NICRA - ACTION PLAN 2024-2025

Submitted to
The Director
ICAR - Agricultural Technology Application Research Institute
CRIDA Campus, Santosh Nagar, Hyderabad
&
PI- Technology Demonstration Component of NICRA
National Innovations in Climate Resilient Agriculture
ICAR-Central Research Institute for Dryland Agriculture,
Santoshnagar, Hyderabad-500059, India

Submitted by
ICAR – Krishi Vigyan Kendra,
Hans Roever Campus, Perambalur

NICRA – KVK PERAMBALUR

Action Plan for 2024-25

1. Details about the existing NICRA villages

S No	Details	Village 1	Village 2	Village 3	Village 4
1	**Name of the village**	Kurumbalur	Palayam	Echampatti	Moolakkadu
2	**Involved in TDC since (year)**	2021	2021	2021	2021
3	**Cultivated area (ha)**	272.55	248.25	276.55	107.45
4	**Rainfed Area (ha)**	190.51	105.89	175.55	75.21
5	**Irrigated Area (ha)**	82.01	142.36	101.00	32.23
6	**No. of households in the village**	230	155	162	35
7	**Drought prone area**	190.51	105.25	276.55	75.21
8	**Flood prone area**	23.25	32.5	12.84	17.5
9	**Approximate households covered so far**	85	68	70	55
10	**Identified FSTs**	Rainfed with animal + irrigated with animal	Rainfed with animal + irrigated with animal	Rainfed with animal + irrigated with animal	Rainfed with animal + irrigated with animal

2. Divide the NICRA villages into predominant farming system typologies

S No	Farming System Typologies	Village 1- Kurumbalur			Village 2- Palayam			Village 3- etchampatti			Village 4- Moolakadu		
		Area (ha)	No. of farmers (approx.)	% coverage (area in the village)	Area (ha)	No. of farmers (approx.)	% coverage (area in the village)	Area (ha)	No. of farmers (approx.)	% coverage (area in the village)	Area (ha)	No. of farmers (approx.)	% coverage (area in the village)
1	Rainfed without animal	-	-	-	-	-	-	-	-	-	-	-	-
2	Rainfed with animal	-	-	-	4ha	10	3.6	-	-	-	4ha	10	4.2
3	Irrigated without animal	-	-	-	-	-	-	-	-	-	-	-	-

4	Irrigated with animal	4ha	10	2.11	-	-	-	4ha	10	1.26	-	-	-
5	Other predominant system (If any)	-	-	-	-	-	-	-	-	-	-	-	-

3. Predominant climatic and resource constraints of the major farming system typologies of NICRA villages

S No	Farming System Typologies	Village 1- Kurumbalur			Village 2- Palayam		
		Climate constraints	Resource /Crop/Animal constraints	Other constraints	Climate constraints	Resource /Crop/Animal constraints	Other constraints
1	Rainfed with animal	-	-	-	Erratic rainfall, midseason dry spell, terminal drought, unseasonal rainfall, heat waves	Low soil fertility, poor yield,	Lack of technical knowledge about rabbit rearing
2	Irrigated with animal	Terminal drought, low soil moisture, low RH, heat waves	Insufficient ground water / Shortage of irrigation water during critical period of crop growth, poor development of economic part, poor yield	Low availability of nutrients, poor market price, Lack of knowledge about silage making	-	-	-
S No	Farming System Typologies	Village 3- Echampatti			Village 4- moolakadu		
		Climate constraints	Resource /Crop/Animal constraints	Other constraints	Climate constraints	Resource /Crop/Animal constraints	Other constraints
1	Rainfed with animal	-	-	-	Erratic rainfall, midseason dry spell, terminal drought, unseasonal rainfall, heat waves	Low soil fertility, poor yield,	Lack of technical knowledge about rabbit rearing
2	Irrigated with animal	Terminal drought, low soil moisture, low RH, heat waves	Insufficient ground water / Shortage of irrigation water during critical period of crop growth	More of pest and disease incidence, Low availability of nutrients, , poor development of economic part, poor yield poor market price . Lack of knowledge about silage making	-	-	-

4. Identify Promising resilient technologies for addressing the constraints

S No	Farming System Typologies	Village 2, 4- Palayam, Moolakadu		
		Climate constraints	**Resource /Crop/Animal constraints**	**Other constraints**
FST 2.	Rainfed with animal	Cultivation of drought tolerant Maize variety COHM11 Foliar spray of methylobacterium Sequence crop of coriander	Cultivation of drought tolerant maize variety COHM11 under ridges and furrow Sequence crop of coriander	Inter cropping of maize with blackgram+ INM+ IPM . Lack of technical knowledge about rabbit rearing
S.No	**Farming system typologies**	**Village 1, 3- Kurumbalur, Echampatti**		
		Climate constraints	**Resource /Crop/Animal constraints**	**Other constraints**
FST 4.	Irrigated with animal	Seed treatment with bioformulation (Biosanjeevini) for drought tolerance Foliar spray of methylobacterium	Cultivation of small onion under ridges and furrow Rain hose/ laser pipe irrigation	Soil application of CSR Bio IPM and INM Practices Lack of knowledge about silage making

5. Categorization of the identified technologies in to NRM, Crops and Livestock in each of the village for taking up demonstrations during 2024-25

S No	Farming System Typologies	Village 2, 4- Palayam, Moolakadu		
		NRM	**Crop**	**Livestock**
FST 2.	Rainfed with animal	• Cultivation of drought tolerant maize variety COHM11 under ridges and furrow • Mechanized sowing • Sequence crop of coriander	• Cultivation of drought tolerant maize variety COHM11 • Inter cropping of maize with blackgram • IPM and INM Practices • Foliar spray of methyl bacterium, Sequence crop of coriander	• Introduction of new rabbit Breed- soviet chinchilla
S.No	**Farming system typologies**	**Village 1, 3- Kurumbalur, Echampatti**		
		NRM	**Crop**	**Livestock**
FST 4.	Irrigated with animal	• Cultivation of small onion under ridges and furrow • Rain hose/ laser pipe irrigation	• Seed treatment with bioformulation (Biosanjeevini) for drought tolerance • Soil application of CSR Bio • Foliar spray of methyl bacterium • IPM and INM Practices	• Silage making with onion stalk

6. No. of farmers involved in each of the village for demonstrations during 2024-25

S No	Farming System Typologies	Village- 2,4 (Palayam, Moolakadu)				Village -1,3 (Kurumbalur, Echampatti)			
		NRM	Crop	Livestock	Total	NRM	Crop	Livestock	Total
2	Rainfed with animal	10			10	10			10
4	Irrigated with animal	10			10	10			10

7. Scaling out of Promising Climate Resilient Technologies and proposed number of farmers to be involved (in convergence with development departments)

S No	Farming System Typologies	Villages- Kurumbalur, Palayam, Echampatti, Moolakadu			
		Climate Resilient Technology	Convergence with Scheme	No. of farming household covered	Area to be covered (ha)
1	Rainfed without animal	Foliar spray of methylo bacterium for drought tolerance	ATMA, KAVIADP	52	43
2	Rainfed with animal	Cultivation of drought tolerant groundnut variety CO 7	NADP oil seeds, NMEO oil seed	65	23
3	Irrigated without animal	Micro irrigation for small onion and banana	PMKSY	53	42

Activities and Cost

8. NRM Interventions;

8.1. Repair / Renovation of existing water harvesting structures, drainage channels etc.:

S. No.	Village 1, 2, 3, etc.	Intervention	Dimensions	No. of units	No. of farm households proposed to be involved	Convergence value, if any (Rs)	Value of farmers share (Rs)	Cost to project (Rs)
1.	Village- 1 Kurumbalur	Deepening of farm pond, repairing of water harvesting structures and drainage channels	-	2	146	0	0	**73620**

8. NRM Interventions;
8.2. In situ conservation – Resource Conservation Technologies (RCTs), etc.

S. No.	Village	Intervention	Unit cost (Rs/ha) A*	Coverage Proposed		Total amount (Rs) A x C	Remarks
				Area (ha) B	No. of farm households proposed to be involved C		
1.	Kurumbalur	Rain hose/ laser pipe irrigation+ Ridges and furrow	8400	4	5	42000	-
2.	Palayam	Maize – COHM 11+ Ridges and furrow-Sequence crop of coriander	4000	4	5	20000	-
3.	Echampatti	Rain hose / laser pipe irrigation+ Ridges and furrow	8400	4	5	42000	-
4.	Moolakadu	Maize – COHM 11+ Ridges and furrow-Sequence crop of coriander	4000	4	5	20000	-
		Grand total (Rs.)				**124000**	

9.Crop Interventions;
9.1. Stress tolerant / improved varieties / Short duration / Legume crops, etc..

S. No.	Village 1,2,3 etc.	Intervention	Description		Cost (Rs/ha) A*	Coverage Proposed		Total amount (Rs) A x C	Remarks
			Crop	Variety (s)		Area (ha) B	No. of farm households to be involved C		
2.	Village- 2,4-Palayam, Moolakadu	Cultivation of drought tolerant maize variety COHM11 Inter cropping of maize with Blackgram-Sequence crop of coriander	Maize	COHM 11	5000	4	5	**25000**	-

9. Crop Interventions;

9.2. Improved agronomic practices and other crop interventions, etc..

S. No.	Village 1,2,3 etc.	Intervention	Description		Cost (Rs/ha) A*	Coverage Proposed		Total amount (Rs) A x C	Remarks
			Crop	Variety (s)		Area (ha) B	No. of farm households to be involved C		
1.	Village- 1, 3- Kurumbalur, Echampatti	Seed treatment with bioformulation (Biosanjeevini) for drought tolerance Soil application of CSR Bio Foliar spray of methyl bacterium IPM and INM Practices – application of Vegetable special	Small onion	Local	4100	4	5	**20500**	-
2.	Village- 2,4- Palayam, Moolakadu	IPM and INM Practices – Maize maxim. Foliar spray of methylobacterium	Maize	-	1000	4	5	**5000**	-
							Total	**25500**	

10. Livestock and Fisheries

10.1. Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture (MM) blocks / feed enrichment, etc..

S. No.	Details of feed intervention	Unit cost of intervention (Rs.)	No. of farm households to be involved	Total amount (Rs/ha)	Remarks
1	Silage making with onion stalk	1000	10	10000	-
2	Introduction of new rabbit Breed- soviet chinchilla	2000	10	20000	-
				30000	

10.2. Establishment of Seed banks / Fodder banks, etc..

S. No.	Seed bank/Fodder Bank	Seed of crop and variety/ Fodder crop/ variety	Quantity of seed/ fodder produced/ storage (t)	Unit cost (Rs.)	No. of farmers involved	Amount (Rs.)	Remarks
1.	Blackgram	VBN- 8,11	2	100	5	4000	-
2.	Fodder	Cofs29	0.10	550	5	2750	
						6750	

11. Non-recurring contingencies – Equipment

Proposal for Procurement of climate related farm machinery/ implements for Custom Hiring Centre

S. No.	Item	Unit cost (Rs)	No. of units	Total amount (Rs)
1.	Mini tractor	350000	1	350000

12. Capacity Building & Other extension activities

12.1. Training programmes proposed for the year

Theme	Title of training programme	Proposed month	No. of participants	Cost (Rs.)
Soil health management	Soil health management in maize	August-24	20	2800
NRM	Drought mitigation in maize	September-24	20	2800
INM	Integrated Nutrient management in maize	October-24	20	2800
ICM	ICM in maize	October-24	20	2800
ICM	ICM in blackgram	November- 24	20	2800
Micro irrigation	Micro irrigation in blackgram	November- 24	20	2800
Irrigation management	Automatic irrigation system	August- 24	20	2800
Micro irrigation	Micro irrigation techniques for horticulture crops	October-24	20	2800
Resource conservation	In-situe moisture conservation practices	November- 24	20	2800
Resource conservation	Recycling of farm waste	January – 25	20	2800
Irrigation management	Irrigation scheduling of small onion	February – 25	20	2800
Fodder production	Preparation of Silage making	October -24	20	2800
Livestock production management	Rabbit rearing	December-24	25	3750
Disease management	Prevention and management of mastitis disease	January -25	20	2800
			285	**40150**

12. Capacity Building & Other extension activities

12.2. Field Days/Exposure visits/Awareness programmes/Kisan melas/Kisan ghosti proposed for the year

Theme	Title of Programme	Proposed month	No. of participants	Cost (Rs.)
INM	Foliar spray of nutrients using drone	August- 24	20	1000
Farm mechanization	Demonstration on hand operated maize sowing machine	August – 24	20	1000
Irrigation management	Demonstration on rainhose/ laser pipe irrigation	February- 25	20	1000
Field Day	Water saving technologies in small onion	April -25	20	1000
Field Day	Drought management practices in maize	September- 24	20	1000
Field Day	Introduction of new rabbit Breed- soviet chinchilla in field condition	March-25	20	1000
Animal health camp	Animal health camp	September-24	50	10000
Animal health camp	Animal health camp	January-25	50	10000
			220	**26000**

13. Publications and Media products proposed to be Developed

13.1 Publications

Publication	Nature of Publication (Book/Bulletin/ Brochure etc.)	Proposed during the month	No. of Copies	Cost (Rs.)
Water conservation practices in Maize/ Blackgram	Broucher	November-24	500	3000
Climate resilient practices in Small onion	Booklet	December- 24	200	2500
Rabbit rearing and management	Booklet	January	200	2000
				7500

13.2 Video Films

Video Film to be prepared	Duration (Minutes)	Proposed during the month	Cost (Rs.)
Composting of farm waste	5	January-25	5000
			5000

14. Summary of cost Estimates for 2023-24

Item number	Title of the Item	Amount (Rs.)
8.1	Repair / Renovation of existing water harvesting structures, drainage channels	73620
8.2	In situ conservation – Resource Conservation Technologies (RCTs),	124000
9.1	Stress tolerant / improved varieties / Short duration / Legume crops, etc	25000
9.2	Improved agronomic practices and other crop interventions	25500
10.1	Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture (MM) blocks / feed enrichment	30000
10.2	Establishment of Seed banks / Fodder banks	6750
11	Proposal for Procurement of climate related farm machinery/ implements for Custom Hiring center	**350000**
12.1	Training programmes proposed for the year	40150
12.2	Field Days/Exposure visits/Awareness programmes/Kisan melas/Kisan ghosti proposed for the year	27000
13.1	Publications	7500
13.2	Video Films	5000
	Grand total (Rs.)	**714520**

15. Plan for the spread of the proven practices (Convergence with departments, linkages with development organisations, etc.,)

Sl. No	Proven technology/ Capacity building	Department involved	Strategy	Input arrangement / contribution from the department	Amount mobilised (Rs. In Lakhs)
1.	Drip irrigation	Agriculture - PMKSY	Leaflet distribution, awareness programme	Subsidy	-
2.	Ridges and furrows	Agriculture	Leaflet distribution, demonstration	Awareness	-
3	Inter cropping	Agriculture	Leaflet distribution, demonstration	Awareness	-
4.	Broad bed furrow	Agriculture	Leaflet distribution, demonstration	Awareness	-
5	Backyard poultry rearing	Animal Science	Leaflet distribution, demonstration	Awareness	

SCSP - GENERAL

9. Crop Interventions;

9.2. Improved agronomic practices and other crop interventions, etc..

S. No.	Village 1,2,3 etc.	Intervention	Description		Cost (Rs/ha) A*	Coverage Proposed		Total amount (Rs) A x C	Remarks
			Crop	Variety (s)		Area (ha) B	No. of farm households to be involved C		
1.	Village- 1,2,3,4- Kurumbalur, Palayam, Echampatti, Moolakadu	Hand operated seed sowing machine- Farm mechanization	Maize, groundnut	-	8000	-	25	200000	-

NICRA KVK Budget for 2024-25

Item number	Title of the Item	Recurring contingencies (TA, Salary etc.,)	Non Recurring (Equipment)	SCSP General	SCSP Capital
8.1	Repair / Renovation of existing water harvesting structures, drainage channels	73620			
8.2	In situ conservation – Resource Conservation Technologies (RCTs),	124000			
9.1	Stress tolerant / improved varieties / Short duration / Legume crops, etc	25000			
9.2	Improved agronomic practices and other crop interventions	25500			
10.1	Feed demonstrations for crop residue management / stress management: silage / feed blocks/ mineral mixture (MM) blocks / feed enrichment	30000			
10.2	Establishment of Seed banks / Fodder banks	6750			
11	Proposal for Procurement of climate related farm machinery/ implements for Custom Hiring center		350000		
12.1	Training programmes proposed for the year	40150			
12.2	Field Days/Exposure visits/Awareness programmes/Kisan melas/Kisan ghosti proposed for the year	27000			
13.1	Publications	7500			
13.2	Video Films	5000			
	SRF salary	405480			
	SCSP General (Purchase of Hand operated seed sowing machine			200000	
	Total (Rs.)	**770000**	**350000**	**200000**	**0**
	Grand total	**13,20,000**			