadar	10,000
	Mechanization line transplanting in Rice	20	10	State Govt. MLTP	40,000

Tanble-16: Extreme events, high intensity rains and dry spells, heat wave, cold wave, hail storms, etc. observed during 2024-25

Nature of event	*Quantify the event	When it has occurred (Date)	Impact on crop, animal, horticulture, fisheries, etc.
Submergence due to heavy rainfall	Mild	6th Aug -12th Aug	Bina Dhan 11 can tolerate submergence since it is a flood tolerant variety

Table-17: Distinguished visitors during the year 2024-25

Name of visitors	Date	Remarks
1. Prof. Panjab Singh, Chancellor of Rani Lakshmi Bai Central Agricultural University 2. Dr.V.K.Singh, Director, ICAR-CRIDA, Hyderabad 3. Dr. J.V.N.S Prasad Project Coordinator AICRP for Dryland Agriculture ICAR-CRIDA, Hyderabad 4. Members of QRT visited to OUAT 5. Senior Scientists of AICRP on Dryland agriculture, OUAT	27.6.24	They appreciated all the activities taken up in the village by KVK
1. Ivar Horneland Kristensen, DG, NIBIO, Norway 2. Ragnar Vaga Pedersen,	18.09.24	The dignitaries interacted with NICRA farmers and appreciated the activities.

Director (Communications), NIBIO, Norway 3. Hanne Sorlie, Senior Advisor, Dept. of Research, NIBIO, Norway 4. Prof. Udaya Sekhar Nagothu, Director (Centre for International Development), NIBIO, Norway 5. Dr.M Tesfai, Research Scientist, Division of Environment and Natural Resources, NIBIO, Norway 6. Ms. Gouri, Norwegian Embassy, New Delhi 7. Dr. T.N Bwana, DG, TARI 8. Dr. Atugonza Bilaro, Head of Crop Research and Postharvest Management, TARI, Tanzania		
1. QRT members	25.01.2025	Visited the NICRA village and reviewed the activities.

Table-18: Publications from the project

Description (nature of publication)	Citation of the publication
Research Paper	Paramjita, D., Nayak, A. P., Acharya, S., Mishra, S. N and Pradhan, P(2025). Community based sequential Rice –cum-fish farming in NICRA village Jatipuraa of Puri district, Odisha. *Plant Archives,Vol.25,*pp.829-836
Research Paper	Pattanayak, S.,Mishra, S.N., Paramjita, D., Roul,P.K.,Mishra, P., Khuntia, A.,Phonglasa, A., Satapathy, S., Jena,M., Das, P and Hemasree,K.R(2025). Assessment of deep-water rice varieties under east and south eastern coastal plain agro climatic zone of Odisha. ***International Journal of Research in Agronomy***,2025;SP-8(4):01-04
Success story	Pattanayak, S., Paramjita, D.,Mishra,S.N.,Acharya, S.,Nayak,A.P., Pradhan,P., Phonglasa, A and Mishra,P(2024). A success story on advancing agricultural sustainability: Community initiatives in Jatipura Village under the NICRA Project, Puri District. ***International Journal of Advanced***

	Academic Studies 2024;6(11):113-115
Success story	Pattanayak, S., Paramjita, D.,Mishra,S.N.,Acharya, S.,Giri, B and Pradhan,P(2025). The worm power: Natural fertilizer for a healthy harvest. ***International Journal of Applied Research*** 2025;11(1):382-385
Success story	Pattanayak, S., Paramjita, D.,Mishra,S.N., Nayak,A.P.,Acharya, S., Giri,B., Pradhan,P., Phonglasa, A and Mishra,P(2024). Climate-resilient paddy-cum-fish farming in NICRA Village Jatipura, Puri District: A community-based success story. ***South Asian Journal of Agricultural Sciences*** 2024;4(2):237-238
Success story	Pattanayak, S., Paramjita, D.,Mishra,S.N.,Giri,B., Nayak,A.P.,Pradhan,P., Phonglasa, A and Mishra,P(2024). Empowering rural livelihoods through mulching technology: A success story of Shri Ramachandra Sahoo, Puri District, Odisha. International Journal of Plant Pathology and Microbiology 2024;4(2):144-145
Success story	Pattanayak, S., Paramjita, D.,Mishra,S.N.,Acharya, S.,Nayak,A.P.,Giri, B., Pradhan,P., Phonglasa, A and Mishra,P(2024). Turning flood challenges into opportunities: The success story. Journal of Current Research in Food Science 2024;5(2):176-177
Success story	Pattanayak, S., Paramjita, D.,Mishra,S.N.,Nayak,A.P., Pradhan,P., Phonglasa, A and Mishra,P(2024). Hydroponic fodder and integrated farming: A climate-resilient success story of Mrs. Runi Sahoo from Puri District, Odisha. International Journal of Multidisciplinary Trends 2024;6(10):45-46
Extended summary	Nayak, A.P.,Paramjita, D., Mishra,S.N., Acharya, S.,Giri,B.,Pattanayak,S and Pradhan, P(2024). Community based sequential Paddy –cum-fish farming in NICRA village Jatipuraa of Puri district, Odisha. Extended summaries,*International conference on building small holder climate resilience for achieving sustainable food systems,2024*.pp.7
Popular article	Paramjita, D., Nayak, A. P., Mishra, S. N.,Giri, B.,Pattanayak, S and Pradhan, P(2025). Community –Led Sequential Rice-Fish Farming:A Climate-Resilient Model from Coastal Odisha.***Agri Tech Today***,2025Vol.3(5),pp.38-40
Leaflet	Use of 8-row pre germinated drum seeder for wet DSR by Dipsika Paramita and S.N.Mishra(https://www.kvkpuri.org)
Booklet	Weed management in Rice according to climate

	change by S.Pattanaik, B.Giri, D.Paramjita and S.N.Mishra (https://www.kvkpuri.org)
Booklet	Farm Implements by Dipsika Paramjita and S.N.Mishra (https://www.kvkpuri.org)
Booklet	Pond Management by A.P.Nayak and S.N.Mishra (https://www.kvkpuri.org)

Table-19: Adoption of successful interventions in the NICRA village & the adjoining villages

Successful interventions	Crop	Variety	Extent of adoption in the village in ha (2024)
NRM			
Mulching for water conservation and weed control	Brinjal, Pointedgourd, Tomato	JK 8031 Swarna alaukik Arka rakhyak	3.0
Bund renovation for fish farming	Fish	IMC	2.5
CROP			
Flood tolerant variety	Paddy	Bina Dhan 11	32
Deep water Rice variety	Rice	CR Dhan508	2.0
Livestock			
Sequential Rice cum Fish farming	Rice, Fish	Bina Dhan 11,	13.2
Rearing of backyard Poultry	Poultry	Vanaraja	100 nos
Mechanized Line Transplanting of Rice	Rice	Binadhan 11	10

Table-20: Popularization of Climate Resilient Varieties

Crop*	**Climate Resilient Varieties incorporated in the *Kharif* 2024 plan of the State Department**	**Approx. area brought under the variety by the state department during the K*harif* 2024 (ha)**	**Climate Resilient Varieties incorporated in the *Rabi* 2024 plan of the State Department**	**Approx. area brought under the variety by the state department during the *Rabi* 2024 (ha)**
Rice	CR1009sub1	4000	Binadhan 11	8000

Table-21: Rainfall characteristics for the year 2024-25

Month		June	July	August	September	October	November	December	January	Annual
Rainfall received in (mm)		**186**	**225**	**237**	**219**	81	0	61	-	1009
No. of dry spells during *kharif* season 2020	>10days	0	0	0	0	1	2	1	-	4
	>15days	0	0	0	0	1	1	1		3
	>20days	0	0	0	0	0	1	0	-	1
No. of intensive rain spells (202)	>60 mm per day	1	1	0	0	0	0	0	-	2
	Waterlogging/ Flooding observed (number of days)			30	30	10	0	0		70
Any other extreme events (Heat wave, Cold wave, frost) observed during the season	1. Waterlogging condition arises due to flood / cyclone / low pressure during kharif for 150days 2. Standing water remains in low land due to low pressure for 7 days in August which affects the tillering stage in Rice. 3.Heat wave observed in May (from 2nd week to 4th week)									
Contingency measures adopted during the season	Sequential Rice cum fish farming in fallow area which remains completely waterlogged for 150 days. Intervention of flood /submergence tolerant Paddy varieties CR1009 Sub 1, Swarna Sub 1, BinaDhan 11 Intervention of Deep water Rice variety CR Dhan 508 Intervention of salt tolerant Rice variety CR Dhan 412 Bund plantation of Banana variety " Andhra Patkapura" for income during kharif season and protection of bund from stray animals									

	Interventions on water chestnut in waterlogged areas Interventions on Colocasia in shallow submergence land. Rice-fish farming Community vermicomposting production unit for soil fertility restoration Intervention of mulching in vegetables (Brinjal, Tomato, Pointedgourd) for water conservation and control of weeds. Vegetable cultivation in single line trellis in low land area.

Table-22: Day-wise rainfall distribution in the village during *kharif* 2024; Rainfall recorded at block head quarters

		Day														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Rainfall (mm)	June	0	0	60.0	0	0	0	0	0	0	0	0	0	0	3.0	0
	July	2.0	0	0	0	21.0	2	0	0	0	5.0	0	0	0	0	28.0
	August	2	0	1	0	0	4	17	35	2	2	5	45	0	0	5
	September	6	6	0	0	0	0	35	30	18	10	0	0	0	9	0
	October	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	November	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	December	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	January	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	February	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	March	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	April	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		Day															
		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Rainfall (mm)	June	0	0	0	0	0	0	0	15.0	6.0	0	0	0	8.0	4.0	90.0	
	July	5.0	0	2.0	12.0	8	10	0	105	18	0	7	0	0	0	0	0
	August	45	0	0	35	0	0	0	0	0	0	0	0	0	25	2	12
	September	0	7	0	0	0	0	0	0	2	10	19	45	22	0	0	
	October	0	0	0	0	3	55	0	0	4	17	2	0	0	0	0	0

	November	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	December	**0**	**0**	**0**	**0**	**0**	**21**	**15**	**0**	**0**	**15**	**10**	**0**	**0**	**0**	**0**	**0**
	January	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	February	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	March	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	April	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table-23: Impact of contingency measures taken up in the village (Relate the dry spells/floods/heat wave/cold wave/etc., with crops and their growth stages)

S. No	Flood/submergence (no. of days)	Duration (from --- to---)	Crop name	Crop stage affected	Intervention taken up*	Number of farmers involved	Impact on crop yields (q/ha)		
							Farmers' practice	Demo	Increase over farmers' practice
1	**7**		Rice	Tillering	Flood tolerant variety	15	50.6	45.2	11.94

Table-24: Details about agro advisories issued (Organization giving the forecast: Department of Meteorology, forecast is based on the district or the block: District, Organization giving the agromet advisory Department of Meteorology, HP); How the advisories are disseminated in the NICRA village: Through WhatApp groups

Agromet advisory Bulletins issued

Advisories are issued by GKMS, OUAT, Bhubaneswar

Month	June	July	August	September	October	November	December	January
Number of agromet bulletins issued	**15**	15	**15**	**15**	**15**	**15**	**15**	**15**
Other advisories issued	-	-						

How the advisories are disseminated and their reach

Method	Number of farmers reached during the year
Whatsup group (messaging system)	45-50
Display on black boards, at panchayat, etc,	--
Any other method	--