Action Plan 2024-25

Krishi Vigyan Kendra – Phek, Nagaland

1. Details about the existing NICRA villages

S No	Details	Village 1	Village 2	Village 3	Village 4	Village 5
1	Name of the village	Thipuzu	K Basa	Phusachodu	Kikruma	Pfutseromi
2	Involved in TDC since (year)	2011	2017	2018	2018	2022
3	Cultivated area (ha)	1302.54	1000.07	841.1	6618.34	440.12
4	Rainfed Area (ha)	1301.14	999.18	839.9	6616.54	438.82
5	Irrigated Area (ha)	1.4	0.9	1.2	1.8	1.3
6	No. of households in the village	421	310	900	1190	618
7	Drought prone area (ha)	502.23	314.08	398.16	4626.45	185.52
9	Approximate households covered so far	421	152	165	220	52
10	Identified FSTs	**Rainfed Upland without animal (Hills with steep slopes)** **Rainfed Midland with animal (Hills with mild slopes)** **Rainfed Midland without animal (Hills with mild slopes)**				

2. PREDOMINANT CLIMATIC AND RESOURCE CONSTRAINTS OF THE MAJOR FARMING SYSTEM TYPOLOGIES OF NICRA VILLAGES

NICRA adopted Villages	Climate constraints	Resource /Crop/Animal constraints	Other constraints
Farming System Typologies (FST 1): Rainfed Upland without animal (Hills with steep slopes)			
THIPUZU	Erratic rain fall during Kharif and moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, Farm mechanization, high input cost
K. BASA	Erratic rainfall during Kharif and drought during Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, high input cost
PHUSACHODU	Heavy rainfall during Kharif and drought during Rabi and hailstones	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, Farm mechanization, high input cost
KIKRUMA	Thunder storm, wind storm, heavy rainfall during Kharif and drought during Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, Farm mechanization, high input cost
PFUTSEROMI	Terminal drought, hailstones and moisture stress during Rabi, Thunder storm	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, Farm mechanization, high input cost

2. PREDOMINANT CLIMATIC AND RESOURCE CONSTRAINTS OF THE MAJOR FARMING SYSTEM TYPOLOGIES OF NICRA VILLAGES

NICRA adopted Villages	Climate constraints	Resource /Crop/Animal constraints	Other constraints
Farming System Typologies (FST 2): Rainfed Midland with animal (Hills with mild slopes)			
THIPUZU	Erratic rain fall during Kharif and excess moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress Animal- Respiratory infections/viral disease	Soil erosion, mud slide, run off , organic farming
K. BASA	Erratic rain fall during Kharif and moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress Animal- Respiratory infections/viral disease	Soil erosion, mud slide, run off, lack of storage facility
PHUSACHODU	Heavy rain fall, terminal drought, hailstones and moisture stress during Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress Animal- Respiratory infections/viral disease	Soil erosion, mud slide, run off, Farm mechanization, high input cost
KIKRUMA	Erratic rain fall during Kharif and moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress Animal- Respiratory infections/viral disease	Soil erosion, wind erosion, mud slide, run off, lack of storage facility
PFUTSEROMI	Heavy rain fall, terminal drought, hailstones and moisture stress during Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress Animal- Respiratory infections/viral disease	Soil erosion, mud slide, run off, organic farming

2. PREDOMINANT CLIMATIC AND RESOURCE CONSTRAINTS OF THE MAJOR FARMING SYSTEM TYPOLOGIES OF NICRA VILLAGES

NICRA adopted Villages	Climate constraints	Resource /Crop/Animal constraints	Other constraints
Farming System Typologies (FST 3): Rainfed Midland without animal (Hills with mild slopes)			
THIPUZU	Erratic rain fall during Kharif and excess moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off , organic farming
K. BASA	Erratic rain fall during Kharif and moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, lack of storage facility
PHUSACHODU	Heavy rain fall, terminal drought, hailstones and moisture stress during Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off, Farm mechanization, high input cost
KIKRUMA	Erratic rain fall during Kharif and moisture stress in Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, wind erosion, mud slide, run off, lack of storage facility
PFUTSEROMI	Heavy rain fall, terminal drought, hailstones and moisture stress during Rabi	Crop- wilting/damping/ Plant nutrient loss/moisture stress	Soil erosion, mud slide, run off

3. Identified promising resilient technologies for addressing the constraints

Farming System Typologies (FST1): Rainfed Upland without Animal (Hills with steep slopes)

NICRA adopted Village	Climate constraints	Identified resilient technologies
THIPUZU	Erratic rainfall	To popularize short duration foxtail millet
K. BASA	Erratic rainfall	To popularize short duration foxtail millet
PHUSACHODU	Erratic rainfall	To popularize short duration foxtail millet
KIKRUMA	Erratic rainfall	Aerobic rice cultivation
PFUTSEROMI	Erratic rainfall	Aerobic rice cultivation

Farming System Typologies (FST2): Rainfed Midland with animal (Hills with mild slopes)

NICRA adopted Village	Climate constraints	Identified resilient technologies
THIPUZU	Cold stress & heavy rainfall	1. Promotion of climate resilient pig breed Lumsniamg
K. BASA	Cold stress & heavy rainfall	1. Promotion of climate resilient pig breed Lumsniamg
PHUSACHODU	Heavy rainfall	1. Low cost shade net house for production of high valued crops viz., cauliflower and capsicum
KIKRUMA	Heavy rainfall Cold stress & heavy rainfall	1. Low cost shade net house for production of high valued crops *viz*., cauliflower and capsicum 2. To promote climate resilient pig breed Lumsniamg
PFUTSEROMI	Cold stress & heavy rainfall Aberrant weather conditions	1. Promotion of climate resilient pig breed Lumsniamg 2. Develop horticulture and poultry based IFS model

Farming System Typologies (FST3): Rainfed Midland without animal (Hills with mild slopes)

NICRA adopted Village	Climate constraints	Identified resilient technologies
THIPUZU	1. Soil acidity 2. Erratic rain fall	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea
K. BASA	1. Soil acidity 2. Erratic rain fall 3. Heavy rainfall 4. Erratic rain fall during *Kharif*	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Low cost shade net house for production of high valued crops *viz.*, cauliflower and capsicum 4. Aerobic rice cultivation
PHUSACHODU	1. Erratic rain fall 2. Soil acidity	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea
KIKRUMA	1. Erratic rain fall 2. Soil acidity	1. Aerobic rice cultivation 2. Lime application for acid soil management in maize. 3. Intercropping of Broccoli with Garden Pea
PFUTSEROMI	1. Erratic rain fall 2. Soil acidity 3. Heavy rainfall 4. Erratic rain fall during Kharif	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Low cost shade net house for production of high valued crops *viz*., cauliflower and capsicum 4. Aerobic rice cultivation

4. Categorization of the identified technologies into NRM, Crops and Livestock in each of the village for taking up demonstrations

Farming System Typologies (FST 1): Rainfed Upland without animal (Hills with steep slopes)

NICRA adopted Village	NRM
KIKRUMA	Aerobic rice cultivation
PFUTSEROMI	Aerobic rice cultivation

NICRA adopted Village	CROP
THIPUZU	To popularize short duration foxtail millet
K. BASA	To popularize short duration foxtail millet
PHUSACHODU	To popularize short duration foxtail millet

Farming System Typologies (FST 2): Rainfed Midland with animal (Hills with mild slopes)

NICRA adopted Village	NRM
PHUSACHODU	Low cost shade net house for production of high valued crops viz., cauliflower and capsicum
KIKRUMA	Low cost shade net house for production of high valued crops viz., cauliflower and capsicum
PFUTSEROMI	Develop horticulture and poultry based IFS model

NICRA adopted Village	LIVESTOCK
THIPUZU	Promotion of climate resilient pig breed Lumsniamg
K. BASA	Promotion of climate resilient pig breed Lumsniamg
KIKRUMA	Promotion of climate resilient pig breed Lumsniamg
PFUTSEROMI	Promotion of climate resilient pig breed Lumsniamg

Farming System Typologies (FST 3): Rainfed Midland without animal (Hills with mild slopes)

NICRA adopted Village	NRM
THIPUZU	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea
K. BASA	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Aerobic rice cultivation 4. Low cost shade net house for production of high valued crops viz., cauliflower and capsicum
PHUSACHODU	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea
KIKRUMA	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Aerobic rice cultivation
PFUTSEROMI	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Aerobic rice cultivation 4. Low cost shade net house for production of high valued crops viz., cauliflower and capsicum

5. No. of farmers involved in each of the village for demonstrations

Farming System Typologies (FST 1): Rainfed Upland without animal (Hills with steep slopes)

NICRA adopted Village	NRM	Crop	Total
THIPUZU		10	20
K. BASA		10	20
PHUSACHODU		10	20
KIKRUMA	10		10
PFUTSEROMI	10		10

Farming System Typologies (FST 2): Rainfed Midland with animal (Hills with mild slopes)

NICRA adopted Village	NRM	Livestock	Total
THIPUZU		5	5
K. BASA		5	5
PHUSACHODU	5		5
KIKRUMA	5	5	10
PFUTSEROMI	1	5	6

Farming System Typologies (FST 3) : Rainfed midland without animal (Hills with mild slopes)

NICRA adopted Village	NRM	Crop	Total
THIPUZU	20	20	40
K. BASA	35	20	55
PHUSACHODU	20	20	40
KIKRUMA	30	20	50
PFUTSEROMI	35	20	55

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

Farming System Typologies (FST 1): Rainfed Upland without animal (Hills with steep slopes)

NICRA adopted Village	Climate resilient technology	Convergence with scheme	No. of farming household to be covered	Area to be covered (ha)
THIPUZU	Short duration foxtail millet	ATMA Phek	10	1
K. BASA	Short duration foxtail millet	ATMA Phek	10	1
PHUSACHODU	Short duration foxtail millet	State Agriculture Dept.	10	1
KIKRUMA	Aerobic Rice	ATMA Phek	10	0.5
PFUTSEROMI	Aerobic Rice	State Agriculture Dept.	10	0.5

Farming System Typologies (FST 2): Rainfed Midland with animal (Hills with mild slopes)

NICRA adopted Village	Climate resilient technology	Convergence with scheme	No. of farming household to be covered	Area to be covered (ha)
THIPUZU	1. Climate resilient pig breed Lumsniamg	ATMA Phek	5	3 nos.
K. BASA	1. Climate resilient pig breed Lumsniamg	ATMA Phek	5	3 nos.
PHUSACHODU	1. Low cost shade net	-	5	0.2
KIKRUMA	1. Low cost shade net 2. Climate resilient pig breed Lumsniamg		5 5	0.2 3 nos.
PFUTSEROMI	1. IFS 2. Climate resilient pig breed Lumsniamg	ATMA Phek	1 5	0.5 3 nos.

Farming System Typologies (FST 3) : Rainfed midland without animal (Hills with mild slopes)

NICRA adopted Village	Climate resilient technology	Convergence with scheme	No. of farming household to be covered	Area to be covered (ha)
THIPUZU	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea	ATMA Phek	20 20	0.2 0.2
K. BASA	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Low cost shade net 4. Aerobic Rice	ATMA Phek	20 20 5 10	0.2 0.2 0.2 0.5
PHUSACHODU	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea	State Agriculture Dept.	20 20	0.2 0.2
KIKRUMA	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Aerobic Rice	ATMA Phek	20 20 10	0.2 0.2 0.5
PFUTSEROMI	1. Lime application for acid soil management in maize. 2. Intercropping of Broccoli with Garden Pea 3. Low cost shade net 4. Aerobic Rice	ATMA Phek	20 20 5 10	0.2 0.2 0.2 0.5

Activities and Cost

7. NRM Interventions;

7.2. In situ conservation – Resource Conservation Technologies (RCTs), etc.

Village	Intervention	Unit cost (Rs/ha) A*	Coverage Proposed		Total amount (Rs) A x C
			Area (ha) B	No. of farm households proposed to be involved C	
Thipuzu	1.Lime application for acid soil management in maize	102.5	0.2	20	2,050.00
	2.Intercropping of Broccoli with Garden pea	682.5	0.2	20	13,650.00
K. Basa	1.Lime application for acid soil management in maize	102.5	0.2	20	2,050.00
	2.Intercropping of Broccoli with Garden Pea	682.5	0.2	20	13,650.00
	3.Aerobic rice cultivation	1250	0.5	10	12,500.00
	4.Low cost shade net	11250	0.2	5	56,250.00
Phusachodu	1.Lime application for acid soil management in maize	102.5	0.2	20	2,050.00
	2.Intercropping of Broccoli with Garden Pea	682.5	0.2	20	13,650.00
	3.Low cost shade net	11250	0.2	5	56,250.00
Kikruma	1.Lime application for acid soil management in maize	102.5	0.2	20	2,050.00
	2.Intercropping of Broccoli with Garden Pea	682.5	0.2	20	13,650.00
	3.Aerobic rice	1250	0.5	10	12,500.00
Pfutseromi	1.Lime application for acid soil management in maize	102.5	0.2	20	2,050.00
	2.Intercropping of Broccoli with Garden Pea	682.5	0.2	20	13,650.00
	3.Aerobic rice	1250	0.5	10	12,500.00
	4.IFS	100000	0.5	1	1,00,000.00
	5.Low cost shade net	11250	0.2	5	56,250.00
				Total	**3,84,750.00**

Activities and Cost

8. Crop Interventions;

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

Village	Intervention	Crop	Variety	Unit cost (Rs/ha) A*	Coverage Proposed		Total amount (Rs) A x C
					Area (ha) B	No. of farm households proposed to be involved (C)	
Thipuzu	Short duration foxtail millet	Foxtail millet	FXM-7	3000	1	10	30,000
K. Basa	Short duration foxtail millet	Foxtail millet	FXM-7	3000	1	10	30,000
Phusachodu	Short duration foxtail millet	Foxtail millet	FXM-7	3000	1	10	30,000
						Total	**90,000**

9. Livestock and Fisheries

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

S. No.	Intervention	Unit cost of intervention (Rs.)	No. of farm households to be involved	Total amount (Rs)	Remarks
1	Climate resilient pig breed lumsniamg	5000	20	3,00000	Intervention will be taken in 4 villages with 20 household ,providing 3 No's (1:2) each household.

Activities and Cost

10. Non-recurring contingencies – Equipment

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

*** We have 1 CHC since 2011 and all the equipments are defunct**

S. No.	Item	Unit cost (Rs)	No. of units	Total amount (Rs)
1.	Weather station	1,0,0000.00	2	2,0,0000.00
2	Multipurpose solar dryer	1,0,0000.00	5	5,0,0000.00
3	Garden mini power tiller	40000.00	5	2,0,0000.00
4	Power weeder	40,000.00	2	80,000.00
			Total	**9,80,000.00**

11. Capacity Building & Other extension activities

11.1. Training programmes proposed for the year

Theme	Title of training programme	Proposed month	No. of participants	Cost (Rs.)
Crop production	Package and practice of foxtail millet	August	30	6,600.00
Water saving technology	Aerobic rice production	June	50	9,500.00
IFS	Horti +poultry based IFS	August	25	4,150.00
Protected cultivation	Production technology of capsicum and cauliflower	September	15	3,450.00
Livestock production	Promotion of climate resilient pig breed lumsniamg	September	20	4,600.00
Acid management	Lime application for acid soil management in maize.	October	100	15,750.00
Integrated crop management	Intercropping of Broccoli with Garden Pea	October	100	15,750.00
			Total	**59,800**

11. Capacity Building & Other extension activities

11.2. 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.)
Crop production	Method demonstration Field day	August November	30 30	6,600.00 6,600.00
Water saving technology	Method demonstration Field day	June October	50 50	9,500.00 9,500.00
Climate resilient technologies	Kisan mela	September	100	1,50,000.00
Reclamation of acid soil	Method demonstration Field Day	October February	100 50	15,000.00 7,500.00
Integrated crop management	Method demonstration Field Day	October January	100 50	15,000.00 7,500.00
Livestock production	Field day	September	20	4,600.00
Crop, awareness, soil nutrient management livestock, weather	Mobile Advisory Services	April-March	600	-
			Total	**2,31,800**

12. Publications and Media products proposed to be Developed

12.1 Publications

Nature of Publication (Book/Bulletin/ Brochure etc.)	Proposed during the month	No. of Copies	Cost (Rs.)
Brochure	October, November	1500	40,000.00
Bulletin	December	500	15,000.00
		Total	**55,000.00**

12.2 Video Films

Video Film to be prepared	Duration (Minutes)	Proposed during the month	Cost (Rs.)
01	15	Sep-Oct	2,00,000.00

13. Summary of Cost Estimates

Sl.No.	Title	Amount (Rs.)
7.2	Natural Resource Management	3,84,750.00
8.2	Crop Interventions	90,000.00
9	Livestock	3,00000.00
10	Non-recurring contingencies – Equipment	9,80,000.00
11.1, 11.2	Capacity building and other extension activities	2,91,600.00
12.1	Media Products to be developed (brochures/bulletins proposed to be developed)	55,000.00
12.2	Media Products to be developed (Video Films)	2,00000.00
13	TA and vehicle hire charges, POL	2,00000.00
14	Contractual Manpower (YP II) @ Rs 42,000.00 per month	5,04,000.00
15	Other operational expenses	1,00000.00
	Grand total (Rs.)	**31,05,350.00**

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

S. No	Proven technology/ Capacity building	Department involved	Strategy	Input arrangement / contribution from the department	Amount mobilised (Rs. In Lakhs)
1	Application of lime for acid soil management in maize.	State Agri. Dept and ATMA Phek	Reclamation of acid soil	Seeds & Lime/ Crop monitoring	0.02
2	Integrated crop management	State Agri. Dept and ATMA Phek	Resource use efficiency	Seeds/Crop monitoring	0.02

Thank you