Annual Action Plan

(2024)

Krishi Vigyan Kendra, Dhalai

ICAR-ATARI, Zone-VII, Umiam, Meghalaya-793103

Department of Agriculture & Farmers Welfare, Govt. of Tripura




ABOUT THE KVK DISTRICT

Geographical Area (ha)	Forest Area (ha)	Block	Total GP in the KVK District	Total VCs	Total Villages	Total no of Villages adopted by KVK till date	Total No of Villages covered by KVK	% of Villages Covered
231394	181734	8	41	110	151	15	114	75.50

SL.NO	Items	Total (Ha)
1	Net cropped area	23,713
2	Grossed cropped area	47,621
3	Area Sown more than once	23,908
	Fellow , misc tree crops, pasture and grazing land, cultivable waste land	2144
4	Cultivable land	25,857

Blocks	ABS	GNR	SLM	DCM	CMN	MNU	DBN	RSBY	Total
Cropping Intensity :	238%	153%	175%	205%	251%	234%	156%	144%	195%

Source – 2022-23, Dept of Agri & FW, GoT

District Map

Location of KVK Dhalai

ABOUT KVK DHALAI INFRASTRUCTURE

S. No.	Item	Area (ha)
1	Under Buildings (Administrative building)	0.32
2.	Under Demonstration Units	2.00
3.	Under Crops (Cereals, pulses, oilseeds etc.)	1.80
4.	Under vegetables	0.32
5.	Orchard/Agro-forestry	6.66
6.	Others (specify)/ Fishery/ Piggery etc	1.2
	Total land with KVK (in ha)	**12.30**

S. No.	Name of building	Source of funding	Status
1.	Administrative Building	ATARI	Completed
2.	Farmers Hostel	Nil	Nil
3.	Staff Quarters (6)	Nil	Nil
4	Fencing	Nil	Nil
5	Soil Testing Laboratory	Dept of Agri & FW, GoT	Completed

Major crops status of Dhalai District and its position in the State

Major Crop Cereals – Paddy (3rd), Maize (1st), Minor - Sorghum & Foxtail (1st)
Major Pulses - Black Gram (1st) , Arhar (1st), Cow pea (1st), Field Pea (3rd)
Major Oilseeds – Sesame (1st), Rape & Mustard (2nd), Groundnut (1st)
Commercial Crops - Sugarcane (1st), cotton (1st)
Major Vegetables – Potato, Tomato, Chilli, Brinjal
Major livestock - Poultry, Pig, Goat, Fish

Crop	Item	Dhalai
Aush Paddy	Area in Hect.	11325
	Production in MT	32090
	Yield in kg/Ha.	2834
Aman Paddy	Area in Hect.	15770
	Production in MT	47006
	Yield in kg/Ha.	2981
Jhum	Area in Hect.	5783
	Production in MT	5956.2
	Yield in kg/Ha.	1030
Boro Paddy	Area in Hect.	1443
	Production in MT	4200
	Yield in kg/Ha.	2911
Total Rice	Area in Hect.	34321
	Production in MT	89252
	Yield in kg/Ha.	2601

Crop	Item	Dhalai
Hybrid Maize	Area in Hect.	547
	Production in MT	1083.2
	Yield in kg/Ha.	1980
Local / Composite Maize	Area in Hect.	2615
	Production in MT	2899.5
	Yield in kg/Ha.	1109
Maize (Rabi)	Area in Hect.	264
	Production in MT	571.39
	Yield in kg/Ha.	2164
Total Maize (Kharif)	Area in Hect.	3426
	Production in MT	4554.09
	Yield in kg/Ha.	1329
Sugercane	Area in Hect.	127
	Production in MT	7198
	Yield in kg/Ha.	56677

Crop	Item	Dhalai
Black Gram (Kharif)	Area in Hect.	516
	Production in MT	293.74
	Yield in kg/Ha.	569
Black Gram (Rabi)	Area in Hect.	252
	Production in MT	185.28
	Yield in kg/Ha.	735
Sesame	Area in Hect.	1460
	Production in MT	879.62
	Yield in kg/Ha.	602
Rape & Mustard	Area in Hect.	1085
	Production in MT	888.47
	Yield in kg/Ha.	819

Source – 2021-22, Dept of Agr, GoT

Thrust Areas in Dhalai District

1. Paddy-based cropping system mainly Aus and Aman Paddy –
    a) New potential and suitable variety of testing and its Frontline Demonstrations,
    b) Biofertilizers, micronutrient & Nano Urea incorporation in Paddy,
    c) Rice – pulse (Blackgram i.e., One District One Crop), rice-oil seed cropping system- cropping intensity.
2. Assessment and popularisation of high-yielding and bio-fortified maize especially in tribal belts of the district.
4. High-value Horticultural crops – new varieties, technology packages, mgt, practices and diversification
6. IFS (Duck cum fish, poultry cum fish).
7. Mulching technology for high-value crops.
8. IPM- Chilli, paddy, tomato.
9. Ginger rhizome rot disease management thro' IDM in cluster belts.
10. Feeding management for piggery and poultry.
11. Plant base nutrient management (Wolffia) in fingerling rearing of IMC & Scientific feeding management.
12. New species of Fish like Jayanti Rohu, Pengba, and Ornamental fishes.
13. Entrepreneurship Development among Individual & Self Help Groups (SHGs).
14. Processing & Value Addition

Staff Position

Sl. No.	Name	Designation	Discipline
1	Dr. Abhijit Debnath	Sr. Scientist & Head (I/C) & Subject Matter Specialist	Horticulture
2	Dr. Sankhyashree Roy	Subject Matter Specialist	Agricultural Extension
3	Dr.Tanmoy Bhowmik	Subject Matter Specialist	Agronomy
4	Dr. Supritam Das	Subject Matter Specialist	Animal Science
5	Mr. Syam K R	Subject Matter Specialist	Fisheries Science
6	Dr. Rubin Debbarma	Subject Matter Specialist	Plant Protection
7	Mr. Debasish Debnath	Farm Manager	Agriculture
8	Mr. Bishal Debnath	Asst (Lab Tech)	Horticulture
9	Mr. Partha Bhowmik	Office Assistant	Accountant and Administration
10	Mr. Chidananda Bhattacharjee	Program Assistant	Computer
11	Mr. Sanjoy Ghosh	Skilled Supporting Staff	Higher secondary
12	Mr. Bishwajit Debnath	Skilled Supporting Staff	Graduate
13	Mr. Taj Uddin	Driver cum Mechanic	Matriculation

Staff Position under District Agro-Meteorology Unit

Sl. No.	Name	Designation	Discipline
1	Mis. Gayetri Deb	Subject Matter Specialist	Agro- Meterology
2	Mr. Rajib Das	Agr- Met Observer	Graduate

Summary of "On Farm Testing" for 2024-25

Discipline	Crop/enterprise/ Thematic area	No. of Technology/ Social concept to be Assessed	No. of trials proposed
Agronomy	Drought and flood-tolerant Varieties of kharif paddy	1	3
	Mustard varieties suitable for late sown	1	3
	Rice-based cropping systems	1	3
Horticulture	Biofortified Sweet Potato Varieties with Maize Intercropping	1	3
	micronutrient management in cauliflower	1	3
Plant Protection	cost effective natural attractants for melon fruit fly in cucumber.	1	3
	Integrated pest management (IPM) in paddy	1	3
Animal Science	supplemental heat on mortality rate and growth performance of crossbred piglets during winter season	1	3
	Low Cost Incubator for hatching of eggs	1	3
Fishery Science	plankton booster (ICAR-CIBA Plankton plus) in fingerling production of IMC	1	3
	Live wolffia– based fingerling production of IMC	1	3
Agril. Extension	problems arising in Pig rearing due to cultural barrier	1	3
	contribution of Farm women in household income	1	3
Total		13	39

Agronomy OFT (1st Year) (common)

Assessment of drought and flood-tolerant varieties of kharif paddy

Crop	Problem identified	Technology Details	Source
Paddy	Unseasonal drought and flood	**T1: CR DHAN 801** **T2: CR DHAN 802** **T3: Ranjit Sub-1** **T0: Farmers practice (Gomati)** Seed treatment: *Azospirillum* @ 200 g/10 kg seeds; Manuring: FYM @ 2 ton/ha Fertilizer: Basal application of 25 kg Zinc Sulphate/ha in every three years intervals in addition to a recommended dose of fertilizers. **Seed rate:** 10-15 kg/ha; **Spacing**: 25 cm x 25 cm **Fertilizer requirement**: 80:40:40 kg/ha **Sowing time:** 1st week of July **Duration**: 140-145 days	ICAR NRRI, Cuttack (2019), AAU, Jorhat (2018)

Parameters to be taken

Date of sowing,spacing, Plant height, number of panicles/square meter,numer of effective tiller, number of grains/panicle, filled grain/penicle, test weight,grain yield/m2,harvest index%,soil pH,OC,NPK,Seed yield, duration of crop. Net return and BC ratio.
Farmers' Practice (same as above)

No. of Trails	03
Name of locations	Kamalpur, Salema, Ambassa
Area(ha)	0.48 ha
No of Farmers	3

Scientists

SMS (AGRONOMY)

SMS (PLANT PROTECTION)

OFT- (Agronomy)(Common)

Assessment of mustard varieties suitable for late sown condition in Dhalai, Tripura (common OFT) (1st year)

Problem with severity:
Low productivity due to late sowing of mustard

Farming situation:
Rainfed

Location:
Kamalpur, Salema, Ambassa

Number of trial proposed to be Assessed:
3

Source of technology and year of release:
ICAR-DRMR 2009, 2020, ICAR-IARI, 2011 and AAU, 2016

Technology

The OFT is designed with four varieties with three dates of sowing.

Four varieties:
V1: NRCHB 101
V2: DRMR-150-35,
V3: PUSA-27
V4: TS 67
Three date of Sowing: S1: 20th November, S2 : 30th November, S3: 10th December
Seed rate: 5 kg ha-1
Seed Treatments: Carbendazim @ 2g kg-1 seeds
Manuring & Fertilization: Integrated application of vermicompost or FYM @ 2.5 tha-1 + 80 kg N + 40 kg P2O5 + 40 kg S + 5 kg Zn + 1 kg ha-1

Parameters of assessment/refinement:

1. Plant height
2. Number of branches/plant
3. Siliqua length (cm)
4. Number of siliqua/plant
5. Number of seeds/siliqua
6. Test weight
7. Yield
8. Soil moisture status (at 15 days interval) and
9. Economics

Critical inputs required: Seeds, fertilizers (Macro and micro nutrient) & fungicides/pesticides

ON FARM TESTING (OFT)- Agronomy (1st year)

Title of intervention:* *Assessment of different Rice-based cropping systems to enhance productivity and profitability.

Major problems identified

- Monocropping
- Rice fallow

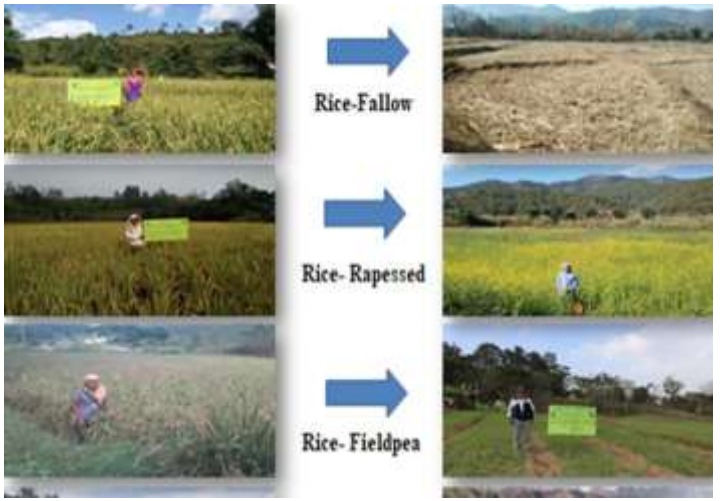
Period & Duration:
July – Feb (8 months)

Source of Technology:
ICAR Tripura Centre, Lembucherra, 2017

Location	Kamalpur, Salema, Ambassa
No. of trials	03
Targeted Area (Ha)	0.48

Details of the Technology

(T_1)- Rice (Var. T. Chikan Dhan)-Field pea (Azad Pea-1)
(T_2)-Rice (Var. T. Chikan Dhan)-Lathyrus (Bidhan Keshari-1)
(T_3)- Rice (Var. T. Chikan Dhan)-Mustard (NRC HB-101)
(T_0)- Rice fields are left fallow after harvesting of the crop i.e. Rice fallow (Control)



Parameters of assessment	Paddy - Plant height (cm), No. of tillers/hill, No. of filled Grains, Test weight (gm), Yield (t/ha), B:C ratio Cropping systems - Plant height (cm), No. of pods/plant (Siliqua/plant), No. of seeds/pods (Seeds/siliqua), Test weight (gm), Yield (q/ha), B:C Ratio, Farmers Reaction

Lathyrus

ON FARM TESTING (OFT)- HORTICULTURE (1st year)

Title of intervention:* *Assessment of Biofortified Sweet Potato Varieties with Maize Intercropping

Major problems identified

- Low yield of local varieties
- Lack of availability of biofortified varieties
- High market rate of the available varieties

Period & Duration:
April – Sept (6 months)

Source of Technology:
CTCRI, 2017

Location	Kamalpur, Salema, Ambassa
No. of trials	03
Targeted Area (Ha)	0.48

Bhu Krishna

Details of the Technology

Treatment 1 (T_1)- Bhu Krishna (deep purple flesh- anthocyanin (85-90 mg/100 g)
Treatment 2 (T_2)-Bhu Sona (deep orange skin and flesh - B-carotene. 14.0 mg/100g)
Treatment 3 (T_3)- Bhu Kanti (Orange skin & flesh – B carotene 6.5 mg/100g)
Treatment 4 (T_4)- Bhu Sona (Orange skin & flesh – B carotene 12.5 mg/100g)
Treatment 5 (T_5)- Local
Maize – VLQPMH-45 maize paired row + 2 rows sweet potato

Bhu Sona

Parameters of assessment	Maturity period (days), tuber yield (MT/Ha, Tuber Shape, Skin Colour, Flesh Colour, Anthocyanin (mg/100 g), B- Carotene (mg/100g), B: C ratio., Farmers Reaction, Maize Yield (Mt/Ha), maize equivalent yield (MT/Ha).

Bhu Kanti

Bhu Sona

ON FARM TESTING (OFT)- Horticulture (1st year) (Common)

Title of intervention: Assessment of micronutrient management in cauliflower

Major problems identified

- Micronutrient deficiency
- Poor yield.

Duration:(4 month)

Source of technology:
ICAR Reserch Complex for NEH region., Umiam, 2023

Location	**Kamalpur, Salema, Ambassa**
No. of trials	03
Targeted Area (Ha)	0.48

B deficiency

S. No	Crop	General recommendation		Micronutrient recommendation	
		FYM (t/ha)	NPK (Kg/ha)	Soil application	Foliar application – 30 DAT onwards
1	Cauliflower	• 20	• RDF - recommended for the state or 100:75:50	• ZS @ 15 Kg/ha • BX @ 15 kg/ha • AM @ 02 kg/ha	*Two (02) times at 15-20 days interval* • ZS @ 0.25 % (525 ppm) • BX @ 0.25 % (262 ppm) • AM @ 0.10 % (1300 ppm)

[ZS-Zinc sulphate (Zn-21%); BX-Borax (B=10.5%); AM- Ammonium Molybdate (Mo=52%)]

Zn deficiency

Parameters of assessment	**Deficiency symptoms (%) crop duration(days), yield per plant(kg), yield (mt/hectre), average size of curd(gram),Growth, Yield and quality parameters soil status before and after, Pest and disease incidence %, Cost of production (Rs/ha), Total return (Rs/ha), Net return (Rs/ha), B:C ratio, farmers reaction.**

ON FARM TESTING (OFT)- PLANT PROTECTION (2nd year)

Assessment of cost-effective natural attractants for melon fruit fly in cucumber.

Major problems identified & Percentage of Severity

- Chemical pesticides are not effective in controlling melon fruit fly .
- Need identification of suitable natural attractants for proper management

Period & Duration:
Feb -June (5 months)

Source OF Technology: TNAU, Trichy, 2021

Location	Avanga, Salema, Maracherra
No. of trials	03
Targeted Area (Ha)	0.48

Details of the Technology

Treatment 1 (T1)-farmers practice with application of pesticide (Alphamethrin)
Treatment 2 (T2)-Natural attractants using cucumber fruit pulp + Yeast + Jaggery (1:1:1) + Acetic acid (5%)
Treatment 3 (T3)- Use attractant commercial available cue lure alone

Treatments	Mean percent of pest infestation	Pest incidence (days after planting DAP)			Mean yield (MT/ha)	Cost of production (Rs/ha)	Total return (Rs/ha)	Net return (Rs/ha)	B:C ratio	Feed back
		40 DAP	60 DAP	Final						

ON FARM TESTING (OFT) – Plant protection (1st year)

Title of intervention: Assessment of Integrated Pest Management in paddy

Major problems identified

- Yield losses due to insect pests (Yellow stem borer, Gundhi Bag, Leaf Folder)

Location	Avanga, Salema, Maracherra
No. of trials	3
Targeted Area (Ha)	0.48

Period & Duration:
July– December
(6 months)

Source of technology:
NRRI,Cuttack ,2015

Details of the Technology

T1 –i. seed treatment with Carbendazim (2gm/kg)
ii. Installation of Pheromone trap @ 8 traps/ha & yellow sticky traps (10 nos/ha)
iii. Application of Neem oil (5 ml/lt) and Cartap Hydrochloride (1gm/lit) as a foliar spray
T2- Farmer Practice (non-judicious chemical pesticides)

Parameters	Percent Level infestation at 15 days intervals, Yield analysis, Cost analysis, B.C Ratio,

Sl. No. **i.** for monitoring leaf folder, YSB, Case worm (August to October) Sl. No. **ii**. for control of leaf folder, case worm, YSB, (September to October**).**

ON FARM TESTING (OFT)- ANIMAL SCIENCE (1st year)

Title of intervention: ***Assessment of supplemental heat on mortality rate and growth performance of crossbred piglets during winter season***

Major problems identified

- High piglet mortality & Poor growth rate till weaning period during winter season

Location	
No. of trials	03
Targeted Area (Ha)/ Unit	02

Period & Duration: Nov–Feb (4 months)

Source OF Technology: ICAR Research Complex for North Eastern Hill Region, Tripura Centre, Agartala,Lembucherra, West Tripura, India- 2016

Details of the Technology

Technical details:-

T_1-The supplemental heat will be provided to newborn piglets (Crossbred piglets) by placing three 100 W bulbs 3 ft high from the floor for each pen along with bedding material till weaning

T_0- Farmer practice, which is keeping them in natural environmental minimum temperature

Parameters of assessment/refinement
1. Mortality rate 2. Rectal temperature 3. Growth rate
4. B:C ratio
5. Farmers reaction
Farmer Practice/ existing methods (whichever relevant)
1. Conventional method
2. Same parameters

ON FARM TESTING (OFT)- ANIMAL SCIENCE (2nd year)

Title of intervention: ***Assessment of Low Cost Incubator for hatching of eggs***

Major problems identified

- Poor hatching percentage
- Less availability of broody hen
- In large scale eggs cannot be hatch at a time.

Period & Duration:
April –Jan (10 months)

Source OF Technology: **Jis college of engineering, Kalyani, Nadia, India- 2021**

Location	
No. of trials	03
Targeted Area (Ha)/ Unit	03

Details of the Technology

Technical details:-

T0 – Farmers Practice (Use of Broody hen)

T1 – Low cost incubator

Treatments	Hatching %	Net return	B:C ratio	Farmers feedback

ON FARM TESTING (OFT)- FISHERY SCIENCE (1st year)

Title of intervention:* *Performance evaluation of plankton booster (ICAR-CIBA Plankton plus) in fingerling production of IMC

Major problems identified

- High cost of artificial feeds.
- Water quality deteriorating problems.
- Low survival rate.

Location	Avanga, Kamalpur,
No. of trials	03
Targeted Area (Ha)	0.48

Period & Duration:
August – November (3 months)

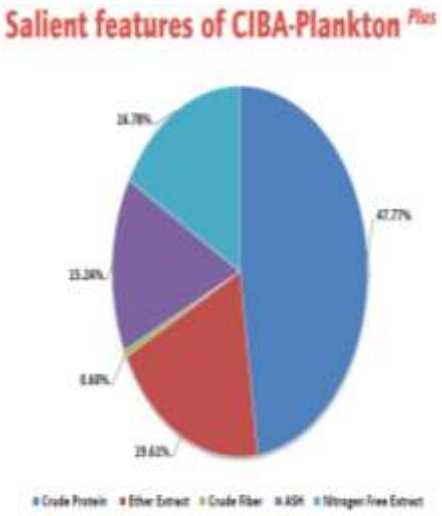
Source of technology:
ICAR-CIBA 2020
ICAR-CIFA 2016

Details of the Technology

T-1: Farmer Practice (MOC:RB = 1:1)
T-2: ICAR-CIBA Plankton plus
****Culture period 90 days. 20-d old rohu fry were stocked at a stocking density of 3 lakh ha-1.**

A unique technology has been developed by ICAR-CIBA, by which fish waste is converted to a value added cost effective and indigenous eco-friendly quality products branded as CIBA-Plankton plus .

Parameters of assessment	**Growth rate, Survival (%), Yield (t/ha), FCR, Cost of production (Rs/ha), Total return (Rs/ha), Net return (Rs/ha), B:C ratio, farmers reaction**



ON FARM TESTING (OFT)- FISHERY SCIENCE (COMMON OFT)

Title of intervention: ***Assessment of Live wolffia– based fingerling production of IMC***

Major problems identified

- High cost of artificial feeds.
- Water quality deteriorating problems.
- Low survival rate.

Location	Avanga, Kamalpur, Salema
No. of trials	03
Targeted Area (Ha)	0.48

Period & Duration: **August – November (3 months)**

Source of technology: CoF (CAU,Imphal), Lembucherra, Tripura) 2015

Details of the Technology

T-1: Farmer Practice (MOC:RB = 1:1)

T-2: live wolfia

****Culture period 90 days. 20-d old rohu fry were stocked at a stocking density of 3 lakh ha-1.**

The feed rate of both feed and live wolffia were same on dry matter basis 8-10% d-1 of the fish biomass.

Parameters of assessment

Growth rate, Survival (%), Yield (t/ha), FCR, Cost of production (Rs/ha), Total return (Rs/ha), Net return (Rs/ha), B:C ratio, farmers reaction

Wolffia (*Wolffia globosa)* is a duck weed which has high quality protein content, low fiber content, low antinutritional factors, high digestibility and excellent floatability.

ON FARM TESTING (OFT) - Agricultural Extension (1st Year)

Title of Technology: Assessment of problems arising in Pig rearing due to cultural barrier

Source of Technology: MANAGE, Hyderabad, 2016

Location: Rupashpur, Halahali, baghaichari.

Duration: April – January (10 months)

No. of samples : 60

Major problems identified:

- ❖ Feeling of one's culture as superior
- ❖ Less education
- ❖ Lack of proper knowledge of piggery
- ❖ Traditional mindset which is hard to change

Parameters of assessment:

❖Bringing of behavioural changes

❖Providing other income generating assets as equal to piggery

❖Accessibility to resources irrespective of one's culture

Step wise methodology:

❖Survey of the locations

❖Selection of samples (Mohammaden & Hindu)

❖Selection of farmers having piggery.

❖Analysis of cultural problems through Matrix Ranking

❖ Analysing the difference in their farming activities

❖Analysing the disparities in income generation among both the cultures

❖Organizing group discussion among the leaders to change their behaviour

❖Feedback

ON FARM TESTING (OFT) - Agricultural Extension (2nd Year)

Title of Technology: Assessment of contribution of Farm women in household income

Source of Technology: Giri Institute of Development studies, Western U.P., 2014

Location: West Kuchainala, Maracherra, Kamalpur

Duration: April – January (10 months)

No. of samples : 80

Major problems identified:

- ❖ Thinking themselves as inferior to their counterparts
- ❖ Inability to understand felt needs
- ❖ Lack of motivation towards paid work
- ❖ Lack of proper education

Parameters of assessment:

- ❖Psychometric scales
- ❖Analysis of Training needs
- ❖Analysis of unpaid work of Farm women
- ❖Self motivation
- ❖Income generating activities

Step wise methodology:

- ❖Survey of the locations
- ❖Selection of samples (Farm women)
- ❖Analysing their behaviour towards self - sufficiency
- ❖Organizing trainings
- ❖Making them understand the meaning and value of own income
- ❖Value of Self - sufficiency
- ❖Facilities of education and health
- ❖Evaluation of day to day activities
- ❖Feedback

DISCIPLINE WISE FRONT LINE DEMONSTRATION SUMMARY

Discipline	Crop/ Enterprise / Social Concept	No. of Technology/ Social Concept	No. of demos proposed	Area (ha) to be covered/ no. of activity	No. of participants/farmers to be covered
Agronomy	Nano - urea application in kharif paddy.	1	20	8	20
	Promotion of Millet under Natural Farming	1	20	8	20
Horticulture	*ChLCV* resistance variety Arka Gagan	1	20	8	20
	Commercial Cultivation of Marigold Variety Pusa Narangi	1	20	3.2	20
Plant Protection	Mgt of chilli leaf curl	1	20	8	20
	Popularization of integrated management of rhizome rot of Ginger.	1	20	8	20
Animal Husbandry	Azolla feeding in conventional concentrate ration of swine	1	10	10 units	10
	probiotic in feeding of Goat	1	10	10 units	10
Fishery Science	Popularization of Floating grow-out supplementary carp feed (COF: CAU-GCFF) Made with locally available ingredients and fish processing waste	1	10	2.4	10
	Popularization of Livestock-Fish-Horticulture based Integrated Farming System	1	10	2.4	10
Agril. Extension	Impact of MGNREGA	1	20	20 units	20
	Impact of School Nutrition Garden on the nutrient intake of children	1	20	20 units	20
Total		**12**	**200**	**48 ha/ 60 units**	**200**

FRONTLINE DEMONSTRATION (FLD) -AGRONOMY (2nd year)

Title of intervention: **Popularization of nano - urea application in *kharif* paddy.**

Major problems identified

❖**Excessive use of granular fertilizer reduces the nutrient use efficiency due to several application losses.**

❖**Excess use of chemical fertilizers causes irreparable damage to the soil structure.**

Period & Duration:
July-Nov,
(5 month)

Source OF Technology:
IFFCO,2020

Location	Purba Dulucherra, West Kuchainala, Kataluthma
No. of Demos	20
Targeted Area (Ha)	8
No. of Farmers	20

Details of Technology

T1- FFP(50%N,100% PK as basal dose) + 2 sprays of Nano-urea

T1- Farmers Fertilizer Practice (FFP)

Variety - Gomati

Parameters of assessment	**Average Plant height (cm), No. of effective tillers, Grain yield/ha (MT/Ha), Straw yield/ha (MT/Ha), B:Cratio, farmers reaction, Pest and disease ocurance**

FRONTLINE DEMONSTRATION (FLD) – AGRONAMY (1st year)

Title of intervention:* *Promotion of Foxtail Millet under Natural Farming

Major problem identified

Excess tillage practice results in high cost of cultivation of farmers

Period & Duration:
March– June (5 months)

Source of technology:
Kurukshetra,2020

Location	Simbhukchak, West Dalucherra , Mendi
No. of Demos	20
Targeted Area (Ha)	8
No. of Farmers	20

Details of the Technology

Foxtail millet – Local kaon/ SiA- 3156

Natural Farming (Use of Beejamrita, jeevamrita, neemastra and mulching)

****-Application of jeevamritha at every 20-30 days intervals.**

-Use of mulches

-Traditional method of weed control such as uprooting/manual weeding

Seed rate- 8 kg/ha

Parameters of assessment	Plant height (cm),Yield (MT/ ha) , Crop duration (days), B: C ratio, Farmers Reaction

Front Line Demonstration (FLD)- Horticulture (1st year)

Title of intervention: Popularization of ChLCV resistance variety Arka Gagan

Major problems identified

- High incidence of ChLCV.
- Poor yield.

Duration:
(5 months)

Location	Salema, Kamalpur, Gandacherra
No. of demos	20
Targeted Area (Ha)	8 ha

Source of technology:
IIHR Bangaluru, 2021,

Details of the Technology

T1. Arka Gagan (fruits erect solitary, 8-9 x 1- 1.1cm, firm, highly pungent, green and turn red on maturity, smooth turn slightly wrinkled on maturity, tolerant to chilli leaf curl virus, yield potential 80-100q green chilli/ acre

(Standard cultivation practice will be followed)

Parameters of assessment	Incidence of ChLCV (PDI), Yield (t/ha), Plant hight (cm), Canopy (cm), pungency (SHU), days to 50% flowering, crop duration (days). Cost of production (Rs/ha), Total return (Rs/ha), Net return (Rs/ha), B:C ratio, farmers reaction

Dhalai Farmers produced

FRONT LINE DEMONSTRATION (FLD)- HORTICULTURE (2nd Year)

Title of Technology: Popularization of Commercial Cultivation of Marigold Variety Pusa Narangi

Major problems identified

- Rate of the flower is high as it comes from outside the district or State
- Non availability of improved variety
- less commercial cultivation of Marigold

Period & Duration: Nov– Feb (4 months)

Source of Technology : IARI, New Delhi

Location	Kamalpur, Salema
No. of Demos	20
Targeted Area (Ha)	3.2
Nos of Farmers	20

Details of the Technology

- Marigold variety - Pusa Narangi Gainda.
- (FYM 2500 kg , Vermicompost 4000 kg , Oil Cake 250 kg, Urea 125 kg , SSP 375 kg , MOP100 kg)/ acre.
- $ZnSO_4$ 0.5% on 30th and 45th day after transplanting .
- Nipping/tipping- 30 days after planting terminal portion is tipped / removed to encourage the branching
- Pest and disease control measures

Parameters to be recorded	Yield (lakhs/Ha) Pest disease incidence percentage (if any) B: C ratio, Farmers Reaction

FRONT LINE DEMONSTRATION (FLD)- PLANT PROTECTION (2nd year)

Title of intervention: Popularization of integrated management of Chilli Leaf Curl disease

Major problems identified

- ❖Recurrent occurring of chilli leaf curl disease.
- ❖Lack of proper management practices against chilli leaf curl disease

Period & Duration:
Oct-April, (7 month)

Source OF Technology:
ICAR-IIVR, 2017 and NDU A & T , 2018

Location	Kulai, Avanga, Debicherra
No. of demos	10
Targeted Area (Ha)	8

Details of the Technology

Seed treatment *Trichoderma viride* (6g kg^{-1} seed)+ soil treatment of *T. viride* (10gm^{-2}) and sprays of Neem oil @ 2 ml/l at 7 days interval till fruit formation followed by spraying of imidacloropid @ 0.25 ml/l at 15 days interval.

Treatments	Mean percent of disease incidence	Disease index (days after planting DAP)			Mean yield (MT/ha)	Cost of production (Rs/ha)	Total return (Rs/ha)	Net return (Rs/ha)	B:C ratio	Feed back
		60 DAP	90 DAP	Final						

FRONT LINE DEMONSTRATION (FLD)- PLANT PROTECTION (1st year)

Title of intervention: ***Popularization of integrated management of rhizome rot of Ginger.***

Major problems identified & Percentage of Severity

- Lack of preventive measures such as seed & Soil treatment
- difficult to manage at later stages.

Period & Duration:
April – Feb (11 months)

Source OF Technology: ICAR Research Complex for NEH region, Sikkim, 2016

Location	**Jamthum ,Ashapurna Roaja Para VC, South Kachucherra**
No. of demos	10
Targeted Area (Ha)	8

Details of the Technology

Treat the rhizome seed with *Trichoderma harzianum* @ 50 gm /kg of seed + three periodic drenching of Copper Oxy Chloride (COC) @ 0.3% at 20 days interval.

Treatments	Mean percent of disease incidence	Disease index (days after planting DAP)			Mean yield (MT/ha)	Cost of production (Rs/ha)	Total return (Rs/ha)	Net return (Rs/ha)	B:C ratio	Feed back
		100 DAP	200 DAP	Final						

FRONTLINE DEMONSTRATION (FLD)- ANIMAL SCIENCE (2nd year)

Title of intervention: Popularization of Azolla feeding in conventional concentrate ration of swine

Major problems identified

- Production cost is very high due to higher feeding cost.

Period & Duration: April – jan (10 months)

Source OF Technology: CVSc, Proddatur, Andhra Pradesh, India, 2013

Location	Halholi, Hererkhola, Mendi
No. of demons	10
Targeted Area (Ha)/ Unit	3
Nos of farmers	10

Details of the Technology

After weaning (900 g of concentrate ration + 76.5 g of dried Azolla) will be given and data to be recorded every month

Parameter	Avg. Body wt. gain (Kg)	Feed Conversion Ratio (FCR)	Cost of production (Rs)	Total return (Rs)	Net return (Rs)	B:C ratio	Farmers feed back

FRONTLINE DEMONSTRATION (FLD)- ANIMAL SCIENCE (2nd year)

Title of intervention:* *Popularization of probiotic (Sacharomyces cerevisiae based combined probiotic) in feeding of Goat

Major problems identified & Percentage of Severity

- Lower body weight and growth performance
- Disease occurrence (eg: Diarrhoea)

Period & Duration:
April – Feb (11 months)

Source OF Technology: **Marathwada Agricultural University, Parbhani, Maharastra, 2010**

Location	Kalachari , Dabbari, Mendi
No. of demos	10
Targeted Area (Ha)/ Unit	3
Nos of farmers	10

Details of the Technology

Saccharomyces Cerevisiae based combined probiotic supplemented to goat kids (3 months old) and to be fed to the animals through concentrate feeds at the rate of 1 gm per kg of concentrate feed and data to be recorded monthly

Treatments	Avg. Body wt. gain	Feed Conversion Ratio (FCR)	Cost of production	Total return	Net return	B:C ratio	Disease occurance	Farmers feedback

FRONTLINE DEMONSTRATION (FLD)- FISHERY SCIENCE (2nd year)

Title of intervention: *Popularization of Floating grow-out supplementary carp feed (COF: CAU-GCFF) Made with locally available ingredients and fish processing waste*

Source of technology: CoF (CAU,Imphal), Lembucherra, Tripura) 2015,ICAR-CIFT, Cochin

Major problems identified

- High cost of artificial feeds.
- Water quality deteriorating problems.
- Waste management in fish processing areas

Location	Salema, Dabbari
No. of Demos	10
Targeted Area (Ha)	2.4 Ha
Nos of farmers	10

Details of the Technology

T-1: Farmer Practice (MOC:RB = 1:1), **T-2:** Floating feed developed by CAU

**The apparent feed conversion ratio (AFCR) has been found to be 1.8-2.2. (Culture period six months, stocking density 15000 ha-1, daily feeding rate: 4-3% biomass d-1, feeding frequency; twice a day (@ 9-10 am, and 3-4 pm, half of ration on each occasion)

Parameters of assessment	Growth rate, Yield (t/ha), FCR Cost of production (Rs/ha), Total return (Rs/ha) Net return (Rs/ha), B:C ratio, Farmers reaction

Feed ingredients: Rice bran, Mustard oil cake, Corn, Wheat, Rice, Wheat bran, Dry fish meal.

FRONTLINE DEMONSTRATION (FLD) - FISHERY SCIENCE (2nd year)

Title of intervention:* *Popularization of Livestock-Fish-Horticulture based Integrated Farming System

Major problem identified

- **Poor pond productivity**
- **Low income from single enterprise**
- **Under utilization of productive area**

Period & Duration:
July–March
(9 months)

Source of technology: ICAR_CCARI, 2015

Location	**Debbicherra, Srirampur, mendi**
No. of Demos	10
Targeted Area (Ha)	2.4
No. of Farmers	10

Details of the Technology

• Carp Fingerling to be stocked @ 8500 fingerlings/ha, species ratio of 40 % surface, 30 % column and 30 % bottom feeders.
•Vegetables (Bottle Gourd)
•Livestocks:- Duck (300 nos/ha)

Parameters of assessment	**Growth rate, Fish Yield (t/ha), Vegetable production (t/ha), Meat production, Egg production, Cost of production (Rs/ha), Total return (Rs/ha) Net return (Rs/ha), B:C ratio, Farmers reaction**

FRONT LINE DEMONSTRATION (FLD)
Agricultural Extension (2nd Year)

Title of Technology: Impact of Agricultural workers under MGNREGA on uplifting of Rural community

Source of Technology: Annamalai University, Tamil Nadu, 2016

Location: Baralutma, Maharani

Duration:
April – February (11 months)

No. of samples : 50

Major problems identified:
- ❖Household issues
- ❖Time management
- ❖Low wages

Parameters of assessment:
- ❖ Social acceptability of MGNREGA
- ❖ Adoption and diffusion rate of unskilled works
- ❖ Management of time
- ❖ Percentage increase in livelihood security
- ❖ Percentage increase in income.

Step wise methodology:
- ❖Survey of the locations
- ❖Selection of samples (Purposive sampling)
- ❖Ice – breaking
- ❖Detailing management of time
- ❖Detailing benefits of unskilled labour
- ❖Minimising wage gap
- ❖Analysing livelihood generated through MGNREGA
- ❖Evaluation of activities
- ❖Feedback

FRONT LINE DEMONSTRATION (FLD)
Agricultural Extension (1st Year)

Title of Technology: Impact of School Nutrition Garden on the nutrient intake of children

Source of Technology: University of Agricultural Sciences, Dharwad, 2017

Location: Salema, Baralutma, Bamancherra

Duration: April – February (11 months)

No. of samples : 3 schools

Major problems identified:

❖Lack of proper nutrition among school going children

❖Less income in the family

❖Lack of proper knowledge about balanced diet

Parameters of assessment:

❖Area reserved by schools to nutrition garden & quantity of vegetables harvested

❖Additional nutrient intake by children through nutrition garden

❖ Yield & economics of selected vegetables grown at Nutrition garden.

Step wise methodology:

❖Identification of schools having vocational agriculture

❖Calculation of area under Kitchen/Nutritional garden

❖Calculation of vegetables harvested per day

❖Calculation of total quantity of nutrients with minimum & maximum production of vegetables

❖Total contribution of nutrients

Natural Farming proposed during 2024

Activity/ Items	No. of programme/ activity	No. of participants
1. Awareness programme	5	417
a. Exhibition	1	200
b. Kisan Goshti	1	40
c. Campaign	1	100
d. Publication (Extension materials, posters, leaflets etc.)	Leaflets-500 Poster-35 Folders-40	
2. Training	7	175
3. Demonstration (Farmers Field)	8	8
4. Demonstration unit (at KVK)	8	

Training Programmes Target for the year 2024

(Farmers & Farm woman)

Discipline	Course (No.)	Farmer Beneficiaries (Nos.)				
		On	Off	Spon.	Vocational	Total
Agronomy	11	80(4)	100 (5)	20(1)	20(1)	220
Horticulture	7	60(3)	60 (3)	-	20(1)	140
Plant Protection	11	80 (4)	100 (5)	20(1)	20(1)	220
Animal Husbandry	14	120(6)	100(5)	40(2)	20(1)	280
Fishery Science	11	60 (3)	140 (7)	-	20 (1)	220
Agril Extension	8	2 (40)	3 (60)	2 (40)	20(1)	160
Total	64					1240

Training Programmes Target for the year 2024

(Rural Youth)

Discipline	Course (No.)	Farmer Beneficiaries (Nos.)				
		On	Off	Spon.	Vocational	Total
Agronomy	6	60(3)	60(3)			120
Horticulture	4	40(2)	40(2)	-	-	80
Plant Protection	6	60(3)	60(3)			120
Animal Husbandry	12	120(6)	100 (5)	-	20(1)	240
Fishery Science	8	60 (3)	60(3)	20(1)	20(1)	160
Agril Extension	5	3(60)	2 (40)	-	-	100
Total	41					820

Training Programmes Target for the year 2024

(Extension Personnel)

Discipline	Course (No.)	Farmer Beneficiaries (Nos.)				
		On	Off	Spon.	Vocational	Total
Agronomy	2		40(2)			40
Horticulture	2	20(1)	20(1)	-	-	40
Plant Protection	2	40(2)				40
Animal Husbandry	2	20(1)	20(1)	-	-	40
Fishery Science	2	20(1)	20(1)	-	-	40
Agril Extension	2	20 (1)		20 (1)	-	40
Total	12					240

Extension Activities- 2024

Extension Activity	Nos. Proposed	Beneficiaries (No.)			Total
		Farmers	Extn. Personnel	Rural Youth	
Field Day	13	325	30	120	475
Kisan Mela	1	2700	0	0	2700
Kisan Gosthi	1	350	0	0	350
Exhibition	2	600	0	0	600
Film Show/Puppet show/drama	60	5400	0	0	5400
Method Demonstrations	35	950	35	70	1055
Farmers Seminar	5	500	0	0	500
Workshop	1	50	0	0	50
Group meetings	60	330	50	170	550
					Contd.

Extension Activities- 2024

Extension Activity	Nos. Proposed	Beneficiaries (No.)			Total
		Farmers	Extn. Personnel	Rural Youth	
Lectures delivered as resource persons	20	500	75	175	750
Newspaper coverage	8	0	0	0	8
Radio talks	2	0	0	0	2
TV talks	3	0	0	0	3
Popular articles	8	0	0	0	8
Extension Literature	15	0	0	0	15
Advisory Services	30	0	0	0	30
Scientific visit to farmers field	52	50	0	0	52
Farmers visit to KVK	14	0	0	0	0
					Contd.

Extension Activities-2024

Extension Activity	Nos. Proposed	Beneficiaries (No.)			Total
		Farmers	Extn. Personnel	Rural Youth	
Diagnostic visits	50	100	0	0	100
Exposure visits	8	80	0	50	130
Ex-trainees Sammelan	0	0	0	0	0
Soil health Camp	3	150	8	40	198
Animal Health Camp	4	900	0	0	900
Soil test campaigns	3	112	0	0	112
Farm Science Club Conveners meet	2	0	0	0	2
Self Help Group Conveners meetings	1	50	0	0	50
Mahila Mandals Conveners meetings	2	0	0	0	2
Celebration of Important days	4	1200	0	0	1200
Total	407	14347	198	625	15242

Target for Seed & Livestock production

Item	Crop	Variety	Proposed quantity (Qt)	To be provided / supplied to (Expected No. of farmers)
Cereals	Paddy	Tripura Chikon Dhan	10	25
		Hakuchuku -2	5	30
		Gomati	50	25
Oilseeds	Mustard	NRCHB-101	5	35
	Groundnut	TG-38	30	40
Pulses	Black Gram	PU-31	10	20
Vegetables	Ginger	Varada	0.3	10
	Turmeric	Prathibha	0.3	10
	Potato (ARC)	Himalini/ Lima/ Mohan/ Karan/ Megha/Uday	30	15
TOTAL			140.6	210
Animal Husbandry	Piglet	LWY	200 no.	100
Fishery	Fingerling	IMC	40000 no	60
TOTAL			400200	160

Target for Planting Materials production

Item	Crop	Variety	Proposed quantity (Nos.)	(Expected No. of farmers)
Commercial crop	Sugarcane	Barak/ Lohit	10000	3
Fruits	Banana	Sabri/Kach Kela	500	20
	Mango	Amrapali	500	20
Vegetables	Winter Vegetable	5 varieties	10000	30
	Tomato	Arka Abhed	5000	25
	Capsicum	Pvt. sector variety	2000	15
	Brocculi	Pvt. sector variety	1000	25
	Sweet potato	Bhu Krishna/Sona	3000	30
Floriculture	Winter Flower	Pvt. sector variety	5000	50
	Marigold	Pusa Narangi & F1 Hybrid	2000	25
Plantation Crops	Areca nut	Local Selection	2000	45
	Coconut	Import Variety	200	20
Total			41200	308

MOTHER BLOCK DEVELOPMENT AT KVK FARM

Item	Crop	Variety	Proposed quantity (Nos.)
Major Fruits	Dragon Fruit	White/Red/Yellow	1200
	Guava	4	180
	Banana	10	170
	Ber	Apple Ber	5
Minor Fruits	Loquat		5
	Rambutan		5
	Durian		5
	Avocado		5
	Cocoa		5
	Rambutan		5
	Mangosteen		5
TOTAL			1590

OTHER UNITS DEVELOPMENT AT KVK FARM

Item	Breed	Proposed quantity (Nos.)/ unit	Requirement
Poultry Unit Extension	BND, Kadaknath	600	External fund for Demo unit & for Hatchery
Duckery Unit	White Pekin, Khaki Cambell	100	External fund
Fish Breeding unit	Amur Carp, Ornamental Fish , Jayanti Rahu		Hatchery set up

Soil & Water Sample Analysis / Soil Health Cards (SHCs)

Sl. No.	Samples	Nos. of samples targeted	Target of Farmer beneficiaries	Village to be covered	Amount to be realised (Rs.)	SHCs to be issued to farmers (Nos.)
1.	Soil sample	4000	4000	50	-	15000
2.	Water sample	500	500	20	-	500
3.	Plant sample	300	300	30	-	300
	Total	4800	4800	100	-	15800

Mobile Advisory for 2024

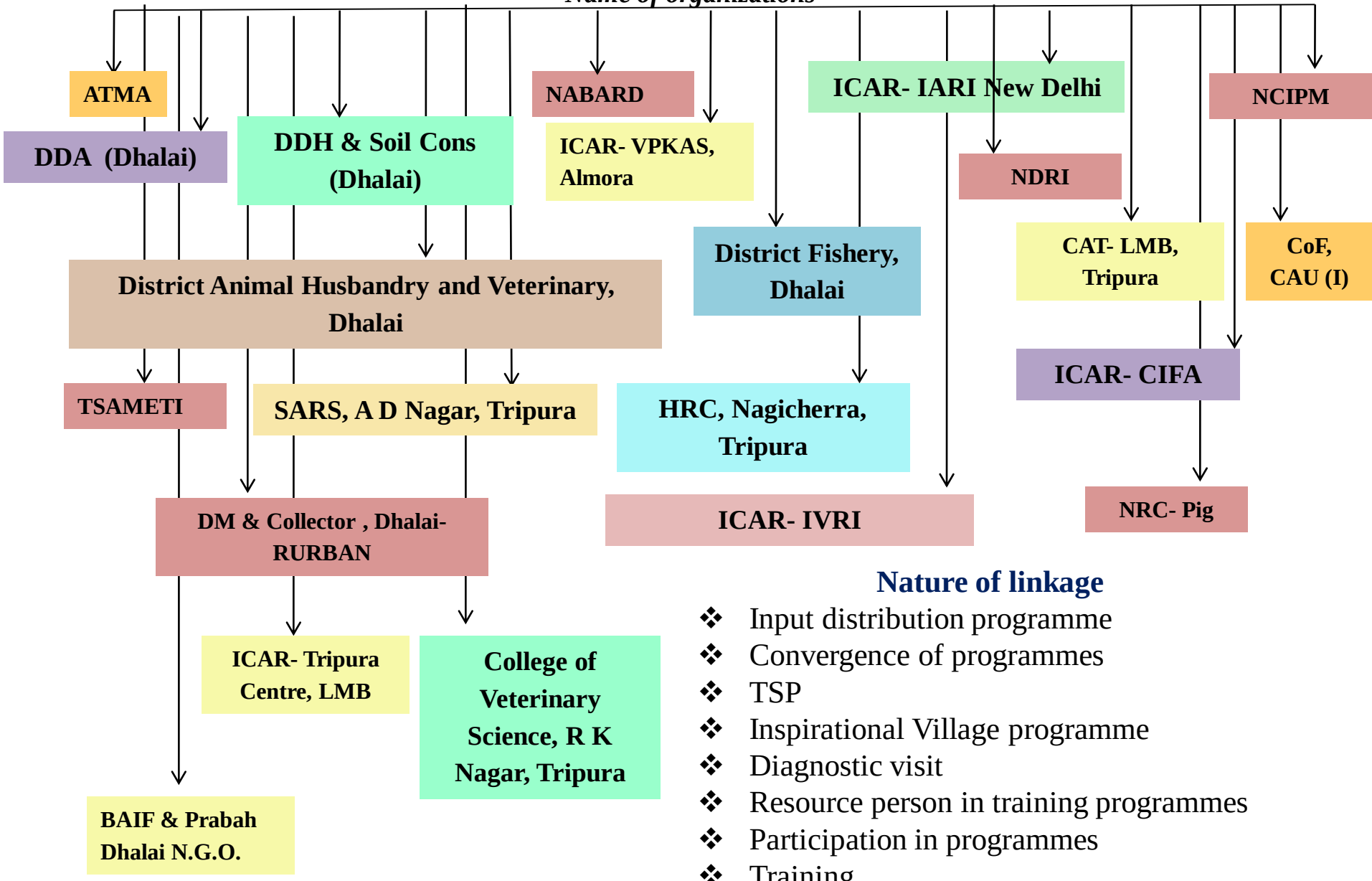
Message type sent	Crop		Livestock		Weather		Marketing		Awareness		Other Enterprise		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	75	450	50	275	25	650	20	650	30	750	25	450	225	3225
Voice only	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Voice and Text both	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75	13,000	50	3,000	25	23,000	20	10,000	30	20,000	25	10,000	225	23,000

Other Projects Activities - 2024

Sl.No.		Activities
1	NCIPM, New Delhi	Testing and FLDs, Training
2	NABARD	IFF- PROJECT
3	ARYA	Entrepreneurship Development
4	NARI	Twice in a Week
5.	KSHAMATA	Once in a week
6.	TSP- PROJECT	Thrice in a week
7	NEH Component of Diff. Institutes	Testing and FLDs, Training
8	SAP	Awareness activities , FLDs
9	NFSM & NMOOP	CFLDs
10	MGMG	Mandated activities
11	Ministry of Agri & FW, GOI	Flagship programmes
12	Natural Farming	FLDs, awareness activities

FUNCTIONAL LINKAGES

Name of organizations



Nature of linkage

- Input distribution programme
- Convergence of programmes
- TSP
- Inspirational Village programme
- Diagnostic visit
- Resource person in training programmes
- Participation in programmes
- Training
- Participation in meetings

Thank You