ANNUAL REPORT

(JANUARY, 2022 - DECEMBER, 2022)

Submitted At

Annual Zonal Workshop for KVKs of ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata (Zone-V) Comprising Odisha, West Bengal and Andaman & Nicobar Islands

Organized By

ICAR-ATARI, Kolkata in Collaboration with Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar

At

Kalimpong Krishi Vigyan Kendra
(at Kalimpong Science Centre)

Submitted By

Rathindra Krishi Vigyan Kendra
Palli Siksha Bhavana
(Institute of Agriculture)
Visva-Bharati
Sriniketan, Birbhum, West Bengal- 731236

7th – 9th June, 2023

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ANNUAL REPORT 2022 (January-December 2022)

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and Address of KVK with Phone Number, Fax Number and E-Mail Address

Address	Telephone Number		E-Mail
Rathindra Krishi Vigyan Kendra Palli Siksha Bhavana (Institute of Agriculture) Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal, India	Office 03463-264771	FAX -	rathindrakvk@gmail.com rathindrakvk@rediffmail.com rkvk@visva-bharati.ac.in

1.2. Name and Address of Host Organization with Phone Number, Fax Number and E-Mail

Address	Telephone Number		E-Mail
	Office	FAX	
Visva-Bharati, Santiniketan, P. O. – Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal, India.	03463 - 262-751 to 262-756 (6 lines)	03463-262-672	Vice-Chancellor: vice-chancellor@visva-bharati.ac.in Registrar: registrar@visva-bharati.ac.in Principal, Palli Siksha Bhavana (Institute of Agriculture) and In-Charge Rathindra KVK: akbarikpsbvb@rediffmail.com

1.3. Name of Senior Scientist and Head with phone & mobile No.

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Subrata Mandal	-	9434431350	smkvkvb@gmail.com

1.4. Year of sanction: F.2 (2) \ 93-AE-1 on 4thOctober, 1994. Actual month of start: April, 1995 (Reference of Sanction Order)

1.5. Staff Position (as on 1st January, 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
01.	Senior Scientist & Head	Dr. Subrata Mandal	Senior Scientist and Head	Agronomy	Pay Level -13 A Basic: Rs 1,56,900/-	08.10.2021	Permanent	GC
02.	Subject Matter Specialist	Sri Sourav Mondal	Subject Matter Specialist	Plant Protection	Pay Level -13 A Basic: Rs 1,52,300/-	01.08.2004	Permanent	SC
03.	Subject Matter Specialist	Dr. Prabuddha Ray	Subject Matter Specialist	Agricultural Extension	Pay Level-10 Basic: Rs. 73,200/-	19.06.2012	Permanent	GC
04.	Subject Matter Specialist	Dr. Madhuchhanda Khan	Subject Matter Specialist	Animal Science	Pay Level-11 Basic: Rs. 80,900/- NPA 20%	10.06.2014	Permanent	GC
05.	Programme Assistant	Sri Suraj Kumar Bhakta	Programme Assistant (Computer Programmer)	-	Pay Level-6 Basic: Rs.44,900/-	16.06.2014	Permanent	OBC
06.	Programme Assistant	Sri Palash Ankure	Programme Assistant (Farm Manager)	-	Pay Level-7 Basic: Rs.49,000/-	18.09.2014	Permanent	SC
07.	Driver	Sri Krishna Bansi Chatterjee	Driver-cum-Mechanic	-	Pay Level-7 Basic: Rs.56,900/-	06.05.1997	Permanent	GC
08.	Driver	Sri Bikash Chandra Ghosh	Driver-cum-Mechanic	-	Pay Level-7 Basic: Rs.56,900/-	06.05.1997	Permanent	GC
09.	Supporting staff	Sri Naran Tudu	Supporting Staff	-	Pay Level-1 Basic: Rs.24,200/-	05.06.2014	Permanent	ST

Note: At present, 6 posts (Subject Matter Specialist-3, Programme Assistant-1, Assistant-1, Stenographer-1) are vacant among the total sanctioned post 16.

DAMU staff

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
01.	Subject Matter Specialist	Sri Sayak Mahato	Subject Matter Specialist	Agro Meteorology	Pay Level -10 Basic: Rs 59,500/-	13.08.2020	Temporary	GC
02.	Agromet Observer	Sri Swapan Bauri	Agromet Observer	-	Pay Level -3 Basic: Rs 23,100/-	03.08.2020	Temporary	SC

1.6. Total land with KVK (in ha)

Sl. No.	Item	Area (ha)
1.	**Under Buildings**	00.550
2.	**Under Demonstration Units**	00.002
3.	**Under Crops for Demonstration**	02.000
4.	**Orchard/Agro-forestry**	01.000
5.	**Under Seed Production**	04.000
6.	**Stocking and Rearing Pond**	01.000
7.	**Nursery Pond**	00.013
8.	**Under Fallow and farm roads**	07.080
6.	**Total**	**15.645**

1.7. Infrastructure Development:

A) Buildings and others

Sl. No.	Name of infrastructure	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (sq.m)	Under use or not*	Source of funding
1.	Administrative Building					Totally completed	550.00	Under use	ICAR
2.	Trainees' Hostel					Totally completed	305.00	Under use	ICAR
3.	Staff Quarters (6)	-							
4.	Piggery unit	-							
5	Fencing	-							
6	Rainwater harvesting structure	-							
7	Threshing floor					Totally completed	180.00	Under use	ICAR
8	Farm go-down					Totally completed	46.25	Under use	ICAR
9.	Dairy unit	-							
10.	Poultry unit					Totally completed	80.00	Under use	ICAR
11.	Goatary unit	-							
12.	Mushroom Lab					Totally completed	10.00	Under use	ICAR
13.	Mushroom production unit					Totally completed	20.00	Under use	ICAR
14.	Low-cost Shade net house					Totally completed	56.00	Under use	ICAR
15.	Soil test Lab					Totally completed	26.00	Under use	ICAR
16.	Portable Carp Hatchery for Fish Breeding					Totally completed	15.00	Under use	ICAR
17.	Duckery unit					Totally completed	80.00	Under use	ICAR
18.	Plant Diagnostic Laboratory					Totally completed	25.00	Under use	ICAR
19.	Micro Irrigation Demonstration Unit					Totally completed	100.00	Under use	ICAR
20	Micro irrigation system in progeny orchard					Totally completed	10000	Under use	PMKSY
21	Vermicompost unit (Swachhta action plan)					Totally completed	8.25	Under use	ICAR
22	Azolla production unit					Totally completed	22.00	Under use	ICAR

*** If not in use, then since when and reason for non-use**

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Motor Bike (Rajdoot)	1997	32,000.00	-	Not in running condition
Moped (Toro Jaz)	1997	12,500.00	-	Not in running condition
Multi Utility Vehicle (Bolero Plus)	2010	5,20,495.00	1,62,120	In running condition
Motor Bike (Hero Splendor Pro)	2016	59,223.00	10,562	In running condition
Scooter (Hero Edge LX)	2016	60,323.00	8,358	In running condition

C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab Equipment				
Desiccators	1995-96	1540.00	Working condition	ICAR
Sewing machine	1995-96	3605.60	Working condition	ICAR
Mixer cum grinder	1995-96	3430.50	Working condition	ICAR
Weighing balance	1995-96	1700.00	Working condition	ICAR
Mixer grinder Kenstar	2004-05	5,000.00	Working condition	ICAR
Refrigerator Whirlpool	2004-05	16,750.00	Working condition	ICAR
Stabilizer Fizi	2004-05	2450.00	Working condition	ICAR
Shaker	2004-05	24500.00	Working condition	ICAR
Oven	2004-05	9000.00	Working condition	ICAR
Kelplus Digestation System Model KES 08L	2004-05	85,719.00	Working condition	ICAR
Kelplus Distillation System Elite Ex	2004-05	1,38,943.00	Working condition	ICAR
Systronics Micro controller based visible spectra-photometer	2004-05	53,064.00	Working condition	ICAR
Systronics P-H system	2004-05	21,582.00	Working condition	ICAR
Systronics Digital conductivity meter	2004-05	15,444.00	Working condition	ICAR
Systronics Flame photometer Type 128	2004-05	73405.00	Working condition	ICAR
Hotplate with energy regulator	2004-05	2,340.00	Working condition	ICAR
Glass distillation apparatus flux	2004-05	15,617.00	Working condition	ICAR
Physical balance cap.250g with weight box	2004-05	6,310.00	Working condition	ICAR
Shimadzu Electronic Balance	2004-05	66,254.00	Working condition	ICAR
Kjeldal digestion unit	2004-05	6,205.00	Working condition	ICAR
Kjeldal distillation unit	2004-05	10,411.00	Working condition	ICAR
Microscope- Trinocular	2010-11	47,069.00	Working condition	ICAR
Microscope – Stereo	2010-11	21,055.00	Working condition	ICAR
BOD incubator	2010-11	39,132.00	Working condition	ICAR
Autoclave- Vertical	2010-11	21,814.00	Working condition	ICAR
Centrifuge	2010-11	14,200.00	Working condition	ICAR
Microscope Image Projection System (MIPS)	2010-11	31,885.00	Working condition	ICAR
Laminar Flow	2010-11	53,465.00	Working condition	ICAR
Desiccators	2010-11	6,072.00	Working condition	ICAR
Rotary Shaker	2010-11	21,700.00	Working condition	ICAR
Digital Weighing machine	2010-11		Working condition	ICAR
Soil Testing Mini-Lab Mridha parikshak Solar Operated	2015-16	70,000.00	Working condition	ICAR
Soil Testing Mini-Lab Mridha parikshak Solar Operated	2016-17	86,000.00	Working condition	ICAR

Bardizzo Castrator	2016-17	1,600.00	Working condition	ICAR
Auto Vaccinator	2016-17	3,400.00	Working condition	ICAR
pH. Meter	2016-17	1,431.00	Working condition	ICAR
Room Thermometer	2016-17	295.00	Working condition	ICAR
Stethoscope	2016-17	500.00	Working condition	ICAR
Dissolved Oxygen Meter	2016-17	12,022.00	Working condition	ICAR
pH. Meter	2016-17	1,431.00	Working condition	ICAR
Digital Electronic Balance (5.0 mili grams – 300.00 grams)	2016-17	13,400.00	Working condition	ICAR
b. Farm machinery				
Tractor Model Mahindra B 275 – DI	1998-99	2,99,496.00	Working condition	ICAR
Power Tiller Model Kamco KMB 200	2001-02	99,672.00	Working condition	ICAR
Rotavator Model 5/540 R	2012-13	59,000.00	Working condition	ICAR
Bench Floor Scale (Capacity – 200 kg) Model Sana	2010-11	8,000.00	Working condition	ICAR
Precision Scale (Capacity – 600 gms) Model Sana	2010-11	11,200.00	Working condition	ICAR
Portable Carp Hatchery	2010-11	2,21,956.00	Working condition	ICAR
Seed Processing Machine Model 15X/C.H. Standard Capacity 1.5 ton / Hour	2015-16	2,57,800.00	Working condition	ICAR
Elevator 16 Feet complete with 1.5 HP 440 Volt Electric Motor	2015-16	55,000.00	Working condition	ICAR
Mini Grinder	2015-16	73,500.00	Working condition	ICAR
Palletizer Machine	2015-16	39,900.00	Working condition	ICAR
Generator 15 KVA 3 Phase Model CD- 15 of Copper Corporation	2015-16	3,95,025.00	Working condition	ICAR
Laptop HP G 240	2015-16	43,000.00	Working condition	ICAR
Desktop All-in-One HP 20	2015-16	44,430.00	Working condition	ICAR
UPS APC 600 VA	2015-16	2,300.00	Working condition	ICAR
Printer Laserjet M 126 nw	2015-16	12,900.00	Working condition	ICAR
Computer Table and chair	2020-21	17,500.00	Working condition	DAMU
Office Table and chair	2020-21	20,762.00	Working condition	DAMU
Office Almirrah	2020-21	10,169.00	Working condition	DAMU
Computer Table 60"X36"X30"	2020-21	12000.00	Working condition	DAMU
Wooden Chair with Arm	2020-21	5500.00	Working condition	DAMU
Glass Door Al mirah 78"X34"X48"	2020-21	12000.00	Working condition	DAMU
Steel Table 30"X24"X48" (2 Nos.)	2020-21	14000.00	Working condition	DAMU
Revolving Chair 18"X18" (3 Nos.)	2020-21	10500.00	Working condition	DAMU
c. A-V Aids				
Overhead Projector	1994-95	24,477.55	Working condition	ICAR
Sony TV	1998-99	20999.00	Working condition	ICAR
Sony audio system	1998-99	5,990.00	Working condition	ICAR
Sharp VCR	1998-99	13,750.00	Working condition	ICAR
Slide projector	2001-02	14,672.00	Working condition	ICAR
PA system			Working condition	ICAR
Amplifier	2001-02	6400.00	Working condition	ICAR
Microphone ASM580	2001-02	2700.00	Working condition	ICAR
Microphone ACM66	2001-02	1300.00	Working condition	ICAR

Speaker	2001-02	2500.00	Working condition	ICAR
DGT stand	2001-02	290.00	Working condition	ICAR
DGN stand	2001-02	490.00	Working condition	ICAR
LCD projector	2008-09	99,990.00	Working condition	ICAR
Camera	2008-09	23,900.00	Working condition	ICAR
Multimedia Projector SVGA WB 3300 HP	2019-20	32280.00	Working condition	ICAR
d. Office Equipments				
Word processor	1995-96	2,100.00	Working condition	ICAR
Canon photo copier	2003-04	69,988.00	Not in working condition	ICAR
Stabilizer 2KVA	2003-04	4,000.00	Working condition	ICAR
Generator	2008-09	49,500.00	Working condition	ICAR
Finger Print based Attendance Register Eurovigil I Deter 200	2015-16	20,600.00	Working condition	ICAR
Printer HP L3 1020 Plus	2015-16	8,200.00	Working condition	ICAR
Canon Photo Copier Image RUNNER 2004 N	2016-17	80,273.00	Working condition	ICAR
Desktop Computer Intel Core I 5 Processor with UPS 600 VA	2017-18	47,700.00	Working condition	ICAR
Laptop HP Intel Core I 3 Processor	2017-18	48,900.00	Working condition	ICAR
HP Colour Desk Jet Printer 5821	2017-18		Working condition	ICAR
Aqua guard Water Purifier	2019-20	11500.00	Working condition	ICAR
Blue Star Water Cooler	2019-20	24900.00	Working condition	ICAR
HP Laptop with accessories	2020-21	45,217.00	Working condition	DAMU

D) Farm implements

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
ASPEE Sprayer (10 liters)	1995 - 96	2,050.00	Working condition	ICAR
ASPEE Hand Sprayer	1995 - 96	1,090.00	Working condition	ICAR
Paddy Thresher	1995 - 96	4,000.00	Working condition	ICAR
Hand Rotary Duster	1995 - 96	650.00	Working condition	ICAR
Spray Machine 16 lit. Capacity PVC Burret	2009-10	2,300.00	Working condition	ICAR
Mould Board Plough Model – Bengal Motor Works	2009 - 10	30,000.00	Working condition	ICAR
Mounted Offset 10”X20” Disc Harrow Model – Bengal Motor Works	2009 - 10	35,000.00	Working condition	ICAR
Self-Propelled Power Ripper Model Kumco KB - 120	2010 - 11	81,156.00	Working condition	ICAR
Zero Tillage Machine 11 Tynes	2010 - 11	40,000.00	Working condition	ICAR
ConoWeeder	2012 - 13	Free Supply	Working condition	ICAR
Drum Seeder	2012 – 13	Free Supply	Working condition	ICAR
Bush Cutter	2019-20	24643.00	Working condition	ICAR

1.8. Details of Scientific Advisory Committee (SAC) Meeting conducted in the last year

Date	Number of Participants	Salient Recommendations	Action taken
11.02.2022	29 + all the staff members of RKVK	• Increase in planting material production in KVK Instructional Farm	Production of Planting Materials has been increased by producing more numbers of seedlings of different vegetables like Brinjal, Tomato, Onion, Capsicum, Cabbage, Cauliflower, Coloured Cauliflower, Broccoli etc. Foundation and Certified Seed production programme of Rice, Mustard, Chickpea, Lentil has been conducted in KVK Instructional Farm during the year.
		• Introduction of drought resistant crops and varieties	Seed production (Breeder to Foundation) of drought resistant crop viz. Finger Millet Variety Indravati was conducted at RKVK farm in collaboration with West Bengal State Seed Corporation Ltd. (WBSSC)
		• Focus on Climate Resilient Agricultural Technology	On Farm Trial (OFT) on date of sowing in Coloured Cauliflower has been conducted to assess proper date of sowing with the change of rainfall and temperature.
		• Diversification in Poultry Farming	Diversified Poultry breeds like Kadaknath, Aseel, Caribro, Krishibro have been introduced by RKVK during the period
		• More OFT on Horticultural crops	Three more OFTs on Horticultural crops have been conducted during the period
		• Introduction of Coloured Cauliflower	OFT on Coloured Cauliflower Variety Carotena (yellow) and Valentena (pink) have been conducted in farmers' fields. Seedlings of Coloured Cauliflower have also been sold by RKVK farm.
		• Introduction of environment friendly solar powered insect trapping system	RKVK has installed 5 Portable Solar powered Insect Traps in different crop demonstration units at KVK farm
		• Introduction and installation of low-cost incubator through Self Help Groups (SHGs) for Poultry Farming	Low-cost incubator for hatching the eggs has been installed in a tribal village for a Women SHG and another low-cost Incubator has been purchased for installation.
		• Introduction of Drone Technology in KVK	A drone has been purchased with the fund from ICAR-ATARI, Kolkata. The demonstration through drone will be started within the month of March, 2023
		• Establishment of Custom Hiring Centre at KVK level	RKVK approached ICAR-IIAB, Ranchi for fund. A fund from ICAR-IIAB, Ranchi has been received by RKVK for establishment of Custom Hiring Centre. The purchase process for different equipment is going on.

**** Salient recommendation of SAC in bullet form***

2.a. District level data on agriculture, livestock and farming situation (2022)

2.a.1. Major Farming system/enterprise

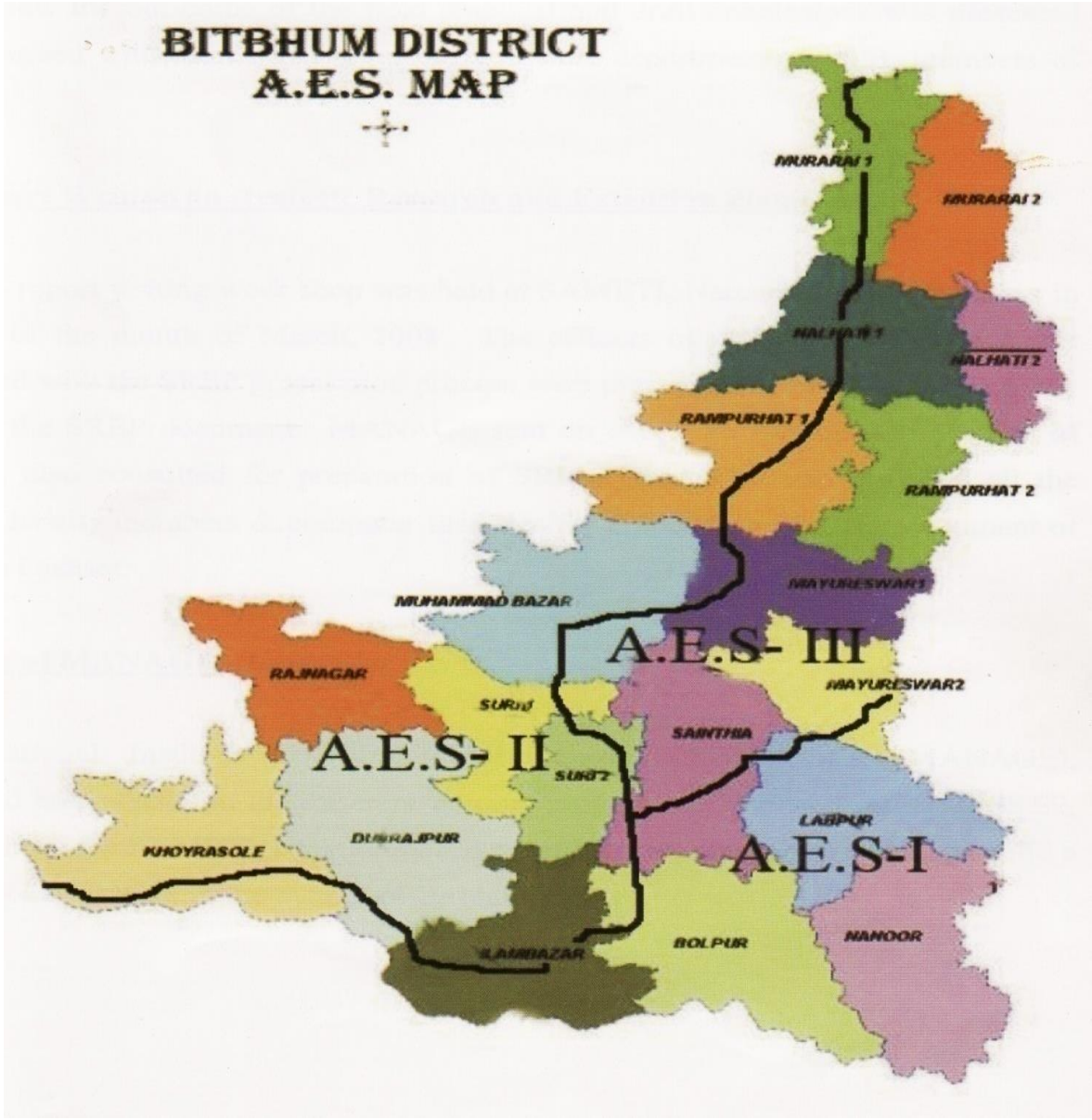
Sl. No.	Farming System/Enterprise
1.	**Upland**- Paddy, red gram, fruit crops
2.	**Mediumland**- Paddy, mustard, potato, sugarcane, sesame, black gram, vegetables, fruit crops, cow, goat, backyard poultry, fishery
3.	**Lowland**- Paddy, sugarcane, wheat, potato, vegetables, duckery, fishery

2.a.2. Agro-climatic Zone

Agro Ecological Sub Region (ICAR): - Assam and Bengal Plain, Hot Sub-humid to Humid (Inclusion of Per-humid) Eco-Region. (15.1)
Eastern plateau (Chhota Nagpur) And Eastern Ghats, Hot Sub-humid Eco-Region (12.3)
Agro-Climatic Zone (Planning Commission): - Lower Gangetic Plain Region (III)
Agro Climatic Zone (NARP): - Red and lateritic Zone (WB-5)

2.a.3. Agro-ecological situation

The Birbhum District is divided into three Agro-Ecological Situation viz. AES – I, AES – II and AES – III. The Rathindra KVK is situated in the AES – I. The Map and detailed features of the Ago-ecological Situations of the District of Birbhum are given here under.



Source: - SREP, Birbhum – 2009.

Agro-ecological Situations of the District of Birbhum

Characteristics	AES – I	AES – II	AES – III
Blocks covered	Blocks under this AES are Bolpur-Sriniketan, Nanoor, Sainthia, parts of Mayureswar – I and Mayureswar – II. parts of Labhpur, Illambazar	Blocks under this AES are Rajnagar, Dubrajpur, Khyrasole, parts of Nalhati – I, Rampurhat – I, Murarai– I, Mayureswar – I, Illambazar, Labhpur, Suri – I and Md. Bazar.	Blocks under this AES are Rampurhat – II, parts of Murarai – I, Murarai – II, Nalhati I, Nalhati – II, Md. Bazar, Suri – I and Suri – II.
Soil Type	Fertile loamy clay soil, 60 percent of cultivable area under loam – clay loam soil. pH – 4.5 – 6.5	Sandy to sandy clay soil. 80 percent of cultivable area under clay soil and slightly acidity problem soil. pH – 5.2 – 6.5	Clay to clay loam soil. 70 percent clay soil with 30 percent loam to clay loam soil. pH – 4.8 – 6.5
Irrigation	75 percent of the total cultivable area is under irrigation out of which 51 percent of area is under surface irrigation.	30 percent of the total cultivable area is under irrigation out of which 20 percent of the area is irrigated from surface water and the rest area is irrigated from minor irrigation sources. Ground water is not easily available.	70 percent of the total cultivable area is under irrigation out of which 60 percent of the area is irrigated from available groundwater. Surface irrigation area is only 10 percent. Ground water is easily available for irrigation purpose.
Important River	Ajoy, Mayurakshi, Dwaraka, Kopai	Hinglow, Bakreswar, Shaal, Ajoy, Chandrabhaga	Dwaraka, Brahmani, Mayurakshi, Pagla, Bansloi
Flood / Draught Proneness	Moderate flood prone area	Moderate draught prone area	Flood prone area
Available Water Area for Fish Cultivation	30 percent of ponds of the district of Birbhum are situated. Sweet water is available for fisheries.	20 percent of ponds of the District of Birbhum are under this AES. A vast sweet water resource is available for fish cultivation.	50 percent of the ponds of the District of Birbhum are under this AES. Sweet water area is available for fish cultivation.
Animal Resources	20 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. Only 15 percent of the total Goat population of the District of Birbhum and 30 percent of the Poultry Population of the District of Birbhum are available in this AES.	50 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. 60 percent of the total Goat population of the District of Birbhum and 40 percent of the Poultry Population of the District of Birbhum are available in this AES.	30 percent of the total Milch Cows of the District of Birbhum is available under this AES out of which upgraded Breed percentage is only 5 percent. Only 25 percent of the total Goat population of the District of Birbhum and 30 percent of the Poultry Population of the District of Birbhum are available in this AES.
Major Crops: **Paddy -** **Oil Seeds –** **Pulses –** **Vegetables –** **Fruits -**	 Pre-Kharif, Kharif and Boro Paddy Mustard, Groundnut and Sesame Black and Green Gram, Lentil, Bengal Gram, Kulthi Seasonal vegetable round the year Mango, Guava, Citrus, Banana, Coconut	 Pre-Kharif, Kharif and Boro Paddy Mustard and Groundnut and Sesame in limited areas. Khesari, Black and Green Gram, Lentil, Bengal Gram, Kulthi Seasonal vegetables round the year Mango, Guava, Citrus, Banana, Coconut	 Pre-Kharif, Kharif and Boro Paddy Mustard, Groundnut and Sesame Black Gram and Green Gram Seasonal vegetables round the year Mango, Guava, Citrus, Banana, Coconut.

Source: - SREP, Birbhum – 2009.

2.a.4. Soil Type

The predominant soil types are old alluvial and red lateritic with low to medium in organic carbon and phosphate content and medium to high in potash. The soil is acidic in nature with pH. range of 5.0 to 6.5.

This district (Birbhum) is enriched by various types of soil namely, Metal (Clay soil retentive of moisture which is best suited for growing Winter Rice, Sugarcane, Wheat, Gram and Kalai); Ental (a sticky brownish clay, it is poor soil and is capable of producing paddy only if manured); Bagha Ental (Ental having colour or tiger, it is poor soil capable of producing paddy only if manured); Beley (is a whitish loose and poor soil , capable of growing paddy and vegetable); Kankure ((it is a reddish, loose laterite soil capable of growing bajra, Maize, Kurthi, Bean and Marual); Bastu (it is a blackish friable rich soil and is largely used for rabi crops); Bindi (it is a poor sandy soil which improves with continued cultivation, capable of producing paddy but can also grow rabi crops if irrigated); RetiRfi (is lighter variant of Pali, it does not grow paddy it is best suited for vegetables, wheat, barley etc.) Pali (deposit of soil is bed of river or in areas subject to riverine inundation; it is very rich soil and is well suited for Sugarcane, Wheat, Gram, Potato and other Vegetables. It is generally reserved for more valuable crops rather than Rice).

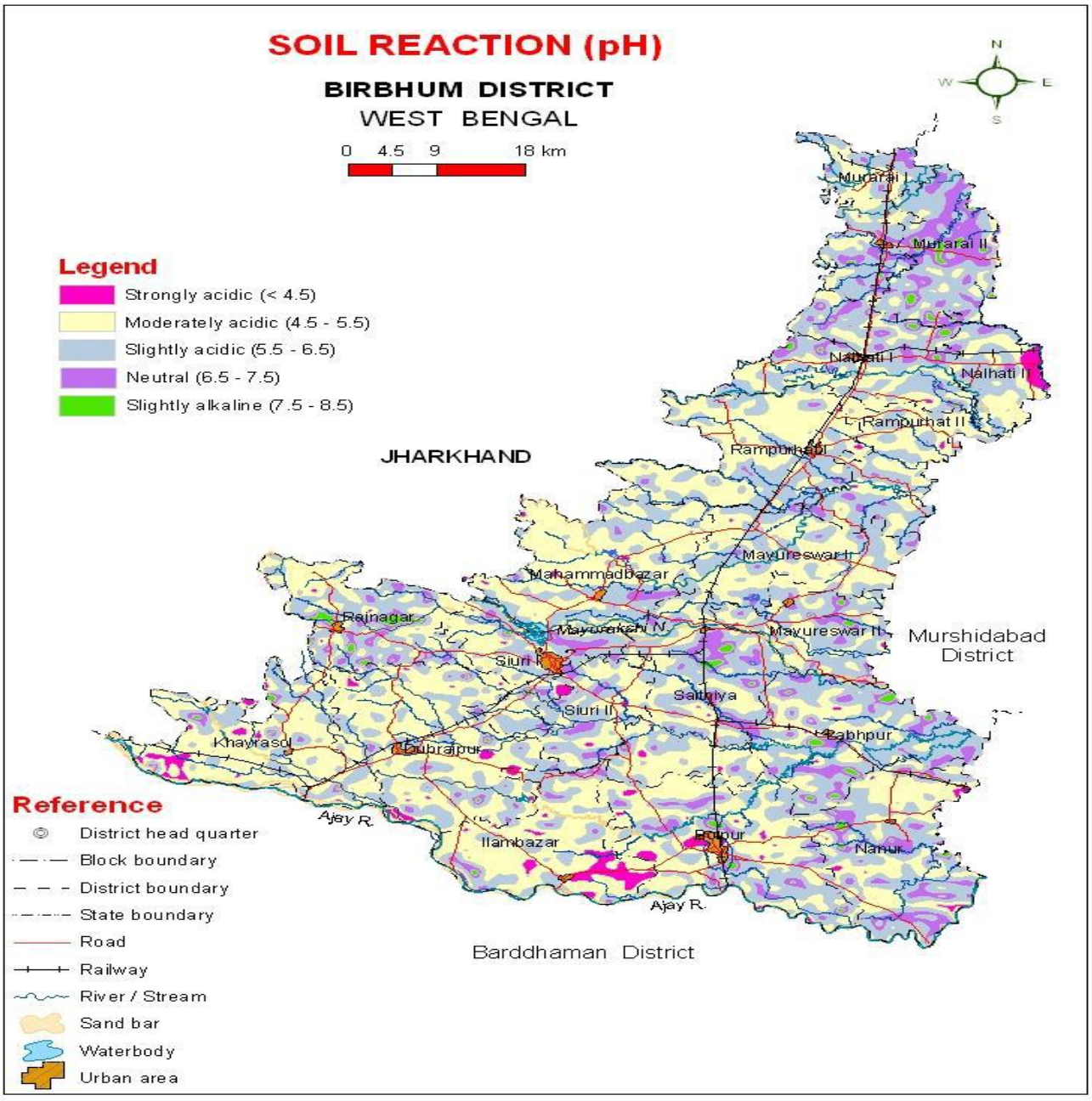


Fig. 5 Spatial distribution of soil reaction (pH) class

Sources: https://birbhum.gov.in/agriculture/

2.a.5 Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others

Name of the Crop	2019-20			2020-21		
	Coverage (Ha)	Yield (Kg/Ha)	Production (MT)	Coverage (Ha)	Yield (Kg/Ha)	Production (MT)
Aman Paddy	264763	5138.2	1360392	303395	5100.64	1547509
Aus Paddy	3560	3050	10858	3560	3858	13734.48
Boro Paddy	98148	5160	506444	96685	5139	496864.2
Summer Maize	635	1500	952.5	1025	1655	1696.38
Kharif Maize	425	1850	786.25	1333	1340	1786.22
Groundnut(S)	261	1350	352.35	260	1260	327.60
Groundnut (Kh)	176	1138	200.288	1030	1085.15	1117.70
Mustard	40550	1305	52917.8	41850	1270	53149.50
Linseed	487	660	321.42	485	620	300.70
Sunflower	68	825	56.1	50	652	32.60
Sesamum	6320	798	5043.36	6125	957.25	5863.16
Arhar	348	940	327.12	615	1055	648.83
Lentil	21355	1076	22978	21650	1104	23901.60
Khesari	6000	700	4200	6250	895	5593.75
Gram	12570	1375	17283.8	11655	1520	17715.60
Pea	350	920.25	322.088	345	1272	438.84
S/Moong	2460	670	1648.20	2445	915	2237.18
S/Kalai	1218	675	822.15	1210	955.1	1155.67
Bhadoi Kalai	875	730	638.75	886	665	589.19
Kulthi & other Pulse	318	725	230.55	381	674	256.79
Potato	20767	29175	605881.00	21050	32060	674863.00
Wheat	26965	3255	87771.1	25365	3275	83070.38
S/Cane	1066	78638	83828.1	1065	78638	83749.47

Source – Dept. of Agriculture, Birbhum District, Govt. of West Bengal.
Internet Source https://birbhum.gov.in/agriculture/

Area & Production and productivity of vegetables in Birbhum District [2017-18 to 2021-22]

Name of the Vegetables	2017-18			2018-19			2019-20			2020-21			2021-22		
	Area (in thousand ha.)	Production (in thousand tons)	Productivity (Kg/ha.)	Area (in thousand ha.)	Production (in thousand tons)	Productivity (Kg/ha.)	Area (in thousand ha.)	Production (in thousand tons)	Productivity (Kg/ha.)	Area (in thousand ha.)	Production (in thousand tons)	Productivity (Kg/ha.)	Area (in thousand ha.)	Production (in thousand tons)	Productivity (Kg/ha.)
Beans	2.17	8.52	3926.27	2.28	8.6	3772	2.28	8.66	3798	2.28	8.66	3798.24	0	0	-
Bitter gourd	0.2562	1.132	4418.42	0.2635	1.1878	4508	0.2707	1.7	6280	0.271	1.703	6284.13	0	0	-
Bottle gourd	0.247	2.48	10040.49	0.253	2.578	10190	0.251	2.532	10088	0.252	2.533	10051.5	0	0	-
Brinjal	10.21	171.59	16806.07	10.55	172.84	16383	10.546	171.95	16305	10.54	172.95	16408.91	10.55	171.97	16300.47
Cabbage	2.71	73.50	27121.77	2.75	73.78	26829	2.75	71.75	26091	2.75	71.75	26090.91	2.76	71.78	26007.24
Capsicum	0.0002	0.008	40000.00	0.0002	0.008	40000	0.0002	0.0039	19500	0.0002	0.0041	20500	0	0	-
Carrot	2.70	73.68	27288.89	2.71	73.7	27196	2.511	64.89	25842	2.51	65.61	26139.44	0	0	-
cauliflower	2.31	44.481	19255.84	2.387	44.568	18671	2.396	44.54	18589	2.397	44.64	18623.27	2.4	44.58	18575
Cucumber	2.41	24.125	10010.37	2.455	24.258	9881	2.378	26.33	11072	2.378	28.3	11900.75	0	0	-
Green chili	0.421	1.349	3204.28	0.421	1.349	3204	0.41	1.369	3339	0.41	1.589	3875.60	0	0	-
Elephants Foot Yam	0.0252	4.75	188492.06	0.0255	4.9	192157	0.025	0.821	32840	0.025	0.821	32840	0	0	-
Okra (Lady's finger)	4.29	38.67	9013.99	4.32	38.77	8975	4.31	39.22	9100	4.31	39.41	9143.85	4.32	39.25	9085.64
Onion	1.54	21.02	13649.35	1.85	21.05	11378	1.85	23.05	12459	1.85	23.05	12459.45	1.87	23.1	12352.94
Poited gourd	1.24	5.24	4225.81	1.38	2.73	1978	1.39	6.18	4446	1.39	6.29	4525.17	0	0	-
Peas (Green)	0.81	3.13	3864.20	0.82	3.24	3951	0.81	3.2	3951	0.81	3.2	3950.61	0.81	3.2	3950.61
Radish	1.21	22.20	18347.11	1.82	22.3	12253	1.65	28.5	17273	1.62	32.15	19845.67	1.90	26.70	14052.63
Pumpkin	6.45	97.75	15155.04	6.7	97.9	14612	6.44	99.2	15404	6.38	99.2	15548.58	0	0	-
Sweet Potato	0.84	15.16	18047.62	0.85	15.35	18059	2.35	15.35	15213	0.85	15.36	18070.58	0	0	-
Tomato	2.14	33.47	15640.19	2.3	33.5	14565	0.85	35.75	18059	2.35	35.75	15212.76	2.38	35.8	15042.02
Watermelon	1.06	15.52	14641.51	1	15.6	15600	1.02	16.52	16196	1.02	16.52	16196.07	0	0	-
Others carrot, beet root, leafy vegetables etc.	11.85	35.27	2976.37	11.83	35.32	2986	11.91	41.54	3488	11.91	41.54	3487.82	11.92	38.6	3238.25
Cucurbits	0	0	0.00	0	0	0	0	0	0	0	0	0	12.25	171.7	14016.32
Total Vegetables	**54.8896**	**693.045**	**12626.16**	**56.9652**	**693.5288**	12175	**56.3979**	**703.0559**	12466	**56.3032**	**711.0301**	12628.59	51.16	626.68	12249.41

Area & Production and productivity of fruits in Birbhum District [2017-18 to 2021-22]															
Name of the Fruits	**2017-18**			**2018-19**			**2019-20**			**2020-21**			**2021-22**		
	Area (in thousand ha.)	**Production (in thousand tons)**	**Productivity (Kg/ha.)**	**Area (in thousand ha.)**	**Production (in thousand tons)**	**Productivity (Kg/ha.)**	**Area (in thousand ha.)**	**Production (in thousand tons)**	**Productivity (Kg/ha.)**	**Area (in thousand ha.)**	**Production (in thousand tons)**	**Productivity (Kg/ha.)**	**Area (in thousand ha.)**	**Production (in thousand tons)**	**Productivity (Kg/ha.)**
Aonia	0.014	0.06	4285.71	0.014	0.06	4285.71	0	0	-	0	0	-	0	0	-
Banana	1.095	14.75	13470.32	1.102	14.814	13442.8	1.102	14.822	13450.1	1.102	14.822	13450.09	1.125	14.83	13182.22
Ber	0.252	1.65	6547.62	0.253	1.651	6525.69	0	0	-	0	0	-	0	0	-
Citrus (Lime Lemon)	0.54	2.74	5074.07	0.546	2.75	5036.63	0	0	-	0	0	-	0	0	-
Citrus (Mandarin Orange)	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Citrus (Other)	0.3	2.06	6866.67	0.3	2.07	6900	0.847	4.82	5690.67	0.847	4.82	5690.67	0.85	4.814	5663.52
Citrus (Sweet Orange)	0.006	0.36	60000.00	0.006	0.35	58333.3	0.006	0.353	58833.3	0.006	0.353	58833.33	0	0	-
Citrus (Total)	0	0	-	0.852	5.17	6068.08	0.853	5.173	6064.48	0.853	5.173	6064.47	0	0	-
Guava	1.378	18.605	13501.45	1.38	18.612	13487	1.382	18.635	13484.1	1.382	18.635	13484.08	1.42	18.635	13123.23
Jackfruit	0.095	1.854	19515.79	0.096	1.856	19333.3	0.096	1.856	19333.3	0.096	1.856	19333.33	0.096	1.856	19333.33
Litchi	0.051	0.25	4901.96	0.05	0.245	4900	0.05	0.246	4920	0.05	0.246	4920	0.05	0.246	4920
Mango	1.922	10.13	5270.55	1.922	10.132	5271.59	2.025	10.43	5150.62	2.031	10.43	5135.40	2.04	10.43	5112.74
Papaya	0.735	20.45	27823.13	0.736	19.4	26358.7	0.742	18.55	25000	0.742	18.55	25000	0.75	18.6	24800
Pineapple	0.003	0.036	12000.00	0.003	0.036	12000	0.003	0.044	14666.7	0.003	0.044	14666.66	0.003	0.044	14666.66
Sapota	0.172	1.835	10668.60	0.17	1.808	10635.3	0.15	1.72	11466.7	0.15	1.72	11466.66	0.15	1.72	11466.66
Other fruits	0.266	1.632	6135.34	0.266	1.632	6135.34	0.284	1.692	5957.75	0.284	1.692	5957.7465	0.284	1.692	5957.74
Total Vegetables	**6.829**	**76.412**	**11189.34**	**7.696**	**80.586**	**10471**	**7.54**	**78.341**	**10390**	**7.546**	**78.341**	**10381.8**	**6.768**	**72.867**	**10766.40**

Source: Office of Dy. Director of Horticulture, Govt. of West Bengal, Birbhum

2.a.6. Mean yearly temperature, rainfall, and humidity of the district.

The temperature varies from 12.7˚C to 28.3˚C in winter and from 25.5˚C to 41.5˚C in summer. The average rainfall is 1430 mm. (Source: - http://www.birbhum.gov.in/DDAgri/ddadmin.htm).

The climate of the district is generally dry, mild, and healthy. The hot weather usually lasts from the middle of March to the middle of June, the rainy season from the middle of June to the middle of October, and the cold weather from middle of October to the middle of March. They do not always correspond to this limit. As a rule, the wind is from south-east in summer and from the northwest in winter.

Maximum and Minimum Temperature by Month in the District of Birbhum from 2008 to 2012

Centre: Suri (Degree Celsius)										
Month	Year									
	2008		2009		2010		2011		2012	
	Max	Mini	Max	Mini	Max	Mini	Max	Mini	Max	Mini
1	2	3	4	5	6	7	8	9	10	11
January	31	7	29	10	29	7	29	6	28	7
February	32	7	35	11	33	11	35	11	35	8
March	39	16	37	14	42	17	40	12	40	13
April	42	19	43	19	46	20	39	19	41	19
May	42	21	42	20	39	21	38	20	45	22
June	38	23	42	22	43	22	39	24	46	24
July	35	24	37	25	37	25	36	23	38	24
August	35	24	37	24	36	24	37	24	35	24
September	35	24	36	24	35	23	36	23	..	..
October	34	19	34	16	35	18	34	16	35	16
November	32	13	34	11	34	14	32	14	32	11
December	31	11	29	8	29	8	30	7	30	7

[Source: - Bureau of Applied Economics and Statistics (BAES), 2011-12, Govt. of West Bengal]

Climate and Rainfall of Birbhum District

Month	Normal / Average Rainfall (In mm.)	Actual Rainfall (in mm) (2008)	Actual Rainfall (in mm) (2009)	Actual Rainfall (in mm) (2010)	Actual Rainfall (in mm) (2011)	Actual Rainfall (in mm) (2012)	Actual Rainfall (in mm) (2013)	Actual Rainfall (in mm) (2014)	Actual Rainfall (in mm) (2015)	Actual Rainfall (in mm) (2016)	Actual Rainfall (in mm) (2017)	Actual Rainfall (in mm) (2018)	Actual Rainfall (in mm) (2019)	Actual Rainfall (in mm) (2020)	Actual Rainfall (in mm) (2021)
January	9.70	14.40	0.00	1.20	7.00	19.60	0.80	5.13	5.60	60.00	5.06	0.00	0.00	26.82	0.00
February	23.20	5.50	11.30	4.10	0.40	4.60	16.60	33.50	9.30	26.90	Nil	0.76	34.10	1.32	0.00
March	23.30	8.20	14.30	5.30	35.20	9.80	1.00	28.30	30.40	16.30	7.09	0.53	27.10	41.04	10.42
April	40.70	27.70	0.00	22.40	69.20	26.00	47.40	0.16	91.20	19.70	49.77	58.91	85.80	65.59	33.49
May	88.70	80.40	198.30	71.90	95.10	43.10	172.70	80.70	69.80	144.70	217.72	96.72	162.86	208.95	247.00
June	234.20	301.10	89.10	221.70	403.10	133.60	154.00	148.80	304.00	220.40	148.70	176.10	65.30	312.86	331.23
July	324.50	408.40	234.50	200.40	186.30	314.80	168.00	429.50	695.56	348.00	489.57	243.00	229.42	391.70	
August	295.70	299.00	317.10	112.70	438.60	207.30	348.90	276.20	289.20	335.60	241.17	193.60	172.57	360.03	
September	258.20	156.80	235.50	220.80	205.60	114.20	148.70	128.60	113.20	357.70	178.19	172.90	286.23	223.16	
October	105.40	90.00	77.90	69.20	18.70	76.00	300.80	5.80	37.40	37.10	217.36	42.30	226.50	47.51	
November	17.50	0.00	0.90	5.80	1.70	88.70	0.00	0.00	4.26	Nil	3.13	0.00	0.26	0.00	
December	9.40	0.00	0.00	49.00	0.00	6.60	0.00	0.00	3.50	Nil	3.70	22.30	1.69	0.00	
Total	**1430.50**	**1391.50**	**1178.90**	**984.50**	**1460.90**	**1044.30**	**1358.90**	**1136.69**	**1653.42**	**1566.40**	**1561.46**	**1007.12**	**1291.83**	**1678.98**	**622.14**

Month-wise weather Data of Bolpur-Sriniketan block of Birbhum District from January, 2022 to December, 2022

Month	Rainfall (mm.)	Temp. (0 C) Maximum	Temp. (0 C) Minimum	Temp. (0 C) Maximum (Mean)	Temp. (0 C) Minimum (Mean)	Relative Humidity (%)	
						At 8.30 AM	At 5.30 PM
January, 2022	22	27.6	8.9	23.4	12.8	87.8	50.9
February, 2022	87	33.9	10.0	30.1	14.1	80.3	38.8
March, 2022	0	39.5	16.2	37.0	20.7	70.9	29.0
April, 2022	8.0	43.1	22.7	37.5	26.7	75.5	41.3
May, 2022	248.5	39.6	20.5	36.5	24.5	77.2	57.5
June, 2022	64.0	40.3	22.7	36.1	26.6	82.9	59.0
July, 2022	152.0	37.6	25.0	35.7	26.8	79.6	57.9
August, 2022	197.0	36.3	24.2	33.9	26.4	84.4	66.3
September, 2022	228.5	35.6	24.1	33.8	26.1	84.4	67.4
October, 2022	146.5	35.2	9.6	32.1	20.3	80.8	55.9
November, 2022	0	31.3	14.2	30.1	17.3	74.1	39.2
December, 2022	0	29.9	9.4	27.1	13.0	69.7	34.1
Total	**1153.5**						

(Source: - Automatic Weather Station, Rathindra KVK, Sriniketan, Birbhum)

- Highest rainfall observed in the month of May, 2022 i.e. 248.50 mm
- Lowest rainfall observed in the month of March, November and December, 2022 i.e. 0.0 mm
- Total rainfall observed from January, 2022 to December, 2022 was 1153.5 mm
- Highest Maximum temperature observed in the month April, i.e., 43.1^0 C
- Lowest Minimum temperature observed in the month January, i.e., 8.9^0 C

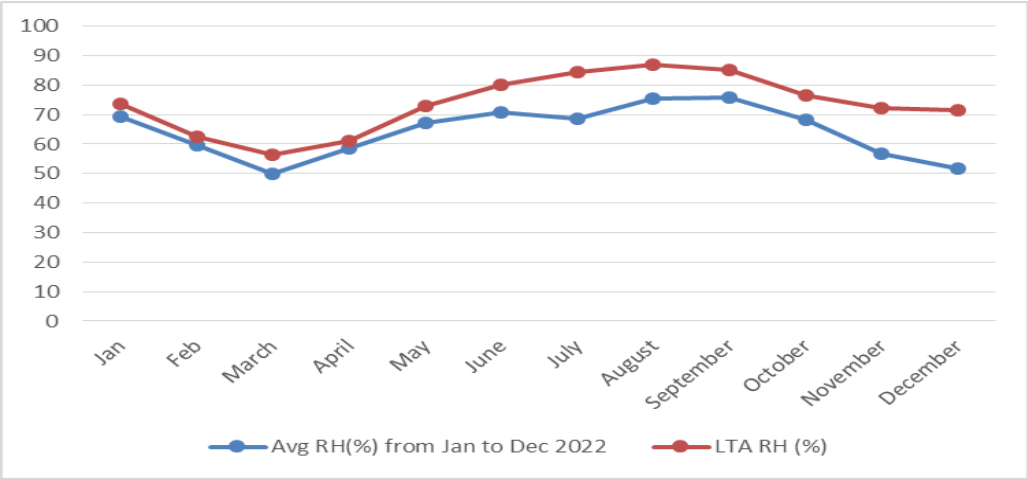
Comparison between Observed data (January, 2022 to December, 2022) to Long term Average (LTA) data of Birbhum district

Month	Rainfall (mm.)	LTA Rainfall (mm.)	Temp. (0 C) Maximum (Mean)	LTA Max.Temp. (^{0} C)	Temp. (^{0} C) Minimum (Mean)	LTA Min. Temp. (0 C)	Relative Humidity (%) (Mean)			LTA Avg. Relative Humidity (%)
							At 8.30 AM	At 5.30 PM	Avg. (%)	
January, 2022	22	9.61	23.4	25.15	11.5	12.8	87.8	50.9	69.35	73.56
February, 2022	87	21.25	30.1	28.18	13.7	14.1	80.3	38.8	59.55	62.35
March, 2022	0	32.96	37.0	33.76	20.2	20.7	70.9	29.0	49.95	56.38
April, 2022	8.0	50.52	37.5	37.07	23.1	26.7	75.5	41.3	58.4	61.05
May, 2022	248.5	98.09	36.5	36.71	23.9	24.5	77.2	57.5	67.35	73.07
June, 2022	64.0	250.09	36.1	34.61	25.1	26.6	82.9	59.0	70.95	80.06
July, 2022	152.0	330.47	35.7	32.73	25.7	26.8	79.6	57.9	68.75	84.59
August, 2022	197.0	285.13	33.9	32.08	27.5	26.4	84.4	66.3	75.35	87.11
September, 2022	228.5	140.8	33.8	32.18	25.3	26.1	84.4	67.4	75.9	85.04
October, 2022	146.5	102.29	32.1	31.41	23.2	20.3	80.8	55.9	68.35	76.46
November, 2022	0	12.71	30.1	29.17	17	17.3	74.1	39.2	56.65	72.19
December, 2022	0	11.02	27.1	26.1	15.2	13.0	69.7	34.1	51.9	71.5

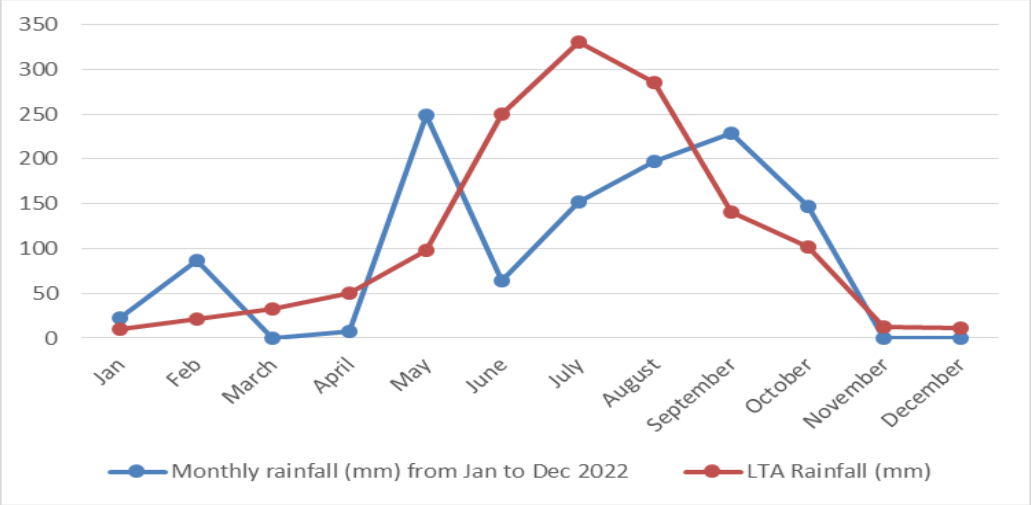
LTA = Long Term Average of 26 Years (From 1989-90 to 2016-17)

(Source: - Meteorological Observatory Office, Dept. of Meteorology, Govt. of India, Sriniketan, Birbhum, West Bengal)

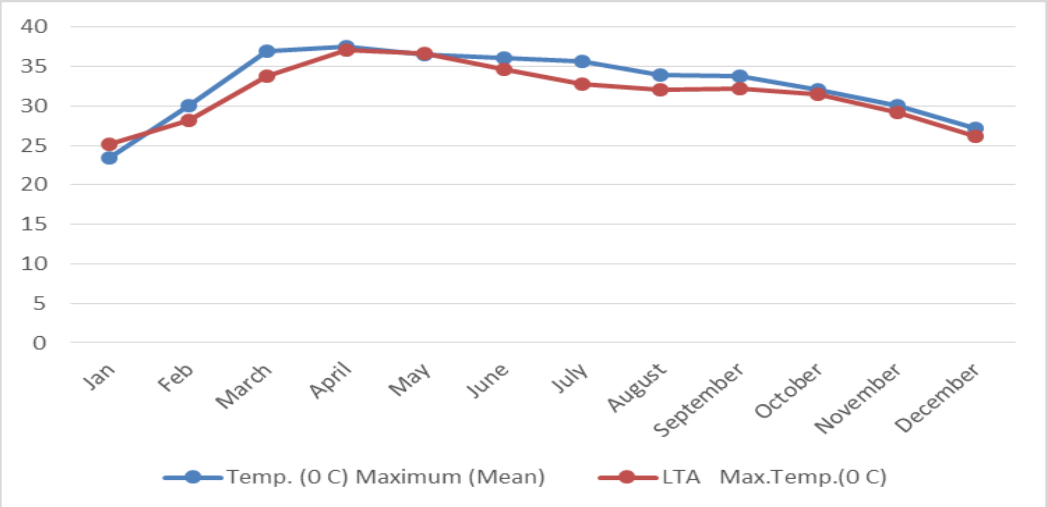
Monthly Average Relative Humidity (%) of Birbhum District in January, 2022 to December, 2022 vis-à-vis Long Term Average Monthly Relative Humidity (%) of Birbhum District



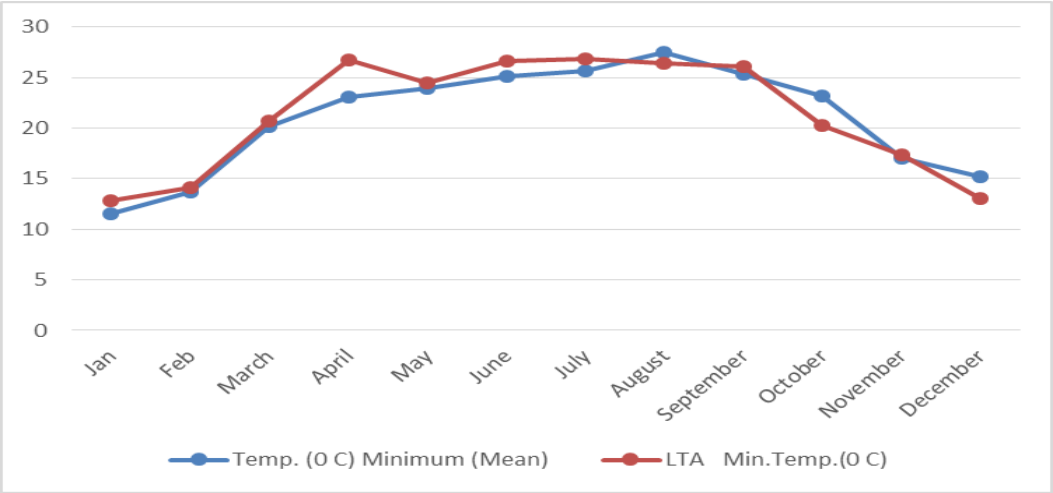
Monthly Rainfall (mm.) of Birbhum District in January, 2022 to December, 2022 vis-à-vis Long Term Average Monthly Rainfall (mm.) of Birbhum District



Monthly Average Maximum Temperature (degree Centigrade) of Birbhum District in January, 2022 to December, 2022 vis-à-vis Long Term Average Monthly Maximum Temperature (degree Centigrade) of Birbhum District



Monthly Average Minimum Temperature (0 Centigrade) of Birbhum District in January, 2022 to December, 2022 vis-à-vis Long Term Average Monthly Minimum Temperature (0 Centigrade) of Birbhum District



LTA = Long Term Average of 26 Years (From 1989-90 to 2016-17)
(Source: - Meteorological Observatory Office, Dept. of Meteorology, Govt. of India, Sriniketan, Birbhum, West Bengal)

2.a.7 Production of major livestock products like milk, egg, meat etc.

Details of Live-Stock and Poultry in the District of Birbhum

Sl. No.	TYPE OF ANIMALS	AS PER 18TH LIVESTOCK CENSUS	AS PER 19TH LIVESTOCK CENSUS	AS PER 20TH LIVESTOCK CENSUS
01.	CROSSBRED & UP-GRADED CATTLE	80,970	2,00,388	3,81,661
02.	INDIGENOUS CATTLE	10,52,384	8,78,856	8,98,610
03.	TOTAL CATTLE & BUFFALO	12,00,934	10,21,354	12,80,271
04.	GOAT	9,41,989	7,53,884	11,68,796
05.	SHEEP	2,16,888	1,64,904	1,59,206
06.	PIG	49,177	30,347	38,374
07.	POULTRY BIRDS	42,23,131	40,87,394	District Data not yet published

(Source: - https://birbhum.gov.in/animal-resource-development/
https://cdn.s3waas.gov.in/s3fc3cf452d3da8402bebb765225ce8c0e/uploads/2021/07/2021071358.pdf)
Source: - Live-Stock Census Report, Govt. Of W. B. And Annual Administrative Reports of Animal Resources Development Department, Govt. Of West Bengal.

Species wise rural and urban population of 20th Livestock Census as on October, 2019 from https://dahd.nic.in/animalhusbandry-statistics

District	Cattle		Total	Buffalo		Total	Sheep		Total	Goat		Total	Pig		Total
	Rural	Urban		Rural	Urban		Rural	Urban		Rural	Urban		Rural	Urban	
Birbhum	11,69,893	15,440	11,85,333	94,456	482	94,938	1,57,347	1,859	1,59,206	11,46,700	22,096	11,68,796	37,835	539	38,374
Grand Total	11,69,893	15,440	11,85,333	94,456	482	94,938	1,57,347	1,859	1,59,206	11,46,700	22,096	11,68,796	37,835	539	38,374

Sources: https://www.darahwb.org/stasticstics_census.php

Production of Milk in the District of Birbhum During 2019-20 (figures in '000 Tons)

Sr. No.	Name of the District	Cattle				Buffalo			Goat	TOTAL
		Crossbred	Indigenous	Non-Descriptive	Total Cattle	Indigenous	Non-Descriptive	Total Buffalo		
		Milk Production	Milk Production	Milk Production	Milk Production	Milk Production	Milk Production	Milk Production	Milk Production	Milk Production
1	Birbhum	56.55	56.80	120.94	234.28	5.29	6.36	11.65	10.51	256.44
Total		**56.55**	**56.80**	**120.94**	**234.28**	**5.29**	**6.36**	**11.65**	**10.51**	**256.44**

Sources: https://www.darahwb.org/stasticstics_census.php

Production of Egg in the District of Birbhum During 2019-20 (figures in lakh nos.)							
Sr. No.	Name of the District	FOWL			DUCK		TOTAL
		DESI	IMPROVED		DESI	IMPROVED	
		BACKYARD	BACKYARD	COMMERCIAL	BACKYARD	BACKYARD	
		Egg Production	Egg Production	Egg Production	Egg Production	Egg Production	Egg Production
01.	Birbhum	2449.19	821.20	2235.02	681.96	72.55	6259.92
Total		**2449.19**	**821.20**	**2235.02**	**681.96**	**72.55**	**6259.92**

Sources: https://www.darahwb.org/stasticstics_census.php

Production of Wool in the District of Birbhum During 2019-20 (figures in '000 Kg.)					
Sr. No.	Name of the District	Production of Wool			
		Lamb	Ram	Ewe	TOTAL
01.	Birbhum	6.76	46.81	63.41	116.98
Total		**6.76**	**46.81**	**63.41**	**116.98**

Sources: https://www.darahwb.org/stasticstics_census.php

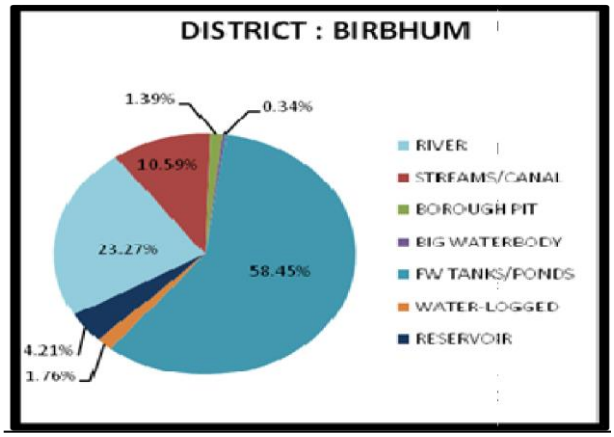
Production of Meat in the District of Birbhum During 2019-20								('000 Tons)
Sr. No.	Name of the District	Cattle Meat	Buffalo Meat	Sheep Meat	Goat Meat	Pig Meat	Poultry Meat	Total Meat
1	Birbhum	0.43	0.35	2.18	17.46	1.79	31.16	53.37
Total		**0.43**	**0.35**	**2.18**	**17.46**	**1.79**	**31.16**	**53.37**

Sources: https://www.darahwb.org/stasticstics_census.php

Production Details of Fishery Sector in Birbhum District

A) Fishery Resources in Birbhum	Related Data
Total tanks	21376.87 ha.
Vested (whole)	817.32 ha.
Vested (Partial)	425.04 ha.
Private ownership	20134.51 ha.
Culturable	14833.80 ha
Semi-derelict	4798.09 ha.
Derelict-	1744.98 ha.
Beel & Baor-	632.16 ha.
Reservoir- (Tilpara -647.77 ha, Deuch-120 ha, Hinglow-524.88 ha,,Baidhara-88 ha ,Bakreswar-950 ha, Messenjore-7085.88 ha	9416.53 ha.
River-	795.63 Km
Canal	998.7 Km
Canal with sub canal/branch canal –	5696.85 Km
Total fishermen -	181500 nos.
Total Fishermen Families-	45350 nos.
Functional Fishermen Co-operative Society	20 nos including Birbhum CFCS
Central fishermen Co-operative Society-	1 (One)
Fish seed hatchery (IMC & Magur)	18 nos. (16 – IMC & 2 Magur)
Fish Production Group-	116 nos
B) Demand & Production of Fish Seed & Table Fish	
Total annual demand of table fish – (2020-21)	71802 M.T
Total annual production of table fish-2020-21	79325 M.T.
Spawn Production (2019-20)	616 Million
Fry Production (2019-20)	200 Million
Fingerlings- Production (2019-20)	145 Million
Spawn Production (2020-21)	602 Million
Fry Production (2020-21)	215 Million
Fingerling Production (2020-21)	150 Million

Area Wise Breakup



Sources: https://birbhum.gov.in/fisheries/

Area wise break up	No	Water area
≥ 0.034 - <0.20	53445	5152
≥0.20 - < 0.50	26656	8458
≥ 0.50 - <1	8000	5322
≥ 1 - <2.50	1734	2413
≥ 2.50 - <5	133	415
≥5 HA	46	415
Borough pit	319	125
Water-logged	339	654
Reservoir	6	1568
Grand total	90678	24523

2.b. Details of operational area / villages (2022)

Sl. No.	Name of Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified (Crop wise)	Identified Thrust Areas
1.	Illambazar	Illambazar	Daranda	Rice, Wheat, Mustard, Potato, Red Gram, Black Gram etc.; Vegetable like Brinjal, Chili, Tomato, Elephant Foot Yam, Cucurbits; Fruit plants like Mango, Guava, Papaya, Coconut, Banana etc. and Dairy, Goatery, Poultry, Duckery, Fishery, Batique work, Decorative Candle, Post Harvest Technology of fruits and vegetables, Health and Nutrition of Rural Women and Children; Crop Insurance, Group Formation, Market Led Extension, Marketing Mechanisms of Farm produces.	***Bio physical:*** **Low productivity of all major crops** • Poor and Marginal soil • Low yielding seeds and plants • Limited water resource for irrigation • Imbalanced use of manures and fertilizer • Inappropriate agronomic practices • Inappropriate horticultural practices • Indiscriminate use of chemical pesticide **Poor productivity of livestock** • Inadequate, descriptive and prolific breed • Poor health and management practices • Low quality feed **Poor fish productivity:** • Poor pond management • Poor quality fingerlings **Low-income generation of rural women** • Lack of skill on income generating rural crafts • Lack of skill on fruits and vegetable preservation • Lack of skill on establishment of backyard nutrition garden **Poor health condition of women and child** • Lack of nutritious food resources • Lack of skill on establishment of backyard nutrition garden ***Socio Economic:*** • Lack of knowledge about soil testing-based fertilizer application • Lack of knowledge on good agronomic and horticultural practices • Lack of knowledge on care handling of plant protection equipment • Lack of knowledge on good dairy, goatery, poultry management practices • Multi ownership of ponds • Tendency to lease out ponds. • Lack of knowledge on different income generating programme for women • Lack of knowledge on low-cost nutritious food for women and child • Lack of credit facilities • Lack of Insurance facilities for Crops • Lack of Market Information of the produced products • Lack of Backward and Forward Linkages for the farmers and farm women • Lack of well-established producers' Groups like Farmers' Interest Group (FIG), Farmers' Producers' Organization (FPO) • Lack of Established Farmers' Producers' Company (FPC)	• Soil health management Practices • Supply of Quality seeds/seedlings and saplings • Balanced Management Practices for crop nutrition • Good agronomic practices • Good horticultural practices • Good Animal Husbandry Practices • Appropriate Pest Management • Establishment of Mushroom Units • Establishment of Bee-keeping Units • Formation of Self-Help Groups • Formation of Producers' Groups • Formation of Farmers Club • Organization of Exposure visits of Practicing Farmers, Farm Women and Rural Youths • Improved Extension Activities like Kisan Mobile Message Services • Improvement of livestock productivity • Enhancement of fish productivity • Improvement of women led vocation. • Women and childcare • Institutional Credit Flow Mechanism • Crop and Animal and Fishery Insurance facilities • Establishment of FPCs • Market led Extension. • Dissemination of Agro-Met Advisories
2.	Dubrajpur	Dubrajpur	Asansuli			
3.	Labpur	Labpur	Palsha			
4.	Illambazar	Illambazar	Sahebdanga			
5.	Bolpur-Sriniketan	Bolpur-Sriniketan	Gopalnagar			

2. c. Details of Village Adoption Programme:

Name of the villages adopted by PC and SMS (2021-22) for its development and action plan.

Name of village	Block	Action taken for development
Asansuli (Dr. S. Mandal)	Dubrajpur	**A. Skill development Training Programmes** on Preparation of Bio Inputs for Natural Farming and Bee keeping. **B. Skill development Training Programme** on Culture and Use of *Azolla.* **C. Front Line Demonstrations (FLDs)** on Nutri Garden **D. Skill development Training Programmes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **F. Knowledge development Training Programmes** on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self-Help Groups (SHGs), Farmers' Producers Organization (FPOs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products. **G. Cluster Front Line Demonstrations (FLDs)** on different Pulses and Oilseeds. **H. Training Programme** on formation of Integrated Farming Cluster**.** **I. On Farm Testing (OFT)** on Sulphur Management in Onion, Boron and Lime management in Tomato and Zinc management in Potato. **J. Awareness Generation** of rural women on Health and Hygiene Issues, under Swachhata Activities. **K. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**
Bergram (Sri S. Mondal)	Bolpur Sriniketan	**A. Skill development Training Programmes** on Preparation of Bio Inputs for Natural Farming and Bee keeping. **B. Skill development Training Programme** on Culture and Use of *Azolla.* **C. Front Line Demonstrations (FLDs)** on Nutri Garden, Pheromone trap, seed treatment with *T. viridi.* **D. Skill development Training Programmes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **F. Knowledge development Training Programmes** on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self-Help Groups (SHGs), Farmers' Producers Organization (FPOs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products. **G. Cluster Front Line Demonstrations (FLDs)** on different Pulses and Oilseeds. **H. Training Programme** on Scientific Bee keeping and Mushroom cultivation. **I. On Farm Testing (OFT)** on Sulphur Management in Onion. **J. Awareness Generation** of rural women on Health and Hygiene Issues, under Swachhata Activities. **K. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**
Sahebdanga (Dr. P. Ray)	Illambazar	**A. Skill development Training Programmes** on Preparation of Bio Inputs for Natural Farming and Bee keeping. **B. Skill development Training Programme** on Culture and Use of *Azolla.* **C. Front Line Demonstrations (FLDs)** on Nutri Garden, use of Extension Literature in Vernacular Languages. **D. Skill development Training Programmes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **F. Knowledge development Training Programmes** on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self-Help Groups (SHGs), Farmers' Producers Organization (FPOs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products. **G. Cluster Front Line Demonstrations (FLDs)** on different Pulses and Oilseeds. **H. Training Programme** on formation of Integrated Farming Cluster**.** **I. On Farm Testing (OFT)** on Boron and Lime Management in Tomato, Performance of SHGs with different commodity groups. **J. Awareness Generation** of rural women on Health and Hygiene Issues, under Swachhata Activities. **K. Analysis of Soil Samples and preparation and distribution of Soil Health Cards.**

Daranda (Dr. M. Khan)	Illambazar	**A. Skill development Training Programmes** on Preparation of Bio Inputs for Natural Farming and Bee keeping. **B. Skill development Training Programme** on Culture and Use of *Azolla.* **C. Front Line Demonstrations (FLDs)** on Nutri Garden, use of Doramectin in Sheep for better growth. **D. Skill development Training Programmes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **F. Knowledge development Training Programmes** on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self-Help Groups (SHGs), Farmers' Producers Organization (FPOs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products. **G. Cluster Front Line Demonstrations (FLDs)** on different Pulses and Oilseeds. **H. Training Programme** on Prophylactic management of Poultry Birds. **I. On Farm Testing (OFT)** on coloured broiler chicken. **J. Awareness Camp** on Hygienic Animal Husbandry under Swachhata Activities. **K. Animal Health Camp for Vaccination.**
Gopalnagar (Sayak Mahato)	Bolpur Sriniketan	**A. Skill development Training Programmes** on Preparation of Bio Inputs for Natural Farming and Bee keeping. **B. Skill development Training Programme** on Culture and Use of *Azolla.* **C. Front Line Demonstrations (FLDs)** on Nutri Garden. **D. Skill development Training Programmes** on Integrated Pest, Disease and Weed Management in Cereals, Pulses and Oilseeds and Vegetables. **E. Women Empowerment** through Skill Development Training on Rural Crafts, Preservation and Value Addition of Fruits and Vegetables, Homestead Kitchen Gardening. **F. Knowledge development Training Programmes** on Crop Insurance, Kisan Credit Card, Farmers' Clubs, Formation of Self-Help Groups (SHGs), Farmers' Producers Organization (FPOs), Formation of Commodity Interest Groups (CIGs), Marketing Mechanisms and Marketing Channels of Farm Products. **G. Cluster Front Line Demonstrations (FLDs)** on different Pulses and Oilseeds. **H. Training Programme** on formation of Integrated Farming Cluster**.** **I. On Farm Testing (OFT)** on Coloured Cauliflower. **J. Awareness Generation** of rural women on Health and Hygiene Issues, under Swachhata Activities. **K. FLD on Coloured Poultry Bird.**

2.1 Priority Thrust Areas.

Sl. No.	Thrust Areas
1.	Crop diversification through introduction of Pulses, Oilseeds, major Millets, horticultural crops like Elephant Foot Yam, Drumstick and high value low volume horticultural products like Capsicum, Broccoli etc.
2.	Popularization of High Yielding Varieties (HYVs) of major crops like Rice, Wheat, Mustard, Potato etc. as well as traditional varieties of those Crop also.
3.	Cultivation of field crops which require least water in the Arid and Semi-Arid regions of the district and cultivation of suitable horticultural crops in those regions.
4.	Popularization of improved management practices of Animals and Fishes
5.	Women empowerment through Rural Crafts and Nutritional Management of Rural Women and Children
6.	Market led extension, crop insurance and institutional rural credit flow mechanism

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievement of mandatory activities by KVK during the year

OFT												FLD											
No. of technologies tested: 08												No. of technologies demonstrated: 27											
Number of OFTs		Number of farmers										Number of FLDs		Number of farmers									
Target	Achievement	Target	Achievement									Target	Achievement	Target	Achievement								
			SC		ST		Others		Total						SC		ST		Others		Total		
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T
08	08	85	41	9	5	1	24	5	70	15	85	991	1767	991	462	355	202	162	304	282	968	799	1767

Training												Extension activities											
Number of Courses		Number of Participants										Number of activities		Number of participants									
Target	Achievement	Target	Achievement									Target	Achievement	Target	Achievement								
			SC		ST		Others		Total						SC		ST		Others		Total		
			M	F	M	F	M	F	M	F	T				M	F	M	F	M	F	M	F	T
165	189	4150	948	708	158	185	4382	596	5488	1489	6977	116	185	3850	1350	895	403	564	994	837	3430	1613	5043

Impact of capacity building											Impact of Extension activities										
Number of Participants trained		Number of Trainees got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)									Number of Participants attended		Number of participants got employment (self/ wage/ entrepreneur/ engaged as skilled manpower)								
Target	Achievement	SC		ST		Others		Total			Target	Achievement	SC		ST		Others		Total		
		M	F	M	F	M	F	M	F	T			M	F	M	F	M	F	M	F	T
75	122	09	36	03	03	08	07	20	46	66	1500	2352	81	79	34	33	60	40	175	152	327

Seed production (q)		Planting material (in Lakh)	
Target	Achievement	Target	Achievement
1200	1585.62	0.25	0.43

Livestock strains and fish fingerlings produced (in lakh) *		Soil, water, plant, manures samples tested (in lakh)	
Target	Achievement	Target	Achievement
0.005	0.007	0.0004	0.00043

* Give no. only in case of fish fingerlings

Publication by KVKs							
Item	**Number**	**No. circulated**	**No. of Research papers in NAAS rated Journals**	**Highest NAAS rating of any publication**	**Average NAAS rating of the publications**	**Details of awarded publication, if any**	**Details of Award given to the publication**
Research paper	04	Not Assessed	4	5.25	4.97	-	-
Seminar/conference/ symposia papers	03	Not Assessed					
Books	02	Not Assessed					
Bulletins	01	1,016					
Newsletter	-	Not Assessed					
Popular Articles	10	Not Assessed					
Book Chapter	-	Not Assessed					
Extension Pamphlets/ literature	08	6,000					
Technical reports	19	Not Assessed					
Electronic Publication (CD/DVD etc)	01	3,000					
TOTAL	**48**	**10,016**					

3.1. Achievements on technologies assessed and refined.
Summer 2022

OFT – 1

1.	**Title of On farm Trial**	Assessment of insecticide efficiency to control thrips in *summer* green gram (1st year)
2.	**Problem diagnosed**	Flower drop is a common phenomenon in pulse crop in Birbhum District. Spraying of 'B' is not effective in most of the cases. Proper insecticide is also not tested in the fanner's field. So, yield is low due to low flower set and pod formation due to the attack of thrips.
3.	**Details of technologies selected for assessment/refinement**	Farmers Practice: Application of conventional insecticides as required but not specific for thrips. Technology Option-I- Thiamethoxam 25% WG gm/lit at 21 days interval. Technology Option-II- Thiamethoxam 25% WG (l gm/lit) + Lambda -cyhalothrin 5% SC (0.5 ml/lit) at 21 days interval. Technology Option-Ill- Fipronil + acetamiprid a 1.6 ml/lit of water at 21 days interval
4.	**Source of Technology (ICAR / AICRP / SAU / other, please specify)**	**ICAR** [Package of Practices for Pulse Cultivation, ICAR-IIPR, Kanpur, Uttar Pradesh, India.]
5.	**Production System** **Thematic Area**	Paddy – Mustard/ Potato – green gram Pest Management
6.	**Performance of the Technology with performance indicators**	Thiamethoxam 25% WG (0.2 g./ lit.) + Lambda cyhalothrin 5% SC (0.5 ml per lt.) produced significantly higher yield (13.1 q/ha), lower pest attack intensity (12%), and higher B:C ratio(3.74) than the TO-I (yield 11.8 q/ha), pest attack intensity(21%), and B:C ratio(3.40)) and the TO-III (yield , pest attack intensity, and B:C ratio) and also significantly higher than the Farmers' Practice (pest attack intensity 41%, yield 8 q/ha and B:C ratio 2.55) in Summer Green Gram
7.	**Final recommendation for micro level situation**	Thiamethoxam 25% WG (0.2 g./ lit.) + Lambda cyhalothrin 5% SC (0.5 ml per lt.) produced significantly higher yield (13.1 q/ha), lower pest attack intensity (12%), and higher B:C ratio (3.74) of summer green gram
8.	**Constraints identified** **feedback for research**	Collection of data was found difficult due to rain before the sowing time. Besides thrips, low phosphate may also limiting factor
9.	**Process of farmers participation and their reaction**	Farmers actively participated in the day-to-day monitoring of the crop and data collection with KVK scientists. Farmers also incurred all the labour cost for cultivation

Thematic area: Pest Management (summer, 2022)
Problem definition: Flower drop is a common phenomenon in pulse crops in Birbhum District. Spraying of 'B' is not effective in most cases. Proper insecticide is also not tested in the fanner's field. So, yield is low due to low flower set and pod formation due to the attack of thrips.
Technology assessed: Assessment of insecticide efficiency to control thrips in summer green gram variety PDM 84-179

Table 1: Effect of insecticide efficiency to control thrips of summer green gram at red and lateritic soil of Birbhum

Treatment	No of trials	Thrips attack intensity (%)	Yield (q/ha)	Gross cost (₹)	Gross return (₹)	Net Return (₹)	B:C ratio
Farmer's Practice: No insecticide application	5	41	8.0	18800	48000	29200	2.55
Technology Option I: Thiamethoxam 25% WG (0.2 g./lit).		21	11.8	20800	70800	50000	3.40
Technology Option II: Thiamethoxam 25% WG 0.2g./lit. + Lambda cyhalothrin 5% SC (0.5 ml per lit.)		12	13.1	21000	78600	57600	3.74
Technology Option III: Fipronil + Acidamiprid @ 1.6 ml/lit of water		24	10.7	20550	64200	43650	3.12
Sem ±		0.67	0.48		472.77	351.29	0.19
CD (p=0.05)		2.03	1.45		1432.49	1064.41	0.58

Results:

TO-II i.e. Thiamethoxam 25% WG (0.2 g./ lit.) + Lambda cyhalothrin 5% SC (0.5 ml per lt.) produced significantly higher yield (13.1 q/ha), lower pest attack intensity (12%), and higher B:C ratio(3.74) than the TO-I (yield 11.8 q/ha), pest attack intensity(21%), and B:C ratio(3.40)) and the TO-III (yield , pest attack intensity, and B:C ratio) and also significantly higher than the Farmers' Practice (pest attack intensity 41%, yield 8 q/ha and B:C ratio 2.55) in Summer Green Gram

Post Kharif, 2022

OFT-2

1.	**Title of On farm Trial**	Assessment of insecticide efficiency against gram pod borer in Black Gram
2.	**Problem diagnosed**	Gram pod borer is very predominant insect pest which causes severe loses in kharif black gram. The random use of common insecticides is not much effective to control the insect. So, yield is low in post kharif pulse.
3.	**Details of technologies selected for assessment/refinement**	Farmers Practice- Application of Cholorpyriphos 20 EC, Carbosulphan, Cypermethrin however not following any routine practice. Technology Option-I- Thiodicarb 75% (750 gm /ha) at 30 days interval Technology Option-II- Lufenuron 5.4 EC (600 ml/ha) at 30 days interval Technology Option-III- Chlorantaniprole 18.5 SC (150 ml/ha at 30 days interval
4.	**Source of Technology (ICAR / AICRP / SAU / other, please specify)**	P K Sarkar and D Ray, Incidence and bio-rational management of black gram pod borer complex with lufenuron and its non-target toxicity. International Journal of Applied Agriculture and Horticulture Science. 4(7) p.901
5.	**Production System** **Thematic Area**	Black gram-fallow Pest Management
6.	**Performance of the Technology with performance indicators**	TO-II i.e. Lufenuron 5.4 EC (600 ml/ha) spraying at 30 days interval produced significantly higher yield (12.6 q/ha), lower pest attack intensity (15%), and higher B:C ratio(3.63) than the TO-I (yield 11.1 q/ha), pest attack intensity(25%), and B:C ratio(3.31)) and the TO-III (yield , pest attack intensity, and B:C ratio) and also significantly higher than the Farmers' Practice (pest attack intensity 48%, yield 7. 8 q/ha and B:C ratio 2.58) in Black Gram.
7.	**Final recommendation for micro level situation**	Spraying of Lufenuron 5.4 EC (600 ml/ha) at 30 days interval can control gram pod borer effectively
8.	**Constraints identified** **feedback for research**	Collection of data was found difficult due to rain before the sowing time. Severe rain also causes more pest attack
9.	**Process of farmers participation and their reaction**	Farmers actively participated in the day-to-day monitoring of the crop and data collection with KVK scientists. Farmers also incurred all the labour cost for cultivation

Thematic area: Pest Management (Post kharif, 2022)

Problem definition: Gram pod borer is very predominant insect pest which causes severe loses in kharif black gram. The random use of common insecticides is not much effective to control the insect. So, yield is low in post kharif pulse.

Technology assessed: Assessment of insecticide efficiency against gram pod borer in Black Gram var. PU-31

Table 2: Effect of insecticide efficiency to control gram pod borer in Black Gram at red and lateritic soil of Birbhum

Treatment	No of trials	Pod borer attack intensity (%)	Yield (q/ha)	Gross cost (₹)	Gross return (₹)	Net Return (₹)	B:C ratio
Farmers Practice- Application of Cholorpyriphos 20 EC, Carbosulphan, Cypermethrin however not following any routine practice.	5	48	7.8	18100	46800	28700	2.58
Technology Option-I- Thiodicarb 75% (750 gm /ha) at 30 days interval		25	11.1	20100	66600	46500	3.31
Technology Option-II- Lufenuron 5.4 EC (600 ml/ha) at 30 days interval		15	12.6	20800	75600	54800	3.63
Technology Option-III- Chlorantaniprole 18.5 SC (150 ml/ha) at 30 days interval		29	10.2	19950	61200	41250	3.07
Sem ±		0.68	0.45		461.33	343.67	0.17
CD (*p*=0.05)		2.06	1.36		1397.82	1041.32	0.51

Results:

TO-II i.e. Lufenuron 5.4 EC (600 ml/ha) spraying at 30 days interval produced significantly higher yield (12.6 q/ha), lower pest attack intensity (15%), and higher B:C ratio(3.63) than the TO-I (yield 11.1 q/ha), pest attack intensity(25%), and B:C ratio(3.31)) and the TO-III (yield , pest attack intensity, and B:C ratio) and also significantly higher than the Farmers' Practice (pest attack intensity 48%, yield 7. 8 q/ha and B:C ratio 2.58) in Black Gram.

Rabi, 2022

OFT-3

1.	**Title of On farm Trial**	Assessment of Zinc & Boron application in quality and yield of Tomato in lateritic soil of Birbhum District
2.	**Problem diagnosed**	In lateritic acid soil of Birbhum district micronutrient deficiency is very prominent. Stunted growth and cracking of fruits in Tomato is very common. Due to these problems the yield and market price of tomato is reduced
3.	**Details of technologies selected for assessment/refinement**	Farmers' Practice: With Recommended Fertilizer without any micronutrient Technology Option I: Recommended Fertilizer with recommended dose of soil application of Zinc and Boron as basal application Technology Option II: Recommended Fertilizer with Foliar application of Zinc EDTA @ 1g/lt of water and Boron-20 @ 2g/lt of water twice at 25 and 45 DAT
4.	**Source of Technology (ICAR / AICRP / SAU / other, please specify)**	Effect of foliar application of micronutrients in tomato. The Asian Journal of Horticulture: 9 (2): 297-300 Saravaiya *et al.* 2014
5.	**Production System** **Thematic Area**	Paddy-Tomato- Summer vegetables Nutrient Management
6.	**Performance of the Technology with performance indicators**	Programme has been started in the month of November 2022. The programme is in progress
7.	**Final recommendation for micro level situation**	
8.	**Constraints identified** **feedback for research**	
9.	**Process of farmers participation and their reaction**	

OFT-4

1.	**Title of On farm Trial**	Assessment of Lime and Boron application on quality and productivity of Potato in lateritic soil of Birbhum District
2.	**Problem diagnosed**	In lateritic acid soil micronutrient deficiency of boron causes cracking the potato tuber and soil acidity increases the scab diseases in different parts of Birbhum district. Due to these problems the yield and market price of potato is reduced.
3.	**Details of technologies selected for assessment/refinement**	Farmers' Practice: With Recommended Fertilizer without any micronutrient and lime Technology Option I: Recommended Fertilizer + Lime @ 10 % of the recommended dose + soil application of Boron @ 4 kg/ha as basal application Technology Option II: Recommended Fertilizer + Lime @ 10 % of the recommended dose + foliar application Boron-20 @ 2g/lt of water twice at 25 and 45 DAT
4.	**Source of Technology (ICAR / AICRP / SAU / other, please specify)**	Effect of applied lime and boron on the availability of nutrients in an acid soil. Journal of Plant Nutrition. 37 (3): 357-373 Barman *et al*. 2014
5.	**Production System** **Thematic Area**	Paddy-Potato- Sesame/Blackgram Nutrient Management
6.	**Performance of the Technology with performance indicators**	Programme has been started in the month of November 2022. The programme is in progress
7.	**Final recommendation for micro level situation**	
8.	**Constraints identified feedback for research**	
9.	**Process of farmers participation and their reaction**	

OFT-5

1.	**Title of On farm Trial**	Assessment of Sulphur Application in Productivity Enhancement of Onion under Laterite Track of Birbhum District, West Bengal
2.	**Problem diagnosed**	Sulphur is an important nutrient that affects the yield and quality of onion. Red and Laterite soils of West Bengal found deficient in sulphur ranged from 13 to 73 per cent with an average of 45.2 per cent. Among them, as per SAI (Sulphur Availability Index) 87 per cent of the surface soil samples of Birbhum district fall under low sulphur range. Severe sulphur deficiency during bulb development has detrimental effect on yield and quality of onion.
3.	**Details of technologies selected for assessment/refinement**	Farmers' practice: NPK application @ 125-100-100 kg/ha; Source of fertilizer as 10-26-26 (NPK) and Urea (N) Technology option I: NPK application @ 125-100-100 kg/ha; Source of fertilizer as Urea (N), SSP (16% P_2O_5 + 12% S) and MOP (K_2O) Technology option II: NPK application @ 125-100-100 kg/ha; Source of fertilizer as 10-26-26 (NPK), Urea (N) + Sulphur 40 kg/ha (basal)
4.	**Source of Technology (ICAR / AICRP / SAU / other, please specify)**	Shreya Mondal, G. K. Ghosh and Joydip Mandal. 2020. Effect of Graded Levels of Sulphur as Magnesium Sulphate on Yield and Quality of Onion (*Allium cepa* L.) in Red and Lateritic Soils of West Bengal, India. *International Journal of Current Microbiology and Applied Sciences.*9(4): 2858-2866
5.	**Production System** **Thematic Area**	Paddy-Onion-Summer vegetables Nutrient management
6.	**Performance of the Technology with performance indicators**	Programme has been started in the month of November 2022. The programme is in progress
7.	**Final recommendation for micro level situation**	
8.	**Constraints identified feedback for research**	
9.	**Process of farmers participation and their reaction**	

OFT-6

1.	**Title of On farm Trial**	Assessment of optimum planting times of coloured Cauliflower in lateritic soil of Birbhum (1st year)
2.	**Problem diagnosed**	Due to cultivation of longer duration paddy the land for Cauliflower cultivation is not available in time. Therefore, farmers plant Cauliflower in delayed winter which cause smaller curd size and more pest and disease attack. Due to depletion of soil moisture, irrigation cost is increased. Furthermore, coloured cauliflower is new introduction to the farmers without knowing the optimum planting time
3.	**Details of technologies selected for assessment/refinement**	Farmers' Practice: Planting on Third week of November Technology Option - I: Planting on November 1st week Technology Option – II: Planting on November 2nd week
4.	**Source of Technology (ICAR / AICRP / SAU / other, please specify)**	S. Islam, S. Datta and Ranjit Chatterjee: Influence of Planting Date on Performance of Cauliflower (Brassica oleracea var. botrytis L.) Varieties at Terai Region of West Bengal, India. International Journal of Bio-resource and Stress Management, 7(3):426-431(2016).
5.	**Production System** **Thematic Area**	Paddy — Mustard/Potato/ Winter Vegetables-Black Gram Climate resilient production technology.
6.	**Performance of the Technology with performance indicators**	Final harvesting is going on
7.	**Final recommendation for micro level situation**	
8.	**Constraints identified.** **feedback for research**	
9.	**Process of farmers participation and their reaction**	

OFT – 7

1.	**Title of On farm Trial**	Evaluation of performance of coloured broiler chicken in semi-intensive system of rearing
2.	**Problem diagnosed**	Poor growth and survivability of Kuroiler
3.	**Details of technologies selected for assessment/refinement**	Assessment Control: Farmers' Practice: Coloured Broiler: Kuroiler Technology Option — I: Krishibro Technology Option — II: Caribro
4.	**Source of Technology (ICAR/ AICRP/SAU/other, please specify)**	ICAR-CARI, Project Directorate of Poultry, Govt. of India
5.	**Production system and thematic area**	Semi intensive farming system; Poultry management
6.	**Performance of the Technology with performance indicators**	Technology Option-II i.e., Rearing of Caribro produced significantly better growth and gave higher benefit cost ratio than other Technology option and farmers practice
7.	**Final recommendation for micro level situation**	Caribro may be reared economically in semi-intensive system of poultry rearing in Birbhum District
8.	**Constraints identified and feedback for research**	No regular supply of Chicks (i.e., Krishibro and Caribro). Infrastructure development for supply of Chicks Chicks (i.e., Krishibro and Caribro).
9.	**Process of farmers participation and their reaction**	Farmers actively participated in the day-to-day monitoring and data collection with KVK scientists. Farmers incurred all the cost of feed and other infrastructure

Thematic area: Poultry Management
Problem definition: Poor growth and survivability of Kuroiler
Technology assessed: Assessment of performance of coloured broiler chicken in semi-intensive system of rearing.

Table: 3: Performance of different breeds of coloured broiler chicken in semi-intensive system of rearing

Technology option	No. of trials	Body Weight (gm)						Gross cost (Rs./unit)	Gross return (Rs/unit)	Net return (Rs./unit)	B/C ratio
		Day 7	Day 14	Day 21	Day 28	Day 42	Day 56				
Control: Farmers' Practie: Coloured Broiler: Kuroiler	7	53.46^{a} ±0.87	125.83^{a} ±1.813	357.67 ^{a}±2.98	504.27^{a}±3.82	988.71^{a}±9.81	1408.89^{a}± 12.58	4538	8520	3982	1.87
Technology Option — I: Krishibro		64.38^{b}± 0.74	168.24^{b}±1.81	413.67^{b} ±3.17	585.35^{b} ±4.04	1118.72^{b}± 10.78	1522.85^{b} ±14.38	4538	10215	5677	2.25
Technology Option — II: Caribro		79.15^{b}+0.76	199.88 ^{b}±1.67	478.54 ^{c}±3.88	652.85^{c}±4.18	1285.43^{c} ±10.82	1689.32^{c}±14.58	4538	10630	6092	2.34

OFT – 8

January to December, 2022

Season	2022
Title of On Farm Trial	Assessing performance of different SHGs with different numbers of product focus areas on annual savings
Thematic Area	Group Dynamics
Problem Diagnosed	The selection of appropriate product focus areas of Self-Help Groups (SHGs) is important for efficient group dynamics as well as group performances. The selection of suitable numbers of product focus areas of a SHG is largely influenced by various socio-economic and situational factors which in turn affect the economic performances such as annual savings from the group activities.
Details of Technologies selected for assessment / Refinement	**Assessment** **Farmers' Option = T_1 = 03 Numbers of Product Focus Areas** **T_2= Two Numbers of Product Focus Areas** **T_3= Single Number of Product Focus Area** **T_4= More than Three Numbers of Product Focus Areas**
Source of Technology	Overview of Frontline Extension Tools and Designing OFTs in Extension, R. Roy Burman, ICAR-IARI, New Delhi
Prevalent Practice	**Prevalent Practice: -** The Govt. encourages formation of SHGs with multiple product focus areas [Ref: - Memo No.925/W. B. S. R. L. M / Prog / 6P – 176 / 2015, Dated: - 15.09.2015 issued by "Anandadhara", West Bengal State Rural Livelihoods Mission (WBSRLM), Panchayats and Rural Development Department, Govt. of West Bengal].
Present Situation	Generally, in West Bengal situation, the majority of SHGs are having up-to 03 (Three) product focus areas.
Performance of the Technology with Performance Indicators	T_4= More than Three numbers of product focus areas – SHG has the highest savings in all the aspects (except Average Yearly Savings of the SHG from other sources of income-Income from lottery, harvesting of crops, organizing stall in fairs, social festivals etc.) and also in Average Yearly Total Savings of the SHG followed by the T_1= Three numbers of product focus areas – SHG and distantly followed by the T_2= Two numbers of product focus areas - SHGs and T_3= One number of product focus areas – SHGs. **Performance Indicators: -** Yearly Savings of the SHG from own contribution of members • Yearly Saving of the SHG from interest of loan to its member and outsider • Yearly Savings of the SHG from different economic activities of the group • Yearly Revolving fund received by the SHG from the Block Office • Yearly Savings of the SHG from donation • Yearly Income of the SHG from other sources of income – Income from lottery, harvesting of crops, organizing stall in fairs, social festivals etc.
Final Recommendation for micro level situation	Self Help Groups (SHGs) should be managed with a minimum of more three numbers of product focus areas for better economic performances with a diversified product range and relevant diversified markets and reduction of risks of failure of a single product.
Constraints Identified and Feedback for Research	Constraints Identified: - Lack of skill of the SHG members on income generating activities, Lack of motivation of the members to recycle the profit in other small enterprises and Lack of knowledge of the SHG Members about the process of enabling themselves to be beneficiary of employment and income generating Government schemes. Feedback for Research: - Future Research should focus on methodology to make the illiterate members functionally and financially literate. More research work needed in the areas of leadership trainings, leadership skills, social capital formation, group confidence building, development of group savings habits and group communication skills.
Process of Farmers Participation and their reaction	Farmers actively participated in the day-to-day monitoring and data collection with KVK scientists. Farmers incurred all the cost of maintenance and management of the SHGs concerned.

Thematic area: *Group Dynamics* (2022)

Problem definition: The selection of appropriate numbers of products focus areas of a Self-Help Group (SHG) is important for efficient group dynamics as well as improved economic performance of the said group. The selection of a suitable number of products focus areas of a SHG is largely influenced by various socio-economic and situational factors which in turn affect the economic performance such as annual savings from the group activities.

Technology assessed: Assessing performance of different SHGs with different numbers of product focus areas viz. 03 Numbers of Product Focus Areas; Two Numbers of Product Focus Areas; Single Number of Product Focus Area and More than Three Numbers of Product Focus Areas on annual savings of the said SHGs.

Table 4: Comparative Performance of different SHGs with different numbers of product focus areas on annual savings

SHG Size (Nos. of Members)	Nos. of Selected SHGs	Average Yearly Savings of SHG from own contribution of members (In Rs.)	Average Yearly Savings of SHG from interest of loan to its member and outsider (In Rs.)	Average Yearly Savings of the SHG from different economic activities of the group (In Rs.)	Average Yearly Revolving Fund received by the SHG from Block Office (In Rs.)	Average Yearly Savings of the SHG from donation (In Rs.)	Average Yearly Savings of the SHG from other sources of income-Income from lottery, harvesting of crops, organizing stall in fairs, social festivals etc. (In Rs.)	Average Yearly Total Savings of the SHG (In Rs.)	Rank
Farmers' Practice = T_1=Three numbers of product focus areas	10	2,01,804.00	1,91,516.00	2,00,004.00	81,506.00	70,507.00	1,06,000.00	8,51,337.00	II
T_2= Two numbers of product focus areas	10	1,20,000.00	1,04,506.00	1,04,000.00	50,500.00	50,503.00	1,13,623.00	5,43,132.00	III
T_3= One number of product focus areas	10	70,994.00	90,200.00	67,605.00	32,000.00	23,000.00	80,000.00	3,63,799.00	IV
T_4=More than Three numbers of product focus areas	10	2,03,964.00	1,91,560.00	3,04,001.00	1,00,000.00	80,960.00	1,06,500.00	9,86,929.00	I

Result: Technology Option – IV i.e., i.e., T_4= More than Three numbers of product focus areas – SHG has the highest average yearly savings followed by the T_1= Three numbers of product focus areas – SHG and distantly followed by the T_2= Two numbers of product focus areas - SHGs and T_3= One number of product focus areas – SHGs.

3.2 Achievements of Front-Line Demonstration (FLDs)

A. Details of FLDs conducted during the year.

Cereals under SCSP

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers / demonstration									Reasons for shortfall in achievement
				Proposed	Actual	SC		ST		Others		Total			
						M	F	M	F	M	F	M	F	T	
1.	Paddy	Varietal replacement	Ranidhan (IET 19418)	-	40	48	52	17	3	9	3	74	58	**132**	
			Satabdi (IET 4786)		15	13	2	15	6	0	0	28	8	**36**	
			MTU 1010		2	0	0	0	0	21	0	21	0	**21**	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P_2O_5	K_2O					
Paddy var Ranidhan (IET 19418)	Kharif,2022	Monocropped medium land	Sandy loam soil with lower pH	Medium	Low	High	Fallow	1-15thAug., 2022	1-10th Dec. 2022	-	-
Paddy var Satabdi (IET 4786)	Kharif,2022	Monocropped medium land	Sandy loam soil with lower pH	Medium	Low	High	Fallow	1-15thAug., 2022	1-7th Nov. 2022		
Paddy var MTU 1010	Kharif,2022	Monocropped medium land	Sandy loam soil with lower pH	Medium	Low	High	Fallow	1-15thAug., 2022	1-7th Nov. 2022		

Performance

Cereals

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs. /ha)				*Economics of check (Rs. /ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Paddy	Crop Diversification	Improved variety Ranidhan	132	40	68.0	57.2 (Lal swarna)	15.9	59,000	1,29,200	70,200	2.19	62,000	1,08,600	44,380	1.75
	Crop Diversification	Improved variety Satabdi (IET 4786)	36	15	42.9	39.5	8.6	46,000	81,510	35,510	1.77	48,500	75,050	26,550	1.55
	Crop Diversification	Improved variety MTU 1010	21	2	47.2	39.5	19.5	47,000	89,680	42,680	1.91	49,500	75,050	26,550	1.55

Frontline demonstrations on oilseed crops

Oilseeds: Under SCSP

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs. /ha)				*Economics of check (Rs. /ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Mustard	Crop Diversification	NRCHB-101	104	23	13.1	10.20	28.1	20,900	65,500	43,600	3.13	19,985	51,000	31,015	2.55
Total			104	23	13.1	10.20	28.1	20,900	65,500	43,600	3.13	19,985	51,000	31,015	2.55

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

Pulses: Under SCSP

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs. /ha)				*Economics of check (Rs. /ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Lentil	Crop Diversification	Improved variety KLS 09-3 (Krish)	47	5	Threshing is going on										
Total			**47**	**5**											

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

Other Crops:

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters			*Economics of demonstration (Rs. /ha)				*Economics of check (Rs. /ha)			
					Demo	Check			Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Azolla Kharif 2022	Soil Health Management	Green manuring in rainy season paddy var.Ranidhan (IET19418)	72	28.8	68.1 (Paddy Yield)	57.4 (Paddy Yield)	18.6	No. of panicles/m^2	397	380	58600	129390	70790	2.2	62000	109060	47060	1.76
Brinjal Kharif, 2022	Crop improvement	Grafted Brinjal Var. VNR 212	28	0.02	665.5	600.5	10.82	Fruit size (g)	135	110	108000	665500	557500	6.16	103000	600500	497500	5.83
Ekangi Pre kharif 2022	Crop diversification	Planting Materials and Methods of Cultivation	28	0.33	135.6	New Introduction	-	Rhizome Size (cm)	3.4	-	130000	813600	904000	6.26	-	--	-	-
Drumstick Kharif, 2022	Varietal Replacement	PKM-1	60	0.35	47.2	18.4	156.5	Pod length (Cm)	47	31	65000	377600	312600	5.80	51000	147200	96200	2.9
Elephant Foot Yam Kharif,2021	Varietal replacement	Bidhan Kusum	20	0.12	692	252 (Local)	175	Corn size (Cm)	30	10	125000	692000	567000	5.54	85000.	252000	167000	2.96
Paddy, Kharif 2022	Seed treatment	Seed treatment with *Trichoderma viridi* @8 g per kg of seeds	120	50	69.0	60.8	13.5	No. of panicles/m^2	400	389	58600	131100	70790	2.24	63000	115520	52520	1.83
Capsicum Rabi,2022	Crop improvement	Grafted capsicum var. Jaya	28	0.02	248.4	201.5	23.27	Fruit size (g)	48	35	75000	496800	421800	6.62	69000	403000	334000	5.84
Brinjal Kharif, 2022	IPM	Use of pheromone trap against *Leucinodes orbonalis* of brinjal as mechanical control	37	4	602.5	510.3	18.1	% of plant infested	2.5	48	108000	602500	494500	5.58	123000	510300	387300	4.15
Mango Summer, 2022	IPM	Use of Pheromone with funnel trap to control Mango fruit fly	30	4	145	119	21.8	% of infestation	4.4	47.5	128000	580000	452000	4.53	138000	476000	338000	3.71
Green Fodder Maize, Kharif 2022	Varietal replacement	J-1006	15	0.1	392.25	292.5 (Local improved)	34.1	CP%	8.82	7.95	15618	23735	8084	1.51	15550	17850	2300	1.14
Green Fodder Rice bean, Kharif 2022	New Introduction	Bidhan - 2	15	0.1	350.5	-	-	CP (%)	27.1		20710	35870	56080	1.73	-	-	-	-

Green Fodder Sorghum, Kharif 2022	New Introduction	PC-23	15	0.1	720	398.3 (Goma)	80.76	CP%	9.20	6.65	18450	48430	29980	2.62	16105	24748	8643	1.53
Green Fodder Oat, Rabi 2022	New Introduction	Kent	21	1.3	306.7	No Local Variety	-	CP (%)	9.12	2.56 Local grass	20120	31670	11550	1.57				
	Total		**489**	**89.24**														

Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Dairy																	
Cow																	
Buffalo																	
Poultry (Pre Kharif 2021)	New introduction	Aseel	30	20 birds in each unit	Body weight gain at 20thwk Female-1238.85±8.98 Male-1602.31±10.32			Egg production 101-103		2135	10500	8365	3.91				
Rabbitry																	
Piggery																	
Poultry (Winter 2022)	Breed adaptation	Caribro	30	10 nos. of birds in each unit	Body weight at 56 days of age 1732.41±14.52					2465	4420	1955	1.79				
Poultry (Winter) 2022	New Introduction	Kadaknath	30	10 nos. of birds in each unit	Body weight at 21 days of age 120.23±1.81		The programme is going on										
Sheep and Goat (2021)	Disease Management	Doramectin Lamb 6 months old @200 mg/Kg Body weight	10	10 (2 Lambs per unit)	Body Weight at 6 months of age-5.15±0.072 9th month-8.72±0.077 12th month-12.2±0.082	Body Weight at 6 months of age-5.15±0.072 9th month-7.54±0.078 12th month - 10.1±0.079	19.8	EPG 100 100 Oestrus-6 months	EPG 350 270 Oestrus -7 months	2585	12500	9915	4.83	3542	10000	6458	2.82
Sheep and Goat (2022)	Disease Management	Doramectin Lamb 6 months old @200 mg/Kg Body weight	**10**	10 (2 Lambs per unit)	The Programme is going on												
Duckery																	
Others (pl.specify)																	
TOTAL			**110**	**60**													

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl. specify)																	
		Total															

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter	*Economics of demonstration (Rs.) or Rs. /Unit			*Economics of check (Rs.) or Rs. /Unit					
				Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Oyster mushroom																
Button mushroom																
Vermicompost																
Sericulture																
Apiculture																
Others (pl. specify) Participatory preparation of Extension Literatures in Vernacular Languages	Participatory preparation of Extension Literatures in Vernacular Languages	100	10	% Change in Total Production		Training **on** Participatory preparation of Extension Literatures in Vernacular Languages		**Other Parameters**								
								% Change in Productivity		% Change in Gross Cost		% Change in Gross Return		% Change in Net Return		% Change in B: C Ratio	
				Demo	Check			Demo	Check	Demo	Check	Demo	Check	Demo	Check	Demo	Check
				18 (+)	06 (+)	04	00	17 (+)	03 (+)	19 (+)	46 (+)	21 (+)	09 (+)	24 (+)	08 (+)	21 (+)	09 (+)
Total		**100**	**10**														

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

Women empowerment

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women	Nutrition Garden (2022)	118	1700.00	1000.00	All the vegetables were grown by compost materials available in their home stead. Therefore, keeping quality was good.
Pregnant women					
Adolescent Girl					
Other women					
Children					
Neonatal					
Infants					

Farm implements and machinery.

Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)		Cost reduction (Rs. /ha or Rs. /Unit)	
					Demonsration	Check					
Drum Seeder	Kharif, 2022 Paddy Var Rani Dhan	Direct Seeding of Rice in Lines	22	10	-	-	-	60	Manual Transplanting	15000	-

*** Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs. /ha)			
Cereals				**Demo**	**Local check**	**% change**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR**
Bajra										
Maize (Rabi-Summer)	HQPM-5	05	0.39	Crop is now in growing stage						
Paddy										
Sorghum										
Wheat										
Others (Pl. specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower										
Groundnut										
Soybean										
Others (Pl. specify)										
Total										
Pulses										
Green gram										

Black gram										
Bengal gram										
Red gram										
Others (Pl. specify)										
Total										
Vegetable crops										
Bottle gourd										
Capsicum										
Cucumber										
Tomato										
Brinjal										
Okra										
Onion										
Potato										
Field bean										
Others (Pl. specify)										
Total										
Commercial crops										
Cotton										
Coconut										
Others (Pl. specify)										
Total										
Fodder crops										
Napier (Fodder)										
Maize (Fodder)	J1006	15	0.10	392.25	292.5 (Local Improved)	34.1	15618	23735	8084	1.51
Sorghum (Fodder)	PC-23	15	0.10	720	398.3 (Goma)	80.76	18450	48430	29980	2.62
Others (Pl. specify)										
Total		**35**	**0.59**							

Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Feed Back
1.	Rice var. Rani Dhan (IET - 19418)	The Rice var. Rani Dhan (IET - 19418) with an average yield of 68 q / ha may be cultivated instead of MTU - 7029. The percentage yield of the Rice var. Rani Dhan (IET - 19418) increased over 16 percent over the local check MTU - 7029.
2.	Green Manuring with *Azolla* in rice field	After multiplication of *Azolla* and incorporation in Paddy field before transplanting, application of Nitrogenous fertilizers was reduced up to 19 per cent for the next Paddy cultivation in the same field.
3.	Crop Diversification through introduction of Ekangi	Ekangi (*K. galanga*) was introduced in mono cropped up and medium land situation replacing Kharif Paddy as crop diversification gave an increased yield of 135 q. / ha which fetched a higher B: C ratio of 6.3.
4.	Drumstick Var. PKM – 1	The *Baramasia* Drumstick Var. – PKM -1 increase the economic benefits by double than traditional drumstick
5.	Varietal Replacement of Elephant Foot Yam with Var. Bidhan Kusum	The Elephant Foot Yam was cultivated in up-land mono cropped area in rainfed condition as crop diversification satisfactorily with an average yield of 692 q. / ha with 157 per cent increase in yield over local check along with B: C Ratio of 5.54 over 2.96 in Local Check.
6.	Seed treatment with *Trichoderma viridi* @8 g per kg of seeds	Seed treatment with *Trichoderma viridi* in kharif paddy only can increase the yield by 14%
7.	Use of Pheromone trap against *spodoptera litura* of brinjal as mechanical control	Use of Pheromone trap in Brinjal increased the yield by 18.1 %
8.	Use of Pheromone with funnel trap to control Mango fruit fly	Use of Pheromone with funnel trap increased the mango yield by 22 %
9.	Varietal replacement of green fodder Maize Var J-1006	Green Fodder Maize was cultivated in Kharif with an average yield of 392.25q. / ha with 34.1 per cent increase in yield over local check along with B:C ratio of 1.51 over 1.14 in local check
10.	New introduction of Green Fodder Rice Bean Var Bidhan 2	Green Fodder Rice Bean was cultivated in Kharif with an average yield of 350.5 q. / ha with with B:C ratio 1.73
11.	Varietal replacement of green fodder Jowar Var PC-23	Improved variety PC-23 of green fodder Jowar increased the fodder yield by 81 % with high Crude protein of 9.20
12.	Use of Doramectin on Lamb 6 months old @200 mg/Kg Body weight	Use of Doramectin helped to increase the body weight by 19.8 %
13.	Participatory preparation of Extension Literatures in Vernacular Languages	Participatory preparation of Extension Literatures in Vernacular Languages helped to change the total production by 18 % than general language (6%)
14.	Nutrition Garden	It increases the availability of veg to farm family and got 70% more income.
15.	Use of Drum Seeder for direct seeding of rice in lines	It is essential and cost effective as it reduces the labour requirement. The Cost reduction by using Drum Seeder is Rs. 15000per hectare with an average labour reduction of 60 per ha.
16.	Introduction of Aseel birds	Introduction of Aseel birds gave higher B:C ration of 3.9

Extension and Training activities under FLD

Sl. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
01.	Field Days	07.02.2022, 16.02.2022, 22.03.2022, 29.03.2022, 20.05.2022, 07.02.2022, 21.02.2022, 17.03.2022, 23.03.2022, 23.05.2022, 09.08.2022, 12.08.2022, 22.08.2022, 26.08.2022, 29.09.2022, 02.10.2022, 02.12.2022	17	209	
02.	Farmers Training	17.02.2022, 25.02.2022, 26.07.2022, 27.09.2022, 17.11.2022	5	67	
03.	Media Coverage				
04.	Training for extension functionaries				

Performance of the demonstration under CFLD on Pulse and Oilseed Crops

Cluster Front Line Demonstration on Pulses (2022)

CFLD Pulses, Summer, 2022

Performance of the demonstration:

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized. (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
1	Summer-Green gram	Panna	8.0	250	+11	700	Var: IPM-205-07 (Virat)+ Herbicides pendimethalin as pre-emergences @ 3lt/ha+ Micronutrient spray Boron-20 @2gm/lt water at 25 and 45 DAS	92	10	13.30	9.15	12.7	40	565	67
2	Summer-Black gram	Kali-50	6.2	2	56	780	Var: PU-01+ Herbicides pendimethalin as pre-emergences @ 3lt/ha+ Micronutrient spray Boron-20 @2gm/lt water at 25 and 45 DAS	71	10	12.75	8.5	12.20	3000	1070	75

Seeds of Improved Variety IPM-205-07 (Virat) of Green gram and PU-01 of Black gram @ 30 kg/, Method of seed sowing: - Broadcasting, Application of herbicides; Pendimethalin @ 3 lit. / ha at 1- 3 DAS, Foliar Spray of Micro- Nutrients: - B- 20 @ 2 gm. / lit. of water at 25 and 45 DAS.

B. Economic parameters

Sl. No.	Variety demonstrated & Technology demonstrated	Farmers' Existing plot				Demonstration plot				Farmers' feedback
		Gross Cost (Rs. /ha)	Gross return (Rs. /ha)	Net Return (Rs. /ha)	B:C ratio	Gross Cost (Rs. /ha)	Gross return (Rs. /ha)	Net Return (Rs. /ha)	B:C ratio	
01.	Green gram, Var IPM-205-07 (Virat) Herbicides, Micronutrient spray	19900	48000	28100	2.40	21200	76200	55000	3.59	Additional net return is Rs.26900/ha
02.	Black gram Var, PU_01, Herbicides, Micronutrient	16650	34100	17450	2.04	17700	67100	49400	3.79	Additional net return is Rs.32225/ha

C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained	Produce sold. (Kg. /household)	Selling Rate (Rs. /Kg.)	Produce used for own sowing (Kg.)	Produce distributed to other farmers	Purpose for which income gained was utilized	Employment Generated (Man days / household)
01.	Summer- Green Gram Var: IPM-205-07 (Virat) + Herbicides, Micronutrient spray	12700 kg	100	60.00	Rest is kept for Dal processing and sowing seeds in the next season.	_	Payment for Labor bill, payment for irrigation, fertilizer and pesticide expenditures.	11
02.	Summer- Black gram Var: PU-01 + Herbicides, Micronutrient spray	12200 Kg	100	55.00	Rest is kept for Dal processing and sowing seeds in the next season	_	Payment for Labor bill, payment for irrigation, fertilizer and pesticide expenditures.	08

D. Pulse Farmer's perception of the intervention demonstrated.

Sl. No.	Technologies demonstrated (With name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
01.	Crop: - Green Gram Var- IPM-205-07 (Virat) + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and luxurious shiny colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	Availability of seeds should be ensured in time. Appropriate good quality *Rhizobium* culture should be ensured for supply among the farmers. Low-cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.
02.	Summer-Black gram Var: PU-01 + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and luxurious shiny colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, labour etc.	Availability of seeds should be ensured in time. Appropriate good quality *Rhizobium* culture should be ensured for supply among the farmers. Low-cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

E. Specific Characteristics of Technology and Performance

Green gram

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
1. Duration	Shorter	New variety: 70 days Local check: 90 days	59 % increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 26900/ha than local check which is very much encouraging for summer green gram cultivation instead of summer rice.
2. No. of branches/ plant	Highly branched	New technology: 18 Local check: 11	
3. No. of pods /plant	Higher	New technology: 34 Local check: 21	
4. No. of Seeds/Pod	More	New technology: 12 Local check: 7	

Black gram

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
1. Duration	Shorter	New variety: 80 days Local check: 95days	97% increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e. additional net return Rs. 32225/ha than local check which is very much encouraging for summer green gram cultivation instead of summer rice.
2. No. of branches/ plant	Highly branched	New technology: 16 Local check: 8	
3. No. of pods /plant	Higher	New technology: 48 Local check: 26	

F) Extension activities under FLD conducted:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmers attended
1.	Training programme on improved Green gram cultivation in summer	17.02.2022, Rathindra KVK	15
2	Training programme on improved Black gram cultivation in summer	25.02.2022, Rathindra KVK	13
3	Field days on land preparation and sowing of improved varieties of green gram	07.02.2022, Bejuri	7
4	Field days on Weed Management & Water Management of green gram	16.02.2022, Raipur	6
5	Field days on Branching flowering of green gram	22.03.2022, Bejuri	8
6	Field days on Micronutrient spray of green gram	29.03.2022, Raipur	8
7	Field days on Harvesting stage of green gram	20.05.2022, Senkapur	11
8	Field days on Land preparation & Sowing of improved seeds of Black gram	07.02.2022, Faridpur	17
9	Field days on Weed Management & Water Management of Black gram	21.02.2022, Faridpur	11
10	Field days on Branching flowering of Black gram	17.03.2022, Bejuri	8
11	Field days on Micronutrient spray of Black gram	23.03.2022, Bejuri	9
12	Field days on Harvesting stage of Black gram	23.05.2022, Faridpur	15

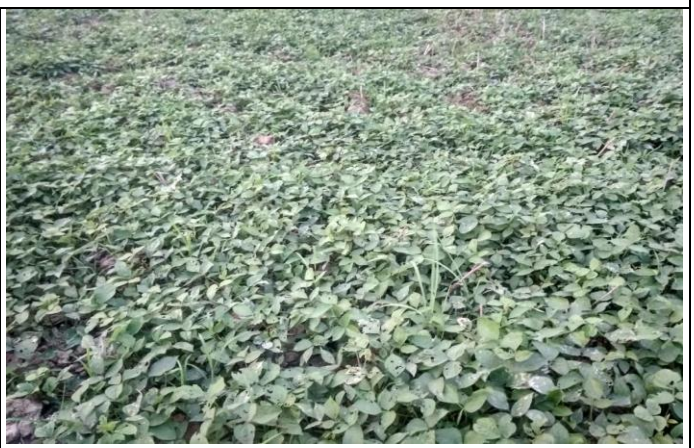
G. Sequential good quality photographs (as per crop stages i.e., growth & development)

Rathindra KVK Scientists at the Off-Campus Training Programme on the Cluster FLD Programme on Summer Pulse

Photographs of Seed Distribution

Rathindra KVK Scientist Collecting for Data at the Vegetative Stage of Green Gram

Rathindra KVK Scientist Collecting for Data at the Vegetative Stage of Green Gram



Rathindra KVK Scientist collecting for Data at the Flowering Stage of Green Gram & Black gram

Rathindra KVK Scientist collecting Data at the Maturity Stage of Green Gram

Rathindra KVK Scientist collecting Data at the Harvesting Stage of Black gram

H. Details of budget utilization

Crop (Provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Summer, pulse 2021-22 (Green Gram and Black gram)	i) Critical input	1,80,000.00	1,26,000.00	54,000.00
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field Day, training etc.)			
	iv)Publication of literature etc.			
Total		**1,80,000.00**	**1,26,000.00**	**54,000.00**

Kharif Oilseeds:

Performance of the Demonstration

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety	Existing yield (q/ha)	Yield gap (Kg/ha)			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized. (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
01.	Kharif-Sesame	Tilottoma	7.4	193	175	760	Var: Suprava (CUMS-17)+ Herbicides pendimethalin as pre-emergences @ 3lt/ha+ Micronutrient spray Zinc EDTA @1gm/lt water in 25 and 45 DAS	126	20	12.7	9.7	10.9	244	190	85

Seeds of Improved Variety Suprava @ 6 Kg. /ha, Method of seed sowing: - Broadcasting, Application of herbicides. Pendimethalin @ 3 lit. / ha at 1- 3 DAS, Foliar Spray of Micro- Nutrients: - ZN EDTA @ 1 gm. / lit. of water at 25 and 45 DAS.

B. Economic Parameters

Sl. No.	Variety demonstrated & Technology demonstrated	Farmers' Existing plot				Demonstration plot				Farmers' feedback
		Gross Cost (Rs. /ha)	Gross return (Rs. /ha)	Net Return (Rs. /ha)	B:C ratio	Gross Cost (Rs. /ha)	Gross return (Rs. /ha)	Net Return (Rs. /ha)	B:C ratio	
01.	Var: Suprava (CUMS-17) + Herbicides pendimethalin as pre-emergences @ 3lt/ha+ Micronutrient spray Zinc EDTA @1gm/lt water in 25 and 45 DAS	16200	40700	24500	2.5	16900	59950	43050	3.5	Additional net return is Rs.18850/ha

C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained	Produce sold (Kg. /household)	Selling Rate (Rs. /Kg.)	Produce used for own sowing (Kg.)	Produce distributed to other farmers	Purpose for which income gained was utilized	Employment Generated (Man days / household)
01.	Sesame, Var- Suprava (CUMS-17) + Herbicide, Micronutrient Spray	21800 kg	125.00	55.00	Rest is kept for extracting Oil and sowing seeds in the next season.	_	Payment for Labor bill, payment for irrigation, fertilizer and pesticide expenditures.	11

D. Oilseed Farmer's perception of the intervention demonstrated

Sl. No.	Technologies demonstrated (With name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
01.	Var: Suprava (CUMS-17) + Herbicides pendimethalin as pre-emergences @ 3lt/ha+ Micronutrient spray Zinc EDTA @1gm/lt water in 25 and 45 DAS	Suitable to a large extent	Farmers prefer the new improved variety of sesame i.e. Savitri as the existing variety of local check Tilottoma gives a yield and takes more time than new variety Suprava	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the Programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients etc. But a good demand of the crop in the market is found.	Availability of seeds should be ensured in time. Low-cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

E. Specific Characteristics of Technology and Performance

Specific Characteristic	Performance	Performance of New Technology vis-a vis Local Check	Farmers Feedback
1. Duration	Satisfactory	New Technology: 85 days, Local check: 95 days	47% increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e., additional net return Rs.18550/-ha than local check which is very much encouraging for sesame cultivation in summer season instead of rice.
2. No. of silique/plant	High	New Technology: 38 days Local Check: 26 days	
3. Colours of the seed	Attractive	New Technology: White Local Check: Brown	

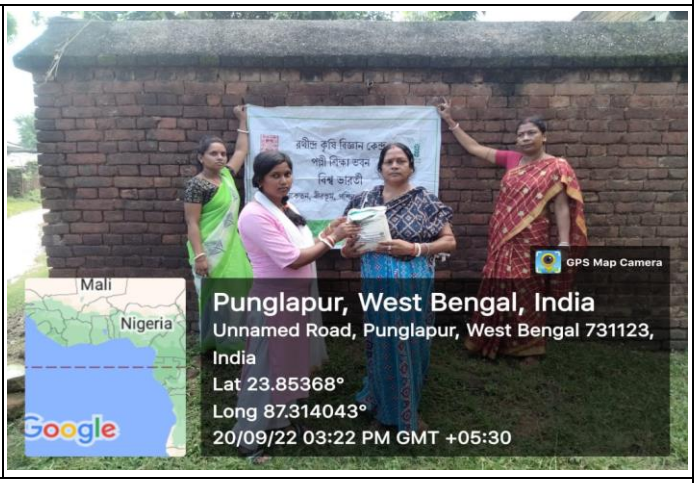
F. Extension activities under FLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmers attended
01.	Field days on Land preparation & Sowing of improved seeds.	09.08.2022	13
02.	Field days on Weed Management & Water Management	22.08.2022	15
03.	Field days on Branching flowering.	26.08.2022	9
04.	Field days on Micronutrient Spray	29.09.2022	19
05.	Field days on Harvesting stage	02.10.2022	15

G. Sequential good quality photographs (as per crop stages i.e., growth & development)

Rathindra KVK Scientists at the Off-Campus Training Programme on the Cluster FLD Programme on Kharif Oilseed

Photographs of Seed Distribution



Sowing stage of Farmers field organized by the Rathindra KVK, Birbhum

Agromet Observer of Rathindra KVK collecting data of Sesame on Cluster FLD Kharif Oilseed -2022 at the Vegetative stage

Agromet Observer of Rathindra KVK collecting data of Sesame on Cluster FLD Kharif Oilseed -2022 at the Flowering stage

Agromet Observer of Rathindra KVK collecting data of Sesame on Cluster FLD Kharif Oilseed -2022 at the Maturity stage

H. Details of budget utilization

Crop (Provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Kharif, Oilseed: 2022-23 (Sesame)	i) Critical input	1,00,000.00	95,420.00	4,580.00
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field Day, training etc)			
	iv)Publication of literature etc.			
Total		**1,00,000.00**	**95,420.00**	**4,580.00**

CFLD Rabi Oilseeds:

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha) w.r.to			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
01.	Mustard	B-9					Var. NRCHB- 101 + Herbicides Pendimethalin as pre-emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water at 25 and 45 DAS	49	07	Programme is Going On.					
							Var. CS-60 + Herbicides Pendimethalin as pre-emergence @ 3lt/ha+ Micronutrient spray Zinc EDTA @ 1g/lt water at 25 and 45 DAS	25	03	Programme is Going On.					
							Total	**74**	**10**						

Training, Seed Distribution and Vegetative states of Mustard under CFLD Rabi Oilseed – 2022 by Rathindra KVK

Kharif Pulses:

Performance of the Demonstration:

A. Technical Parameters:

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (Kg/ha)			Name of Variety + Technology demonstrated	Number of farmers	Area in ha	Yield obtained (q/ha)			Yield gap minimized (%)		
				District yield (D)	State yield (S)	Potential yield (P)				Max.	Min.	Av.	D	S	P
01.	Kharif -Black gram	Kali-50	6.2	2	56	780	Var: PU-31+ Herbicides pendimethalin as pre-emergences @ 3lt/ha+ Micronutrient spray Boron-20 @2gm/lt water at 25 and 45 DAS	371	40	13.05	8.7	10.8	860	459	62

Seeds of Improved Variety PU-31 of Black gram @ 30 kg/, Method of seed sowing: - Broadcasting, Application of herbicides; Pendimethalin @ 3 lit. / ha at 1- 3 DAS, Foliar Spray of Micro- Nutrients: - B- 20 @ 2 gm. / lit. of water at 25 and 45 DAS

B. Economic Parameters:

Sl. No.	Variety demonstrated & Technology demonstrated	Farmers' Existing plot				Demonstration plot				Farmers' feedback
		Gross Cost (Rs. /ha)	Gross return (Rs. /ha)	Net Return (Rs. /ha)	B:C ratio	Gross Cost (Rs. /ha)	Gross return (Rs. /ha)	Net Return (Rs. /ha)	B:C ratio	
01.	Black gram Var, PU_31, Herbicides, Micronutrient	18050.00	37200.00	19150.00	2.06	19000.00	64800.00	45800.00	3.41	Additional net return is Rs.26650/ha

C. Socio-economic impact parameters

Sl. No.	Crop and variety Demonstrated	Total Produce Obtained	Produce sold. (Kg. /household)	Selling Rate (Rs. /Kg.)	Produce used for own sowing (Kg.)	Produce distributed to other farmers	Purpose for which income gained was utilized	Employment Generated (Man days / household)
	Kharif- Black gram Var: PU-31 + Herbicides, Micronutrient spray	21800.00	200.00	60.00	Rest is kept for Dal processing and sowing seeds in the next season	_	Payment for Labor bill, payment for irrigation, fertilizer and pesticide expenditures.	10

D. Pulse Farmer's perception of the intervention demonstrated

Sl. No.	Technologies demonstrated (With name)	Farmers' Perception parameters					
		Suitability to their farming system	Likings (Preference)	Affordability	Any negative effect	Is Technology acceptable to all in the group/village	Suggestions, for change/improvement, if any
1.	Kharif- Black gram Var: PU-31 + Herbicides, Micronutrient spray	Suitable to a large extent.	Farmers prefer medium size of seeds and luxurious shiny colour of the seeds of the variety.	New improved variety seeds are affordable. However other components of package of practices like herbicides, plant protection chemicals, micro-nutrients, chemical fertilizers, irrigations etc. are not at all affordable except a very few from the beneficiaries when the programme support would be withdrawn.	None	No, the improved variety and the technological supportive package of practices are acceptable to the partner farmers of the Cluster FLD; but other farmers are still apprehensive about the availability of seeds of the improved varieties and the market acceptance of these new improved varieties. The farmers are greatly concerned about the rising prices of inputs like herbicides, micro-nutrients, plant protection chemicals, irrigation water, Labour etc.	Availability of seeds should be ensured in time. Appropriate good quality *Rhizobium* culture should be ensured for supply among the farmers. Low-cost quality herbicides and micro-nutrients should be encouraged for dissemination among the farming community. Proper irrigation facilities should be created by the Governmental agencies.

E. Specific Characteristics of Technology and Performance

Black gram

Specific Characteristic	Performance	Performance of Technology vis-a vis Local Check	Farmers Feedback
1. Duration	Shorter	New variety: 80 days Local check: 95days	74% increase in yield was obtained through the new technology than local check. The new variety fetched more benefit in shorter duration i.e., additional net return Rs. 26650/ha than local check which is very much encouraging for Kharif black gram cultivation instead of Kharif rice.
2. No. of branches/ plant	Highly branched	New technology: 17 Local check: 8	
3. No. of pods /plant	Higher	New technology: 48 Local check: 27	

F. Extension activities under FLD conducted till dates:

Sl. No.	Extension Activities organized	Date and place of activity	Number of farmers attended
01.	Training programme of Improved variety in Black gram	26.07.2022	15
02.	Field day on Sowing of Black gram in mono cropped upland	12.08.2022	22
03.	Training on Weed and micronutrient management in Kharif Black gram as crop diversification.	27.09.2022	13
04.	Training on Harvesting as seed of Black gram Kharif season	17.11.2022	11
05.	Field day on Harvesting and Threshing of Kharif Black gram	02.12.2022	16

G. Sequential good quality photographs (as per crop stages i.e., growth & development)

Rathindra KVK Scientists at the Off-Campus Training Programme on the Cluster FLD Programme on Kharif Pulse

Photographs of Seed Distribution

Rathindra KVK Scientist collecting for Data at the Vegetative Stage on Kharif Black gram

Farmer's data collecting of Flowering stage on Kharif Black gram

Data collecting of the Maturity Stage on Kharif Black gram

Data collecting of Harvesting stage on Kharif Black gram

H. Details of budget utilization

Crop (Provide crop wise information)	Items	Budget Received (Rs.)	Budget Utilization (Rs.)	Balance (Rs.)
Kharif, pulse: 2022-23 (Black gram)	i) Critical input	**3,60,000.00**	**3,21,648.00**	**38,352.00**
	ii) TA/DA/POL etc. for monitoring			
	iii) Extension Activities (Field Day, training etc)			
	iv)Publication of literature etc.			
Total		**3,60,000.00**	**3,21,648.00**	**38,352.00**

CFLD Success Stories:

A. Oilseed:

Name Of KVK: Rathindra Krishi Vigyan Kendra, PSB, Visva-Bharati, Sriniketan, Birbhum
Name of the Crop & Variety: Sesame, Var- Suprava (Season: - Kharif and Year: - 2022-23)

Farmer's Name: - Smt. Sampa Hazra
Husband's Name: - Rajkumar Hazra
Address: - Village +P. O – Ganra, Police Station: - Labpur,
Block- Dubrajpur, Pin- 731124, Dist- Birbhum
Phone Number: - 6297776993
Aadhar Number: - 218999049841

Background information about farmer's field:

i) How and why he/ she brought under CFLD?

Smt. Sampa Hazra and several other practicing farmers & farm women of the locality of the village Ganra, PO- Ganra C.D. Block- Dubrajpur, District- Birbhum have undergone various skill development training programmes on the Topic of "Crop Diversification through introduction of improved Oilseed in Kharif seasons", organized by the Rathindra KVK, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum. In this context, this farmer along with several other farmers of her locality has shown keen interest on growing Kharif oilseed cultivation especially of Sesame instead of Kharif Paddy in rainfed upland condition. Among this group of farmers & farm women Smt. Sampa Hazra maintained a high level of interest and lead the other fellow farmers to become the partner Farmers in the Cluster Front Line Demonstration Programmes on Kharif Oilseed viz. Sesame cultivation in kharif season 2022-23 in above mentioned area.

ii) Existing practices before adopting CFLD recommendation:

Farmers generally use Sesame varieties like B- 67 (Tilottama) and they do not use any micronutrients and herbicides. They only use chemical fertilizers @ 80- 00 – 00 or 80 – 20 – 00 (N-P-K Respectively Kg. /ha).

Institutional Involvement:

i) Details of inputs and Technology provided:

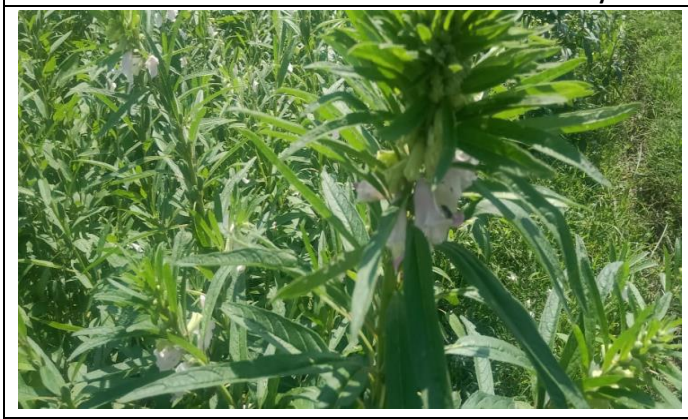
(A) Seeds of Improved Variety Suprava (CUMS-17)
(B) Herbicides: - Pendimethalin as per-emergence
(C) Foliar spray of Micro- Nutrients (Zinc).
(D) Need based plant protection chemicals

ii) Details of application of technology with photograph:

(A) Seeds of Improved Variety Suprava (CUMS-17) @ 6 Kg. /ha
(B) Method of seed sowing: - Broadcasting
(C) Application of herbicides. Pendimethalin @ 3 lit. / ha at 1- 3 DAS.
(D) Foliar Spray of Micro- Nutrients: - Zn EDTA @ 1 gm. / lit. of water at 25 and 45 DAS.

Data Collection of Sesame on CFLD Kharif Oilseed -2022 by the Rathindra KVK at the Vegetative stage of the plot of Smt. Munmun Laha

Data Collection of Sesame on CFLD Kharif Oilseed -2022 by the Rathindra KVK at the Flowering stage of the plot of Smt. Munmun Laha



Data Collection of Blackgram on CFLD Kharif Oilseed-2022 by the Rathindra KVK at the Maturity stage of the plot of Smt. Munmun Laha

iii) Field Days observed:

10.08.2022- Land preparation & Sowing of improved seeds.
11.08.2022- Fertilizer application
21.09.2022- Vegetative growth stage.
02.11.2022- Harvesting stage

Success Point:

Use of new improved variety Suprava distinctly increased the yield by 71 % than the old variety, Tillotoma (B-67). Beside that spraying of micronutrient Zn played beneficial role than local check. And ultimately the benefits of farmers increased by 106 %

Farmer Feed Back:

The demonstrated variety Suprava is shorter in duration by 15 days on an average than the existing variety i.e. B- 67 (Tilottama) and the average height of the demonstrated variety is also shorter by 10-15 cms than the Tilottama variety. The number of siliqua per plant is 47 on average demonstrated variety whereas in the case of the existing variety it is only 30 in numbers on an average. It increased the farmers income them these obtained from paddy cultivation.

Outcome Yield (q/ha):

Demonstration----------12.7 q/ha
Potential yield of variety--------15 q/ha
District average ----------9.33 q/ha
State Average----------9.15 q/ha

Performance of the technology vis-à-vis local check (Increase in productivity and returns)

Specific Technology	Yield (q/ ha)	Gross Cost (Rs/ha)	Gross income (Rs/ha)	Net Income (Rs/ha)	B:C Ratio
Farmer practices	7.4	16200	40700	24500	2.5
Demonstration	12.7	16900	66385	49485	23.9
% increase	71	4.3	63	101.01	56

B. Pulse:

Name Of KVK: Rathindra Krishi Vigyan Kendra, PSB, Visva-Bharati, Sriniketan, Birbhum
Name of the Crop & Variety: Black gram, Var- PU-31 (Season: - Kharif and Year: - 2022-23)

Farmer's Name: - Smt. Jharna Bauri
Husband's Name: - Late Toilang Bauri
Address: - Village - Haridaspur P.O- Bakeswar, Police Station: - Dubrajpur
Block- Dubrajpur, Pin- 731123, Dist- Birbhum
Phone Number: - 7908574478
Aadhar Number: - 350114189439

Background information about farmer's field:

i) How and why he/ She brought under CFLD?

Smt. Jharna Bauri and several other practicing farmers & farm women of the locality of the village Haridaspur, PO- Bakeswar C.D. Block- Dubrajpur, District- Birbhum have undergone various skill development training programmes on the Topic of "Crop Diversification through introduction of improved pulses in Kharif seasons", organized by the Rathindra KVK, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum. In this context, this farmer along with several other farmers of her locality has shown keen interest on growing Kharif pulses cultivation especially of Black gram instead of Kharif Paddy in rainfed upland condition. Among this group of farmers & farm women Smt. Jharna Bauri Hossain maintained a high level of interest and lead the other fellow farmers to become the partner Farmers in the Cluster Front Line Demonstration Programmes on Kharif Pulses viz. Black gram cultivation in kharif season 2022-23 in above mentioned area.

ii) Existing practices before adopting CFLD recommendation:

Farmers generally use Black gram varieties like Kali-50 and thy do not use any micronutrients and herbicides. They only use chemical fertilizers @ 80- 00 – 00 or 80 – 20 – 00 (N-P-K Respectively Kg. /ha).

Institutional Involvement:

i) Details of inputs and Technology provided:

(A) Seeds of Improved Variety PU-31
(B) Herbicides: - Pendimethalin as per-emergence
(C) Foliar spray of Micro- Nutrients Boron-20
(D) Need based plant protection chemicals

ii) Details of application of technology with photograph:

(A) Seeds of Improved Variety PU-31 @ 30 Kg. /ha
(B) Method of seed sowing: - Broadcasting
(C) Application of herbicides. Pendimethalin @ 3 lit. /ha at 1- 3 DAS.
(D) Foliar Spray of Micro- Nutrients: - Boron-20 @ 2 gm. / lit. of water at 25 and 45 DAS.

Data collection of Black grams on CFLD Kharif Pulses -2022 by the Rathindra KVK at the vegetative Growth stage of the plot of Smt. Jharna Bauri

Data Collection of Black gram on CFLD Kharif Pulses-2022 by the Rathindra KVK at the Flowering stage of the plot of Smt. Jharna Bauri

Data Collection of Black gram on CFLD Kharif Pulses-2022 by the Rathindra KVK at the Maturity stage of the plot of Smt. Jharna Bauri

Data Collection of Black gram on CFLD Kharif Pulses-2022 the Rathindra KVK at the Harvesting stage of the plot of Smt. Jharna Bauri

3.3 Achievements on Training (Including the sponsored and FLD training programmes):

A) Farmers and farm women (on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
I. Crop Production													
Weed Management				0			0			0	0	0	0
Resource Conservation Technologies	2	27	12	39	5	2	7	0	0	0	32	14	46
Cropping Systems				0			0			0	0	0	0
Crop Diversification	2	30	2	32	3	2	5	9	6	15	42	10	52
Integrated Farming				0			0			0	0	0	0
Micro irrigation/irrigation				0			0			0	0	0	0
Seed production				0			0			0	0	0	0
Nursery management	1	30	1	31	9	0	9	0	0	0	39	1	40
Integrated Crop Management	4	88	10	98	25	7	32	10	2	12	123	19	142
Soil & water conservation				0			0			0	0	0	0
Integrated nutrient Management	1	2	0	2	2	0	2	8	5	13	12	5	17
Production of organic inputs				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**10**	**177**	**25**	**202**	**44**	**11**	**55**	**27**	**13**	**40**	**248**	**49**	**297**
II. Horticulture													
a) Vegetable Crops													
Production of low volume and high value crops				0			0			0	0	0	0
Off season vegetables				0			0			0	0	0	0
Nursery raising				0			0			0	0	0	0
Exotic vegetables				0			0			0	0	0	0
Export potential vegetables				0			0			0	0	0	0
Grading and standardization				0			0			0	0	0	0
Protective cultivation				0			0			0	0	0	0
Others (Yield Increment)	1	4	11	15	0	3	3	0	1	1	4	15	19
Total (a)	**1**	**4**	**11**	**15**	**0**	**3**	**3**	**0**	**1**	**1**	**4**	**15**	**19**
b) Fruits													
Training and Pruning				0			0			0	0	0	0
Layout and Management of Orchards				0			0			0	0	0	0
Cultivation of Fruit	1	15	8	23	2	1	3	3	1	4	20	10	30
Management of young plants/orchards				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Export potential fruits				0			0			0	0	0	0
Micro irrigation systems of orchards				0			0			0	0	0	0
Plant propagation techniques				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (b)	**1**	**15**	**8**	**23**	**2**	**1**	**3**	**3**	**1**	**4**	**20**	**10**	**30**

c) Ornamental Plants													
Nursery Management				0			0			0	0	0	0
Management of potted plants				0			0			0	0	0	0
Export potential of ornamental plants				0			0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants													
Nursery management				0			0			0	0	0	0
Production and management technology				0			0			0	0	0	0
Post harvest technology and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total(a-g)	**2**	**19**	**19**	**38**	**2**	**4**	**6**	**3**	**2**	**5**	**24**	**25**	**49**
III. Soil Health and Fertility Management													
Soil fertility management	1	13	0	13	0	0	0	0	0	0	13	0	13
Integrated water management				0			0			0	0	0	0
Integrated Nutrient Management				0			0			0	0	0	0
Production and use of organic inputs				0			0			0	0	0	0
Management of Problematic soils				0			0			0	0	0	0
Micronutrient deficiency in crops				0			0			0	0	0	0
Nutrient Use Efficiency	2	23	8	31	5	1	6	0	0	0	28	9	37
Balance Use of fertilizer				0			0			0	0	0	0
Soil & water testing				0			0			0	0	0	0
others				0			0			0	0	0	0
Total	**3**	**36**	**8**	**44**	**5**	**1**	**6**	**0**	**0**	**0**	**41**	**9**	**50**
IV. Livestock Production and Management													

Dairy Management	1	14	15	29	8	4	12	0	0	0	22	19	41
Poultry Management	2	3	28	31	3	22	25	0	12	12	6	62	68
Piggery Management				0			0			0	0	0	0
Rabbit Management				0			0			0	0	0	0
Animal Nutrition Management				0			0			0	0	0	0
Disease Management	2	14	25	39	13	17	30	2	0	2	29	42	71
Feed & fodder technologies	3	41	4	45	13	34	47	1	15	16	55	53	108
Production of quality animal products	1	30	4	34	4	2	6	1	0	1	35	6	41
Others				0			0			0	0	0	0
Total	**9**	**102**	**76**	**178**	**41**	**79**	**120**	**4**	**27**	**31**	**147**	**182**	**329**
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening				0			0			0	0	0	0
Design and development of low/minimum cost diet				0			0			0	0	0	0
Designing and development for high nutrient efficiency diet				0			0			0	0	0	0
Minimization of nutrient loss in processing				0			0			0	0	0	0
Processing & cooking				0			0			0	0	0	0
Gender mainstreaming through SHGs				0			0			0	0	0	0
Storage loss minimization techniques				0			0			0	0	0	0
Value addition				0			0			0	0	0	0
Women empowerment				0			0			0	0	0	0
Location specific drudgery reduction technologies				0			0			0	0	0	0
Rural Crafts				0			0			0	0	0	0
Women and childcare				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VI. Agril. Engineering													
Farm machinery & its maintenance				0			0			0	0	0	0
Installation and maintenance of micro irrigation systems				0			0			0	0	0	0
Use of Plastics in farming practices				0			0			0	0	0	0
Production of small tools and implements				0			0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0			0	0	0	0
Small scale processing and value addition				0			0			0	0	0	0
Post Harvest Technology				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII. Plant Protection													
Integrated Pest Management				0			0			0	0	0	0
Integrated Disease Management				0			0			0	0	0	0
Bio0control of pests and diseases				0			0			0	0	0	0
Production of bio control agents and bio pesticides				0			0			0	0	0	0

Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VIII. Fisheries													
Integrated fish farming				0			0			0	0	0	0
Carp breeding and hatchery management				0			0			0	0	0	0
Carp fry and fingerling rearing				0			0			0	0	0	0
Composite fish culture				0			0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0			0	0	0	0
Breeding and culture of ornamental fishes				0			0			0	0	0	0
Portable plastic carp hatchery				0			0			0	0	0	0
Pen culture of fish and prawn				0			0			0	0	0	0
Shrimp farming				0			0			0	0	0	0
Edible oyster farming				0			0			0	0	0	0
Pearl culture				0			0			0	0	0	0
Fish processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX. Production of Input at site													
Seed Production				0			0			0	0	0	0
Planting material production				0			0			0	0	0	0
Bio0agents production				0			0			0	0	0	0
Bio0pesticides production				0			0			0	0	0	0
Bio0fertilizer production				0			0			0	0	0	0
Vermi0compost production				0			0			0	0	0	0
Organic manures production				0			0			0	0	0	0
Production of fry and fingerlings				0			0			0	0	0	0
Production of Bee0colonies and wax sheets				0			0			0	0	0	0
Small tools and implements				0			0			0	0	0	0
Production of livestock feed and fodder	2	18	8	26	6	8	14	2	0	2	26	16	42
Production of Fish feed				0			0			0	0	0	0
Mushroom production				0			0			0	0	0	0
Apiculture				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**2**	**18**	**8**	**26**	**6**	**8**	**14**	**2**	**0**	**2**	**26**	**16**	**42**
X. Capacity Building and Group Dynamics													
Leadership development				0			0			0	0	0	0
Group dynamics	5	25	21	46	66	28	94	13	5	18	104	54	158
Formation and Management of SHGs				0			0			0	0	0	0
Mobilization of social capital				0			0			0	0	0	0
Entrepreneurial development of farmers/youths	**1**	**0**	**2**	2	**3**	**21**	24	**0**	**0**	0	3	23	26
WTO and IPR issues				0			0			0	0	0	0
Others (Mobilization of Govt Scheme)	1	19	0	19	5	1	6	1	4	5	25	5	30

Others (Mobilization of Institutional Support)	2	35	2	37	11	0	11	6	4	10	52	6	58
Others (Crop Insurance)	2	43	13	56	20	14	34	0	0	0	63	27	90
Others (Institutional Credit Supply)	2	16	18	34	4	7	11	3	1	4	23	26	49
Others (Utilization of Govt. Scheme)				0			0			0	0	0	0
Total	**13**	**138**	**56**	**194**	**109**	**71**	**180**	**23**	**14**	**37**	**270**	**141**	**411**
XI. Agro forestry													
Production technologies				0			0			0	0	0	0
Nursery management				0			0			0	0	0	0
Integrated Farming Systems				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII. Others (Pl. Specify) (Climate Resilience in Agriculture)	1	0	0	0	4	0	4	18	14	32	22	14	36
GRAND TOTAL	**40**	**490**	**192**	**682**	**211**	**174**	**385**	**77**	**70**	**147**	**778**	**436**	**1214**

B) Rural Youth (on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Nursery Management of Horticulture crops				0			0			0	0	0	0
Training and pruning of orchards				0			0			0	0	0	0
Protected cultivation of vegetable crops				0			0			0	0	0	0
Commercial fruit production				0			0			0	0	0	0
Integrated farming				0			0			0	0	0	0
Seed production				0			0			0	0	0	0
Production of organic inputs	2	4	1	5	15	34	49	2	4	6	21	39	60
Planting material production				0			0			0	0	0	0
Vermiculture				0			0			0	0	0	0
Mushroom Production				0			0			0	0	0	0
Beekeeping	2	2	4	6	24	10	34	5	0	5	31	14	45
Sericulture				0			0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0			0	0	0	0
Value addition				0			0			0	0	0	0
Small scale processing				0			0			0	0	0	0
Post Harvest Technology				0			0			0	0	0	0
Tailoring and Stitching				0			0			0	0	0	0
Rural Crafts				0			0			0	0	0	0
Production of quality animal products				0			0			0	0	0	0
Dairying				0			0			0	0	0	0
Sheep and goat rearing				0			0			0	0	0	0
Quail farming				0			0			0	0	0	0
Piggery				0			0			0	0	0	0
Rabbit farming				0			0			0	0	0	0
Poultry production	1	4	2	6	0	5	5	4	2	6	8	9	17
Ornamental fisheries				0			0			0	0	0	0
Composite fish culture				0			0			0	0	0	0
Freshwater prawn culture				0			0			0	0	0	0
Shrimp farming				0			0			0	0	0	0
Pearl culture				0			0			0	0	0	0
Cold water fisheries				0			0			0	0	0	0
Fish harvest and processing technology				0			0			0	0	0	0
Fry and fingerling rearing				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**5**	**10**	**7**	**17**	**39**	**49**	**88**	**11**	**6**	**17**	**60**	**62**	**122**

C) Extension Personnel (on campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops				0			0			0	0	0	0
Integrated Pest Management				0			0			0	0	0	0
Integrated Nutrient management				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Protected cultivation technology				0			0			0	0	0	0
Production and use of organic inputs				0			0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0			0	0	0	0
Gender mainstreaming through SHGs				0			0			0	0	0	0
Formation and Management of SHGs				0			0			0	0	0	0
Women and Childcare				0			0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0			0	0	0	0
Group Dynamics and farmers organization				0			0			0	0	0	0
Information networking among farmers				0			0			0	0	0	0
Capacity building for ICT application				0			0			0	0	0	0
Management in farm animals				0			0			0	0	0	0
Livestock feed and fodder production				0			0			0	0	0	0
Household food security				0			0			0	0	0	0
Other (Preparation Techniques and Nursery Raising)	1	3	0	3	0	0	0	1	0	1	4	0	4
Other (Production and Management Technology)	1	3	0	3	0	0	0	1	0	1	4	0	4
Other (Yield Increment of Vegetables)	1	3	0	3	0	0	0	1	0	1	4	0	4
Total	**3**	**9**	**0**	**9**	**0**	**0**	**0**	**3**	**0**	**3**	**12**	**0**	**12**

D) Farmers and farm women (off campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
I. Crop Production													
Weed Management				0			0			0	0	0	0
Resource Conservation Technologies	1	0	0	0	0	0	0	0	32	32	0	32	32
Cropping Systems				0			0			0	0	0	0
Crop Diversification				0			0			0	0	0	0
Integrated Farming				0			0			0	0	0	0
Micro irrigation/irrigation				0			0			0	0	0	0
Seed production				0			0			0	0	0	0
Nursery management				0			0			0	0	0	0
Integrated Crop Management	3	5	0	5	9	6	15	34	2	36	48	8	56
Soil & water conservation				0			0			0	0	0	0
Integrated nutrient Management				0			0			0	0	0	0
Production of organic inputs				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**4**	**5**	**0**	**5**	**9**	**6**	**15**	**34**	**34**	**68**	**48**	**40**	**88**
II. Horticulture													
a) Vegetable Crops													
Production of low volume and high value crops				0			0			0	0	0	0
Off season vegetables				0			0			0	0	0	0
Nursery raising				0			0			0	0	0	0
Exotic vegetables				0			0			0	0	0	0
Export potential vegetables				0			0			0	0	0	0
Grading and standardization				0			0			0	0	0	0
Protective cultivation				0			0			0	0	0	0
Others (Yield Increment)				0			0			0	0	0	0
Total (a)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
b) Fruits													
Training and Pruning				0			0			0	0	0	0
Layout and Management of Orchards				0			0			0	0	0	0
Cultivation of Fruit				0			0			0	0	0	0
Management of young plants/orchards				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Export potential fruits				0			0			0	0	0	0
Micro irrigation systems of orchards				0			0			0	0	0	0
Plant propagation techniques				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (b)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
c) Ornamental Plants													

Nursery Management				0			0			0	0	0	0
Management of potted plants				0			0			0	0	0	0
Export potential of ornamental plants				0			0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices													
Production and Management technology				0			0			0	0	0	0
Processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants													
Nursery management				0			0			0	0	0	0
Production and management technology				0			0			0	0	0	0
Post harvest technology and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total(a-g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
III. Soil Health and Fertility Management													
Soil fertility management				0			0			0	0	0	0
Integrated water management				0			0			0	0	0	0
Integrated Nutrient Management				0			0			0	0	0	0
Production and use of organic inputs				0			0			0	0	0	0
Management of Problematic soils				0			0			0	0	0	0
Micronutrient deficiency in crops	1	15	0	15	1	0	1	1	0	1	17	0	17
Nutrient Use Efficiency				0			0			0	0	0	0
Balance Use of fertilizer				0			0			0	0	0	0
Soil & water testing				0			0			0	0	0	0
others				0			0			0	0	0	0
Total	**1**	**15**	**0**	**15**	**1**	**0**	**1**	**1**	**0**	**1**	**17**	**0**	**17**
IV. Livestock Production and Management													
Dairy Management	4	16	123	139	4	115	119	0	2	2	20	240	260
Poultry Management	1	0	0	0	30	20	50	0	0	0	30	20	50

Piggery Management	**1**	**2**	**3**	5	**31**	**13**	44	**1**	**0**	1	34	16	50
Rabbit Management				0			0			0	0	0	0
Animal Nutrition Management				0			0			0	0	0	0
Disease Management				0			0			0	0	0	0
Feed & fodder technologies	1	1	3	4	1	70	71	0	0	0	2	73	75
Production of quality animal products				0			0			0	0	0	0
Others (Goat Farming)	1	2	3	5	31	13	44	1	0	1	34	16	50
Total	**8**	**21**	**132**	**153**	**97**	**231**	**328**	**2**	**2**	**4**	**120**	**365**	**485**
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	3	0	16	16	0	49	49	8	40	48	8	105	113
Design and development of low/minimum cost diet				0			0			0	0	0	0
Designing and development for high nutrient efficiency diet				0			0			0	0	0	0
Minimization of nutrient loss in processing				0			0			0	0	0	0
Processing & cooking				0			0			0	0	0	0
Gender mainstreaming through SHGs				0			0			0	0	0	0
Storage loss minimization techniques				0			0			0	0	0	0
Value addition				0			0			0	0	0	0
Women empowerment				0			0			0	0	0	0
Location specific drudgery reduction technologies				0			0			0	0	0	0
Rural Crafts				0			0			0	0	0	0
Women and childcare				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**3**	**0**	**16**	**16**	**0**	**49**	**49**	**8**	**40**	**48**	**8**	**105**	**113**
VI. Agril. Engineering													
Farm machinery & its maintenance				0			0			0	0	0	0
Installation and maintenance of micro irrigation systems				0			0			0	0	0	0
Use of Plastics in farming practices				0			0			0	0	0	0
Production of small tools and implements				0			0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0			0	0	0	0
Small scale processing and value addition				0			0			0	0	0	0
Post Harvest Technology				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII. Plant Protection													
Integrated Pest Management	2	63	0	63	29	0	29	8	0	8	100	0	100
Integrated Disease Management				0			0			0	0	0	0
Bio0control of pests and diseases				0			0			0	0	0	0
Production of bio control agents and bio pesticides				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**2**	**63**	**0**	**63**	**29**	**0**	**29**	**8**	**0**	**8**	**100**	**0**	**100**

VIII. Fisheries													
Integrated fish farming				0			0			0	0	0	0
Carp breeding and hatchery management				0			0			0	0	0	0
Carp fry and fingerling rearing				0			0			0	0	0	0
Composite fish culture				0			0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0			0	0	0	0
Breeding and culture of ornamental fishes				0			0			0	0	0	0
Portable plastic carp hatchery				0			0			0	0	0	0
Pen culture of fish and prawn				0			0			0	0	0	0
Shrimp farming				0			0			0	0	0	0
Edible oyster farming				0			0			0	0	0	0
Pearl culture				0			0			0	0	0	0
Fish processing and value addition				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX. Production of Input at site													
Seed Production				0			0			0	0	0	0
Planting material production				0			0			0	0	0	0
Bio0agents production				0			0			0	0	0	0
Bio0pesticides production				0			0			0	0	0	0
Bio0fertilizer production				0			0			0	0	0	0
Vermi0compost production				0			0			0	0	0	0
Organic manures production				0			0			0	0	0	0
Production of fry and fingerlings				0			0			0	0	0	0
Production of Bee0colonies and wax sheets				0			0			0	0	0	0
Small tools and implements				0			0			0	0	0	0
Production of livestock feed and fodder				0			0			0	0	0	0
Production of Fish feed				0			0			0	0	0	0
Mushroom production				0			0			0	0	0	0
Apiculture				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X. Capacity Building and Group Dynamics													
Leadership development				0			0			0	0	0	0
Group dynamics	2	10	27	37	28	43	71	0	9	9	38	79	117
Formation and Management of SHGs				0			0			0	0	0	0
Mobilization of social capital				0			0			0	0	0	0
Entrepreneurial development of farmers/youths				0			0			0	0	0	0
WTO and IPR issues				0			0			0	0	0	0
Others (Mobilization of Govt Scheme)				0			0			0	0	0	0
Others (Mobilization of Institutional Support)				0			0			0	0	0	0
Others (Crop Insurance)				0			0			0	0	0	0
Others (Institutional Credit Supply)	1	19	0	19	21	0	21	10	0	10	50	0	50

Others (Utilization of Govt. Scheme)	1	1	0	1	3	63	66	0	0	0	4	63	67
Total	**4**	**30**	**27**	**57**	**52**	**106**	**158**	**10**	**9**	**19**	**92**	**142**	**234**
XI. Agro forestry													
Production technologies				0			0			0	0	0	0
Nursery management				0			0			0	0	0	0
Integrated Farming Systems				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII. Others (Pl. Specify) (Climate Resilience in Agriculture)	3	26	0	26	0	93	93	4	24	28	30	117	147
GRAND TOTAL	**23**	**131**	**174**	**305**	**139**	**473**	**612**	**57**	**109**	**166**	**327**	**756**	**1083**

E) RURAL YOUTH (Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Nursery Management of Horticulture crops				0			0			0	0	0	0
Training and pruning of orchards				0			0			0	0	0	0
Protected cultivation of vegetable crops				0			0			0	0	0	0
Commercial fruit production				0			0			0	0	0	0
Integrated farming				0			0			0	0	0	0
Seed production				0			0			0	0	0	0
Production of organic inputs				0			0			0	0	0	0
Planting material production				0			0			0	0	0	0
Vermiculture				0			0			0	0	0	0
Mushroom Production				0			0			0	0	0	0
Beekeeping				0			0			0	0	0	0
Sericulture				0			0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0			0	0	0	0
Value addition				0			0			0	0	0	0
Small scale processing				0			0			0	0	0	0
Post Harvest Technology				0			0			0	0	0	0
Tailoring and Stitching				0			0			0	0	0	0
Rural Crafts				0			0			0	0	0	0
Production of quality animal products				0			0			0	0	0	0
Dairying				0			0			0	0	0	0
Sheep and goat rearing				0			0			0	0	0	0
Quail farming				0			0			0	0	0	0
Piggery				0			0			0	0	0	0
Rabbit farming				0			0			0	0	0	0
Poultry production				0			0			0	0	0	0
Ornamental fisheries				0			0			0	0	0	0
Composite fish culture				0			0			0	0	0	0
Freshwater prawn culture				0			0			0	0	0	0
Shrimp farming				0			0			0	0	0	0
Pearl culture				0			0			0	0	0	0
Cold water fisheries				0			0			0	0	0	0
Fish harvest and processing technology				0			0			0	0	0	0
Fry and fingerling rearing				0			0			0	0	0	0
Others				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

F) Extension Personnel (Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops				0			0			0	0	0	0
Integrated Pest Management				0			0			0	0	0	0
Integrated Nutrient management				0			0			0	0	0	0
Rejuvenation of old orchards				0			0			0	0	0	0
Protected cultivation technology				0			0			0	0	0	0
Production and use of organic inputs				0			0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0			0	0	0	0
Gender mainstreaming through SHGs				0			0			0	0	0	0
Formation and Management of SHGs				0			0			0	0	0	0
Women and Childcare				0			0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0			0	0	0	0
Group Dynamics and farmers organization				0			0			0	0	0	0
Information networking among farmers				0			0			0	0	0	0
Capacity building for ICT application				0			0			0	0	0	0
Management in farm animals				0			0			0	0	0	0
Livestock feed and fodder production				0			0			0	0	0	0
Household food security				0			0			0	0	0	0
Other (Preparation Techniques and Nursery Raising)				0			0			0	0	0	0
Other (Production and Management Technology)				0			0			0	0	0	0
Other (Yield Increment of Vegetables)				0			0			0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

G) Consolidated table (ON and OFF Campus)

i. Farmers & Farm Women

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
I. Crop Production													
Weed Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	3	27	12	39	5	2	7	0	32	32	32	46	78
Cropping Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop Diversification	2	30	2	32	3	2	5	9	6	15	42	10	52
Integrated Farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Micro irrigation/irrigation	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery management	1	30	1	31	9	0	9	0	0	0	39	1	40
Integrated Crop Management	7	93	10	103	34	13	47	44	4	48	171	27	198
Soil & water conservation	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated nutrient Management	1	2	0	2	2	0	2	8	5	13	12	5	17
Production of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**14**	**182**	**25**	**207**	**53**	**17**	**70**	**61**	**47**	**108**	**296**	**89**	**385**
II. Horticulture													
a) Vegetable Crops													
Production of low volume and high value crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Off season vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0	0	0	0
Others (Yield Increment)	1	4	11	15	0	3	3	0	1	1	4	15	19
Total (a)	**1**	**4**	**11**	**15**	**0**	**3**	**3**	**0**	**1**	**1**	**4**	**15**	**19**
b) Fruits													
Training and Pruning	0	0	0	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	1	15	8	23	2	1	3	3	1	4	20	10	30
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0	0	0	0

Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (b)	**1**	**15**	**8**	**23**	**2**	**1**	**3**	**3**	**1**	**4**	**20**	**10**	**30**
c) Ornamental Plants													
Nursery Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops													
Production and Management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops													
Production and Management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices													
Production and Management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants													
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total(a-g)	**2**	**19**	**19**	**38**	**2**	**4**	**6**	**3**	**2**	**5**	**24**	**25**	**49**
III. Soil Health and Fertility Management													
Soil fertility management	1	13	0	13	0	0	0	0	0	0	13	0	13
Integrated water management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0	0	0	0
Micronutrient deficiency in crops	1	15	0	15	1	0	1	1	0	1	17	0	17
Nutrient Use Efficiency	2	23	8	31	5	1	6	0	0	0	28	9	37
Balance Use of fertilizer	0	0	0	0	0	0	0	0	0	0	0	0	0
Soil & water testing	0	0	0	0	0	0	0	0	0	0	0	0	0
others	0	0	0	0	0	0	0	0	0	0	0	0	0

Total	**4**	**51**	**8**	**59**	**6**	**1**	**7**	**1**	**0**	**1**	**58**	**9**	**67**
IV. Livestock Production and Management													
Dairy Management	5	30	138	168	12	119	131	0	2	2	42	259	301
Poultry Management	3	3	28	31	33	42	75	0	12	12	36	82	118
Piggery Management	1	2	3	5	31	13	44	1	0	1	34	16	50
Rabbit Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Disease Management	2	14	25	39	13	17	30	2	0	2	29	42	71
Feed & fodder technologies	4	42	7	49	14	104	118	1	15	16	57	126	183
Production of quality animal products	1	30	4	34	4	2	6	1	0	1	35	6	41
Others	1	2	3	5	31	13	44	1	0	1	34	16	50
Total	**17**	**123**	**208**	**331**	**138**	**310**	**448**	**6**	**29**	**35**	**267**	**547**	**814**
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	3	0	16	16	0	49	49	8	40	48	8	105	113
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing & cooking	0	0	0	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Women empowerment	0	0	0	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and childcare	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**3**	**0**	**16**	**16**	**0**	**49**	**49**	**8**	**40**	**48**	**8**	**105**	**113**
VI. Agril. Engineering													
Farm machinery & its maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII. Plant Protection													
Integrated Pest Management	2	63	0	63	29	0	29	8	0	8	100	0	100

Integrated Disease Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio0control of pests and diseases	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**2**	**63**	**0**	**63**	**29**	**0**	**29**	**8**	**0**	**8**	**100**	**0**	**100**
VIII. Fisheries													
Integrated fish farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX. Production of Input at site													
Seed Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio0agents production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio0pesticides production	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio0fertilizer production	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermi0compost production	0	0	0	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of Bee0colonies and wax sheets	0	0	0	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	2	18	8	26	6	8	14	2	0	2	26	16	42
Production of Fish feed	0	0	0	0	0	0	0	0	0	0	0	0	0
Mushroom production	0	0	0	0	0	0	0	0	0	0	0	0	0
Apiculture	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**2**	**18**	**8**	**26**	**6**	**8**	**14**	**2**	**0**	**2**	**26**	**16**	**42**
X. Capacity Building and Group Dynamics													
Leadership development	0	0	0	0	0	0	0	0	0	0	0	0	0
Group dynamics	7	35	48	83	94	71	165	13	14	27	142	133	275
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0	0	0	0

Entrepreneurial development of farmers/youths	1	0	2	2	3	21	24	0	0	0	3	23	26
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0	0	0	0
Others (Mobilization of Govt Scheme)	1	19	0	19	5	1	6	1	4	5	25	5	30
Others (Mobilization of Institutional Support)	2	35	2	37	11	0	11	6	4	10	52	6	58
Others (Crop Insurance)	2	43	13	56	20	14	34	0	0	0	63	27	90
Others (Institutional Credit Supply)	3	35	18	53	25	7	32	13	1	14	73	26	99
Others (Utilization of Govt. Scheme)	1	1	0	1	3	63	66	0	0	0	4	63	67
Total	**17**	**168**	**83**	**251**	**161**	**177**	**338**	**33**	**23**	**56**	**362**	**283**	**645**
XI. Agro forestry													
Production technologies	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII. Others (Pl. Specify) (Climate Resilience in Agriculture)	4	26	0	26	4	93	97	22	38	60	52	131	183
GRAND TOTAL	**65**	**650**	**367**	**1017**	**399**	**659**	**1058**	**144**	**179**	**323**	**1193**	**1205**	**2398**

ii. RURAL YOUTH (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	4	1	5	15	4	19	2	4	6	21	9	30
Planting material production	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermiculture	0	0	0	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Beekeeping	2	2	4	6	24	10	34	5	0	5	31	14	45
Sericulture	0	0	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Poultry production	1	4	2	6	0	5	5	4	2	6	8	9	17
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**5**	**10**	**7**	**17**	**39**	**49**	**88**	**11**	**6**	**17**	**60**	**62**	**122**

iii. Extension Personnel (On and Off Campus)

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient management	0	0	0	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0	0	0	0
Women and Childcare	0	0	0	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (Preparation Techniques and Nursery Raising)	1	3	0	3	0	0	0	1	0	1	4	0	4
Other (Production and Management Technology)	1	3	0	3	0	0	0	1	0	1	4	0	4
Other (Yield Increment of Vegetables)	1	3	0	3	0	0	0	1	0	1	4	0	4
Total	**3**	**9**	**0**	**9**	**0**	**0**	**0**	**3**	**0**	**3**	**12**	**0**	**12**

H) Vocational training programmes for Rural Youth

a) Details of training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self-employed after training			Number of persons employed else where
				M	F	T	Type of units	Number of units	Number of persons employed	
Bio-Input Production	Production of Organic Inputs	Training Programme on Bio-Input under (PSB SCSP)	15	21	09	30	Vermi-Compost and *Azolla* Production	07	10	20
Ornamental Bird rearing	Poultry production	Ornamental Bird rearing	01	25	00	25	Ornamental Bird rearing Unit			
Bee Keeping Unit	Beekeeping	Scientific Bee keeping	15	25	05	30	Bee Keeping Unit	10	20	10
Bee Keeping Unit	Beekeeping	Scientific Bee keeping for Honey production	15	09	06	15	Bee Keeping Unit	06	09	06
Bio-Input Production	Production of Organic Inputs	Training Programme on Bio-Input Production and Beekeeping for supporting Natural Farming	05	00	30	30	Bio-Input Production and Bee Keeping Unit	10	20	10

***Training title should specify the major technology /skill transferred**

b) Details of participation

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Crop production and management													
Commercial floriculture													
Commercial fruit production													
Commercial vegetable production													
Integrated crop management													
Organic farming													
Other (Production of Organic Inputs)	01	4	1	5	15	4	19	2	4	6	21	9	30
Total	**01**	**4**	**1**	**5**	**15**	**4**	**19**	**2**	**4**	**6**	**21**	**9**	**30**
Post harvest technology and value addition													
Value addition													
Other													
Total													
Livestock and fisheries													
Dairy farming													
Composite fish culture													
Sheep and goat rearing													
Piggery													
Poultry farming	01	4	2	6	0	5	5	4	2	6	8	9	17
Other													
Total	**01**	**4**	**2**	**6**	**0**	**5**	**5**	**4**	**2**	**6**	**8**	**9**	**17**
Income generation activities													
Vermicomposting													
Production of bioagents, biopesticides,													
biofertilizers etc.													
Repair and maintenance of farm machinery & implements													
Rural Crafts													
Seed production													
Sericulture													
Mushroom cultivation													
Nursery, grafting etc.													
Tailoring, stitching, embroidery, dying etc.													
Agril. Para-workers, para-vet training													
Other (Bee keeping Units)	2	2	4	6	24	10	34	5	0	5	31	14	45
Total	**2**	**2**	**4**	**6**	**24**	**10**	**34**	**5**	**0**	**5**	**31**	**14**	**45**
Agricultural Extension													
Capacity building and group dynamics													
Other													
Total													
Grand Total	**04**	**10**	**07**	**17**	**39**	**19**	**59**	**11**	**06**	**17**	**60**	**32**	**92**

I) Sponsored Training Programmes

a) Details of Sponsored Training Programme

Sl. No.	Title	Thematic area	Month	Duration (days)	Client PF/RY/EF	No. of courses	No. of participants	Sponsoring Agency
01.	Practical- Multiplication of Azolla.	Production of Inputs at site	FEB	1	EF	1	39	self
02.	Practical- Multiplication of Azolla.	Production of Inputs at site	FEB	1	EF	1	39	self
03.	Pest management- A brief idea.	other	APR	1	EF	1	40	self
04.	Practical- Identification of Medicinal plants.	Ornamental plants	APR	1	EF	1	40	self
05.	Pest management- A brief idea.	other	APR	1	EF	1	38	self
06.	Practical- Identification of Medicinal plants.	Ornamental plants	APR	1	EF	1	38	self
07.	Introduction to Agricultural Meteorology.	other	APR	1	EF	1	39	self
08.	Pest and pesticide- general idea.	other	APR	1	EF	1	39	self
09.	Introduction to Agricultural Meteorology.	other	APR	1	EF	1	39	self
10.	Pest and pesticide- general idea.	other	APR	1	EF	1	39	self
11.	Insect Morphology	other	APR	1	EF	1	36	self
12.	Insect Morphology	other	APR	1	EF	1	38	self
13.	Practical field demonstration of mulching and micro-irrigation systems.	Methods of protective cultivation	APR	1	EF	1	38	self
14.	Genesis of Soil & its components.	Soil health and fertility management	APR	1	EF	1	38	self
15.	Remote sensing and various meteorological instruments and their uses.	other	MAY	1	EF	1	35	self
16.	Preparation of herbarium and other records.	other	MAY	1	EF	1	35	self
17.	Remote sensing and various meteorological instruments and their uses.	other	MAY	1	EF	1	34	self
18.	Preparation of herbarium and other records.	other	MAY	1	EF	1	34	self
19.	Care and pest management of Mango.	Fruit Plants	MAY	1	EF	1	38	self
20.	Basic principles of irrigation and quality of irrigation water.	other	MAY	1	EF	1	38	self
21.	Care and pest management of Mango.	Fruit Plants	MAY	1	EF	1	36	self
22.	Basic principles of irrigation and quality of irrigation water.	other	MAY	1	EF	1	36	self
23.	Production Technology of Mango.	Fruit Plants	MAY	1	EF	1	36	self
24.	General idea about weeds and their management.	other	MAY	1	EF	1	36	self
25.	Production Technology of Mango.	Fruit Plants	MAY	1	EF	1	38	self
26.	General idea about weeds and their management.	other	MAY	1	EF	1	38	self
27.	Modern Techniques of nursery management in vegetable crops.	Commercial production of vegetables	MAY	1	EF	1	39	self
28.	Different methods of irrigation and water use efficiency.	other	MAY	1	EF	1	39	self

29.	Modern Techniques of nursery management in vegetable crops.	Commercial production of vegetables	MAY	1	EF	1	40	self
30.	Different methods of irrigation and water use efficiency.	other	MAY	1	EF	1	40	self
31.	Importance of soil testing and methods of soil sampling, interpretation of the results.	Soil health and fertility management	MAY	1	EF	1	40	self
32.	Practical- Soil Sample Collection.	Soil health and fertility management	MAY	1	EF	1	40	self
33.	Importance of soil testing and methods of soil sampling, interpretation of the results.	Soil health and fertility management	MAY	1	EF	1	38	self
34.	Practical- Soil Sample Collection.	Soil health and fertility management	MAY	1	EF	1	38	self
35.	Practical field demonstration of mulching and micro-irrigation systems.	Methods of protective cultivation	June	1	EF	1	36	self
36.	Genesis of Soil & its components.	Soil health and fertility management	June	1	EF	1	37	self
37.	Integrated Nutrient Management.	Other	June	1	EF	1	40	self
38.	Production Technology of Kharif Rice.	Increasing production and productivity of crops	June	1	EF	1	40	self
39.	Integrated Nutrient Management.	Other	June	1	EF	1	40	self
40.	Production Technology of Kharif Rice.	Increasing production and productivity of crops	June	1	EF	1	40	self
41.	Production Technology of Guava and Litchi.	Fruit Plants	June	1	EF	1	40	self
42.	Properties of Soil.	Other	June	1	EF	1	40	self
43.	Production Technology of Guava and Litchi.	Fruit Plants	June	1	EF	1	36	self
44.	Properties of Soil.	Other	June	1	EF	1	36	self
45.	Production Technology of Maize.	Increasing production and productivity of crops	June	1	EF	1	39	self
46.	Disease management in kharif Rice.	Other	June	1	EF	1	39	self
47.	Production Technology of Maize.	Increasing production and productivity of crops	June	1	EF	1	39	self
48.	Disease management in kharif Rice.	Other	June	1	EF	1	38	self
49.	IPM of kharif rice.	Other	July	1	EF	1	39	self
50.	Installation and management of micro irrigation systems.	Other	July	1	EF	1	39	self
51.	IPM of kharif rice.	Other	July	1	EF	1	39	self
52.	Installation and management of micro irrigation systems.	Other	July	1	EF	1	39	self
53.	Weeds of kharif rice and their management strategies.	Other	July	1	EF	1	37	self
54.	Production Technology of Green gram & Black gram as summer pulse.	Increasing production and productivity of crops	July	1	EF	1	37	self
55.	Weeds of kharif rice and their management strategies.	Other	July	1	EF	1	38	self
56.	Production Technology of Green gram & Black gram as summer pulse.	Increasing production and productivity of crops	July	1	EF	1	38	self
57.	Pesticides: Different composition and doses.	Other	July	1	EF	1	35	self
58.	Farm Mechanisation and implements and their uses.	Farm machinery, tools and implements	July	1	EF	1	35	self
59.	Pesticides: Different composition and doses.	Other	July	1	EF	1	39	self
60.	Farm Mechanisation and implements and their uses.	Farm machinery, tools and implements	July	1	EF	1	39	self
61.	Integrated Weed Management.	Other	Aug	1	EF	1	39	self

62.	Preparation of different botanicals and their use in crop protection.	Production of Inputs at site	Aug	1	EF	1	39	self
63.	Integrated Weed Management.	Other	Aug	1	EF	1	35	self
64.	Preparation of different botanicals and their use in crop protection.	Production of Inputs at site	Aug	1	EF	1	35	self
65.	Safe use of pesticides.	Other	Aug	1	EF	1	40	self
66.	Practical- Preparation and multiplication of Azolla.	Production of Inputs at site	Aug	1	EF	1	40	self
67.	Safe use of pesticides.	Other	Aug	1	EF	1	34	self
68.	Practical- Preparation and multiplication of Azolla.	Production of Inputs at site	Aug	1	EF	1	35	self
69.	SRI method of Rice cultivation.	Increasing production and productivity of crops	Aug	1	EF	1	37	self
70.	Marketing management of farm produce.	Other	Aug	1	EF	1	37	self
71.	SRI method of Rice cultivation.	Increasing production and productivity of crops	Aug	1	EF	1	38	self
72.	Marketing management of farm produce.	Other	Aug	1	EF	1	38	self
73.	Mode of action of pesticides and pesticide resistance.	Other	Aug	1	EF	1	40	self
74.	Kisan Credit Card and crop insurance.	Other	Aug	1	EF	1	40	self
75.	Mode of action of pesticides and pesticide resistance.	Other	Aug	1	EF	1	40	self
76.	Kisan Credit Card and crop insurance.	Other	Aug	1	EF	1	39	self
77.	Different techniques of plant propagation in horticultural crops.	Other	Aug	1	EF	1	38	self
78.	Pests and diseases of kharif maize and their management.	Other	Aug	1	EF	1	38	self
79.	Different techniques of plant propagation in horticultural crops.	Other	Aug	1	EF	1	39	self
80.	Pests and diseases of kharif maize and their management.	Other	Aug	1	EF	1	39	self
81.	Nutrient deficiency symptoms in plants.	Other	Sep	1	EF	1	40	self
82.	Use of pheromone traps in pest management.	Other	Sep	1	EF	1	40	self
83.	Use of pheromone traps in pest management.	Other	Sep	1	EF	1	40	self
84.	Different methods of propagation in horticultural crops.	Other	Sep	1	EF	1	40	self
85.	Fertilizer application in coconut and root feeding.	Other	Sep	1	EF	1	40	self
86.	Seed Certification.	Other	Sep	1	EF	1	40	self
87.	Classification of fertilizers and fertilizer grading.	Other	Sep	1	EF	1	39	self
88.	Seed Certification.	Other	Sep	1	EF	1	39	self
89.	Classification of fertilizers and fertilizer grading.	Other	Sep	1	EF	1	40	self
90.	Preparation of Vermicompost.	Production of Inputs at site	Sep	1	EF	1	40	self
91.	Practical- Preparation of Vermicompost.	Production of Inputs at site	Oct	1	EF	1	40	self
92.	Pests of mustard & their management.	Other	Oct	1	EF	1	40	self
93.	Pests of mustard & their management.	Other	Oct	1	EF	1	38	self

94.	Registers, records to be maintained as per act and sampling procedure	Other	Oct	1	EF	1	38	self
95.	Production Technology of Mustard.	Increasing production and productivity of crops	Oct	1	EF	1	39	self
96.	Diseases of mustard & their management.	Other	Oct	1	EF	1	39	self
97.	Production Technology of Mustard.	Increasing production and productivity of crops	Nov	1	EF	1	38	self
98.	Diseases of mustard & their management.	Other	Nov	1	EF	1	38	self
99.	Mode of action of herbicides and herbicide resistance	Other	Nov	1	EF	1	40	self
100.	Practical- Identification of diseases and pests of different crops and different farm implements.	Other	Nov	1	EF	1	40	self
101.	Mode of action of herbicides and herbicide resistance	Other	Nov	1	EF	1	37	self
102.	Practical- Identification of diseases and pests of different crops and different farm implements.	Other	Nov	1	EF	1	37	self
103.	Practical- Layout and preparation of flower bed.	Other	Nov	1	EF	1	39	self
104.	Production Technology of some winter vegetables	Commercial production of vegetables	Nov	1	EF	1	39	self
105.	Practical- Layout and preparation of flower bed.	Other	Nov	1	EF	1	40	self
106.	Production Technology of some winter vegetables	Commercial production of vegetables	Nov	1	EF	1	40	self
107.	Practical- Nursery bed preparation.	Other	Nov	1	EF	1	40	self
108.	Natural Farming- Idea and different components.	Other	Nov	1	EF	1	39	self
109.	Practical- Nursery bed preparation.	Other	Nov	1	EF	1	36	self
110.	Natural Farming- Idea and different components.	Other	Nov	1	EF	1	37	self
111.	Package and practices of potato cultivation.	Commercial production of vegetables	Dec	1	EF	1	40	self
112.	Package and practices of potato cultivation.	Commercial production of vegetables	Dec	1	EF	1	39	self
113.	Diseases of potato and their management practices	Other	Dec	1	EF	1	38	self
114.	Practical- Earthing up in potato and irrigation channel preparation.	Other	Dec	1	EF	1	38	self
115.	Diseases of potato and their management practices	Other	Dec	1	EF	1	36	self
116.	Practical- Earthing up in potato and irrigation channel preparation.	Other	Dec	1	EF	1	36	self

b) Details of participation

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Crop production and management													
Increasing production and productivity of crops	10	323	19	342	43	0	43	0	0	0	366	19	385
Commercial production of vegetables	6	199	11	210	27	0	27	0	0	0	226	11	237
Production and value addition													
Fruit Plants	6	186	10	196	27	0	27	0	0	0	213	10	223
Ornamental plants	2	66	4	70	8	0	8	0	0	0	74	4	78
Spices crops													
Soil health and fertility management	6	193	12	205	30	0	30	0	0	0	223	12	235
Production of Inputs at site	8	253	16	269	35	0	35	0	0	0	288	16	304
Methods of protective cultivation	2	62	4	66	8	0	8	0	0	0	70	4	74
Other	74	2369	142	2511	324	0	324	0	0	0	2693	142	2835
Total	**114**	**3651**	**218**	**3869**	**502**	**0**	**502**				**4153**	**218**	**4371**
Post harvest technology and value addition													
Processing and value addition													
Other													
Total													
Farm machinery													
Farm machinery, tools and implements	2	62	4	66	8	0	0	0	0	0	70	4	74
Other													
Total	**2**	**62**	**4**	**66**	**8**	**0**	**0**	**0**	**0**	**0**	**70**	**4**	**74**
Livestock and fisheries													
Livestock production and management													
Animal Nutrition Management													
Animal Disease Management													
Fisheries Nutrition													
Fisheries Management													
Other													
Total													
Home Science													
Household nutritional security													
Economic empowerment of women													
Drudgery reduction of women													
Other													
Total													
Agricultural Extension													
Capacity Building and Group Dynamics													
Other													
Total													
Grant Total	**116**	**3713**	**222**	**3935**	**510**	**0**	**502**	**0**	**0**	**0**	**4223**	**222**	**4445**

3.4. A. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers				Extension Officials			Total		
		M	F	T	SC / ST (% of total)	M	F	T	M	F	T
Field Day	17	146	63	209	46	17	01	18	163	64	227
Kisan Mela	03	1005	611	1616	48	30	03	33	1035	614	1649
Kisan Ghosthi											
Exhibition											
Film Show											
Method Demonstrations											
Farmers Seminar	01	114	33	147	49	10	01	11	124	34	158
Workshop											
Group meetings											
Lectures delivered as resource persons											
Advisory Services											
Scientific visit to farmers field	12	48	10	58	75	17	10	27	65	20	85
Farmers visit to KVK	142	256	66	322	60	112	50	162	368	116	484
Diagnostic visits											
Exposure visits											
Ex-trainees Sammelan											
Soil health Camp											
Animal Health Camp											
Agri mobile clinic											
Soil test campaigns											
Farm Science Club Conveners meet											
Self Help Group Conveners meetings											
Mahila Mandals Conveners meetings											
Celebration of important days (specify) PM Kisan Samman Nidhi (01.01.2022)	01	1001	334	1335	66	04	01	05	1005	335	1340
Celebration of important days (specify) National Girl Child Day (24.01.2022)	01	46	111	157	86	04	01	05	50	112	162
Celebration of important days (specify) World Pulse Day (10.02.2022)	01	50	15	65	61	04	01	05	54	16	70
Celebration of important days (specify) International Women's Day (08.03.2022)	01	19	63	82	79	04	01	05	23	64	87
Celebration of important days (specify) International Yoga Day (21.06.2022)	01	56	36	92	69	04	01	05	60	37	97
Celebration of important days (specify) ICAR Foundation Day	01	104	40	144	67	04	01	05	108	41	149
Celebration of important days (specify) Poshan Abhiyan and Tree Plantation Programme (17.09.2022)	01	79	21	100	70	04	01	05	83	22	105
Celebration of important days (specify) PM Kisan Samman Sammelan (17.10.2022)	01	137	85	222	71	04	01	05	141	86	227
Celebration of important days (specify) World Soil Day (05.12.2022)	01	82	30	112	59	04	01	05	86	31	117
Celebration of important days (specify) Kisan Samman Diwas (23.12.2022)	01	61	20	81	50	04	01	05	65	21	86
Sankalp Se Siddhi											
Swatchta Hi Sewa											
Mahila Kisan Divas											
Any Other (Specify)											
Total	**185**	**3204**	**1538**	**4742**	**63.7**	**226**	**75**	**301**	**3430**	**1613**	**5043**

B. Other Extension activities

Nature of Extension Activities	No. of Activities
Radio Talks	**10**
TV Talks	**02**
Extension Literature	**08**
Others, if any (International Technical Report)	**01**
Others, if any (Krishi Barta YouTube Channel)	**03**
Others, if any (Animal Health Camps)	**04**

3.5 a. Production and supply of Technological products

Village seed

Crop	Variety	Qty of Seeds (q)	Value (Rs.)	No. of farmers involved in village seed production	No. of farmers to whom seed provided							
					SC		ST		Others		Total	
					M	F	M	F	M	F	M	F
Paddy	MTU-1153, Rani dhan, CR dhan 800	450	1800000	324	205	110	75	36	425	257	**705**	**403**
Black Gram	PU-31	425	4250000	371	186	45	26	21	378	167	**590**	**233**
Sesame	Suprava	355	3550000	126	249	12	10	15	335	245	**594**	**272**
Lentil	IPL-316, L-4717	300	3150000	58	85	25	20	15	155	101	**260**	**141**
Mustard	NRCHB-1, YSH-401	115	1207500	161	127	83	19	15	131	71	**277**	**169**
Total		**1545**	**1,39,57,500**	**1040**	**852**	**275**	**150**	**102**	**1424**	**841**	**2426**	**1218**

KVK farm

Crop	Variety	Qty of Seeds (q)	Value (Rs.)	No. of farmers to whom seed provided							
				SC		ST		Others		Total	
				M	F	M	F	M	F	M	F
Elephant foot yam	Bidhan Kusum	1.8	10000	2	1	1	1	0	1	**3**	**3**
Black Gram	PU-31	2.0	20000	4	3	5	6	3	4	**12**	**13**
Green Gram	Samrat	1.0	10000	2	5	1	2	1	1	**4**	**8**
Turmeric	Saguna	3.3	23100	7	4	3	3	8	3	**18**	**10**
Ekangi	K. galana	2.50	27000	6	4	5	2	8	3	**19**	**9**
Sesame	Suprava	0.18	1890	3	2	4	3	3	3	**10**	**8**
Paddy	Rani dhan	20	45000	60	45	40	60	45	50	**145**	**155**
Paddy	Sabita	1.5	2000	6	2	5	2	6	4	**17**	**8**
Paddy	IET-4786	6.0	12000	30	10	15	14	15	16	**60**	**40**
Lentil	L-4717/ FS	0.24	3120	2	0	2	0	1	0	**5**	**0**
Lentil	WBL-77/FS	0.12	1560	0	1	0	1	0	1	**0**	**3**
Mustard	CS-60/FS	1.23	15599	19	21	23	17	27	13	**69**	**51**
Mustard	NRCHB-101	0.75	7875	12	7	11	9	25	5	**48**	**21**
Total		**40.62**	**179144**	**153**	**105**	**115**	**120**	**142**	**104**	**410**	**329**

Production of planting materials by the KVKs

Crop	Variety	No. of planting materials	Value (Rs)	No. of farmers to whom planting materials provided							
				SC		ST		Others		Total	
				M	F	M	F	M	F	M	F
Vegetable seedlings											
Cauliflower	Pusa Snowball, CFL-122	4000	16000	15	25	10	20	5	10	**30**	**35**
Cabbage	Green Master, Blue Jans	4000	16000	20	21	7	15	10	12	**37**	**48**
Tomato	Saksham, Abhilas	10000	40000	15	23	9	7	12	4	**36**	**34**
Brinjal	VNR-212, Mukto keshi, VNR-85	6000	24000	30	30	12	28	10	11	**52**	**69**
Chilli	Siam Hot, Suryamukhi, Bullet	5000	20000	26	24	14	12	22	15	**62**	**51**
Capsicum	Asha, Jaya, Delisha	3500	14000	17	28	15	10	9	6	**41**	**44**
Yellow cauliflower	Carotena	2500	10000	8	13	7	6	11	3	**26**	**22**
Pink Cauliflower	Valentena	2500	10000	9	12	10	5	9	7	**28**	**24**
Drumstick	PKM-1	5000	100000	40	30	35	30	15	06	**90**	**66**
Onion											
Others											
Fruits											
Mango											
Guava											
Lime											
Papaya											
Banana											
Dragon fruit	Delight	200	4000	10	15	5	10	6	7	**21**	**32**
Others											
Ornamental plants											
Medicinal and Aromatic											
Plantation											
Spices											
Turmeric											

Tuber											
Elephant yams											
Fodder crop saplings											
Forest Species											
Others, pl. specify											
Total		**42700**	**254000**	**206**	**245**	**132**	**148**	**119**	**86**	**457**	**479**

Production of Bio-Products

Name of the Product	Quantity (Kg)	Value (Rs.)	No. of farmers benefitted							
			SC		ST		Others		Total	
			M	F	M	F	M	F	M	F
Bio-fertilizer										
(i)Azolla	3000	150000	125	55	25	15	36	24	**186**	**94**
(ii)Vermicompost	4000	40000	145	146	30	26	15	35	**190**	**207**
Bio-pesticide										
Bio-Fungicide										
Bio-agents (Earth Worm)	100000	50000	50	55	35	15	37	17	**122**	**87**
Total	**107000**	**240000**	**320**	**256**	**90**	**56**	**88**	**76**	**498**	**388**

Production of livestock materials

Particulars of Livestock	Name of the breed	Number	Value (Rs.)	No. of Farmers benefitted							
				SC		ST		Other		Total	
				M	F	M	F	M	F	M	F
Dairy animals											
Cows											
Buffaloes											
Calves											
Others (Pl. specify)											
Small ruminants											
Sheep											
Goat											
Other, please specify											
Poultry											
Broilers (Coloured Broiler)	Karibro, Caribro, Chabro		22890	10	01	02	01	21	01	33	03
Layers											
Duals (broiler and layer) (Kadaknath Chicks)	Kadaknath	40	3200	01	00	00	00	01	00	02	00
Japanese Quail											
Turkey											
Emu											
Ducks											
Others (Pl. specify) (Aseel Hen after laying)		01	160								
Others (Pl. specify) (Coloured Broiler Hen after laying)		09	1550								
Piggery											
Piglet											
Hog											
Others (Pl. specify)											
Fisheries											
Indian Carp	Rohu, Katla	600	6000	30	00	00	00	30	00	60	00
Exotic carp											
Mixed carp											
Fish fingerlings											
Spawn											
Others (pl. specify)	Vietnam Koi	50	15000	20	00	15	00	15	00	50	00
Grand Total		**700**	**48800**	**61**	**01**	**17**	**01**	**67**	**01**	**145**	**03**

3.5. b. Seed Hub Programme - ***"Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India"***

i) Name of Seed Hub Centre:

Name of Nodal Officer:	
Address:	
e-mail:	
Phone No.: Mobile:	

ii) Quality Seed Production Reports

Season	Crop	Variety	Production (q)			
			Target	Area sown (ha)	Production	Category of Seed (F/S, C/S)
Kharif 2022						
Rabi 2020-21						
Summer/Spring 2022						
Kharif 2022						
Rabi 2021-2022						

iii) Financial Progress

Fund received. (2019-20, 2020-21, 2021-22 and 2022-23)	Expenditure (Rs. in lakhs)		Unspent balance (Rs. in lakhs)	Remarks
	Infrastructure	Revolving fund		
2019-20				
2020-21				
2021-22				
2022-23				

iv) Infrastructure Development

Item	Progress
Seed processing unit	
Seed storage structure	

3.6. (A) Literature Developed/ Published (with full title, author & reference)

Item	Title	Author's name	Number	Circulation
Research paper	1. "Crop Concentration and Crop Diversification in Birbhum District of West Bengal: Recent Situations", *Agricultural Reviews [ISSN No. - 0976-0741 (Print) and ISSN No. - 0253-1496 (Online)]*, Vol. 43, Issue 2, June, 2022, pp. 255 – 259. (NAAS – 4.63)	**Prabuddha Ray**	04	Not Assessed
	2. "Impact of Climate Change on the Free-Living Larval Stages and Epidemiological Pattern of Gastrointestinal Nematodes in Livestock", Indian Journal of Animal Health (Print ISSN- 0019-5057), Vol. 61, Issue 2, Special Issue, pp. 83-94 (NAAS – 5.25)	R. Jas, A. Hembram, S. Das, S. Pandit, S. Baidya and **M. Khan**		
	3. "Study on Economic Benefit by Following Agromet Advisory Services Received from District Agromet Unit in the Lateritic Belt of Birbhum", *International Journal of Agricultural Science (*ONLINE ISSN: 0976-5670; ISSN: 0973-130X*)*, Vol. 7, 2022, pp. – 102 – 107. (NAAS – 4.73)	**Sayak Mahato, Subrata Mandal**, F.H. Rahman		
	4. "Biochemical and Histopathological Study on Long Duration Administration of Enrofloxacin in Broiler Poultry", Indian Journal of Animal Health (Print ISSN- 0019-5057), accepted for publication (NAAS – 5.25)	**Madhuchhanda Khan,** Chandrakanta Jana and Tapan Kumar Mandal		
Seminar/conference/ symposia papers	1. "Seed germination of the Dye Yielding Plants: A Discussion", One Day International Seminar on Emerging Trends in Biological Sciences, organized by Department of Botany, Suri Vidyasagar College, The University of Burdwan on 8th Nov, 2022.	**Subrata Mandal**	03	Not Assessed
	2. "Effect of mulching and growth retardant on productivity and profitability of Summer Groundnut (*Arachis hypogeae* L.) in Birbhum district of West Bengal, India", 9th Annual Convention and National Webinar on Managing Agro-Chemicals for Crop and Environmental Health, Organized by Society for Fertilizer and Environment on 25th to 26th Feb, 2022.	**Subrata Mandal,** Mrinmoy Karmakar**, Palash Ankure, Sourav Mondal** and F. H. Rahman		
	3. "Effect of Bio-stimulant Hydra nano M productivity and micronutrient availability of Black Gram (*Vigna mungo* L.) in red lateritic soil of Birbhum district of West Bengal", 9th Annual Convention and National Webinar on Managing Agro-Chemicals for Crop and Environmental Health, Organized by Society for Fertilizer and Environment on 25th to 26th Feb, 2022.	**Subrata Mandal, Sayan Chatterjee, Sourav Mondal and Palash Ankure**		
Books	1. Horticultural Practices and Post Harvest Technology (ISBN: 978-81-953189-7-1), Books and Allied (P) Ltd., Kolkata.	**Dr. Subrata Mandal**, Dr. Sudipa Nag (Mandal) and Alokesh Das	02	Not Assessed
	2." Sahaj Paddhatite Prani Palan" (Easy Way of Livestock Rearing) (ISBN: 978-81-957919-1-0), Mehanati Prakashani, Hooghly, West Bengal, 120 p.	**Dr. Madhuchhanda Khan**		
Bulletins	পশ্চিমবঙ্গের তথা বীরভূম জেলায় ঝড় বৃষ্টি সম্পর্কে সতর্কবার্তা ((Warning of thunderstorm for the Birbhum district of West Bengal)	**Sri Sayak Mahato**		1016
Newsletter				
Popular Articles	1. Aam Janatar Khas Pachonda Dedar Pholchey Jelatei (আনন্দবাজারপত্রিকা 06/04/2022)	**Dr. Subrata Mandal**	10	Not Assessed
	2. Maati Priksha: Adhunik Chasey Prathmaik Padakhep (আনন্দবাজারপত্রিকা 11/05/2022)	Mrinomoy Karmakar and **Subrata Mandal**		
	3. Jaiba Paddhatite Murgi Chas [Bardhaman Jyoti, 27/06/2022, 53(46), pp. 6]	**Dr. Madhuchhanda Khan**		
	4. Rathindra Krishi Vigyan Kendra Udyoge Incubator ebong Murgi Dim Pradan (Incubator and Chicken Eggs distributed by Rathindra Krishi Vigyan Kendra) [Bardhaman Jyoti, 11/07/2022, 53(48), pp. 2]	**Dr. Madhuchhanda Khan**		
	5. Barshakale Gobadipashu Rog o tar Pratikar (Diseases of Livestock in Rainy Season and Prevention [Bardhaman Jyoti, 02/10/2022, 54(4), pp. 6]	**Dr. Madhuchhanda Khan**		
	6. Biswa Jalatanka Diwas (World Rabies Day) [Bardhaman Jyoti, 02/10/2022, 54(4), pp. 4]	**Dr. Madhuchhanda Khan**		
	7. Ekti Gobadipasu Sankramak Rog (Lumpy Skin Disease) [Bardhaman Jyoti, 17/10/2022, 54(10), pp. 4]	**Dr. Madhuchhanda Khan**		
	8. Chag Plague (P.P.R.) [Bardhaman Jyoti, 24/10/2022, 54(11), pp. 4]	**Dr. Madhuchhanda Khan**		
	9. Rathindra Krishi Vigyan Kendra Udyoge Black Soldier Machi Bishaya Prashikshan (Training Programme on Black Soldier Fly organized by Rathindra Krishi Vigyan Kendra) [Bardhaman Jyoti, 12/12/2022, 54(18), pp. 1]	**Dr. Madhuchhanda Khan**		

	10. Winter vegetables cultivation practices (Puber Kolom 02/11/2022)	**Sri Sayak Mahato**		
Book Chapter				
Extension Pamphlets/ literature	1. "Unnato Prathay Ragi (Finger Millet) Chash" (Improved Cultivation Practices of Finger Millet)	**Dr. Subrata Mandal**	08	6000
	2. "Krishi Khetre Pratishthaink Mool Dhan Prodan – Koyeaktii Natoon Udyog" (Institutional Capital Supply in Agricultural Sector – Some New Initiatives)	**Dr. Prabuddha Ray**		
	3. "Krishikhetrey Kendriya Biniyog – Ekadhik Natoon Prakalpa" (Central Sector Investment in Agriculture – A Number of New Schemes)	**Dr. Prabuddha Ray**		
	4. Rathindra Krishi Vigyan Kendra – An Un-Ending March towards The Un-Reached since 1994	**Dr. Prabuddha Ray**		
	5. "Gobadiposhur Koyekti Rog o tar Pratikar" (Diseases of Livestock and Prevention)	**Dr. Madhuchhanda Khan**		
	6. "Dugdho Jato Drabyo o Tar Prakriyakaran" (Value added Milk Product)	**Dr. Madhuchhanda Khan**		
	7. "Bachurer Jatno o Tar Parichorja" (Calf Management)	**Dr. Madhuchhanda Khan**		
	8. "Ranikhet Rog o Tar Pratikar" (Ranikhet Disease and Prevention)	**Dr. Madhuchhanda Khan**		
Technical reports	1. Annual Report	**Dr. Subrata Mandal, Sri. Sourav Mondal, Dr. Prabuddha Ray, Dr. Madhuchhanda Khan, Sri. Sayak Mahato, Sri. Suraj Kumar Bhakta and Sri. Palash Ankure**	19	Not Assessed
	2. Annual Action Plan			
	3. SAC Report			
	4. Rathindra KVK, Birbhum Report on Cultivation of Black Soldier Fly - 2022			
	5. Rathindra KVK, Birbhum, Report on Celebration of Kisan Samman Diwas - 2022 on 23.12.2022			
	6. Rathindra KVK, Birbhum Report on World Soil Day - 2022 on 05.12.2022			
	7. Rathindra KVK, Birbhum Report on PM Kisan Samman Sammelan on 17.10.2022			
	8. Rathindra KVK, Birbhum Report on Organization of Poshan Abhiyan & Tree Plantation Programme on 17.09.2022			
	9. Rathindra KVK, Birbhum, Report on Parthenium Awareness Week from 16.08.2022 to 22.08.2022			
	10. Rathindra KVK, Birbhum, Report on Farmers Scientist Meet on 19th July, 2022			
	11. Rathindra KVK, Birbhum Report on Webcasting of the 94th. ICAR Foundation Day and Award Ceremony on 16th July, 2022			
	12. Rathindra KVK, Birbhum Information on event on Yoga, Balanced use of Fertilizer and Agro-Forestry on 21.06.2022			
	13. Rathindra KVK, Birbhum Report on Farmers' Fair-Garib Kalyan Sammelan 31 May, 2022			
	14. Rathindra KVK, Birbhum Report on Kisan Mela Farmers' Fair 28 April,2022			
	15. Rathindra KVK, Birbhum Report on Kisan Mela Farmers' Fair 26 April,2022			
	16. Rathindra KVK, Birbhum Report on Natural Farming 16.03.2022			
	17. Rathindra KVK, Birbhum Report on Celebration of International Women's Day-2022			
	18. Rathindra KVK, Birbhum Report on Celebration of World Pulse Day-2022			
	19. Rathindra KVK, Birbhum Report on Celebration of National Girl Child Day-2022			
Electronic Publication (CD/DVD etc)	"Kartickdanga Kalimata WUA, Birbhum: Integrated approach for enhancing income from orchard and intercropping with add-on income from fishery", INTERNATIONAL WATER MANAGEMENT INSTITUTE (IWMI), Page-92-94, https://wbadmip.org/publications-external, Sl. No. 10 WBADMI PROJECT IMPACT ASSESSMENT REPORT- PHASE 2 by IWMI	**Dr. Prabuddha Ray**	01	3000
TOTAL				

N.B.: Please enclose a copy of each. In case of literature prepared in local language please indicate the title in English

(B) Details of HRD programmes undergone by KVK personnel:

Sl. No.	Name of programme	Name of course	Name of KVK personnel and designation	Date and Duration	Organized by
1.	National Webinar	Managing Agrochemicals for Crop and Environment Health	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	25/02/2022 to 26/021/2022 (Two days)	Society of Fertilizer and Environment.
2.	Review Workshop	Implementation of DAESI programme in W.B.	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	11/03/2022	SAMETI, Narendrapur (W.B.)
3.	National Dialogue	Innovation in Agricultural Extension: a way forward	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	07/04/2022 to 10/04/2022 (4 days)	TAAS (Trust for Advance in Agricultural Sciences), New Delhi
4.	Brain Storming Session	WBSRLM 'Integrated farming cluster under DAY-NRLM	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	28/04/2022	ICAR-CIFRI, Barrackpore
5.	Zonal Workshop	Annual zonal workshop of KVKs 2022	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	26/05/2022 to 29/05/2022 (4 days)	ICAR-ATARI, Kolkata at Jalpaiguri
6.	National Conference	Biennial National Conference on Sustainable Agricultural Production System with focus on Natural Farming	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	31/05/2022 to 05/06/2022 (6 days)	ICAR, New Delhi at YSPUH & F, Solan
7.	Virtual Conference	Preparation of District Agricultural plan of RKVY	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	25/01/2022	Office of the DDA, Birbhum
8.	Virtual Meeting	Promotion of Drone Technology in Agriculture	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	24/03/2022	Director of Agriculture Govt. of W.B.
9.	Online Meeting cum Workshop	Data entry for DFI	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	09/05/2022	ICAR-ATARI. Kolkata
10.	Online Meeting cum Workshop	CFLD Oilseeds & Pulses	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	17/06/2022	ICAR-ATARI. Kolkata
11.	Online meeting cum workshop on Kisan Sarathi	Functioning of Kisan Sarathi Portal	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	22/06/2022	ICAR-ATARI. Kolkata
12.	Online Orientation Programme	Compilation of success stories	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	16/07/2022	ICAR-ATARI. Kolkata
13.	Awareness programme	Soil Testing Labs under Soil Health Card Schemes	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	09/09/2022	ICAR-ATARI. Kolkata
14.	Virtual Presentation by Secretary, DARE and D.G., ICAR	Revitalizing ICAR: Aspirations and Action plan	Dr. Subrata Mandal Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	11/11/2022	A.D.G. (ICT), ICAR, New Delhi
15.	Online Celebration Programme	Kisan Diwas	Dr. Subrata Mandal	22/12/2022	ICAR-ATARI. Kolkata

			Senior Scientist and Head, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum		
16.	9th Annual and Convention National Webinar	Managing Agro-chemicals for Crop and Environmental Health	Shri Sourav Mondal SMS, Plant Protection, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	25/02/2022 to 26/02/2022 (2 days)	Society for Fertilizers and Environment
17.	Review Workshop	Diploma in Agricultural Extension Services for Input Dealers (DAESI)	Shri Sourav Mondal SMS, Plant Protection, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	18/05/2022 to 19/05/2022 (2 days)	SAMETI, Narendrapur (W.B.)
18.	Training Programme	Formulations of Business Plan & Entrepreneurship Competencies for Agri. Start-up.	Dr. Prabuddha Ray SMS, Agricultural Extension, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	30/08/2022 to 02/09/2022 (4 days)	Extension Education Institute (NE Region), Ministry of Agricultural & Farmers Welfare, Govt. of India
19.	Online Training Programme	Marketing Strategies for Organic Farming	Dr. Prabuddha Ray SMS, Agricultural Extension, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	13/09/2022 to 15/09/2022 (3 days)	National Institute of Agricultural Extension Management (MANAGE), Ministry of Agricultural & Farmers Welfare, Govt. of India and SAMETI, Govt. of W.B.
20.	HRD Training	Recent development in Agriculture for Sustainable Farming	Shri Palash Ankure Farm Manager, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	17/11/2022 to 18/11/2022 (2 days)	DEE, BCKV, Nadia, W.B.
21.	9th Annual and Convention National Webinar	Managing Agro-chemicals for Crop and Environmental Health	Shri Sayak Mahato SMS, Agrometeorology, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	25/02/2022 to 26/02/2022 (2 days)	Society for Fertilizers and Environment
22.	9th Annual and Convention National Webinar	Managing Agro-chemicals for Crop and Environmental Health	Shri Sayan Chatterjee, Facilitator, DAESI, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	25/02/2022 to 26/02/2022 (2 days)	Society for Fertilizers and Environment
23.	Review Workshop	Diploma in Agricultural Extension Services for Input Dealers (DAESI)	Shri Sayan Chatterjee, Facilitator, DAESI, Rathindra KVK, Visva-Bharati, Sriniketan, Birbhum	18/05/2022 to 19/05/2022 (2 days)	SAMETI, Narendrapur (W.B.)

3.7. Success stories/Case studies, if any (two- or three-pages write-up on 1-2 best case(s) with suitable action photographs)

Success Story:

 # A. Manifold Increase in Farm Income through cultivation of *Ekangi* - a Medicinal Plant – a truly potential Crop Diversification Effort

Name of the Farmer: Sri Bipadtaran Ghosh
Address of the Farmer: Village: Kartikdanga, P.O. - Raipur, C. D. Block – Bolpur – Sriniketan, Dist. – Birbhum, Pin. – 731204, West Bengal, India.
Mobile Phone No. – 8101987627

Ekangi is also known as Aromatic Ginger, Kencur etc. Cultivation of Ekangi (*Kaempferia galanga L.*), a medicinal plant was imitated by the Rathindra KVK (RKVK) in the Kartikdanga village in Kharif season, in mono cropped paddy area as a part of the crop diversification programme. *Ekangi* has several medicinal properties. Its rhizome powder is used as appetite enhancer and also treating for stomach-ache. The rhizome extract is largely used as limiting agent for rheumatism, repellent of mosquito and nematode against *Melidogyne* in wheat.
Before cultivation of *Ekangi,* Sri Bipadtaran Ghosh cultivated the Kharif Rice Variety MTU -7029 and earned Net Return of Rs. 33,461.00 per ha in their rain-fed mono cropped situation with B:C ratio of 1.50.

In the financial year of 2020-21, Sri Bipadtaran Ghosh has cultivated *Ekangi* 0.283 ha of land in Kharif Season with a harvested produce of Rhizomes of 36.79 q and a Net Income of Rs. 1,99,798.00; this is in sharp contrast when Sri Ghosh used to cultivate Kharif Rice Variety MTU -7029 with a harvested produce of 15.85 q and a Net Return of only Rs. 9,474.00 thus increasing the Net Income of Sri Ghosh by 2008 per cent. Now Sri Ghosh is cultivating *Ekangi* with a Net Return of Rs. 7,12,000.00 per ha in the Kharif Season with a B: C ratio of 5.25.
Sri Ghosh is selling the harvested Rhizomes of *Ekangi* with an Average Sale Price of Rs. 6,700.00 / quintal of harvested Rhizomes of *Ekangi* to big business houses of Murshidabad District. The Businessmen come with truck to their village for purchasing the harvested Rhizomes.

Sri Bipadtaran Ghosh with Rathindra KVK Scientist discussing harvested Rhizomes of *Ekangi*

Contribution of Rathindra KVK: - The Rathindra KVK prepared the following package of practice suitable for this locality by cultivating *Ekangi* in different small plots in the Rathindra KVK medicinal plant garden.

- Totally rainfed
- **Time of Planting –** May-June with nor-wester
- **Seed Rate:** 7.5 q/ha (Rhizome of 4 cm length of 2 buds)
- **Land Preparation:** Only 2 cross ploughing with levelling.
- **Choice of Land:** Medium to upland with proper drainage facility in mono cropped area.
- **Planting:** Spacing 25 cm X 25 cm, Depth: 4 cm.
- **Seed Treatment:** Dipped in solution of *Trichoderma viridi* (4 gm/kg seeds).
- **Manures and Fertilizers:** Well rotten Farmyard Manure (FYM) 10 ton/ha as basal.
- **Top dressing** at one month after planting: Urea 75 kg/ha, SSP- 600 kg/ha. MOP- 100 kg/ha.
- **Top dressing** after three months of planting: Urea – 75 kg/ha.
- **Intercultural Operation:** Weeding at 2nd and 4th week, then straw mulching.
- **Herbicide Use:** Spraying of Glyphosate @ 5 ml/lt. of water at 15 days after planting.
- **Harvest:** 6-8 months after planting.
- **Yield:** 130 - 160 q/ha.

The Rathindra KVK imparted Skill Development Training on the above-mentioned package of practices for *Ekangi* cultivation to Sri Bipadtaran Ghosh and other 17 fellow farmers for five times in last five years. Also, the Rathindra KVK organized Front Line Demonstration (FLD) Programme on *Ekangi* production on 0.26 hectares of land in 2015-16, 2016-17, 2017-18 and 2018-19 in the Kartickdanga Village by providing quality Rhizomes as seeds and assorted package of practices for cultivation of *Ekangi* for 18 partner farmers of that Village.

Getting information about the success of *Ekangi* as a diversified crop, E-TV Bangla (a Private Sector All India Television Channel) and Anandabazar Patrika (one of the most popular Newspaper in Vernacular Bengali language) published and disseminated the cultivation practices and potential of Ekangi as a diversified Herbal Crop of Kharif Season in rainfed mono-cropped Aman Rice areas. Rathindra KVK played a pivotal role in disseminating the potential of *Ekangi* cultivation in Kharif season through utilizing Mass Media sources such as Radio Programmes broadcasted by All India Radio, Television Programmes telecasted by the Santiniketan Channel; Doordarshan Kendra, Santiniketan; E-TV Bangla, and Daily Newspapers like Anandabazar Patrika etc.

Economic Impact

Before start of the cultivation of *Ekangi,* the farmers of Kartickdanga Village produced only Kharif Rice Variety MTU-7029 and earned Net Return of Rs. 22,500.00 per ha in their rainfed mono cropped area with B:C ratio of 1.33.

After crop diversification effort with *Ekangi* cultivation initiated by the Rathindra KVK the Economics of Cultivation is as follows:

Year: - 2016-17 Crop: - Kharif Rice Variety MTU-7029					
Av. Yield	**Av. Sale Price**	**Gross Cost (Rs. / ha)**	**Gross Return (Rs. / ha)**	**Net Return (Rs. / ha)**	**B:C ratio**
56 quintal / ha	Rs. 1,800 / quintal	67,339.00	1,00,800.00	33,461.00	1.50

Year: - 2020-21 Crop: - *Ekangi*					
Av. Yield	**Av. Sale Price**	**Gross Cost (Rs. /ha)**	**Gross return (Rs. /ha)**	**Net Return (Rs. /ha)**	**B:C ratio**
130 quintal / ha	Rs. 6,700.00 / quintal	1,65,000.00	8,71,000.00	7,12,000.00	5.28

Social Impact – As the farm income is getting increased by manifold, the community perception to *Ekangi* cultivation is getting more encouraging. Other farmers is being more and more attracted to cultivate the *Ekangi* crop.

Environmental Impact – *Ekangi* is a totally rain-fed crop, so there is no loss of water. Total rainwater is used for production. Crops cover the fields within 3 Months, so no soil erosion through leaching occurs due to heavy rain or heavy wind. Evaporation is lowered down from the area, so Ground Water Table is maintained properly. It is an herbal or medicinal crop. The products from it are always herbal or without Chemical. Use of the products from it helps to reduce the chemical load to human body as well as nature.

Horizontal Spread - In the year 2015-16, only three farmers of Kartikdanga Village, C. D. Block – Bolpur – Sriniketan of Birbhum District started *Ekangi* cultivation as Partner Farmers of the FLD Programmes initiated by the Rathindra KVK in 0.26 ha area. It increased in 4 ha area with 15 farmers in that village in the year 2016-17 and further it was cultivated in 6.7 ha land in that village with 25 farmers. Beside that it is now spreaded to other 7 villages involving 30 farmers of surrounding 3 other Blocks of the district.

Conclusion – Crop diversification efforts like cultivation of *Ekangi* (*Kaempferia galanga L.*), a medicinal plant in Kharif Season has a huge economic as well as socio-environmental potential over mono-cropped situation in large tracts of land under Kharif Rice.

Name of KVK – Rathindra KVK, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

Name of SMS – Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension), Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

Name of SSH – Dr. Subrata Mandal, Senior Scientist and Head, Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

 # B. Title: The taste of success with homemade incubator and poultry rearing

Name and Contacts of farmer: Amit Ghosh, Mobile No- 9547322311, email-id: rathindrakvk@gmail.com, Address: - C/O-Dinabandhu Ghosh, Vill- Galundi (Paschim Para), P.O.-Galundi, Bolpur, Dist- Birbhum, 731240, West Bengal

Name and Contacts of KVK: Rathindra KVK, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

A brief about the successful venture:

Amit Ghosh was an electrician. He has only 1 acre of land and cultivating mainly paddy, mustard, potato to maintain his own means of livelihood. The income from his activities was not satisfactory. He visited Rathindra Krishi Vigyan Kendra frequently to know other possible avenues of earning from Animal Husbandry and related sectors. Rathindra Krishi Vigyan Kendra identified his technical skill and motivated him to develop homemade Incubator and begin poultry rearing in both backyard and deep litter system. Krishi Vigyan Kendra proved to be a real helping hand as they came up with the installation of his home-made Incubator that helped in fast hatching of eggs and increasing the production of Women Self Help Groups. RKVK, Birbhum also helped him to create linkages with different Women Self Help Groups and Agricultural Technology Management Agency (ATMA) for installation of his homemade Incubator. Nowadays he is earning Rs. 22000/ from his poultry keeping and related venture.



Contribution of KVK towards that venture: Sri Ghosh was given a 3-day intensive skill development training programmes on scientific poultry farming and management practices and low-cost feed formulation of poultry by Rathindra KVK, Birbhum. He also attended various awareness programmes and exposure visits to public as well as private sector poultry farms for gaining firsthand experiences. Free of cost Vaccine along with vet. medicine e.g. antibiotic, anticoccidial drugs, vitamins and mineral supplements supplied by Krishi Vigyan Kendra was also part of the initial inputs. He was also supported by technical know-how to develop a homemade Incubator. The marketing of his homemade incubator was also extended by RKVK by linking with, different SHGs, Agricultural Technology Management Agency (ATMA) and other poultry farmers.

Coverage and Impact of training / hand holding on the successful venture:

The training helped him to learn scientific management of various aspects of poultry rearing. Technical support to develop homemade incubator by Krishi Vigyan Kendra made the venture a profitable one.

Use of homemade incubator boosts up the fast production of chicks in rural area. Using this low-cost incubator continuous production and supply of rural backyard poultry chicks e.g., Vanraja, RIR, Aseel. Kadaknath etc. is possible. It is well known that backyard poultry production has immense importance to overcome the never-ending problems of poverty, hunger, and malnutrition in rural India.

Horizontal spread of the successful case: Amit participates in various training programme as a resource person. After installation of his low-cost homemade incubator, he trained and assisted the SHG members in successful hatching of eggs. His success attracted rural youths and farm women to start poultry rearing and hatching their own chicks.

Concluding assessment of the successful case: This success of Sri Ghosh as a rural entrepreneur can be used as a Model for formulating the Strategies to increase the income and overcome the problem of malnutrition and poverty of the farmers of the Birbhum District, West Bengal.

Name of KVK – Rathindra KVK, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

Name of SMS – Dr. Madhuchhanda Khan, Subject Matter Specialist (Animal Science), Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

Name of SSH – Dr. Subrata Mandal, Senior Scientist and Head, Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, West Bengal – 731236, India.

3.8. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year.

Sl. No.	Name/ Title of the Technology	Name/ Details of the Innovator(s)	Brief details of the Innovative Technology
01.	The Rathindra KVK acting as a Technology Demonstration Centre	Rathindra KVK	This can overcome the problems faced by developing countries, especially the LDCs, of demonstrating technology utilization potential and promoting overall technology awareness. Science and technology exhibitions, both stationary and mobile, and school and mass media programmes are being undertaken by this KVK and these exhibitions (especially through organizing programmes on PM Kisan Samman Nidhi, National Girl Child Day, World Pulse Day, International Women's' Day, International Yoga Day, ICAR Foundation Day, Poshan Abhiyan & Tree Plantation Programme, PM Kisan Samman Sammelan, World Soil Day, Kisan Samman Diwas are necessary if the cultural aspects of technology transfer and development are to be addressed.
02.	The Rathindra KVK's Role in Information development	Rathindra KVK	The role of information in technology transfer and development is crucial, and therefore capacities are needed to ensure access to the information required for adequate technological capability. There is much information in the public domain that is useful for technology transfer and development. However, the information needed should go beyond simple inventories of costs and environmental parameters and should include specific technical data that will facilitate technology selection, development, and use. Keeping these factors in mind, the Rathindra KVK is developing Technological Modules in the forms of Extension Literatures like Booklets, Leaflets, Folders, Brochures, CDs, DVDs etc. using the information generated from its past research and extension activities as well as information generated from both the ICAR and SAU or CU Systems to meeting the information gaps prevalent among the practicing farmers, farm women, rural youths and extension functionaries of the district of Birbhum. This KVK also focuses on (a) information assessment and screening, (b)maximal use of electronic systems and (c) the development of relevant databases in Agriculture and related sectors.
03.	The Rathindra KVK's Role in Technology partnerships and networking	Rathindra KVK	Technology partnerships between the Rathindra KVK and reputed Governmental Organizations (GOs) and Non-Governmental Organizations (NGOs) have been very effective in technology development and transfer and market development, provided they are two-way relationships involving a long-term commitment with the objective of sharing knowledge, enhancing technological capabilities, fostering innovation, and strengthening competitiveness. Interaction and mutual dependency, as well as risk and cost sharing among partners, are important. The Rathindra KVK and its associated Networks consist of a group of institutions or associations with the aims of enhancing the capacity to conduct research and improving training and education through interaction. The Rathindra KVK thus forms a network to improve access to new ideas, methods, information sharing and materials exchange. Both technology partnerships and networking require a certain level of technical competence among partners. There are many such partnerships and networks among this KVK, reputed GOs and reputed NGOs and these activities are growing. This recent initiative shows that these partnerships and networks can foster technological upgrading and improvement and quicker and more efficient Extension activities at a much lower cost to each of the partners thus creating a Win-Win situation for all the partners.

3.9. a. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
01.	Broiler Farming	Aloe Vera leaves are crushed and mixed with sugar syrup at the rate 250 gm Aloe Vera leaves and 750 gm per 1000 Birds for 5 days	For treatment of Gout and Kidney dis-order in Broiler.

Sri Arijit Hazra of Village -Karchadihi, P. O. – Batikar, C. D. Block – Illambazar, Dist. – Birbhum with Aloe Vera Leaf to be crushed in Mixer-Grinder Machine for Treatment of Gout and Kidney Disorder of his Broiler Birds

Sri Arijit Hazra of Village -Kariachati, P. O. – Batikar, C. D. Block – Illambazar, Dist. – Birbhum extracting the Juice of the Aloe Vera Leaf crushed for Treatment of Gout and Kidney Disorder of his Broiler Birds

Sri Arijit Hazra of Village –Kariachati, P. O. – Batikar, C. D. Block – Illambazar, Dist. – Birbhum making sugar syrup and mixing the juice of Aloe Vera leaves with it for Treatment of Gout and Kidney Disorder of the Broiler Birds

Sri Arijit Hazra of Village –Kariachati, P. O. – Batikar, C. D. Block – Illambazar, Dist. – Birbhum mixing the juice of Aloe Vera leaves with sugar syrup for Treatment of Gout and Kidney Disorder of the Broiler Birds

b. Give details of organic farming practiced by the farmer.

Sl. No.	Crop / Enterprise	Area (ha)/ No. covered	Production	No. of farmers involved	Market available (Y/N)
01.	Production of Seasonal Vegetables without using chemical inputs	16 ha	2400 q of Seasonal Vegetables / Week in a harvesting season (Minimum 2 harvesting Seasons in a Year)	600	Yes

3.10. Indicate the specific training need analysis tools/methodology followed by KVKs

Sl. No.	Brief details of the tool/ methodology followed	Purpose for which the tool was followed
01.	Rathindra KVK family coordinates the work of all scientists for smooth functioning of the KVK as well as for the benefit of the rural people of that area. Senior Scientist and Head is liaising with other line departments for coordination and effective implementation of different programs of the KVK in the adopted village. Rathindra KVK tried to adopt a Cluster of 4 to 6 economically, culturally, and technologically backward villages situated within 10-20 Kms radius of the KVK. These villages are not too small or too large. Before adoption, a detailed survey of the village was conducted to study the socio-economic and cultural status of that village. Now-a-days Participatory Rural Appraisal (PRA) tool was used to conduct the survey in which the village people actively participated in the process. The village map was drawn with the help of different color by the villagers themselves and different prominent structures of the village such as school, temple, river, club etc. were depicted in that map. These structures will help the scientists to conduct the survey easily and smoothly. Based upon the survey the field crop maps, animal resource map and other ancillary maps were prepared for future use. After the survey work detailed plan of work was chalked out and depending upon the requirement different activities was undertaken in different areas by the Rathindra KVK scientists.	Training Need Assessment of Rathindra KVK Clientele viz. Practicing Farmers and Farm Women
02.	Rathindra KVK assesses the needs of the Rural Youth mainly through Participatory Tools like Resource map, transact map, Employment Opportunity Analysis, Job Availability Matrix, Job Choice Matrix, Un-Employment Problem Cause Diagram etc. and administering them a Structured Question Schedule regarding the needs of the Rural Youth prepared by the Rathindra KVK in consultation with other experts of ICAR and Visva-Bharati.	Training Need Assessment of Rathindra KVK Clientele viz. Rural Youths
03.	Rathindra KVK assesses the need of the Extension Functionaries mainly through questioning the respective clientele about their needs and their job needs and the needs of their sponsoring agencies. Here mainly PRA tools like problem – cause diagram, Resource map, Organizational Diagram, Job Analysis, Job Satisfaction Matrix etc. are used.	Training Need Assessment of Rathindra KVK Clientele viz. Extension Functionaries

3.11. a. Details of equipment available in Soil and Water Testing Laboratory

Sl. No	Name of the Equipment	Qty.
01.	Mixer grinder Kenstar	2 nos.
02.	Refrigerator Whirlpool	2 nos.
03.	Stabilizer Fizi	2 nos.
03.	Shaker	1 no
04.	Oven	1 no
05.	Kelplus Elect Digestation System Model KES 08L	1 no
06.	Kelplus Elect Distillation System Elite Ex	1 no
07.	Systronics Micro controller based visible Spectrophotometer	2 nos.
08.	Systronics P-H system	2 nos.
09.	Systronics Digital Conductivity Meter	2 nos.
10.	Systronics Flame Photometer Type 128	2 nos.
11.	Hotplate with energy regulator	1 no.
12.	Glass Distillation apparatus flux	3 nos.
13.	Physical Balance Cap.250g with weight box	4 nos.
14.	Shimadzu Electronic Balance	2 nos.
15.	Kjeldal digestion unit	2 nos.
16.	Kjeldal distillation unit	2 nos.
17.	Mridhha Parikshak (Digital Mini-Lab Solar Powered)	2 nos.
Total		**34 nos.**

3.11.b. Details of samples analyzed so far:

Number of soil samples analyzed.			No. of Farmers	No. of Villages	Amount realized. (In Rs.)
Through mini soil testing kit/labs	Through soil testing laboratory	Total			
41	-	41	41	10	2860

3.11.c. Details on World Soil Day

Sl. No.	Activity	No. of Participants	No. of VIPs	Name (s) of VIP(s)	Number of Soil Health Cards distributed.	No. of farmers benefitted
01.	Participatory Discussion on Soil Health Management Practices	112	02	**1.** Prof. Arun Kumar Barik, Principal, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum – 731236 **2.** Prof. Goutam Ghosh, Professor, (Soil Science & Agril. Chemistry), Palli Siksha Bhavana (Institute of Agriculture) Visva-Bharati, Sriniketan, Birbhum – 731236	20	40

3.12. Activities of rainwater harvesting structure and micro irrigation system

No of training programme	No of demonstrations	No of plant material produced	Visit by the farmers	Visit by the officials
04	**02**	**45,000**	**1720**	**27**

3.13. Technology week celebration

Type of activities	No. of activities	Number of participants	Related crop/livestock technology

3.14. RAWE/ FET programme - is KVK involved? (Y/N): Yes

In the RAWE Programme of the 7th. Semester of B. Sc. (Ag.) Honours Course, 126 students from 7 different universities namely The Neotia University, Seacom Skills University, Jharkhand Rai University, Sri Dev Suman Uttarakhand University, Himgiri Zee University, Lovely Professional University and Siksha 'O' Anusandhan (Deemed to be University) have undergone the RAWE Programme under the guidance of the Rathindra KVK, Palli-Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, from June, 2022 to December, 2022 as per directives related to COVID Protocol.

No of student trained	No of days stayed
126	-

ARS trainees trained	No of days stayed

3.15. List of VIP visitors (Minister/ MP/MLA/DM/VC/Zila Sabhadipati/Other Head of Organization/Foreigners)

Date	Name of the Person	Purpose of Visit
09.02.2022	Dr. M.S. Basu, Ex-Director, NRCG (ICAR), Visiting Scientist ICRISAT, UN Intl. Consultant (Africa)	To observe KVK activities
07.03.2022	Dr. Sujay Rakshit, Director ICAR-IIMR, Ludhiana	To observe KVK activities
15.03.2022	Sri. Jagdish Prasad, Joint Director (Extension Reforms) at Government of India, Ministry of Agriculture & Farmers Welfare	To observe KVK activities
13.04.2022	Dr. Ramanuj Banerjee, Scientist F and National Focal Point, Ministry of Science and Tech., GoI	To observe KVK activities
19.05.2022	Dr. Y.S. Shirang, Principal Scientist, IARI (Pusa Institute), New Delhi	To observe KVK activities
02.09.2022	Prof. (Dr.) Chanchal Guha, V.C., WBUAFS, Kolkata	To observe KVK activities

4. IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs. /Unit)	After (Rs. /Unit)
Seed Production of Paddy	70	85.72	Rs. 67,080.00 per ha	Rs. 1,03,200.00 per ha
Seed Production of Pulses	230	52.18	Rs.31,600.00 per ha	Rs.66,500.00 per ha
Varietal Replacement of Mustard with Improved Mustard Variety NRCHB – 1, and YSH04 - 01	170	88.24	Rs. 23,520.00 per ha	Rs. 73,800.00 per ha
Improved Method of Elephant's Foot Yam Cultivation	207	89.00	Rs. 2,36,250.00 per ha	Rs. 14,17,500.00 per ha
Low-Cost Fish Feed Preparation	51	49.02	Rs. 20,000.00 per Year	Rs. 96,000.00 per Year
Kantha Stitch Work	71	56.34	Nil	Rs. 12,000.00 to Rs. 36,000.00 per Year
Preparation and Use of Vermin-Composting	290	62.07	Nil	Rs. 19,000.00 per 2.5 ft X 2.0 ft X 3.0 ft area /year

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of large-scale adoption (Please furnish detailed information for each case)

Horizontal Spread of Technologies	
Technology	**Horizontal spread**
Seed Production of Paddy	60 farmers Trained in the Rathindra KVK on various aspects of Paddy Seed Production adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 120 numbers of farmers of whom 32 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 40 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 24 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 24 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Seed Production of Pulses	120 farmers Trained in the Rathindra KVK on various aspects of Pulse Seed Production adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 70 numbers of farmers of whom 19 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 23 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 14 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 14 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Varietal Replacement of Mustard with Improved Mustard Variety RW – 351	150 farmers Trained in the Rathindra KVK on various aspects of Cultivation of Improved Mustard Variety RW – 351 adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 100 numbers of farmers of whom 27 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 34 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 20 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 19 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Improved Method of Elephant's Foot Yam Cultivation	185 farmers Trained in the Rathindra KVK as well as 110 of them were involved in the FLD Programmes of Rathindra KVK on various aspects of improved method of Elephant's Foot Yam Cultivation adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 118 numbers of farmers of whom 31 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 39 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 24 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and 20 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK. **It was necessary to mention here that 4 numbers of farmers of the neighbouring Dumka District of the Jharkhand State also adopted the above-mentioned Technology through the horizontal spread of the Technology.**
Low-Cost Fish Feed Preparation	25 farmers Trained as well as getting involved in the FLD Programmes of the Rathindra KVK on various aspects of low-cost fish feed preparation adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 12 numbers of farmers of whom 03 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 04 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 02 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 03 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Replacement of Deshi Poultry Breed by Rhode Island Red Breed (RIR)	309 farmers Trained as well as getting involved in the FLD Programmes of the Rathindra KVK on various aspects of replacement of local Deshi Poultry Breed by introduction of High Yielding Poultry Breed viz. Rhode Island Red (RIR) adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 512 numbers of farmers of whom 302 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 109 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 23 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 78 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Preparation and Use of Vermin-Composting	180 farmers Trained in the Rathindra KVK on various aspects of preparation and use of Vermin-Composting adopted the Technology and from them the Technology was spreaded with culminating effect of adoption among another 110 numbers of farmers of whom 29 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 37 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 22 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 22 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.
Fodder Cultivation	350 farmers involved in FLD programme entitled quality fodder cultivation both leguminous and non-leguminous of Rathindra Krishi Vigyan Kendra. From them the Technology was spreaded with culminating effect of adoption among another 312 numbers of farmers of whom 302 numbers of farmers resided within 0.1 – 5 kms. Radius of the Rathindra KVK; 109 numbers of farmers resided within 5.1 – 10 kms. Radius of the Rathindra KVK; 23 farmers resided within 10.1 – 15 kms. Radius of the Rathindra KVK and the rest 78 numbers of the farmers resided within 15.1 kms and above radius of the Rathindra KVK.

Give information in the same format as in case studies.

4.3. Details of impact analysis of KVK activities carried out during the reporting period.

Sl. No.	Brief details of technology	Impact of the technology in subjective terms			Impact of the technology in objective terms	
		Productivity / Yield		Numbers of Farmers adopted the Technology	Change in Income due to Activities of KVK	
		Before Adoption of new technology	After Adoption of new technology		Before Adoption of new technology	After Adoption of new technology
01.	Improved Poultry Breed Rhode Island Red (RIR)	No. of 155.30 Eggs / Bird / Year Average Body Weight of Male – 2.08 kg. Average Body Weight of Female – 1.53 kg.	No. of 163.20 Eggs / Bird / Year Average Body Weight of Male – 2.43 kg. Average Body Weight of Female – 1.68 kg.	65	Rs. 6,853.00 per Household from 20 Birds Capacity reared in Back Yard condition	Rs. 11,750.00 per Household from 20 Birds Capacity reared in Back Yard condition
02.	Area Specific Mineral Mixture for Lactating Dairy Cow	Milk Yield – 18.46 kg. / wk. / Cow	Milk Yield – 23.88 kg. / wk. / Cow	76	Rs. 10,218.00 / Year / Cow	Rs. 14,737.00 / Year / Cow

4.4. Details of innovations recorded by the KVK.

Thematic area	Poultry Production
Name of the Innovation	Handmade Low-Cost Manual Incubator
Details of Innovator	Sri Ershad Molla, Village + P. O. – Sattore, Pin. –731236, Dist. – Birbhum.
Background of innovation	Sri Ershad Molla has got the idea of a Low-Cost Manual Incubator for Poultry egg hatching through technical inputs and knowledge and skill acquired from the Scientist Rathindra KVK in the year 2017-18 and he proceeded to build up that incubator in the same year at a total expenditure of Rs. 35,000.00 (Rupees Thirty-Five thousand) and started egg hatching in 2018-19.
Technology details	Hand-made incubator (operated by both Main Line Electric and Inverter current) of 700 egg hatching capacity with around 8 cycles in a year.
Practical utility of innovation	(a) According to the needs of the villagers, he operates the Incubator and achieves up to 8 cycles per years. (b) The farmers get the opportunity to procure Chicks or Ducklings of RIR, Deshi Duck and Khaki Campbells as per their own needs at the doorstep at reasonable price. (c) Sri Ershad Molla earns around Rs. 10,000.00 (Rupees Ten Thousand) per month with 700 egg hatching capacity of the incubator. (d) Normally Sri Molla buys egg for hatching at the rate of Rs. 12 per egg from the State Govt. Poultry Farm of West Bengal and also from the Rathindra KVK trained farmers of Birbhum District and sells at the rate Rs. 30 per Chick or Duckling

Sri Ershad Molla, Village + P. O. – Sattore, C. D. Block – Bolpur – Sriniketan, Pin. – 731236, Dist. – Birbhum along with his Innovative Handmade Low-Cost Manual Incubator

4.5. Details of entrepreneurship development

Entrepreneurship development	
Name of the enterprise	**Dairy of Sri Debasish Mandal**
Name & complete address of the entrepreneur	Village: - Surul, P. O. – Sriniketan, Pin. – 731236, Dist. – Birbhum, West Bengal. Mobile Phone No. – 7001358872
Role of KVK with quantitative data support:	Crossbreeding and breed up-gradation through Artificial Insemination (A. I.). is the most suitable and economical technique for generating higher genetic and production potential. Crossbreeding in indigenous low producing cattle with superior germplasm influences the genetic potential of the crossbred so born. The age at puberty have been attended at 2 to 2.5 years of age. All the female calves fed properly from the beginning of the birth so that they attain desired body weight and maturity at an early age. The traditional feeding practice is modified by providing mineral mixture, concentrate and green forages and formulation of low-cost feed. After parturition animals usually always come to heat up to 2- 2 1/2 months. Sri Mandal tried hard so that no heat might be missed and insemination is being given by trained person and timely to achieve optimum pregnancy result. Post insemination confirmation of pregnancy at 60 days. Sri Debasish Mandal got educated and trained in modern profitable animal husbandry practices, especially feeding, management and care of growing calves and heifers by Rathindra Krishi Vigyan Kendra. Poor quality of germplasm, poor nutrition and management and to some extent lack of proper animal husbandry practices and traditional misconception play an important role in less reproductive efficiency of cattle in rural area. Generally, the traditional dairy farmers are not much aware about the time when their animal should reach puberty and the young growing animals don't get proper attention and are raised on dry fodder and grazing. Thus, the age at puberty is attended as late as 4, 5 or 6 years. In this way livestock owner misses at least one crop or two-calf crop in their lifetime. Keeping this scenario in mind, the Technological Backstopping from the Rathindra Krishi Vigyan Kendra regarding the adoption of A. I., formulation of low cost feed, supplementation with mineral mixture and cultivation of fodder crops helped Sri Mandal a lot to make profit from his small scale dairy Unit. The Rathindra Krishi Vigyan Kendra has provided Sri Debasish Mandal detailed Knowledge and Skill Development Training on • Artificial Insemination (A. I.) in cattle • Conscientious heat detection • Proper timing of insemination • Low-cost feed formulation

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<tr><td></td><td>

- Feeding, management and care of growing calves and heifers
- Cultivation and feeding of green fodder.

Feeding of area specific mineral mixture.</td></tr>
<tr><td>Timeline of the entrepreneurship development</td><td>Before the Rathindra KVK Intervention, Sri Debasish Mandal who owned 1 hectare of land was engaged in cultivation of Kharif Paddy and Potato in Rabi Season which gave him a net monthly income of Rs. 2,500.00 (Rupees Two Thousand Five Hundreds) only.
Before the Rathindra KVK intervention, he has started a small-scale Dairy Unit with Two Cross Breed Cows which give him an average Milk Production of 6 – 7 litres per cow per day. Sri Mandal's Traditional Dairy Farming was based on Feeds like Mustard Cake, Broken Rice, Hay and Straws without any presence of Green Fodder, Mineral Mixture, Concentrate Feeds in the diets of the Cows. He earned a Net Income of Rs. 4,600.00 (Rupees Four Thousand Six Hundreds) only per Year from his Traditional Dairy Unit with a B: C Ratio of 1.27.
The Present Situation: - A. Agricultural Activities: - Cultivation of Paddy, Potato, Cabbage, Cauliflower and Fodder Crops like Maize, Cowpea, Sorghum and Rice Bean.
B. Non-Agricultural Activities: - Commercial Dairy Farming with 04 Cross Breed Cows and 02Breed Up-graded Deshi Cows and 06 Calves.</td></tr>
<tr><td>Technical Components of the Enterprise</td><td>

- Artificial Insemination (A. I.) in cattle
- Conscientious heat detection
- Detection of oestrous by fern pattern of cervical mucous
- Proper timing of insemination
- Low-cost feed formulation
- Feeding, management and care of growing calves and heifers
- Cultivation and feeding of green fodder.

Feeding of area specific mineral mixture.
1.Crossbreeding and Breed up-gradation through A. I. is the most suitable and economical technique for generating higher genetic and production potential. Crossbreeding in indigenous low producing cattle with superior germplasm influences the genetic potential of the crossbred so born giving an Average Milk Yield of 8 Litres / Cross bred Cow / Day and Breed Up-graded Cows yields about 6 Litres / Cow / Day.
2. The age at puberty have been attended at 2 to 2.5 years of age. All the female calves fed properly from the beginning of the birth so that they attain desired body weight and maturity at an early age.
3. The traditional feeding practice is modified by providing mineral mixture, concentrate and green forages and formulation of low-cost feed. After parturition animals usually always come to heat up to 2- 2 1/2 months.</td></tr>
<tr><td>Status of entrepreneur before and after the enterprise</td><td>
<table>
<tr><th>Parameters</th><th>Before</th><th>After</th></tr>
<tr><td>Yield of Product</td><td></td><td>8 lits. / Cross Bred Cow / Day
6 lits. / Up-graded Cow / Day</td></tr>
<tr><td>Fixed Cost</td><td></td><td>Rs. 3,90,000.00 / Year</td></tr>
<tr><td>Recurring Cost</td><td></td><td>Rs. 86,000.00 / Year</td></tr>
<tr><td>Gross Income</td><td></td><td>Rs. 7,76,000.00 / Year</td></tr>
<tr><td>Net Profit</td><td>Rs. 30,000.00 per Year from Agricultural Operations</td><td>Rs. 3,00,00.00 / Year</td></tr>
<tr><td>B:C Ratio</td><td></td><td>1.63</td></tr>
<tr><td>Marketing</td><td></td><td>Door to door sale</td></tr>
</table>
</td></tr>
<tr><td>Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):</td><td>Raw Material Availability: - Feed Ingredients and other feed materials are procured from his own agricultural land as well Green Fodders are produced in the adjacent farmland of the dairy.
Labour Availability: - Family Labour is used and also local Labours are available and used.
Consumer Preference: - Farm milk is preferred by the consumers who are loyal customers to Sri Mandal.
Marketing the product: - Mainly door to door sale method is used and sold to both domestic houses and small businesses like tea stall, sweet shops etc.</td></tr>
<tr><td>Horizontal spread of enterprise</td><td>20 (Twenty) farmers in the Locality adopted the Technology and related Activities having getting an information from Sri Mandal. Sri Debasish Mandal's Cows have been awarded as "Best Milch Cattle" at the "Prani Sampada (Animal Resource) Week" organized by the Dept. of Animal Resource Development, Govt. of West Bengal.</td></tr>
</table>

Sri Debasish Mandal, Village: - Surul, P. O. – Sriniketan, Dist. – Birbhum-731236, W. B. along with the Rathindra KVK Scientist at his Small-Scale Dairy Farm

4.6. Any other initiative taken by the KVK.

5. LINKAGES

5.1. Functional linkage with different organizations

Name of Organization	Nature of linkage
Palli Sanghatana Vibagh, Visva-Bharati, Sriniketan, Birbhum	This linkage is mainly focusing on organizing joint Training programmes for the villagers as well as giving exposure to the clientele of the Rathindra KVK as about the field level situation
All India Radio, Santiniketan Kendra, Birbhum, West Bengal	Broadcasting of different Rathindra KVK activities as well as live Phone –In Programmes are being organized.
Doordarshan, Santiniketan Kendra, Birbhum, West Bengal	Telecasting of different Rathindra KVK activities as well as live phone –In Programmes are being organized. As a result, a vast number of farmers, farm women and rural youth are being exposed to multiple information sources regarding multiple issues. This is necessary to mention that the viewers of these Programmes have been immensely benefited by viewing Method Demonstration on various new Technologies.
Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal	This linkage is mainly on the following aspects: - - Conducting regular basis Human Resource Development Training Programme in different discipline. - Facilitate for Annual Action Plan Development. - Facilitate On Farm Testing Modules. - Provide different location specific germplasm.
West Bengal University of Animal and Fishery Sciences, Belgachia, Kolkata, West Bengal	This linkage is mainly on the following aspects: - - Conducting regular basis Human Resource Development Training Programme in different discipline. - Facilitate for Annual Action Plan Development. - Facilitate On Farm Testing Modules. - Provide different location specific mineral mixture, vaccines, medicines, seeds of Improved Varieties of Green Fodder Crops.
ICAR-Indian Institute Agricultural Biotechnology, Ranchi, Jharkhand	The linkage is mainly based on establishment of Custom Hiring Centre at Rathindra KVK, Sriniketan.
ICAR-CIFRI, Barrackpore	For collaborating training and demonstration on CIFRI fish feed, Scientific fish cultivation.
ICAR-National Dairy Research Institute (NDRI), Eastern Regional Station (ERS), Kalyani, West Bengal	This Linkage is basically for organizing the Collaborative Animal Health Camps, Cattle Infertility Treatment Camps, Hybrid Napier Distribution Camps and for organizing Front Line Demonstrations on improved varieties of Fodder Crops like Berseem, Oat etc.
Regional Fodder Station, Kalyani, Ministry of Agriculture and Farmers' Welfare, Govt. of India, Nadia, West Bengal	This Linkage is basically for organizing the Front-Line Demonstration (FLD) Programmes on various Improved Varieties of Green Fodder.
ICAR-Indian Grassland and Fodder research Institute (IGFRI), Jhansi, Uttar Pradesh	This Linkage is basically for organizing the Front-Line Demonstration (FLD) Programmes on various Improved Varieties of Green Fodder.
Agriculture Skill Council of India (ASCI), National Skill Development Corporation (NSDC), Ministry of Skill Development and Entrepreneurship, Govt. of India, New Delhi	This linkage is for Training of Trainers, formulation of Training Courses, assessment and providing Skill Training Certificates to the Trainees of ASCI Skill Training Courses like Hatchery Production Worker, Animal Health Worker, Agriculture Extension Service Provider etc.
National Fisheries Development Board (NFDB), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telangana	This linkage is for providing Human Resource Development Training to KVK Scientists as well as for organizing Long Duration Skill and Entrepreneurship Development Training Programmes to fish farmers and interested Rural Youths on different aspects of Fish Production and for hand-holding the Fish Growers for different Governmental Schemes in Fishery Sector.
National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telangana	This linkage is for providing Human Resource Development Training to KVK Scientists as well as for organizing Diploma in Agricultural Extension Services for Input Dealers (DAESI), a Long Duration Skill and Entrepreneurship Development Training Programmes for the Agricultural Input Dealers for developing them as grass-root level Extension Functionaries.
Line Departments like Agriculture, Horticulture and Food Processing Industries, Animal Resource Development, Fisheries etc. of the Govt. of West Bengal, Birbhum, West Bengal	This linkage is basically on Technological backstopping of the Extension and developmental activities of various developmental departments of the Govt. of West Bengal.
National Research Centre on Weed Control, Jabalpur, Madhya Pradesh	The linkage is now focusing on Technical Support for organizing Training and Awareness Camps for controlling weeds specifically weeds like *Parthenium*. The farmers of this District get immense benefit as they get exposure on *Parthenium* and other weeds through participating in "*Parthenium* Control Week Programme".
Agricultural Technology Management Agency (ATMA), Birbum, Suri, Birbhum, West Bengal	The linkage is now focusing on Orientation Farmers' training and Programme Training for Headmaster / Achiever Farmer. Various Short-Term Research on Topics related with Fishery, Agronomy etc. are also being performed utilizing these linkages Programme.
Agricultural Technology Management Agency (ATMA), Various Districts of West Bengal	The linkage is now focusing on organizing Exposure Visits of the members of the various Block Farm Information and Advisory Centre (FIAC) Teams at the Rathindra KVK for a firsthand experience on cutting edge technologies and products related to agriculture and related sectors as well as for undergoing relevant knowledge and skill development training programmes at the Rathindra KVK, Birbhum.

Agricultural Technology Management Agency (ATMA), Paschim Bardhaman, West Bengal	For Setting of IFS model in Paschim Bardhaman District.
National Bank for Agriculture and Rural Development (NABARD), Birbhum, Suri, Birbhum, West Bengal	The linkage mainly focuses on formation of Farmers Club and Farmers' Producers' Organization (FPO) organizing Training for vulnerable areas, Organizing Technology Weeks etc. Some Farmers' Clubs and FPOs are doing excellent work and they are benefitted from this Linkage. Besides above-mentioned Linkages, NABARD, Birbhum sponsored the Technology Week – 2015 and Technology Week - 2016, organized by the Rathindra KVK in its Campus. The NABARD has also sponsored Skill Development Trainings in the Farm Sectors in the Financial Year of 2015 – 2016.
State Agricultural Management, Extension and Training Institute (SAMETI), Narendrapur, 24 Parganas (South), West Bengal.	This linkage is mainly on the following aspects. - Conducting regular basis Human Resource Development Training Programme in different discipline for Scientists of the Rathindra KVK. - All the linkage activities profoundly help the Rathindra KVK clientele in updating their knowledge, skill and attitude.
Luthern World Services, Kolkata, West Bengal	This linkage gives importance as well as focuses on Training and Demonstration for stakeholders for far flung areas of Birbhum District, especially areas bordering Jharkhand State where Institutional Linkages with villagers of those areas are very weak.
Asansol Burdwan Seva Kendra, Burdwan, West Bengal	This linkage gives importance as well as focuses on joint Training and Demonstration for stakeholders for various non-adopted villages of Birbhum District as well as far flung areas of Birbhum District, especially areas where Institutional Linkages with villagers of those areas are very weak.
Reliance Foundation	For Conducting Online Training Programmes.
Invati Creations Pvt. Ltd.	Project on Trails for Bio Stimulants in different crops.
Rain Bow Agro-Sciences Pvt. Ltd., Gujrat	Project on Trial for Lufenuron in Black gram.
Bolpur Krishija Samabay Samity, Bolpur, Birbhum, West Bengal	This linkage is basically focuses on supply of quality agricultural inputs for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benefitted through experiencing newer and better-quality agricultural inputs.
National Seed Corporation, Kolkata, West Bengal	This linkage is basically focuses on supply of quality breeder and foundation seeds of various Crops for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benefitted through experiencing newer and better-quality seeds.
West Bengal State Seed Corporation, Kolkata, West Bengal	This linkage is basically focuses on: Production of foundation and Certified seeds of different crops at KVK farm. Supply of quality breeder and foundation seeds of various Crops for various FLD and OFT Programmes of the Rathindra KVK undertakes. As a result, the clientele of the Rathindra KVK is immensely benefitted through experiencing newer and better-quality seeds.
Panchayati Raj Institutions (PRIs), Birbhum, West Bengal	This linkage helps the Rathindra KVK to get base-line information for choosing Target Areas both on Geographical Terms as well as on Technological Terms by going through various surveys and reports generated by the PR Institutions of the Birbhum District.
Other Krishi Vigyan Kendras (KVKs)	This linkage helps the farmers of various Districts to have an exposure and visit to Rathindra KVK and exchange ideas and experiences with farmers of the District of Birbhum and Scientists of the Rathindra KVK.

5.2. List of special programmes undertaken during 2022 by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NABARD/NHM/NFDB/Other Agencies (information of previous years should not be provided)

a) Programmes for infrastructure development: No such programme

Name of the programme/	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)

(b) Programme for other activities (training, FLD, OFT, Mela, Exhibition etc.)

Name of the Programme/Scheme	Purpose of Programme	Date/ Month of Initiation	Funding Agency	Amount (Rs.)
Layout of Demonstrated Plots	To nourish the coconut trees (89) of the Visva- Bharati campus	January, 2022	Coconut Development Board	8,900.00
FLD on Fish feed	To show the performance of CIFRI fish feed on small ponds in Birbhum District	February, 2022	ICAR-CIFRI, Barrackpore	All the inputs (amounting 12 lakh) supplied directly by CIFRI
Preparation of IFS Model	To establish an IFS model (Documented by RKVK, Birbhum) at District Seed Farm, Kanksa, Paschim Bardhaman	October, 2022	ATMA, Paschim Bardhaman	5,00,000.00
Project on Bio Stimulant	To find out the effect of Bio Stimulant in different crops	December, 2022	Invati Creation Pvt. Ltd.	1,50,000.00
Project on Lufenuron	To find out the effect of Lufenuron on Gram Pod borer in Kharif Black gram	August, 2022	Rainbow Agro Sciences Pvt. Ltd.	3,00,000.00
Demonstration on High Quality Protein Maize	To show the performance of Maize var. HQPM – 1	December, 2022	Additional Director of Agriculture (Research), Govt. of West Bengal	4,000.00

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1. Performance of demonstration units (other than instructional farm)

Sl. No.	Name of demo Unit	Year of estt.	Area (Sq.mt)	Details of production			Amount (Rs.)		Remarks
				Variety/breed	Produce	Qty.	Cost of inputs	Gross income	
1.									
2.									
3.									
4.									
	Total								

6.2. Performance of Instructional Farm (Crops)

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of produce	Qty. (q)	Cost of inputs	Gross Income	
Elephant foot Yam	20.04.2022	01.11.2022	0.005	Bidhan Kusum	Corm (Seeds)	2.0	3500	12000	Kept in godown
Black Gram	11.07.2022	12.10.2022	0.065	PU-31	TL seeds	1.2	4300	12600	Kept in godown
Black Gram	12.07.2022	19.102022	O.065	PU-1	TL seeds	1.0	3600	10500	Kept in godown
Turmeric	10.07.2022			Saguna					Standing crop
Ekangi	15.07.2022			K. galana	TL seeds				Standing crop
Paddy	20.07.2022	25.11.2022	0.05	MTU-1153	FS	1.64	4200	7380	Kept in godown
Paddy	22.07.2022	20.12.2022	0.2	CR Dhan-800	FS	7.5	19000	33750	Kept in godown
Paddy	25.07.2022	27.12.2022	0.5	Rani Dhan	FS	21.6	50000	86400	Kept in godown
Paddy	28.07.2022	30.12.2022	0.005	Gobindo bhog	Rice	0.20	500	2000	Kept in godown
Paddy	28.07.2022	30.12.2022	0.005	Badsha bhog	Rice	0.15	400	1500	Kept in godown
Paddy	28,07.2022	30.12.2022	0.005	Randuni pagal	Rice	0.30	900	3000	Kept in godown
Paddy	28,07.2022	30.12.2022	0.007	Black rice	Rice	1.00	2400	5000	Kept in godown
Finger Millet	25.07.2022	28.11.2022	0.06	Indravati	FS	1.5	3000	16500	Hand over to SSC
Lentil	05.12.2022		0.13	IPL-316	FS				Standing crop
Lentil	05.12.2022		0.13	SEKHAR	FS				**SSC/Standing Crop**
Lentil	06.12.2022		0.26	L-4717	CS				**SSC/Standing crop**
Lentil	06.12.2022		0.13	L-4717	CS				Standing crop
Lentil	07.12.2022		0.13	WBL-77	CS				Standing crop
Chickpea	14.12.2022		0.13	Purva	FS				Standing crop
Mustard	20.12.2022		0.01	CS-60	CS				Standing crop
Mustard	20.12.2022		0.02	NRCHB-1	TL seeds				Standing crop
Mustard	20.12.2022		0.05	YSH-401	FS				Standing crop
Rice bean	17.11.2022		0.13	Bidhan-1					Standing crop
Oat	21.12.2022		0.13	RO-11-1					Standing crop
Potato	25.11.2022		0.03	K. Jyoti	Vegetable				Standing crop

6.3. Performance of Production Units (bio-agents / bio-pesticides/ bio-fertilizers etc.,)

Sl. No.	Name of the product	Qty (Kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
01.	Azolla	3000	12000	150000	
02.	Vermi Compost	4000	5500	40000	
03.	Earth worm	100000	10000	50000	

6.4. Performance of instructional farm (livestock and fisheries production)

Sl. No.	Name of the animal/bird/aquatics	Details of Production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty (q)	Cost of inputs	Gross income	
01.	Composite fish	Rohu, Katla, Mrigel, Bata etc	Table Fish	6	3000	6000	
02.	Fish	Vietnam koi	Table Fish	0.5	6,000	15000	
03.	Livestock	Coloured Broiler	Adult Bird	103 nos.	12,360	22,896	₹10,536 (Net Profit)
			Eggs	189 nos.	472	670	₹198 (Net Profit)
		Kadaknath	Chicks	40 nos.	2,200	3200	₹1000 (Net Profit)
04.	Apiculture	*Apis indica*	Honey	0.424	30,000	21,200	Production is going on. Calculation is for only one production cycle.
			Beehives	10 nos.	15,000	60,000	₹45000 (Net Profit)

6.5. Utilization of hostel facilities

Accommodation available (No. of beds): 21

Months	No. of trainees stayed	Trainee days (Days stayed)	Reason for short fall (if any)
Due to Official order form University all the Hostels including KVK trainees' hostels were closed for maintaining COVID protocol.			

(For whole of the year)

6.6. Utilization of staff quarters: N/A

Whether staff quarters have been completed:

No. of staff quarters:

Date of completion:

Occupancy details:

Months	Q I	Q II	Q III	QIV	Q V	QVI

7. FINANCIAL PERFORMANCE

7.1. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Visva-Bharati University A/c. Krishi Vigyan Kendra A/c. No. 10598447180	State Bank of India	Santiniketan, P. O. – Santiniketan, Dist. – Birbhum, Pin. – 731235, West Bengal.	10598447180

7.2. Utilization of funds under CFLD on Oilseed *(Rs. In Lakhs)*

Item	Released by ICAR		Expenditure		Unspent balance as on 31st December, 2022
	Rabi	Kharif	Rabi	Kharif	
Sesame	-	1.00	-	0.95	0.05

7.3. Utilization of funds under CFLD on Pulses *(Rs. In Lakhs)*

Item	Released by ICAR		Expenditure		Unspent balance as on 31st December, 2022
	Rabi	Kharif	Rabi	Kharif	
Black Gram	-	3.60	-	3.22	0.38

7.4 Utilization of KVK funds during the year 2022-23 (Not audited)

Sl. No.	Particulars	Sanctioned	Released	Expenditure (as on 31.12.2022)
A. Recurring Contingencies				
1	Pay & Allowances	160.00	119.70	105.07
2	Traveling allowances	1.50	-	1.15
3	Contingencies	22.50	11.60	13.27
3	HRD	0.30	-	-
A	Stationary			
B	POL			
C	Meals			
D	Training material			
E	Front Line Programne			
F	On Farm Trial			
G				
H				
O	SCSP			
J	Swachhta Expenditure			
TOTAL (A)		**184.30**	**131.30**	**119.49**
B. Non-Recurring Contingencies				
1	Equipment Furniture (Replacement of Tractor accessories)	7.50	7.50	-
2	Works (Boundary wall cum fencing)	10.00	10.00	5.61
3	Vehicle (Four-Wheeler Replacement)	9.00	-	-
4	Library	0.10	-	-
TOTAL (B)		26.60	17.50	5.61
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**210.90**	**148.80**	**125.10**

7.5. Status of revolving fund (Rs. in lakh) for last three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year (Kind + cash)
2019-20	3.98	2.86	1.40	5.44
2020-21	5.44	2.57	3.05	4.96
2021-22	4.96	5.76	2.79	7.93
2022-23	7.93	8.20 (as on 31.12.2022)	3.89 (as on 31.12.2022)	12.24 + (Kind) 4.23 (as on 31.12.2022)

7.6. (i)Number of SHGs formed by KVKs - 01

(ii)Association of KVKs with SHGs formed by other organizations indicating the area of SHG activities – 03 Numbers of SHGs involved in (a) Certified Seed Production of Paddy, Pulses and Oilseeds; (b) Production of Vermi-Compost, and (c) Production of Mushroom.

(iii) Details of marketing channels created for the SHGs – Rathindra KVK is acting as Linkage between the members of SHGs and "SUFAL BANGLA", an initiative by the Dept. of Agricultural Marketing for marketing the products of SHGs through Mobile Vans and Stationery Showrooms and from this Year the Rathindra KVK is an active partner of the RKVY Sponsored Project on "Up-gradation of Market-Linkage Network for Promotion of Bengal Aromatic Rice", being executed by the Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya, P. O. – Krishi Viswavidyalaya, Dist. - Nadia, Pin. – 741252, West Bengal, India for promoting the production and marketing of the traditional aromatic Paddy Variety of Birbhum District viz. Radhunipagol by the members of the SHGs.

7.7. Joint activity carried out with line departments and ATMA.

Name of Activity	Number of Activity	Season	With Line Department	With ATMA	With Both
Conducting DAESI Course	78 nos. of classes	Throughout the year	-	-	With both (invited as Resource Persons)
Advisory services for DAMU	1940 nos. of email attachments sent in a total of 97 times to 19 nos. of CD Blocks and 1 no. of District	Throughout the year	With line department	-	-
District Level Technical Committee	2	Kharif and Rabi, 2022	With line department		
Exposure Visits	01	Rabi, 2022	With line department	-	-

8. Other information

8.1. Prevalent diseases in Crops

Name of the disease	Crop	Date of outbreak	Area affected (in ha)	% Commodity loss	Preventive measures taken for area (in ha)

8.2. Prevalent diseases in Livestock/Fishery

Name of the disease	Species affected	Date of outbreak	Number of death/ Morbidity rate (%)	Number of animals vaccinated	Preventive measures taken in pond (in ha)

9.1. Nehru Yuva Kendra (NYK) Training

Title of the training programme	Period		No. of the participant		Amount of Fund Received (Rs)
	From	To	M	F	

9.2. PPV & FR Sensitization training Programme

Date of organizing the programme	Resource Person	No. of participants	Registration (crop wise)	
			Name of crop	No. of registration

9.3. *mKisan* Portal (National Farmers' Portal/ SMS Portal)

Type of Message	No. of Messages	No. of Farmers covered
Crop	12	18,300
Livestock	10	12,000
Fishery	-	-
Weather	348	8,976
Marketing	36	10,120
Awareness	03	1,920
Training Information	12	9,651
Other	-	-
Total	**457**	**51,991**

9.4. *KVK* Portal and Mobile App

Sl. No.	Particulars	Description
1.	No. of visitors visited the portal	**18,664**
2.	No. of farmers registered in the portal	-
3.	Mobile Apps developed by KVK	-
4.	Name of the App	-
5.	Language of the App	-
6.	Meant for crop/ livestock/ fishery/ others	-
7.	No. of times downloaded	**-**

9.5. a. Observation of Swachh Bharat Programme

Date / Duration of Observation	Activities undertaken
Different Activities related with "Swachh Bharat Mission" have been conducted regularly as per the following table **9.5. b.**	

b. Details of Swachhta activities with expenditure

Activities	Number	Expenditure (in Rs.)
1. Digitization of office records/ e-office	07	
2. Basic maintenance	09	
3. Sanitation and SBM	35	
4. Cleaning and beautification of surrounding areas	12	
5. Vermicomposting / Composting of biodegradable waste management & other activities on generate of wealth for waste	44	
6. Used water for agriculture/ horticulture application	01	
7. Swachhta Awareness at local level	12	
8. Swachhta Workshops	-	
9. Swachhta Pledge	01	
10. Display and Banner	-	
11. Foster healthy competition	-	
12. Involvement of print and electronic media	-	
13. Involving the farmers, farm women and village youth in the adopted villages (no of adopted village)	15	
14. No of Staff members involved in the activities	20	
15. No of VIP/VVIPs involved in the activities	-	
16. Any other specific activity (in details)	-	34,500.00
Total	**156**	**34,500.00**

9.6. Observation of National Science Day

Date of Observation	Activities undertaken

9.7. Programme with Seema Suraksha Bal/ BSF

Title of Programme	Date	No. of participants

9.8. Agriculture Knowledge in rural school

Name and address of school	Date of visit to school	Areas covered	Teaching aids used

Give good quality 1-2 photograph(s)

9.9. Details of '*Pre-Rabi Campaign*' Programme

Date of programme	No. of Union Ministers attended the programme	No. of Hon'ble MPs (Lok Sabha / Rajyasabha) participated	No. of State Govt. Ministers	Participants (No.)							Coverage by Door Darshan (Yes/No)	Coverage by other channels (Number)
				MLAs Attended the programme	Chairman Zila Panchayat	Distt. Collector / DM	Bank Officials	Farmers	Govt. Officials, PRI members etc.	Total		

9.10. Details of Swachhta Hi Suraksha programme organized.

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)

9.11. Details of Mahila Kisan Divas programme organized.

Sl. No.	Activity	No. of villages Involved	No. of Participants	No. of VIPs	Name (s) of VIP(s)

9.12. No. of Progressive/ Innovative/ Lead farmer identified (category wise)

Sl. No.	Name of Farmer	Address of the farmer with contact no.	Innovation/ Leading in enterprise
01.	Sri Srikanta Pandit	Vill. - Kamalakanpur; P.O.- Khanjanpur; Pin. – 731236, Dist. – Birbhum, Mob- 9647886328	Leading in CFLD on Chickpea cultivation in his locality in Rice - Fallow situation.
02.	Sri Gadai Ghosh	Vill. –Rajatpur; P.O. - Rajatpur; Pin. – 731204, Dist. – Birbhum, Mob- 8670076681	Leading in CFLD on Mustard cultivation in his village and surrounding village.
03.	Sri Uday Ghosh	Vill. –Rajatpur; P.O. - Rajatpur; Pin. - 731204, Dist. – Birbhum, Mob- 8670076681	Leading in CFLD implementation on new variety of Wheat in large area.
04.	Sri Partha Mal	Vill. –Daranda; P.O. –Dwaronda; Pin. - 731236, Dist. – Birbhum, Mob- 8926536411	Leading in Vermi-compost production sale and use in production of organic vegetables.
05.	Sri Bipadtaran Ghosh	Vill. –Kartikdanga; P.O. – Raipur; Pin. - 731204, Dist. – Birbhum, Mob- 8900484426	Leading in cultivation of large Ekangi (Medicinal Plant) as crop diversification and making market channel to sale it.
06.	Smt. Malati Biswas	Vill. –Kalinagar Colony; P.O. –Chowhatta, Pin. – 731201, Dist. – Birbhum, Mob- 9002176948	Leading to popularise Linseed cultivation in her area.
07.	Smt. Lalita Tudu	Vill. – Faridpur; P.O. –Bilatisultanpur; Pin. - 731236, Dist. – Birbhum, Mob- 9609646189	Leading in CFLD programme in Sesame as crop diversification in her locality.
08.	Sri Lakshi Narayan Sen	Vill. –Senkapur; P.O. – Raipur; Pin. - 731204, Dist. – Birbhum, Mob- 9933937720	Leading in CFLD programme on Field Pea in Rice - Fallow situation in his area.
09.	Smt. Lakshmi Mardi	Vill. – Faridpur; P.O. –Bilatisultanpur; Pin. - 731236, Dist. – Birbhum, Mob- 8942902797	Leading in CFLD on Summer Green Gram instead of Boro Rice in her area.
10.	Sri Subhasish Ghosh	Vill. –Digha; P.O. –Digha; Pin. – 731236, Dist. – Birbhum, Mob- 8640866516	Leading in using Drum Seeder for Paddy cultivation to promote conservation agriculture in his locality.
11.	Sri Nisith Ghosh	Vill. –Damdama; P.O. – Laudaha; Pin. - 731204, Dist. – Birbhum, Mob- 9800604849	Leading to implement CFLD on Black Gram and Sesame in Kharif season as crop diversification in his locality.
12.	Sri KhudiramDebangshi	Vill. –Debanandapur; P.O. –Laudaha; Pin. - 731204 Mob- 9002688159	Leading in Lentil cultivation in Rice - Fallow under CFLD programme in his village and surrounding villages.
13.	Sri Debashish Mandal	Vill. –Surul; P.O. – Sriniketan; Pin. - 731236, Dist. – Birbhum, Mob- 7001358872	Leading in Dairy Farm
14.	Sri Bidhan Sinha	Village: - Mirzapur, P. O. – Raipur, Pin. – 731204, Dist. – Birbhum, West Bengal, Mob- 9734134282	Innovative Dairy Farmer
15.	Smt. Prava Biswas	Vill. – Melegar; P.O. –Illumbazar; Pin. – 731214, Dist. – Birbhum, Mob- 8016284129	Progressive Rural Back Yard Poultry Farmer.
16.	Smt. Sukodi Mardi	Vill. – Adibasi Para, Bishnubati, P. O. – Sattore; Pin. – 731236, Dist. – Birbhum, Mob. 9647677362	Leading in Self Help Group formation, Handi Crafts and Rural Crafts production
17.	Sri Tapan Ghosh	Village: Bishnubati, CD Block: Bolpur-Sriniketan, P. O. – Sattore, Pin. – 731236, Police Station: Sattore, District: Birbhum, Mob: 9614057093	Innovative Farmer of SRI Marker and Rural Back Yard Poultry based on Improved Rural Breeds and Breed Up-gradation
18.	Sri Mahadev Sarkar	Vill. – ChotoShimulia, P. O. – Panchshoya, Dist. – Birbhum, Mob. - 8670077649	Leading in cultivation of High Value Low Volume Vegetables like Capsicaum, Broccoli, French Beans, Chinese Cabbage etc.
19.	Sri Arabinda Pal	Vill. – Sundipur, P. O. – Bishnukhanda, Pin. – 731236, Dist. – Birbhum Mob: 7001024884	Innovative Farmer of Fish based Integrated Farming System (IFS)
20.	Sri Tuhin Subhra Dey	Vill. – Domdoma, P. O. – Albandha, Pin. – 731204, Dist. – Birbhum, Mob: 9735174764	Innovative Farmer of Fish based Integrated Farming System (IFS)
21.	Sri Abu Taher	Vill. – Mala, P. O. –Bergram, Dist. – Birbhum Mob. 7872454731	Innovative Farmer of Fish based Integrated Farming System (IFS)
22.	Sr Arbinda Chakraborty	Vill. –Hatikra; P.O. –Panrui, Dist. – Birbhum Mob. - 9732332656	Innovative Farmer of modern Fish Hatchery.
23.	Sri Sunil Das	Vill. –Srichandrapur; P.O.- Sattore; Pin. – 731236, Dist. – Birbhum, Mob. - 9679885667	Innovative farmer of Glass Jar Hatchery, cultivation of Amur Common Carp
24.	Sri Bapi Dhara	Vill. –Srichandrapur; P.O. –Sattore; Pin. – 731236, Dist. – Birbhum, Mob. - 9851470447	Progressive farmer of culture of Amur, Jayanti Rohu, Monosex Tilapia
25.	Sri Buddhadeb Ghosh	Vill. –Amgoria; P.O. –Bishnukhanda, Dist. – Birbhum, Mob. 9475097332	Progressive fish fingerling producer.
26.	Sri Santosh Ghosh	Vill. –Amgoria; P.O. –Bishnukhanda, Dist. – Birbhum, Mob. - 7076593717	Progressive fish fingerling producer.

9.13. Revenue generation

Sl. No.	Name of Head	Income (Rs.)	Sponsoring agency
1. 2. 3.	Revolving Fund from sale of 1. Farm Produce like Seeds, Planting Materials, Fruits from Mango Orchard, Honey, Demonstration Farm for Seed Production, and Demonstration Progeny Orchards of the Rathindra KVK 2. Poultry Birds of the Demonstration Poultry of the Rathindra KVK) 3. Fishes of the Pond of the Rathindra KVK)	2,65,216.00	Own arrangement – KVK Demonstration Farms, Orchards, Poultry, Pond etc.
4.	Seminar Hall Rent	80,000.00	
5.	Monitoring	80,000.00	
6.	Income from RAWE Programme	5,78,250.00	
	Total	**10,03,466.00**	

9.14. Resource Generation:

Sl No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. Lakhs)	Infrastructure created
01.	Cluster Front Line Demonstrations (Cluster FLDs) on Kharif Oilseeds	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Kharif Oilseeds Production	ICAR, New Delhi	1.00	
02.	Cluster Front Line Demonstrations (Cluster FLDs) on Kharif Pulses	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Kharif Pulses Production	ICAR, New Delhi	3.60	
03.	Cluster Front Line Demonstrations (Cluster FLDs) on Rabi Oilseeds	To disseminate Improved Varieties, Agro-Technologies and supporting Package of Practices for Rabi Oilseeds Production	ICAR, New Delhi	0.60	
04.	SWACCHA Action Plan in 2022-23	To generate awareness and skill of the practicing farmers, far women, rural youth and grass-root level extension functionaries in maintenance of hygienic condition and cleanliness a part and parcel of each and every aspect of daily economic and social life	ICAR, New Delhi	0.1725	
05.	District Agromet Unit (DAMU)	To provide real time information on District Weather and Meteorological Data and their interpretations to the practicing farmers, farm women, rural youths and extension functionaries for taking suitable actions	IMD, Ministry of Earth Sciences, Govt. of India, New Delhi	13.819	Work is in progress.
06.	Hydronano in BORO rice	Trial on Enhancing productivity of BORO rice using Hydronano M under red lateritic soil region in West Bengal	Invati Creation Pvt. Ltd	1.508	
07.	NABARD Project	Data collection on existing integrated farming in KVK's	ICAR, New Delhi	0.06	
08.	Kisan Mela and Garib Kalyan Sammelan	To make the farming community aware about various schemes and projects launched by Govt. of India for the benefit of the practicing farmers and farm women	ICAR, New Delhi	01.995	
09.	FOCT Programme	To provide skill development training on management of Coconut Trees to the unemployed rural youths	Coconut Development Board, Ministry of Agriculture and Farmers' Welfare, Govt. of India, West Bengal State Centre, DA-94, Sector-I, Salt Lake City, Kolkata - 700 064, West Bengal	0.565	
10.	STRY Programme	STRY Programme on "Mushroom Cultivation"	SAMETI, West Bengal	0.42	
11.	Agril Drone Project	Procurement of Drone and Demonstration	ICAR, New Delhi	17.50	
12.	GIA CAPITAL SCSP Grant	To Establish Custom Hiring Centre at Rathindra KVK to facilitate farm mechanization of agriculture and related sector of Birbhum District	ICAR-IIAB, Ranchi	18.30	
		Total		**59.5395**	

9.15. Performance of Automatic Weather Station in KVK

Date of establishment	Source of funding i.e., IMD/ICAR/Others (pl. specify)	Present status of functioning
02.07.2021	IMD	Fully functioning

9.16. Contingent crop planning

Name of the state	Name of district/KVK	Thematic area	Number of programmes organized	Number of Farmers contacted	A brief about contingent plan executed by the KVK

10. Report on Cereal Systems Initiative for South Asia (CSISA)

a) Year:

b) Introduction / General Information:

	Title	Objective	Treatment details	Date of sowing	Replication	Result with photographs
Experiment 1						
Experiment 2						
Experiment 3						
…						
..						
Others (If any)						

11. Details of TSP

a. Achievements of physical output under TSP during 2022-2023

Programmes	Physical achievements
Asset creation (Number; Sprayer, ridge maker, pump set, weeder etc.)	
On-farm trials (Number)	
Frontline demonstrations (Number)	
Farmers training (in lakh)	
Extension personnel training (in lakh)	
Participants in extension activities (in lakh)	
Seed production (in tons)	
Planting material production (in lakh)	
Livestock strains and fingerlings production (in lakh)	
Soil, water, plant, manures samples testing (in lakh)	
Provision of mobile agro – advisory to farmers (in lakh)	
No. of other programmes (Swachha Bharat Abhiyaan, Agriculture knowledge in rural school, Planting material distribution, Vaccination camp etc.)	

b. Fund received under TSP in 2022-23 (Rs. In lakh):

c. Achievements of physical outcome under TSP during 2022-2023

Sl. No.	Description	Unit	Achievements
1	Change in family income	%	
2	Change in family consumption level	%	
3	Change in availability of agricultural implements/ tools etc.	No. per household	

d. Location and Beneficiary Details during 2022-2023

District	Sub-district	No. of Village covered	Name of village(s)covered	ST population benefitted. (No.)		
				M	F	T

12. Progress report of NICRA KVK (Technology Demonstration component) during the period (Applicable for KVKs identified under NICRA)

Natural Resource Management

Name of intervention undertaken	Numbers undertaken	No of units	Area (ha)	No of farmers covered / benefitted									Remarks
				SC		ST		Other		Total			
				M	F	M	F	M	F	M	F	T	

Crop Management

Name of intervention undertaken	Area (ha)	No of farmers covered / benefitted									Remarks
		SC		ST		Other		Total			
		M	F	M	F	M	F	M	F	T	

Livestock and fisheries

Name of intervention undertaken	Number of animals covered	No of units	Area (ha)	No of farmers covered / benefitted									Remarks
				SC		ST		Other		Total			
				M	F	M	F	M	F	M	F	T	

Institutional interventions

Name of intervention undertaken	No of units	Area (ha)	No of farmers covered / benefitted									Remarks
			SC		ST		Other		Total			
			M	F	M	F	M	F	M	F	T	

Capacity building

Thematic area	No of activities	No of beneficiaries								
		SC		ST		Other		Total		
		M	F	M	F	M	F	M	F	T

Extension activities

Thematic area	No of activities	No of beneficiaries								
		SC		ST		Other		Total		
		M	F	M	F	M	F	M	F	T

Detailed report should be provided in the circulated Performa.

13. Awards/Recognition received by the KVK

Sl. No.	Name of the Award	Year	Conferring Authority	Amount	Purpose

Award received by Farmers from the KVK district.

Sl. No.	Name of the Award	Name of the Farmer	Year	Conferring Authority	Amount	Purpose
01.	Best Woman Fishery Farmer Award	Smt. Sukhodi Mardi	2022	ICAR-CENTRAL INLAND FISHERIES RESEARCH INSTITUTE, Barrackpore, Monirampore, Kolkata, West Bengal - 700120	-	To encourage women fish farmers on World Fisheries Day, 21.11.2022
02.	Certificate of Excellence Award at the Halakarshana Utsav - 2022	Sri Asutosh Biswas	2022	Visva-Bharati University	-	To encourage the farmer for his pioneering role as Vegetable producer with latest technology like Broccoli, Red Cabbage, Yellow Cauliflower, Pink Cauliflower, Pakchoi etc.
03.	Certificate of Excellence Award at the Halakarshana Utsav - 2022	Sri Toton Ghosh	2022	Visva-Bharati University	-	To encourage the farmer for his lead farmer role for successful organization of RAWE Programme of the students of Palli Siksha Bhavana, Visva-Bharati in villages and also for organization of CFLD Programme on Pulses and Oilseeds of Rathindra KVK in the Villages.
04.	Certificate of Excellence Award at the Halakarshana Utsav - 2022	Sri Gadadhar Garai	2022	Visva-Bharati University	-	To encourage the farmer for his lead farmer role for organization of FLD programme on Pulse in Rice – Fallow situation in his village and surrounding villages under IFAED – ICARDA project of Palli Siksha Bhavana, Visva-Bharati.
05.	Certificate of Excellence Award at the Halakarshana Utsav - 2022	Sri Abu Taher Mallick	2022	Visva-Bharati University	-	To encourage the farmer for his role of a successful IFS Farmer in spreading the Technological Package of Practices for Fishery based Integrated Farming System (IFS) being guided by Rathindra KVK

14. Any significant achievement of the KVK with facts and figures as well as quality photograph

15. Number of commodity-based organizations/ farmers' cooperative society/ FPO formed/ associated with during last one year (Details of the group/society may be indicated)

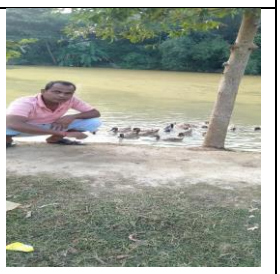
Sl. No.	Name of the FPC	Company Deed No.& date	Date of Company Registration Address	Proposed Activity	Commodity Identified	No. of Proposed Members	Financial Position [Authorized Share Capital of the Company (Rupees in lakh)]	Success Indicator
01.	Dubrajpur Jana Kalyan Farmer Producer Company Ltd.	**U01100WB2022PTC255838; Dated – 21.07.2022**	**Date of Company Registration: -** 21.07.2022 Address – C/o Asim Bagdi, Village - Pumglapur, P. O. – Lakshminarayanpur Dubrajpur, Police Station + Block – Dubrajpur, Dist. – Birbhum, Pin. – 731123, West Bengal	Main Activities: - To Carry on the Business of production, harvesting, procurement, grading, pooling, handling, marketing, selling, export of primary produce of the company members and import of goods or services for their benefit	Rice, Mustard, Potato	1500	15.00	-
02.	Green Farm Farmers Producer Company Ltd.	**U01100WB2022PTC255878; Dated – 22.07.2022**	**Date of Company Registration: - 22.07.2022** Address – Room No.-02, C/o Partha Mal, Village – Daranda (Vivekananda Palli), P. O. + P. S. + Block – Illambazar, Dist. – Birbhum, Pin. – 731236, West Bengal	Main Activities: - To Carry on the Business of production, harvesting, procurement, grading, pooling, handling, marketing, selling, export of primary produce of the company members and import of goods or services for their benefit	Rice, Mustard, Potato	1500	15.00	-

16. Integrated Farming System (IFS)
Details of KVK Demo. Unit

Sl. No.	Module details (Component-wise)	Area under IFS (ha)	Production (Commodity-wise)	Cost of production in Rs. (Component-wise)	Value realized in Rs. (Commodity-wise)	No. of farmer adopted practicing IFS	% Change in adoption during the year

17. Technologies for Doubling Farmers' Income

Sl. No.	Name of the Technology	Brief Details of Technology (3- 5 bullet points)	Net Return to the farmer (Rs.) per ha per year due to adoption of the technology	No. of farmers adopted the technology in the district	One high resolution 'Photo' in 'jpg' format for each technology
1	Crop diversification with Ekangi (medicinal plant) cultivation in rainfed monocropped area	• Planting of Ekangi rhizome with the onset of Kalbaisakhi i.e in the month of May-June • 6 quintal /ha of rhizome is required to be planted in 4 cm depth with 25 cm X 25 cm distance. • Organic manure of 15 t/ha is required at final land preparation. • To control the weed problem, herbicide Glyphosate @6 ml /lt to be applied at 30 DAT, after that mulching with straw is beneficial.	Rs. 9, 04, 000/-	240	

2	Improved cultivation of Elephant Foot Yam	• Improved variety of Bidhan Kusun to be used. • The tuber is cut into 750-1000g small bits in such a way that each bit has at least a small portion of the ring around each bud. Whole corms of 500 g size can also be used as a planting material. • The cut pieces are planted in pits of 60 x 60 x 45 cm size is dug and planted. The pit should be filled with topsoil and Vermi-Compost (2kg/pit) prior to planting. • The pieces are planted in such a way that the sprouting region (the ring) is kept above the soil. • The recommended dose of NPK/ha is 80:60:100 kg. Apply 40:60:50 kg NPK/ha at 45 days after planting along with weeding and intercultural operations. Top dress with 40:50 N and K one month later along with shallow intercultural operations. • Weeding and earthing up as and when necessary. • Leaf spot disease can be controlled by spraying Mancozeb at 2 g/lit.	Rs. 1,67,000.00	131	
3	Cultivation of Year-Round Drumstick in rainfed upland situation	• Improved variety PKM-1 to be used. • Seedling of 30-45 DAS to be planted. • Planting distance of 3 m X 3 M to be advocated. • Well rottened FYM 5 kg along with 10 gm of Chlorpyriphos dust to be mixed with soil in the pit 15 days before planting	Rs. 96,200.00	51	
4	Cultivation of Summer Blackgram	• Improved variety PU-01 @30 kg/ha to be used. • Pre-emergence herbicide Pendimethalin @ 3 lt /ha to be used. • Micronutrient Boron-20 @ 2 l/lt to be sprayed at 30 and 45 DAS	Rs. 49400/-	540	
5	Strategic feed supplementation Supplementation with area specific mineral mixture and Fodder cultivation	• Feed 1.5 Kg of low-cost home-made feed / 2.5 Kg of milk production • Both leguminous and non-leguminous fodder crops like maize, sorghum, rice bean, cow pea, berseem, oat etc. at the ratio of 1:3 • Supplementation of area specific mineral mixture @ 50 gm/ day for consecutive 20 days.	Rs.142350.00	600	
6	Composite fish farming with vegetables and duck farming	• Total land holding size 2.34 ha with 1 bigha freshwater pond area. • 30 nos. of Khaki Campbell duck /bigha freshwater pond area. • Composite fish culture (IMC) @ 800 fingerlings per bigha freshwater pond area • Cultivation of vegetables like okra, bottle gourd, pumpkin, ridge gourd in Kharif season and runner bean, cauliflower, cabbage, spinach, tomato in Rabi and bitter gourd, colocacia, onion, brinjal and malabar spinach etc. in Zaid season with cereals, oilseeds etc.	Rs. 237640.00	24	

18. Report on Digital Farming Initiatives in Agriculture/ Digital Ag. Extension Service

Phase	Database prepared/ covered for		KVK level Committee		Various activity conducted for farmers
	Total no. of villages	Total no. of farmers	Date of formation	Name of members	
I (up-to 15.03.2018)					
II (up-to 24.04.218)					
Total					

19. Information on Visit of Ministers to KVKs, if any

Date of Visit	Name of Hon'ble Minister	Name of Ministry	Salient points in his/ her observation (2-3 bulleted points)

20 a) Information on ASCI Skill Development Training Programme, if undertaken during 2022

Name of the Job role	Name of the certified Trainer of KVK for the Job role	Date of start of training	Date of completion of training	No. of participants						Whether uploaded to SIP Portal (Y/N)	Fund utilized for the training (Rs.)
				SC		ST		Other			
				M	F	M	F	M	F		

b) Information on Skill Development Training Programme (Other than ASCI or less than 200 hrs., if any) if undertaken during 2022

Thematic area of training	Title of the training	Duration (In hrs.)	No. of participants									Fund utilized for the training (Rs.)
			SC		ST		Other		Total			
			M	F	M	F	M	F	M	F	T	

21. Information on NARI Project (if applicable)

Name of Nodal Officer	No. of OFT on specified aspects	Title(s) of OFT	No. of FLD on specified aspects	No. of capacity development programme on specified aspects	Total no. of farm women/ girls involved in the project	Details of Issues related to gender mainstreaming addressed through the project

22. Information on Krishi Kalyan Abhiyan Phase-III, if applicable

a) Training achievements

Name of KVK	Period	No. of Training on diversified farming practices for doubling farmers' income organized	No. of farmers trained	
			Male	Female
	01.01.2022 to 31.12.2022			

b) Other achievements

Sl. No.	Particulars	January, 2022 to December, 2022
01.	Number of demonstrations other than oilseeds and pulses	
02.	Number of demonstrations on oilseed crops	
03.	Number of demonstrations on pulse crops	
04.	Number of farmers trained	
05.	Number of participants in Extension activities	
06.	Number of farmers for Mobile Advisory	
07.	Production of seeds (in quintal)	
08.	Production of planting material (Number)	
09.	Number of soil sample tested	
10.	Number of farmers covered in Climate Resilient villages	
11.	Number of farm families covered in Farmer FIRST project	
12.	ARYA project: Number of youths trained	
13.	ARYA project: Number of entrepreneurial activities started	
14.	Number of farm families in DFI villages	

23. Any other programme organized by KVK, not covered above.

Sl. No.	Name of the programme	Date of the programme	Venue	No. of participants
01.	PM Kisan Samman Nidhi	01.01.2022	RKVK, Birbhum	1335
02.	National Girl Child Day	24.01.2022	RKVK, Birbhum	157
03.	World Pulse Day	10.02.2022	RKVK, Birbhum	65
04.	International Womens' Day	08.03.2022	RKVK, Birbhum	82
05.	International Yoga Day	21.06.2022	RKVK, Birbhum	92
06.	ICAR Foundation Day	16.07.2022	RKVK, Birbhum	144
07.	Poshan Abhiyan & Tree Plantation Programme	17.09.2022	RKVK, Birbhum	100
08.	PM Kisan Samman Sammelan	17.10.2022	RKVK, Birbhum	222
09.	World Soil Day	05.12.2022	RKVK, Birbhum	112
10.	Kisan Samman Diwas	23.12.2022	RKVK, Birbhum	81

24. Good quality action photographs (with proper caption) of overall achievements of KVK during the year

Photograph of Pradhan Mantri Kisan Samman Nidhi
Date: 01.01.2022 No. of Participants: 1335

Photograph of Celebration of World Pulse Day
Date: 24.01.2022 No. of Participants:157

Celebration of International Women's Day
Date: 08.03.2022 No. of Participants:82

Farmers' Outreach Programme on Natural Farming
Date: 16.03.2022 No. of Participants:150

Kisan Mela Farmers' Fair -1
Date:26.04.2022 No. of Participants:319

Farmers' Fair - Garib Kalyan Sammelan
Date: 31.05.2022 No. of Participants:1246

International Yoga Day
Date: 21.06.2022 No. of Participants:92

Farmers - Scientists Interaction on "Scientific Cultivation of Kharif Rice and its Management"
Date:19.07.2022 No. of Participants:164

Parthenium Awareness Week from
Date: 16.08.2022 - 22.08.2022 No. of Participants:

Poshan Abhiyan & Tree Plantation Programme
Date: 17.09.2022 No. of Participants:

PM Kisan Samman Sammelan
Date: 17.10.2022 No. of Participants:222

World Soil Day
Date: 05.12.2022 No. of Participants:112

Celebration of Kisan Samman Diwas
Date: 23.12.2022 No. of Participants:81

National Girl Child Day
Date:10.02.2022 No. of Participants: 157

Webcasting of the 94th. ICAR Foundation Day and Award Ceremony on 16.07.2022

DAESI Certificate Distribution for Batch-III & IV, 16.09.2022

Kisan Mela Farmers' Fair 28 April,2022

Annexure-I

Details of Training Programmes – 2022

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Agronomy / Horticulture / Home Science	PF & PFW	Performance of Mustard, Variety NRCH - B 0101	1	OFF	10	0	10	5	0	5
	PF & PFW	Balanced use of Fertilizer Management in Boro Paddy	1	OFF	10	7	17	8	7	15
	PF & PFW	Micronutrient Spray in Mustard Variety PM-30	1	OFF	17	0	17	2	0	2
	PF & PFW	Growth Performance of Variety Pusa Agati of Lentil			10	0	10	9	0	9
	PF & PFW	Training programme on Natural Farming	1		10	0	10	2	0	2
	PF & PFW	Improved cultivation practices of baby corn	1	ON	33	9	42	6	6	12
	PF & PFW	Training Programme on Improved Agro-Technology of Ekangi cultivation	1	ON	10	0	10	7	0	7
	RY	Training programme on Bio-Input under (PSB SCSP)	15	ON	21	9	30	17	8	25
	PF & PFW	CFLD training and seed distribution of summer pulses	1	ON	13	0	13	5	0	5
	PF & PFW	Training Programme on Black gram variety Pu-01, in summer season	1	OFF	34	2	36	34	2	36
	PF & PFW	Training programme on improved variety and phosphate management in summer green gram	1	ON	7	6	13	2	1	3
	PF & PFW	Improved Variety and Fertilizer Management of Kharif Rice	1		25	3	28	17	3	20
	PF & PFW	Direct Seeding and SRI Method of Rice Cultivation	1		32	0	32	32	0	32
	PF & PFW	Training Programme on Grafted Brinjal Cultivation	1		4	15	19	0	4	4
	PF & PFW	Paddy Seed bed preparation and management	1	ON (Online)	39	1	40	9	0	9
	PF & PFW	Improved Variety and Phosphate Management of Kharif Black Gram	1		15	9	24	3	3	6
	PF & PFW	Improved cultivation practices of Kharif pulses	1	ON	60	11	71	9	3	12
	PF & PFW	Improved cultivation practices of Kharif sesame	1	ON	9	1	10	0	0	0
	PF & PFW	Paddy transplantation methods	1	ON (Online)	29	4	33	9	3	12
	PF & PFW	Improved Package of practices for Kharif seasonal vegetables in Nutri Garden	1		3	13	16	2	11	13
	PF & PFW	Spraying of Micronutrient in Kharif Black gram	1	OFF	10	0	10	0	0	0
	PF & PFW	Training Programme on Improved variety and sowing of Lentil	1	OFF	4	6	10	4	4	8
	PF & PFW	Training and awareness on nutri garden, swachhata abhiyan and vigilance awareness week	1	OFF	0	52	52	0	36	36
	PF & PFW	Training Programme on Nutri Garden	1	OFF	0	45	45	0	44	44
	PF & PFW	Production and Management of Mango	1	ON	20	10	30	5	2	7
	Total				**425**	**203**	**628**	**187**	**137**	**324**

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Animal Science	PF & PFW	Poultry diseases and it's prevention	01	ON (Online)	26	04	30	08	00	08
	PF & PFW	Quality fodder cultivation and it's utilization	01		26	00	26	08	00	08
	PF & PFW	Capacity building training programme on Backyard poultry farming	03	ON	03	39	42	00	13	13
	PF & PFW	Capacity building training programme on Scientific dairy farming	03	ON	22	19	41	08	04	12
	PF&PFW	Capacity Building Training Programme on Livestock disease Management	03	ON	03	38	41	02	17	19
	PF&PFW	Nutrition and Animal Husbandry	01	ON	07	33	40	05	33	38
	PF&PFW	Capacity Building Training Programme Production of value-added milk product	03	ON	35	06	41	05	02	07
	PF&PFW	Commercial duck farming	02	OFF	30	20	50	30	20	50
	PF&PFW	Pig farming	01	OFF	30	20	50	30	20	50
	PF&PFW	Zoonotic Disease and it's prevention	02	ON	04	23	27	04	21	25
	PF&PFW	Organic poultry farming	01	ON	03	23	26	03	21	24
	PF & PFW	Scientific goat farming for better income generation	02	OFF	35	15	50	32	13	45
	PF & PFW	Low-cost feed preparation for better performance of	02	ON	10	25	35	07	15	22
	PFW	Quality fodder cultivation	01	ON	00	16	16	00	08	08
	PFW	Establishment of small-scale Dairy unit	01	OFF	06	59	65	04	54	58
	PF & PFW	Establishment of small-scale Dairy unit	01	OFF	00	16	16	00	08	08
	RY	Ornamental bird rearing	01	ON	25	00	25	10	00	10
	PF&PFW	Jal Shakti Abhijan & Backyard farming improvement with	01	OFF	2	73	75	1	70	73
	PF&PFW	Establishment of small-scale Dairy unit	01	OFF	11	49	60	00	02	02
	PF&PFW	Establishment of small-scale Dairy unit	01	OFF	03	57	60	00	00	00
	PF&PFW	Commercial broiler and layer farming	15	ON	8	9	17	4	7	12
	PF&PFW	Cultivation of Black Soldier Fly	01	ON	31	2	33	3	1	4
	Total				**320**	**546**	**866**	**171**	**329**	**500**

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Agricultural Extension	PF&PFW	Formation of Joint Liability Group	01	ON	24	06	30	20	06	26
	PF	Formation of Farmers Producers' Organization (FPO)	01	ON	30	00	30	20	00	20
	PF	Concept, Functioning, Methodology and Utilities of Kisan Credit Card (KCC)	01	OFF	50	00	50	31	00	31
	PF&PFW	Genesis, Concept, Functioning and Utilities of Farmer's Producer's Companies (FPCs)	01	OFF	38	13	51	28	12	40
	PF&PFW	Concept, formation and functioning of FPOs	01	ON (Online)	30	03	33	29	01	30
	PF&PFW	Training by Govt. Schemes regarding "Natural Farming"	01	ON	25	05	30	06	05	11
	PF&PFW	Training by Concept and Methodology of Functioning of KVKS	01	ON	20	06	26	12	04	16
	PF&PFW	Training programme on Genesis concept, functioning and utilities of Farmer's Producer's organization	01	ON (Online)	14	19	33	09	12	21
	PF &PFW	Training programme on Fasal Bima Yojona	01	ON (Online)	05	21	26	00	13	13
	PF &PFW	Farmer's Producer Group (FPO) Concept, functioning and utility	01	ON (Online)	06	26	32	01	05	06
	PF &PFW	Kisan Credit card Concept Functioning utility	01	ON (Online)	06	18	24	01	05	06
	RY	Bio-Input Production and Beekeeping for supporting Natural Farming	05	ON	00	30	30	00	30	30
	Total				**248**	**147**	**395**	**157**	**93**	**250**

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Plant Protection	RY	Scientific bee keeping	15	ON	25	05	30	21	05	26
	RY	Scientific bee keeping for honey production	15	ON	09	06	15	9	04	13
	PF & PFW	Disease and Pest Management of Pumpkin and Bitter Gourd	03	OFF	50	00	50	34	00	34
	PF & PFW	Sustainable Pest and Disease Management in early Rabi Vegetables	03	OFF	50	00	50	02	00	02
	PF & PFW	IPM on Solanaceous Crop	03	ON	30	00	30	19	00	19
	Total				**164**	**11**	**175**	**85**	**9**	**94**

Classes Under DAESI Course

Discipline	Clientele	Total numbers of Classes	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
DAESI	EF	159	93	ON	3393	199	3592	411	07	418
	Total				**3393**	**199**	**3592**	**411**	**07**	**418**

Discipline	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Agricultural Meteorology	PF	Introduction to Agro-Met Advisory Bulletin, District Agro- Met Unit (DAMU) and Meghdoot App	01	OFF	26	00	26	02	00	02
	PF & PFW	Introduction to Agro-Met Advisory Bulletin, District Agro- Met Unit (DAMU) and Meghdoot App	01	OFF	29	01	30	02	01	03
	PF & PFW	Introduction to Agro-Met Advisory Bulletin, District Agro- Met Unit (DAMU) and Meghdoot App	01	ON	22	14	36	21	15	36
	PF & PFW	Introduction to Agro-Met Advisory Bulletin, District Agro- Met Unit (DAMU) and Meghdoot App and Natural Farming Programme	01	OFF	08	37	45	08	37	45
	PF & PFW	Introduction to Agro-Met Advisory Bulletin, District Agro- Met Unit (DAMU) and Meghdoot App and Kitchen Garden	01	OFF	00	80	80	00	80	80
	Total				**63**	**132**	**181**	**33**	**133**	**166**