ANNUAL REPORT 2014-15

(April, 2014 to March, 2015)

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		e-mail
	Office	FAX	
Ramkrishna Ashram KVK P.O.Nimpith Ashram South 24-Parganas, West Bengal, Pin-743338	03218-226002	03218-226636	kvknimp@cal2.vsnl.net.in nimpithkvk@rediffmail.com nimpithkvk1979@gmail.com

1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		e- mail
	Office	FAX	
Sri Ramkrishna Ashram, Nimpith P.O. Nimpith Ashram, South 24-Parganas, West Bengal, Pin-743338	03218-226001	03218-226636	kvknimp@cal2.vsnl.net.in nimpithkvk@rediffmail.com nimpithkvk1979@gmail.com

1.3. Name of the Programme Coordinator with phone & mobile No.

Name	Telephone / Contact		
	Residence	Mobile	e-mail
Dr. Nilendu Jyoti Maitra	-	09434437053	njmaitra@rediffmail.com

1.4. Year of sanction of KVK: **1979**

1.5. Staff Position (as on 1st April, 2015)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay scale with present basic	Date of joining/ if vacant since when	Permanent /Temporary	Category(SC/ST/ OBC/Others)
1	Programme Coordinator	Dr. Nilendu Jyoti Maitra	Programme Coordinator	Administrative & Animal Husbandry	37400- 67000 (GP- 9000) (49,240)	01.06.2010	Permanent	Others
2	Subject Matter Specialist	Sri Swapan Kumar Samui	SMS (Agronomy)	Agronomy	15600- 39100 (GP-6600) (34240)	01.04.1997	Permanent	Others
3	Subject Matter Specialist	Sri Prasanta Chatterjee	SMS (Fishery)	Fishery	15600- 39100 (GP 6600) (34240)	28.10.1997	Permanent	Others
4	Subject Matter Specialist	Dr. Manasi Chakraborty	SMS (Home Science)	Home Science	15600- 39100 (GP 6600) (34950)	08.12.2000	Permanent	Others
5	Subject Matter Specialist	Sri Chandan Kumar Mondal	SMS (Horticulture)	Horticulture	15600- 39100 (GP 5400) (29990)	16.05.2005	Permanent	Others
6	Subject Matter Specialist	Dr. Subhasis Roy	SMS (Animal Husbandry)	Animal Husbandry	15600- 39100 (GP 5400) (27430)	01.07.2010	Permanent	Others
7	Subject Matter Specialist	Sri Prabir Kumar Garain	SMS (Plant Protection)	Plant Protection	15600- 39100 (GP 5400) (22280)	17.10.2012	Permanent	Others
8	Programme Assistant	Dr. Dipak Kumar Roy	Programme Assistant (Agronomy)	Agronomy	9300- 34800 (GP 4600) (21670)	12.06.2001	Permanent	Others
9	Computer Programmer	Sri Partha Banik	Programme Assistant (Computer)	Office	9300- 34800 (GP 4600) (20770)	09.06.2003	Permanent	Others
10	Farm Manager	Utpal Maity	Farm Manager	Fishery	9300- 34800 (GP 4200) (14,760)	02.12.2011	Permanent	Others
11	Assistant	Sri Aditya Guchhait	Assistant	Office	9300- 34800 (GP 4200) (16260)	01.06.2010	Permanent	Others
12	Stenographer	Sri Debjyoti Maitra	Stenographer Grade-III	Office	5200- 20200 (GP 2400) (10840)	04.01.2011	Permanent	Others
13	Driver	Sri Madhab Chandra Kayet	Driver –cum-Mechanic	Office	5200- 20200 (GP 2400) (12470)	01.06.1995	Permanent	Others
14	Driver	Sri Birendra Nath Das	Driver –cum-Mechanic	Office	5200- 20200 (GP 2400) (11800)	01.09.2003	Permanent	Others
15	Supporting staff	Sri Nemai Chand Mondal	Storekeeper-cum-Clerk	Office	5200- 20200 (GP 2800) (17000)	01.02.1982	Permanent	SC
16	Supporting staff	Sri Sailen Das	Cook	Office	5200- 20200 (GP 4200) (19100)	01.07.1979	Permanent	Others

1.6. Total land with KVK (in ha)

S. No.	Item	Area (ha)
1	Under Buildings	0.898 ha
2.	Under Demonstration Units	1.813 ha
3.	Under Crops	8.783 ha
4.	Orchard/Agro-forestry	0.813 ha
5.	Others with details	8.803 ha
	Total	21.11ha

1.7. Infrastructure Development:

A) Buildings and others

S. No.	Name of building	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	777.545	Use	ICAR
2.	Farmers Hostel	-	-	-	-	-do-	359.639	Use	ICAR
3.	Staff Quarters (6)	-	-	-	-	-do-	411.680	Use	ICAR
4.	Piggery unit	-	-	-	-	-	-	-	-
5.	Fencing	-	-	-	-	-do-	770.00 (running m)	Use	ICAR
6.	Rain Water harvesting structure	-	-	-	-	-do-	17500	Use	ICAR
7.	Threshing floor	-	-	-	-	-do-	371.720	Use	CAPART
8.	Farm godown	-	-	-	-	-do-	378.790	Use	SDB, GOWB
9.	Dairy unit	-	-	-	-	-do-	3500.00	Use	ICAR & Revolving fund of KVK
10.	Poultry unit	-	-	-	-	-do-	280.00	Use	Revolving fund of KVK
11.	Goatary unit	-	-	-	-	-do-	2100.00	Use	ARD
12.	Mushroom Lab	-	-	-	-	-	-	-	-
13.	Mushroom production unit	-	-	-	-	-	-	-	-
14.	Shade house	-	-	-	-	-do-	300.00	Use	FPI & H
15.	Soil test Lab	-	-	-	-	-do-	280.00	Use	ICAR
16.	Others	-	-	-	-	-do-	397.300	Use	ICAR
17.	Demonstration unit(2)	-	-	-	-	-do-	675.750	Use	ICAR

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Tata Sumo Victa	2008-09	6,00,000.00	1,49,703	Running condition

C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status	Source of fund
a. Lab equipment				
Perkin-elmer UV-Vis Spectrophotomètre (Lamda 25)	2010-11	4,10,000.00	Working condition	ICAR
Perkin-elmer Atomic Absorption Spectrophotometer (AA-200)	2010-11	9,99,272.00	Working condition	ICAR
pH meter	2010-11	4,000.00	Working condition	ICAR
Conductivity meter	2010-11	6,500.00	Working condition	ICAR
Eutech pH-Conductivity meter	2009-10	13,500.00		ICAR
Rescholar Laminar Air-flow	2008-09	49,500.00	Working condition	ICAR
Autoclave	20080-09	25,365.00	Working condition	ICAR
Refrigerator (GFE 25/2010)	2010-11	19,560.00	Working condition	NAIP
Rescholar Semi-automatic Corcyra rearing system (10 units)	2008-09	1,53,000.00	Working condition	ICAR
Rescholar Corcyra egg cleaning device	2008-09	18,000.00	Working condition	IRM
Rescholar Corcyra egg sterilization chamber	2008-09	22,500.00	Working condition	IRM
Rescholar Trinocular Zoom stereo microscope with eye-piece camera & software	2008-09	1,20,950.00	Working condition	IRM
Rescholar Binocular Research Microscope	2008-09	18,500.00	Working condition	IRM
Rotary shaker	2010-11	32,500.00	Working condition	ICAR
BOD incubator (Simeco)	2010-11	31,650.00	Working condition	ICAR
Double distillation unit	2010-11	33,250.00	Working condition	ICAR
Afcoset Electronic Balance(Model EK1200G)	2008-09		Working condition	ICAR
Afcoset Electronic Balance(Model ER 200A)	2008-09	45,500.00	Working condition	ICAR
REMI Centrifuge (Model R 8C)	2008-09	19,350.00	Working condition	ICAR
REMI Centrifuge (Model R 24)	2008-09	35,950.00	Working condition	NHM
Chrlorophyll meter (SPAD 502 plus)	2010-11	2,25,000.00	Working condition	ICAR

b. Farm machinery				
Seed grader	2010-11	2,10,000.00	Working condition	TMC
Pump sets	2003-04	50,000.00	Working condition	TMC
Tractor – Mahindra	2003-04	4,49,250.00	Working condition	ICAR
Thresher & Rotavator	2010-11	2,00,000.00	Working condition	ICAR
Disc Harrow	2009-10	70,000.00	Working condition	ICAR
Power Tiller	2009-10	1,43,000.00	Working condition	ICAR
Generator – 25 KVA	2010-11	3,56,852.00	Working condition	ICAR
c. AV Aids				
Camera TRV	2003-04	36,900.00	Working condition	NWDPRA
Printer	2003-04	4,000.00	Working condition	Nutrition project, SDB
Computer (2 nos)	2003-04	76,899.00	One computer is out of order	ICAR
Cannon Digital Camera	2008-09	25,000.00	Working condition	ICAR
V-SAT with e-KVK linkage (5 Dell-optiplex - 755 Computer & One HP Leser Printer-1022n , One HP-G3110 Scanner, One TVS –MSP-245-dot-matrix Printer with Server Computer, 5-650VA APC UPS, 1-3KVA APC make UPS)	2009-10	-	Working condition (One Dell Optiplex-755 Computer and One 650VA APC make UPS are out of order)	ICAR
OPTOMA projector with 3M Digital annotation sensor with Aver-Media digital document visualizer (AF 300)	2009-10	1,70,000.00	Working condition (Projector is out of order)	RKVY
Lenovo Laptop	2008-09	48,000.00	Working condition	NHM
Samsung Notebook	2009-10	22,000.00	Working condition	TMC
HP Desk top Computer with Cannon Printer	2010-11	75,0000	Working condition	NAIP
Epson EB-825 Projector Samsung Touch 400TSn-2	2010	2,20,000.00	Working condition	NAIP
HP Office Jet All-in-one	2010-11		Working condition	NAIP
HP LaserJet M1522nf	2009-10	24,000.00	Working condition	AICRP
HP Color Jeser Jet 1215	2009-10	22,000.00	Out of order	NAIP
LG LED Projector	2014	1,18,000.00	Working condition	RKVY

D) Farm implements

Micro-metos MCR-300 automatic weather station with disease forecasting system (software GENEVA E2C)	2009-10	4,00,000.00	Working condition	NHM
Honda electric lawn mower	2007-08	14,500.00	Working condition	NHM
Al-Ko Electric hedge cutter	2010-11	22,000.00	Working condition	NHM

1.8. A). Details SAC meeting conducted in the year 2014-15

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1.	28.10.2014	41	Quality protein maize (QPM) of short duration variety like – Vivek may be introduced thourgh FLD programme	FLD being conducted in Kultali Block	
			Less neurotoxin containing lathyrus varieties like Nirmal and Biol – 212 may be under taken as pira crop.	Demonstration conducted in NICRA village	
			The KPS of different blocks including the BTM of ATMA may be trained in the KVK.	Two trainings for KPS and one training for BTM and ADA have been conducted	
			A joint venture for producing shrimp seed may be undertaken in collaboration with CIFE, Kolkata Centre and a proposal will be sent jointly to have fund through TSP progamme.	Proposal sent	
			The result of the AICRP Sunflower programme may be shared with Joint D.A. (Research) of Govt. o West Bengal and the Sundarban Development Bpard.	The results have been sent to the Department of Agriculture and SDB	
			Opening of Farmers' Bank Account at door step may be considered thorugh the help of any lead Bank.	301 bank accounts have been opened with the help of AXIS Bank under NHM and RKVY programme of Horticulture Depatrment	
			The information regarding the supply of inputs like poultry chicks may be well informed to the State Poultry Farm for easy supply.	Action taken up	
			Important days may be observed and report may be sent to ZPD.	International Women's Day, National Science Day, ICAR Foundation day, Fish Farmers' Day, etc., have been observed and report sent	
2	20.03.2015	29	One proposal for horticultural technology demonstration unit in KVK may be sent to Dept. of FPI&H, Kolkata	Action taken up	
			Animal health camp related programme should be converged with different BLDOs through MVC programme of KVK	Will be taken up	
			Six month long pre-service KPS training programme may be conducted in KVK	Training will be commencing from 21st April, 2015	
			Rainwater harvesting structure through RKVY and BGREI programme may be demonstrated in different blocks of South 24 Parganas District	417 units will be constructed under RKVY programme of Agricultural Department in 8 blocks of the District	
			Proposal for mass production of bio-pesticides in collaboration with Agricultural Department may be submitted for sanctioning through RKVY	Proposal already submitted	
			Poly-lining of different community ponds including the instructional farm pond may be taken up	Proposal will be submitted soon	

Meeting No. 26 **Date : 28.10.2014**
Place : Nimpith **Time : 10.30 a.m.**

A meeting of the Scientific Advisory Committee of Ramkrishna Ashram Krishi Vigyan Kendra, Nimpith is held to-day, the 28th October, 2014 at 10.30 a.m. in the KVK premises with the following members:

-: Resolutions:-

Members Present:

Sl.No.	Name &	Designation
1.	Swami Sadananda,	Chairman, KVK Nimpith
2.	Dr. Tarun Kanti Naskar	MLA, Jaynagar
3.	Dr. B.K.Mahapatra,	Principal Scientist, & O/C, CIFE, Kol
4.	Dr. Subhas Mondal	Sr. Scientist, CSSRI, RRS, Canning
5.	Dr. S.K.Mondal	Principal Scientist, ZPD-II, ICAR, Salt Lake
6.	Dr. J.Mukhopadhyay	Asst. D.A., Jaynagar-II
7.	Dr. Subhasish Bandopadhyay	SIC, ERS, IVRI, Kolkata
8.	Dr. Tapas Kr. Ghoshal	Incharge, CIBA, Kakdwip Centre
9.	Dr. Binayak Purakayastha,	A.D., ARD,SPDF Nimpith
10.	Sampad R. Patra	Jt. D.A.(Res.), W.B.
11.	Buddhadev Naskar	Asstt. Agronomist(H.Q.), Directorate of Agriculture
12.	Angshuman Das	AVPS Branch Head, Axis Bank, Jaynagar
13.	Rajib Mondal	SBI Nimpith F.O.A.M.
14.	Prasanya Ku. Patra	BM SBI Nimpith
15.	Dr. Ajit Kumar Poddar	Adviser, VIB, Nimpith
16.	Dr. S.K.Das	VIB, Nimpith Ashram
17.	Dr. N.C.Sahu	P.C., Sasya Shyamala LVL, RKMVU
18.	Tarak Nath Halder	Secretary, NWDPRA Radhakantapur
19.	Bapan Karmakar	Secretary, Sree Durga Club, Gilarchat
20.	Abhijit Das	DDM, NABARD, S. 24 Pgs, Kol-16
21.	Dr. N. J. Maitra,	P.C., RAKVK Nimpith
22.	Prasanta Chatterjee	SMS, Fishery, RAKVK
23.	Swapan Kr. Samui	SMS, Agronomy, RAKVK
24.	Manasi Chakraborty	SMS (Home Sc.), RAKVK
25.	CHANDAN KR> MONDAL	SMS (Hort.), TAKVK
26.	PRABIR KUMAR GARAIN	SMS (P.P.), RAKVK
27.	Avijit Roy	Jr. Agronomist (AICRP on Sunflower)
28.	Dipak Kumar Roy,	Programme Assistant (Agronomy), RAKVK, Nimpith
29.	Arabinda Samanta	Project Officer, BGREI, KVK Nimpith
30.	Shyam Sundar Lakshman	Jr. Breeder, AICRP Suf.
31.	BHASKAR MUKHERJEE	Tech. Asst., RAKVK Nimpith
32.	Partha Banik	Programme Assistant (Computer), RAKVK Nimpith
33.	Subhasis Roy	Subject Matter Specialist (A.H)
34.	Atit Maji	SRF (NICRA), RAKVK
35.	Tapas Kumar Sahana	SRF (NICRA), RAKVK
36.	Aditya Guchhait	Assistant, KVK Nimpith
37.	Utpal Maity	Farm Manager, KVK Nimpith
38.	Debjyoti Maitra	Stenographer Grade-III
39.	Sahanur Rahaman	Project IWMP WDT Member, KVK
40.	Lakshmi Ghosh	Project IWMP WDT Member, KVK
41.	SUBAL CHANDRA DAS	Accountant, BGREI Project, KVK

1) The minutes of the last meeting are read and confirmed

2) The Programme Coordinator of KVK presented the progress of work of KVK for the period from January,2014 to October, 2014 before the members present in the meeting. Thereafter, Programme Coordinator with all Sectional Incharges of different disciplines of KVK participated in detail discussion on their respective subjects and problems raised on different aspects of work with the members present. After a good deal of discussion, the following recommendations have come out for betterment of the KVK activities.

i) Quality protein maize (QPM) of short duration variety like – Vivek (QPM-9) may be introduced thourgh FLD programme.
ii) Less neurotoxin containing lathyrus varieties like Nirmal and Biol – 212 may be under taken as paira crop.
iii) The KPS of different blocks including the BTM of ATMA may be trained in the KVK.
iv) A joint venture for producing shrimp seed may be undertaken in collaboration with CIFE, Kolkata Centre and a proposal will be sent jointly to have fund through TSP progamme.
v) The result of the AICRP Sunflower programme may be shared with Joint D.A. (Research) of Govt. o West Bengal and the Sundarban Development Board.
vi) Opening of Farmers' Bank Account at door step may be considered thorugh the help of any lead Bank.
vii) The information regarding the supply of inputs like poultry chicks may be well informed to the State Poultry Farm for easy supply.
viii) Important days may be observed and report may be sent to ZPD.

3) The progress of work of the projects like, IRM, NICRA, ATMA, NAIP, NWDPRA, AICRP, IWMP, MGNREGA and BGREI/RKVY for 2014-2015 have been discussed in the meeting and the Committee expresses its satisfaction for the work done during the period under review.

With a vote of thanks to and from the Chair the meeting dissolves.

Sd/- Swami Sadananda
Chairman

(True copy)

Meeting No. 27 **Date : 20.03.2015**
Place : Nimpith **Time : 10.30 a.m.**

A meeting of the Scientific Advisory Committee of Ramkrishna Ashram Krishi Vigyan Kendra, Nimpith is held to-day, the 20th March, 2015 at 10.30 a.m. in the KVK premises with the following members:

-: Resolitions:-

Members Present:

Sl.No.	Name &	Designation
1.	Swami Sadananda,	Chairman, KVK Nimpith
2.	Samarendra Nath Khanra	Deputy Director, Horticulture, Alipore
3.	Angshuman Das	Branch Head, Axis Bank, Jaynagar
4.	Prasanta Kr. Misra	Deputy manager, Axis Bank, Jaynagar
5.	Dr. N.J.Maitra	Programme Coordinator,RAKVK
6.	Dr. Jaydeep.Mukhopadhyay	Asst. D.A., Jaynagar-II
7.	Dr. Alok Sahu	BLDO, Jaynagar-II,Block
8.	Tarak Nath Halder	Progressive farmer, Mathurapur-II
9.	Bapan Karmakar	Progressive farmer, Mathurapur-II

10. Prasanta Chatterjee	SMS, Fishery, RAKVK
11. Swapan Kr. Samui	SMS, Agronomy, RAKVK
12. Dr.Subhasis Roy	Subject Matter Specialist (A.H)
13. Dr.Chandan Kr. Mondal	SMS (Hort.), RAKVK
14. Prabir Kumar Garain	SMS (P.P.), RAKVK
15. Dr.Dipak Kumar Roy,	Programme Assistant (Agronomy), RAKVK, Nimpith
16. Avijit Roy	Jr. Agronomist (AICRP on Sunflower)
17. Shyam Sundar Lakshman	Jr. Breeder, (AICRP on Sunflower)
18. Utpal Maity	Farm Manager, KVK Nimpith
19. Manasi Chakraborty	SMS (Home Sc.), RAKVK
20. Dr. Ajit Kumar Poddar	Adviser, VIB, Nimpith
21. Sankar Halder	Field Asst. (AICRP)
22. Debasis Halder	Technical Expert (AICRP)
23. Partha Banik	Programme Assistant (Computer), RAKVK Nimpith
24. Arka Prava Sarkar	Sub District Horticulture Officer, Alipore
25. Dinabandhu Das	Secretary YDC, North 24 Pgs.
26. Debjyoti Basak	Sub. Horticulture Officer
27. Atit Maji	SRF, NICRA
28. Sahanur Rahaman	WDT Livelihood, RAKVK, Nimpith
29. Ratan Chatui	Farmers Representative

1) The minutes of the last meeting are read and confirmed

2) The Programme Coordinator of KVK presented the progress of work of KVK for the period from November, 2014 to March, 2015 before the members present in the meeting. Thereafter, Programme Coordinator with all Sectional Incharges of different disciplines of KVK participated in detail discussion on their respective subjects and problems raised on different aspects of work with the members present. After a good deal of discussion, the following recommendations have come out for betterment of the KVK activities.

i) One proposal for horticultural technology demonstration unit in KVK may be sent to Dept. of FPI&H, Kolkata
ii) Animal health camp related programme should be converged with different BLDOs through MVC programme of KVK
iii) Six month long pre-service KPS training programme may be conducted in KVK
iv) Rainwater harvesting structure through RKVY and BGREI programme may be demonstrated in different blocks of South 24 Parganas District
v) Proposal for mass production of bio-pesticides in collaboration with Agricultural Department may be submitted for sanctioning through RKVY
vi) Poly-lining of different community ponds including the instructional farm pond may be taken up

3) The progress of work of the projects like, IRM, NICRA, ATMA, NAIP, NWDPRA, AICRP, IWMP, MGNREGA and BGREI/RKVY for 2014-2015 have been discussed in the meeting and the Committee expresses its satisfaction for the work done during the period under review.

With a vote of thanks to and from the Chair the meeting dissolves.

Sd/- Swami Sadananda
Chairman

2. District level data on agriculture, livestock and farming situation (2014-15)

Sl. no.	Item	Information	
1	Major Farming system/enterprise `	Agro based farming system – Paddy (monocropped)	
		Agro based farming system – Paddy-Moong/ Cotton /Sunflower	
		Agro based farming system – Paddy – Khesari (paira crop)	
		Agro-horti based farming system- Paddy- Chilli/ Tomato/ okra	
		Ail-bundh (land embankment) farming system – Okra/ Bitter Gourd- Tomato/ French bean	
		Agri-horti-fishery – Paddy- Chilli/ Tomato/ Okra-IMC	
		Agri-poultry (backyard)- Paddy- Moong/ Khesari/ Indigenous poultry	
2	Agro-climatic Zone	Coastal saline zone	
3	Agro ecological situation	Gangetic Alluvial	
		Coastal Alluvial	
		Coastal Saline	
4	Soil type	Clay, clay loam, sandy loam	
5	Productivity of major 2-3 crops under cereals, pulses, oilseeds, vegetables, fruits and others	Crop	Productivity (kg/ha)
		Paddy (*Aus*)	2496.0
		Paddy (*Aman*)	2374.0
		Paddy (*Boro*)	3134.0
		Khesari	845.0
		Greengram	606.0
		Sunflower	1288.0
		Mustard	1031.0
		Cotton	4.65(bales)
		Tomato	17736.18
		Brijal	17842.86
		cucurbits	9822.394
		Okra	10709.84
		Green chilli	3330.0
		Guava	15151.0
		Sapota	12812.5
		Litchi	10108.7
		Betelvine	6428310 no. leaf/ha
6	Mean yearly temperature, rainfall, humidity of the district	Rainfall- 1641 mm, Temperature- Max. 39.8^0 C, Mini.10.0^0C Humidity- Max. 99.2%, Mini.39.0%	

Source: District Annual Report, 2013-14, DDA (Admin), dept. of Agriculture, Alipore

<table>
<tr><th>Sl. no.</th><th>Item</th><th colspan="4">Information</th></tr>
<tr><td>7</td><td>Production and productivity of livestock, poultry, fisheries etc. in the district (New census report is awaiting from the State Department)

(Source: Annual Action Plan on ARD(2013-14), South 24 Parganas, West Bengal)</td><td colspan="4"><table>
<tr><th>Category</th><th>Population</th><th>Production</th><th>Productivity</th></tr>
<tr><td colspan="4">Cattle</td></tr>
<tr><td>Crossbred</td><td>32550</td><td>2,65,8,750 lit</td><td>1800-2100 lit/lactation</td></tr>
<tr><td>Indigenous</td><td>968986</td><td>19,37,97,200 lit</td><td>400-500 lit/lactation</td></tr>
<tr><td>Buffalo</td><td>15604</td><td>56,71,300 lit</td><td>600-700 lit/lactation</td></tr>
<tr><td colspan="4">Sheep</td></tr>
<tr><td>Crossbred</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Indigenous</td><td>212589</td><td>22,10,925 kg</td><td>10-12 kg/sheep/year</td></tr>
<tr><td>Goats</td><td>696935</td><td>78,05,672 kg</td><td>11-13 kg/sheep/year</td></tr>
<tr><td colspan="4">Pigs</td></tr>
<tr><td>Crossbred</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Indigenous</td><td>32584</td><td>12,05,608 kg</td><td>35-40kg/pig/year</td></tr>
<tr><td>Rabbits</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Poultry</td><td>2869243</td><td></td><td></td></tr>
<tr><td>Hens (improved)</td><td>713137</td><td>12,47,98,975 eggs</td><td>170 – 180 eggs/yr/bird</td></tr>
<tr><td>Desi</td><td>2156106</td><td>19,83,61,752 eggs</td><td>90 – 110 eggs/year/bird</td></tr>
<tr><td>Improved</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Ducks</td><td>1058706</td><td>7,67,56,185 eggs</td><td>140 – 160 eggs/yr/bird</td></tr>
<tr><td>Turkey and others</td><td>75897</td><td>6,22,355 kg</td><td>6 – 9 kg/year/bird</td></tr>
</table></td></tr>
<tr><td>8.</td><td>Production of fish and prawn

(Source: Annual report 2013-14, Aquaculture, Aquatic Resources and Fishing Harbours, Directorate of Fisheries, Govt. of West Bengal)</td><td colspan="4">A. Marine fish-1.88lakh ton
B. Inland fish-
i) Pond/tank -11.1 lakh ton
ii) Beel/baor -0.546 lakh ton
iii) Reservoirs -0.016 lakh ton
iv) Rivers -0.043 lakh ton
v) Canals -0.020 lakh ton
vi) Sewage fed fisheries -0.024 lakh ton
vii) Brackishwater fisheries -1.545 lakh ton
viii) Fish seed production -15890 million
C. Prawn-
i) Inland-
a) Penaeid -73620 ton
b) Non penaeid -24016 ton
ii) Marine-
a) Penaeid -7645 ton
b) Non penaeid -7534 ton
D. Export of fish and prawn - 68521ton worth Rs.3058.66crores</td></tr>
</table>

2.6 Details of operational area / villages (2014-15)

Sl. No.	Name of Taluk	Name of the block	Name of the villages	Major crops & enterprises	Major problems identified (crop-wise)	Identified Thrust Areas
1.	Baruipur Sub-division	Kultali	Kaikhali, Gopalganj, Madhabpur, Bongheri, Sankijahan, Katamari, Deulbari	Paddy, Cotton, Sunflower, Maize, Chilli, Betelvine, Bitter gourd, Okra, Tomato, nursery raising of carp spawn, Ornamental fish, poultry	**Biophysical :** **i) Yield platuening of major field and horticultural crops** * Inappropriate agronomic practices * Poor genetic stock * Inadequate irrigation facilities * Marginal soil **ii) High post harvest loss of horticultural crops** **iii) Lesser extent of crop diversification** **iv) Poor rate of farm mechanization** **v) Poor exploitation of aquatic resources** * Less availability of good quality carp seed * Poor feed management & improper stocking density *No pond preparation before stocking fish *Improper resource utilization for ornamental fish culture **vi) Poor performance of backyard system** * Poor productive performance of existing poultry bred * Untapped potentiality of nutrition garden **vii) Low profitability from broiler and dairy farming** * Poor genetic resources * High cost of commercial feed * High disease incidence **Socio economic :** **i) Very restricted livelihood options** **ii) Recurrence of glut at pick harvest season** **iii) Lack of awareness** **regarding proper management of nutritional garden** **iv) Lack of market support** **v) Lack of credit support**	* Assimilation of good agri-horticultural practices * Providing good quality crop & fish seed, breed and planting materials * Diversification of existing production system * Introduction of poly house concept for off season vegetable cultivation * Efficient utilization of water resources * Proper feed supplementation for fish & animal farming * Providing animal health care service * Soil health management * Popularization of small tools and implements for drudgery reduction * Improvement of backyard system performance * Widening of livelihood options and improvement of women led vocation through SHG * Post harvest management of crops * Development of marketing channel
		Joynagar- I	Dakshin Barasat, Baharu, Biswaser Chak, Jangalia			
		Joynagar –II	Nimpith, Tulsighata, Hanarbati, Hatchapuri, Kasthamahal, Jouthia, Baishata, Sahajadapur, Bottala, Uttarpara, Gardewani, Bele durganagar			
2.	Kakdwip	Pathar Protima	Achintanagar, Gangadharpur, Digampur, Herambagopalpur, Kuyemuri, Ramganga Banashyamnagar, Kamdebpur, Sridhar Nagar, Lakshmi Janardanpur, Raipur, Pathar Protima, Rakhalpur, Purba Sripatinagar,			
		Kakdwip	Kamarhat, Takipur Abad, Shibkali Nagar, Madhabnagar			
		Namkhana	Shibnagar, Rajnagar, Shibrampur, Mousuni, Radhanagar, Chandanpiri, Fregarganj, Namkhana			
		Sagar	Krishnanagar, Rudranagar, Khansahebabad, Gangasagar, Sumatinagar, Haradhanpur, Mrityunjoynagar, Manasadip			
3.	Diamond Harbour Sub-Division	Mathurapur-I	Ranaghata, Nalua, Lakshmikantapur, Mathurapur, Lalpur, Uttar Lakshmi Narayanpur			
		Mathurapur-II	Radhakantapur, Gilarchat, Bhadrapara, 27 no. Lat, Mandalpara, Damkal, Mukherjeer Chak, Khari Kashinagar, Kankandighi, Nagendrapur Raidighi,			
		Kulpi Mandirbajar Magrahat – II Diamond Harbour-I	Belpukur, Keoratala, Gopalnagar, Tulshirchak Pukuria, Karbala, Ghateswar, Gabberia, Amratala, Sherpur			
			Kapat Hat			

(b) Details of village adoption programme:

Name of the villages adopted by PC and SMS in 2014-15 for its development and action plan

Name & designation of staff	Name of village	Block	Action taken for development
Dr. Nilendu Jyoti Maitra Programme Coordinator	Radhakantapur	Mathurapur II	Demonstration of different technologies converging with departmental schemes
Sri Swapan Kumar Samui SMS (Agronomy)	Ramchandrapur	Mandirbazar	Development of integrated farming system model
Sri Prasanta Chatterjee SMS (Fishery)	Kantamari	Kultali	Development of Fish seed hatchery
Dr. Manasi Chakraborty SMS (Home Science)	Taranagar	Jonyagar II	Right based approach for food and nutrition security
Sri Chandan Kumar Mondal SMS (Horticulture)	Rudranagar	Sagar	Demonstration of hi-tech paan boroz through convergence
Dr. Subhasis Roy SMS (Animal Husbandry)	Bonshyamnagar	Patharpratima	Overall development of animal husbandry through mobile veterinary clinic and fodder development programme through ARD, GoWB
Sri Prabir Kumar Garain SMS (Plant Protection)	Bongheri	Kultali	Demonstration of climate resilient agro technologies

(c) Sansad Adarsh Gram Yojona

MP has been requested to inform the name of the selected Village and the necessary programmes to be taken up.

i) Name of the village under Sansad Adarsha Gram Yojona:
ii) Contribution of KVK in the programme:

2.7 Priority thrust areas

S. No	Thrust area
1	Assimilation of good agri-horticultural practices
2	Providing quality seed, breed, bio-agents and planting materials
3	Diversification of existing production system
4	Efficient utilization of water resources
5	Soil health management
6	Popularization of small tools and implements for drudgery reduction
7	Improvement of backyard system performance
8	Widening of livelihood options and improvement of women led vocation through SHG
9	Attaining food & nutrition security at household level
10	Post harvest management of crops
11	Development of marketing channel
12	Introduction of poly house concept for off season vegetable cultivation
13	Proper feed supplementation for fish & animal farming
14	Providing animal health care service
15	Modernization of traditional Pan boroz
16	Alternative livelihood generation through Animal husbandry activity
17	Promotion of Artificial insemination

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievement of mandatory activities by KVK during 2014-15

OFT				FLD			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
13	13	127	136	10	14	1050	1411*

* Outsourcing of fund to conduct FLD from NHM, RKVY, BGREI and DOR, Hyderabad

Training				Extension activities			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achieve-ment
194	241	5397	7748*	2639	2512	20270	93852**

* Conducted sponsored trainings by outsourcing of funds

** Number of participants increased due to conducting extension activities through different projects like MVC, IWMP, Cotton, NICRA etc.

Seed production (q)		Planting material (Nos.)	
Target	Achievement	Target	Achievement
Paddy – 3 ha Green gram – 1ha Sunflower/oil seed – 1 ha	Paddy – 6.3 ha (Foundation seed - 38q Certified seed - 8q TL seed - 111q) Green gram – 2 ha (22 q) Oil seed (Mustard) – 0.4 ha (3.2q)	65000	220770

3.1 Achievements on technologies assessed and refined

OFT – 1 (2013-14)

1.	Title of On farm Trial	Assessment of production potential and economic feasibility of Sunflower based intercropping system with pulse crops in South 24-Parganas district
2.	Problem diagnose	The productivity of kharif paddy is low due to its high nutrient uptake by sunflower for 2 to 3 consecutive years of cultivation
3.	Details of technologies selected for assessment/refinement	**Farmers' practice:** Sunflower as sole crop (var. DRSH-1) with a spacing of 60 cm X 30cm, N:P2O5:K2O @ 80:40:40 kg/ha along with 2 irrigation **Technology-1 to be assessed:** Sunflower with greengram (2:3), Sunflower (var. DRSH-1) at a spacing of 60 cm X 30cm & Greengram(Var.PDM-84-139) at a rows of 30 cm apart, N:P2O5:K2O @ 80:40:40 kg/ha along with 2 irrigation **Technology-2 to be assessed:** Sunflower with Blackgram (2:3), Sunflower (var. DRSH-1) at a spacing of 60 cm X 30cm & Blackgram(Var.B-76) at a rows of 30 cm apart, N:P2O5:K2O @ 80:40:40 kg/ha along with 2 irrigation
4.	Source of Technology	**Source of Technology:** Sarkar RK, Sanyal SR (2000). Production potential and economic feasibility of sesame (Sesame indicum L.) based intercropping system with pulse and oilseed crops on rice-fallow land. Indian Journal of Agronomy, **45**(3): 545-550.
5.	Production system and thematic area	Production technology through inter cropping
6.	Performance of the Technology with performance indicators	Head diameter of Sunflower, No. of filled seeds/head/pod of sunflower, green gram and black gram, Grain yield of sole and inter crops, Land equivalent ratio (LER), economics & BCR, Soil Test report before and after.
7.	Final recommendation for micro level situation	1st year result is given hereunder. The final recommendation will be given after 3 years observation
8.	Constraints identified and feedback for research	NA
9.	Process of farmers participation and their reaction	The participants were identified through a group meeting followed by selection of land. The field visit with the farmers has been done regularly

Soil Testing Report :

	Organic Carbon %	pH	EC(ds/m)	Available N (kg/ha)	Available P_2O_5 (kg/ha)	Available K_2O (kg/ha)
Before	0.40	6.02	0.12	201.6	22.16	337.4
After						
Farmer's pratice	0.43	6.09	0.78	219.4	28.7	361.7
Technology option-1	0.47	6.15	0.57	248.6	34.1	368.6
Technology option -2	0.44	6.11	0.61	233.2	30.2	364.3

Thematic area: Production technology through inter cropping

Problem definition: The productivity of kharif paddy is low due to its high nutrient uptake by sunflower for 2 to 3 consecutive years of cultivation.

Technology assessed:

Technology option	Crop	No. of trial	Yield component			Disease/insect incidence (%)	Yield (q/ha)
			Head diameter of sunflower (cm)	No. of filled seed/head/pod	1000 seed weight (g)		
Farmers' practice	Sunflower	7	16.6	852.4	43.1	*Scelerotium* wilt before flowering	14.67
Technology option-1	Sunflower		16.3	848.2	42.5	*Scelerotium* wilt before flowering	9.90
	Greengram		-	10.0	28.5	Pod borer infestation at flowering stage	4.06
Technology option -2	Sunflower		16.1	840.9	42.2	*Scelerotium* wilt before flowering	9.74
	Blackgram		-	6.2	32.7	Disease and pest infestation is negligible	3.20
SEm ±			0.08	0.316*	0.256*	-	1.18*
CD(0.05)			NS	NS	NS	-	2.95

* only for sunflower

Economics:

Treatment	**Crop**	Gross return (Rs./ha)	Net return (Rs./ha)	Land equivalent ratio of intercropping	BC ratio
Farmer's pratice	Sunflower (sole crop)	43882	10056	-	1.29
Technology option-1	Sunflower	29691	6805	1158	1.34
	Greengram	22330	6380		
Technology option -2	Sunflower	29691	6805	1149	1.32
	Blackgram	16000	4250		

- Selling price of Sunflower, Greengram and Blackgram @ Rs.3000/q1, Rs.5540/q and Rs. 5000/q, respaectively

$$\text{LER of inter cropping (Sunflower: Greengram)} = \frac{\text{Yield of intercrop sunflower}}{\text{Yield of sunflower as sole crop}} + \frac{\text{Yield of intercrop Greengram}}{\text{Yield of Greengram as sole crop}}$$

LER of sunflower and greengram intercropping system indicates that 15% yield advantage is obtained when grown as intercrop compared to growing as sole crop. Both the intercropping system is given higher LER than sole crop. However, sunflower with greengram is recorded better return as well as BC ratio.

OFT- 2 (2013-14)

1.	Title of On farm Trial	Assessment of profitability through cropping system in medium land under minimum irrigation facility during Rabi-Summer season
2.	Problem diagnose	Generally, after cultivation of sunflower the land remains fallow due to nonavailability of irrigation water. Thus the profitability from this cropping system is less. In this OFT, 3rd crop like green gram or til has been taken under rainfed situation to achieve maximum profit from a unit area.
3.	Details of technologies selected for assessment/refinement	**Farmers' practice:** Paddy (Var. IET-5656) followed by Sunflower(var. PAC-36) with 2 irrigation **Technologyoption -1 to be assessed:** Paddy (var.IET-5656) –Mustard(var.-Jumka)-Moong (PDM-84-139) with 2 irrigation **Technology option-2 to be assessed:** Paddy (var.IET-5656) –Mustard(var.-Jumka)-Til (Tiloktama) with 2 irrigation
4.	Source of Technology	A. H. Khan, H.Rashid, A. Khatun, M. A. Quddus and A. R. Gomosta, Rice Farming System: improved rice-based cropping systems for different ecosystems. Paper presented at the National Farming Systems Technology Inventory Workshop held at CERDI, Gazipur-1701, July 17-19, 2004.
5.	Production system and thematic area	Cropping System
6.	Performance of the Technology with performance indicators	Date of sowing/transplantingand harvesting of different crops,Test wt. (1000 seeds) of paddy/mustard/green gram/til/Sunflower,No. of filled seed/panicle/pod/head, yeld of different crops (q/ha), disease-pest incidence, economics & cost benefit ratio, Soil Test report before and after.
7.	Final recommendation for micro level situation	1st year result is given under. The final recommendation will be given after 3 years observation
8.	Constraints identified and feedback for research	NA
9.	Process of farmers participation and their reaction	The participants were identified through a group meeting followed by selection of land. The field visit with the farmers has been done regularly.

Soil Testing Report :

Before	**Organic Carbon %**	**pH**	**EC(ds/m)**	**Available N (kg/ha)**	**Available P_2O_5 (kg/ha)**	**Available K_2o (kg/ha)**
	0.38	5.89	0.17	193.8	25.69	284.92
After						
Farmer's pratice	0.41	5.97	0.71	218.5	28.4	339.5
Technology option-1	0.46	5.95	0.64	228.9	30.2	341.8
Technology option -2	0.43	5.92	0.66	224.7	29.1	340.4

Thematic area: *Cropping system*

Problem definition: Generally, after cultivation of sunflower the land remains fallow due to non availability of irrigation water. Thus the profitability from this cropping system is less. In this OFT, 3rd crop like green gram or til has been taken under rainfed situation to achieve maximum profit from a unit area.

Technology assessed:

Result:

Treatment	No. of trials	Crop	Date of Sowing/Transplanting	Date of harvesting	Av. Diameter/length of pod/capsule/panicle(cm)	No. of filled seeds/panicle/pod/head	1000 seed weight.(g)	Grain yield(q/ha)
Farmer's pratice	7	Paddy	24.07.13	22.11.13	20.4	136.3	22.2	38.86
		Sunflower	20.12.13	25.03.14	16.8	855.8	48.4	14.70
Technology option-1		Paddy	24.07.13	22.11.13	20.7	143.6	22.6	38.90
		Mustard	05.12.13	07.03.14	5.05	20.0	2.9	7.52
		Moong	09.03.14	15.05.14	6.7	10.1	30.17	5.25
Technology option -2		Paddy	24.07.13	21.11.13	20.5	139.7	22.4	38.84
		Mustard	05.12.13	07.03.14	5.05	20.0	2.9	5.55
		Sesame	09.03.14	30.07.14	2.7	59.8	3.6	6.74
SEm ±			-	-	0.072*	1.528*	0.08*	0.008*
CD(0.05)			-	-	NS	3.82	NS	NS

* only for paddy

Economics:

Treatment	Crop	Disease & Paest incidence	Cost of Cultivation (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	Total return in cropping system (Rs./ha)	BC ratio
Farmer's pratice	Paddy	Sheath blight and leaf folder infestation at booting stage	35700	61290	25590	35937	1.51
	Sunflower	Sclerotium wilt and rot infestation-before flowering	33753	44100	10347		
Technology option-1	Paddy	Sheath blight and leaf folder infestation at booting stage	35602	61350	25748	41348	1.49
	Mustard	Aphid infestation in flowering stage	25275	33750	8475		
	Moong	Pod borer infestation was observed in flowering stage	21750	28875	7125		
Technology option -2	Paddy	Sheath blight and leaf folder infestation at booting stage	35655	61160	25505	38437	1.46
	Mustard	Aphid infestation in flowering stage	25266	33738	8472		
	Sesame	Rot & stem rot infestation is very low	22500	26960	4460		

Selling price of Paddy, Sunflower, Mustard, Moong and Sesame @ Rs. 1500/q, Rs.3000/q, Rs.4488/q and Rs.4000/q, respectively

The result indicates that the higher net return in technology option -1 was recorded followed by technology option -2 and Farmer's practice. However, the BC ratio was maximum in farmer's practice followed by technology option -1 & technology option -2. The final recommendation will be given after 3 years observation.

OFT - 3 (2014-15) – Continuing

1.	Title of On farm Trial	Assessment of production potential and economic feasibility of Sunflower based intercropping system with pulse crops in South 24-Parganas district
2.	Problem diagnose	The productivity of kharif paddy is low due to its high nutrient uptake by sunflower for 2 to 3 consecutive years of cultivation
3.	Details of technologies selected for assessment/refinement	**Farmers' practice:** Sunflower as sole crop (var. DRSH-1) with a spacing of 60 cm X 30cm, N:P2O5:K2O @ 80:40:40 kg/ha along with 2 irrigation **Technology-1 to be assessed:** Sunflower with greengram (2:3), Sunflower (var. DRSH-1) at a spacing of 60 cm X 30cm & Greengram(Var.PDM-84-139) at a rows of 30 cm apart, N:P2O5:K2O @ 80:40:40 kg/ha along with 2 irrigation **Technology-2 to be assessed:** Sunflower with Blackgram (2:3), Sunflower (var. DRSH-1) at a spacing of 60 cm X 30cm & Blackgram(Var.B-76) at a rows of 30 cm apart, N:P2O5:K2O @ 80:40:40 kg/ha along with 2 irrigation
4.	Source of Technology	**Source of Technology:** Sarkar RK, Sanyal SR (2000). Production potential and economic feasibility of sesame (Sesame indicum L.) based intercropping system with pulse and oilseed crops on rice-fallow land. Indian Journal of Agronomy, **45**(3): 545-550.
5.	Production system and thematic area	Production technology through inter cropping
6.	Performance of the Technology with performance indicators	Head diameter of Sunflower, No. of filled seeds/head/pod of sunflower, green gram and black gram, Grain yield of sole and inter crops, Land equivalent ratio (LER), economics & BCR, Soil Test report before and after.
7.	Final recommendation for micro level situation	OFT is in its 1st year and the final recommendation will be given after 3 years observation
8.	Constraints identified and feedback for research	NA
9.	Process of farmers participation and their reaction	The participants were identified through a group meeting followed by selection of land. The field visit with the farmers has been done regularly.

This OFT is ongoing for 2nd year. The final result will be obtained in May, 2015

OFT - 4 (2014-15) – Continuing

1.	Title of On farm Trial	Assessment of profitability through cropping system in medium land under minimum irrigation facility during Rabi-Summer season
2.	Problem diagnose	Generally, after cultivation of sunflower the land remains fallow due to non availability of irrigation water. Thus the profitability from this cropping system is less. In this OFT, 3rd crop like green gram or til has been taken under rainfed situation to achieve maximum profit from a unit area.
3.	Details of technologies selected for assessment/refinement	**Farmers' practice:** Paddy (Var. IET-5656) followed by Sunflower(var. PAC-36) with 2 irrigation **Technology-1 to be assessed:** Paddy (var.IET-5656) –Mustard(var.-Jumka)-Moong (PDM-84-139) with 2 irrigation **Technology-2 to be assessed:** Paddy (var.IET-5656) –Mustard(var.-Jumka)-Til (Tiloktama) with 2 irrigation
4.	Source of Technology	A. H. Khan, H.Rashid, A. Khatun, M. A. Quddus and A. R. Gomosta, Rice Farming System: improved rice-based cropping systems for different ecosystems. Paper presented at the National Farming Systems Technology Inventory Workshop held at CERDI, Gazipur-1701, July 17-19, 2004.
5.	Production system and thematic area	Cropping System
6.	Performance of the Technology with performance indicators	Date of sowing/transplantingand harvesting of different crops,Test wt. (1000 seeds) of paddy/mustard/green gram/til/Sunflower,No. of filled seed/panicle/pod/head, yeld of different crops (q/ha), disease-pest incidence, economics & cost benefit ratio, Soil Test report before and after.
7.	Final recommendation for micro level situation	OFT is in its 1st year and the final recommendation will be given after 3 years observation
8.	Constraints identified and feedback for research	NA
9.	Process of farmers participation and their reaction	The participants were identified through a group meeting followed by selection of land. The field visit with the farmers has been done regularly.

This OFT is ongoing for 2nd year. The final result will be obtained in May, 2015

OFT- 5 (2014-15)

1.	Title of On farm Trial	**Assessment of different bio-based plant growth promoters for betel leaf under organic farming system in the South 24 Parganas district**
2.	Problem diagnose	Betel leaf is an important commercial crop of the district South 24 Parganas having huge export potential. The basic need of marketing a horticultural produce in the export market is free from toxic chemicals usually comes from pesticides and plant growth promoters. As the crop is consumed directly without peeling/processing so, the demand for toxicity free produce is high. Our present experiment is framed with a view to producing good quality betel leaf without using chemical growth promoters. The experiment was conducted upon betel leaf only.
3.	Details of technologies selected for assessment/refinement	• **Farmers' Practice**: Commercial plant growth promoters (PGRs) having amino acids, synthetic hormones etc. @ 7-15 days interval upon full grown betel vine plantation. • **Technology Option -1:** Cowdung 1 kg + Glyricidia/Subabul leaf 1 kg + water 20 lt – rotting in lid covered mud pitcher for 3 weeks and spraying the decomposed solution @ 1:2 dilution upon the plant leaf at 10 days interval. • **Technology Option -2**: Spraying of germinated moong seed extract @ 20 g/lt upon the plant at 10 days interval. • **Technology Option -3**: Spraying of fresh milk @ 25ml/lt upon the plant at 10 days interval.
4.	Source of Technology	Chalker-Scott's web page at http://www.theinformedgardener.com.
5.	Production system: Thematic area:	Commercial production system Quality improvement
6.	Performance of the Technology with performance indicators	(see table below)

Treatments	Leaf shape index (length:width)	Size (sq.cm)	Leaf weight (g)	Leaf thickness (mm)	Glossiness of leaf (10 point scale)	Yield (leaf no./Year)	B:C ratio
FP	1.147	181.34	3.57	0.19	6	21,38,000	2.33
T.O.-1	1.134	182.47	3.68	0.20	7	22,17,000	2.48
T.O.-2	1.176	170.81	3.42	0.16	6	20,42,000	2.09
T.O.-3	1.156	178.93	3.54	0.19	7	21,55,000	2.35
CD (0.05)	0.026	1.92	0.11	0.02	-	-	

7.	Final recommendation for micro level situation	From the two years experiment, it can be concluded that instead of commercial PGRs, farmer can use self formulated growth promoters with same / at-par result. Tech. option 1 & Tech. option 3 proved better than Tech. option 2 in all respect. So, betle leaf farmer can easily maintain their crop with these growth promoters.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	The bio-based formulations (T.O.-1 & T.O.-3) resulted to production of better quality leaf attributed by roundish shape (lower value of shape index) with higher weight, thickness and glossyness. These leaves are fetching good market price also. Many betel vine farmers are willing to follow organic based crop management practices not only for export market, but for better crop management by their own.

Thematic area: OFT on quality improvement

Problem definition: Betel leaf is an important commercial crop of the district South 24 Parganas having huge export potential. The basic need of marketing a horticultural produce in the export market is free from toxic chemicals usually comes from pesticides and plant growth promoters. As the crop is consumed directly without peeling/processing so, the demand for toxicity free produce is high. Our present experiment is framed with a view to produce good quality betel leaf without using chemical growth promoters.

Technology assessed:

- **Farmers' Practice**: Commercial plant growth promoters (PGRs) having amino acids, synthetic hormones etc. @ 7-15 days interval upon full grown betel vine plantation.
- **Technology Option -1:** Cowdung 1 kg + Glyricidia/Subabul leaf 1 kg + water 20 lt – rotting in lid covered pitcher for 3 weeks and spraying the decomposed solution @ 1:2 dilution upon the plant leaf at 10 days interval.
- **Technology Option -2**: Spraying of germinated moong seed extract @ 20 g/lt upon the plant at 10 days interval.
- **Technology Option -3**: Spraying of fresh milk @ 25ml/lt upon the plant at 10 days interval.

Table:

Technology option	No. of trials	Yield component					Yield (No of leaf/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Leaf shape index (length : width)	Size (sqcm)	Leaf weight (g)	Leaf thick-ness (mm)	Glossiness of leaf (10 point scale)					
Farmers' Practice:	10	1.147	181.34	3.57	0.19	6	21,38,000	735000	1710400	975400	2.33
Technology Option 1		1.134	182.47	3.68	0.20	7	22,17,000	715100	1773600	1058500	2.48
Technology Option 2		1.176	170.81	3.42	0.16	6	20,42,000	781600	1633600	852000	2.09
Technology Option 3		1.156	178.93	3.54	0.19	7	21,55,000	733500	1724000	990500	2.35
CD (0.05)	-	0.026	1.92	0.11	0.02	-	-	-	-	-	-

Results: Farmers are interested with this experiment. Result reveals that Technology Option -1 (i.e. Cowdung + Glyricidia/Subabul leaf) and Technology Option -3 showed better performance than commercial PGRs interms of B:C ratio and net return. The bio-based formulations (T.O.-1 & T.O.-3) resulted to production of better quality leaf attributed by roundish shape (lower value of shape index) with higher weight, thickness and glossyness. Many betel vine farmers are willing to follow organic based crop management practices not only for export market, but for better crop management by their own.

OFT- 6 (2014-15)

1.	Title of On farm Trial	**Assessment of different newly developed salinity tolerant sweet potato cultivars in the rice fallow saline low lying situation of South 24 Parganas district**
2.	Problem diagnose	Sweet Potato is cultivated in a vast area of Joynagar – II, Kultali, Mathurapur – I and Mathurapur – II blocks of South 24 Parganas district. Here soil salinity is a regular problem in the rice fallow low-lying situation since long back. Around 15 years back, improved sweet potato variety like Sree Nandini and Sree Vardhini was introduced by Nimpith KVK for these situations. Farmers observed that though sweet potato is a better alternative in these irrigation less rice-fallow situations, but the performance of the age old variety is not promising where salinity is slightly higher. The present investigation was framed focusing this problem.
3.	Details of technologies selected for assessment/refinement	• **Farmers' Practice**: Cultivation of Sree Nandini / Sree Vardhini during the period January to April each year. • **Technology Option -1:** Replacement of existing variety with Cv. '90/101', from AICRP, tuber crops, BCKV. • **Technology Option -2**: Replacement of existing variety with Cv. 'H-200', from AICRP, Tuber crops, BCKV. • **Technology Option -3**: Replacement of existing variety with Cv. 'Pusa Safed', from CTCRI, RC, Bhubaneswar
4.	Source of Technology	Proceedings of sweet potato workshop and training at Bhubaneswar, Orissa, India (17-18 March 2010): International Potato Center, South, West and Central Asia Region (SWCA)
5.	Production system: Thematic area:	Commercial production system Crop improvement
6.	Performance of the Technology with performance indicators (Soil salinity (1:2.5 basis) for the experimental plots were 3.2 to 4.5 dS/m)	See table below
7.	Final recommendation for micro level situation	From the first years study, it is clear that all the newly introduced variety performed better than the traditional variety. Though H-200 gave highest yield but due to the smaller sized tuber, the net profit as well as BC ratio is lower than Pusa Safed. As per first years study, Pusa Safed is a promising variety for the present situation. The experiment need to be continued for another two years to come to a recommendation position.
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Farmers were selected on the basis of their experience in sweet potato cultivation, interest in new technology and innovativeness in farming. After completion of the 1st years study it was concluded by the farmers that the variety Pusa Safed may be a better alternative than their traditional varieties. But, the findings need to be tested over a period of 2/3 years.

	Tuber length (cm)	Tuber diameter (cm.)	No. of tuber / hill	Avg. individual tuber fresh weight (g.)	Tuber gross yield (t/ha)	Net Profit/ha (Rs.)	BC ratio
FP	12.97	4.37	5.49	109.87	29.80	45761.85	2.04
T.O.-1	6.8	5.57	5.53	124.13	33.91	57054.69	2.29
T.O.-2	9.03	4.8	9.2	85.93	39.05	61272.90	2.39
T.O.-3	9.72	5.07	7.13	101.52	35.76	63393.20	2.43
CD (0.05)	0.42	0.26	0.32	6.61	1.01	-	-

Thematic area: OFT on Crop improvement

Problem definition: Sweet Potato is cultivated in a vast area of Joynagar – II, Kultali, Mathurapur – I and Mathurapur – II blocks of South 24 Parganas district. Here soil salinity is a regular problem in the rice fallow low-lying situation since long back. Around 15 years back, improved sweet potato variety like Sree Nandini and Sree Vardhini was introduced by Nimpith KVK for these situations. Farmers observed that though sweet potato is a better alternative in these irrigation less rice-fallow situations, but the performance of the age old variety is not promising where salinity is slightly higher. The present investigation was framed focusing this problem.

Technology assessed:

- **Farmers' Practice**: Cultivation of Sree Nandini / Sree Vardhini during the period January to April each year.
- **Technology Option -1:** Replacement of existing variety with Cv. '90/101', from AICRP, tuber crops, BCKV.
- **Technology Option -2**: Replacement of existing variety with Cv. 'H-200', from AICRP, Tuber crops, BCKV.
- **Technology Option -3**: Replacement of existing variety with Cv. 'Pusa Safed', from CTCRI, RC, Bhubaneswar

Table:

Technology option	No. of trials	Yield component				Tuber gross yield (t/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Tuber length (cm)	Tuber diameter (cm.)	No. of tuber / hill	Average individual tuber fresh weight (g.)					
Farmers' Practice:	10	12.97	4.37	5.49	109.87	29.80	44200	89962	45762	2.04
Technology Option 1		6.8	5.57	5.53	124.13	33.91	44200	101255	57055	2.29
Technology Option 2		9.03	4.8	9.2	85.93	39.05	44200	105473	61273	2.39
Technology Option 3		9.72	5.07	7.13	101.52	35.76	44200	107593	63393	2.43
CD (0.05)	-	0.42	0.26	0.32	6.61	1.01	-	-	-	-

Results: After completion of the 1st years study it was concluded by the farmers that the variety Pusa Safed may be a better alternative than their traditional varieties. The tuber of Pusa Safed is roundish in shape, which is preferred by the market. Cultivar 'H-200', though recorded highest yield, but due to the shape of the tuber (smaller in size and longer in shape) it market value was slightly lower, which resulted to lower profit and BC ratio for this variety. But, the findings need to be tested over a period of 2/3 years.

OFT-7 (2013-14) Continuing

1.	Title of On farm Trial	**Assessment of efficacy of bird feed on production attributes of ornamental birds reared by the farm women of South 24 Parganas**
2.	Problem diagnose	Usual concentrate feed for ornamental bird is costly and reduces the profit of the farming. Use of locally available feed may be an alternative for the oncentrate feed.
3.	Details of technologies selected for assessment/refinement	• **FP :** Concentrate feed @ 1Kg/ day for 100 birds+ *Tulsi* leaves • **Tech.-1 :** Commercial layer feed @1Kg/ day for 100 birds+ *Tulsi* leaves liver tonic 5 ml/100 bird for 5 consecutive days with a pause of 15 days and repeat • **Tech.-2** : Broken Cereal mix (75% broken Rice+ 25%broken Wheat) @ 1.3Kg /day for 100birds+ *Tulsi* leaves • **Tech.-3** : Broken Cereal mix (75% broken Rice+ 25%broken Wheat)@ 1.3Kg/dayfor100birds+Leafy vegetables (Hinche, Kulekhara,Thankuni,) @ 200gm /week distributed in 2 days for 100 birds+ *Tulsi* leaves + liver tonic 5 ml/100 bird for 5 consecutive days with a pause of 15 days and repeat
4.	Source of Technology	OST conducted in KVK, Nimpith
5.	Production system and thematic area	Livestock based production system, feed management
6.	Performance of the Technology with performance indicators	No of eggs layed, hatchibility, chick mortality, Disease incidence.
7.	Final recommendation for micro level situation	Broken cereals mix along with leafy vegetables in combination with liver tonic not only reduces the feed cost but also enhances hatchability vis-à-vis reduces chick mortality and disease incidence. Hence, this modified practice of feeding can be promoted to the farmers of budgerigar bird rearers.
8.	Constraints identified and feedback for research	Nil
9.	Process of farmers participation and their reaction	The trial has been set up following problem identification by the farmers. From the exercise it is revealed that some leafy vegetables and unfamiliar leafy vegetables are used occasionally in their diet and these are easily available in huge quantity in these areas.

Thematic area: Feed management

Problem definition: Heavy price hike of the concentrate feed reducing the profit margin in ornamental bird rearing and the farmers are often losing their interest in this farming system. The easy and locally available feed sources remain unexplored

Technology assessed:

- **FP :** Concentrate feed @ 1Kg/ day for 100 birds+ *Tulsi* leaves
- **Technology option-1 :** Commercial layer feed @1Kg/ day for 100 birds+ *Tulsi* leaves liver tonic 5 ml/100 bird for 5 consecutive days with a pause of 15 days and repeat
- **Technology option-2** : Broken Cereal mix (75% broken Rice+ 25%broken Wheat) @ 1.3Kg /day for 100birds+ *Tulsi* leaves
- **Technology option-3** : Broken Cereal mix (75% broken Rice+ 25%broken Wheat)@ 1.3Kg/dayfor100birds+Leafy vegetables (Hinche, Kulekhara,Thankuni,) @ 200gm /week distributed in 2 days for 100 birds+ *Tulsi* leaves + liver tonic 5 ml/100 bird for 5 consecutive days with a pause of 15 days and repeat

Table:

Treatments	**No. of trials**	**No. of egg laid/pair/cycle**	**Hatchability (%)**	**Chick mortality (%)**	**Disease incidence (% ill)**	**Colour intensity (visual point scale)**	**BC ratio**
Farmers' practice	22	3.6	60.2	12.2	13.8	+	1.12
Technology option -1 to be assessed		4.5	62.5	14.5	17.9	+	1.41
Technology option -2 to be assessed		5.0	70.2	13.1	12.8	+	1.25
Technology option -3 to be assessed		5.2	70.5	12.1	12.6	++	1.95
SEM ±		0.14	4.31	0.11	0.22	-	-
CD (0.05)		0.22	1.67	0.24	0.43	-	-

Results: Broken cereals mix along with leafy vegetables in combination with liver tonic not only reduces the feed cost but also enhances hatchability vis-à-vis reduces chick mortality and disease incidence.

OFT- 8 (2013-14) Continuing

1.	Title of On farm Trial	Assessment of Reproductive and behavioral effect of phytoestrogen on Black Bengal Buck in south 24 parganas
2.	Problem diagnose	
3.	Details of technologies selected for assessment/refinement	**Farmers' practice :** Bucks maintained additionally with fresh berseem fodder (phytoestyrogenic plants) @ 160gms/day/Kg body weight for three months along with concentrate mixture @ 150 gms/day/buck **Technology option-1:** Bucks maintained additionally under ensilaged berseem fodder @160gms/day/Kg body weight for three months along with concentrate mixture @ 150 gms/day/buck **Technology option-2:** Bucks maintained additionally under fresh berseem fodder (phytoestrogenic plants) treated under sunlight for 3 hours and feeding @ 160gms/day/Kg body weight for three months along with concentrate mixture @ 150 gms/day/buck
4.	Source of Technology	Franke *et. Al., 2004.* Quantitation of phytoestroengs in legumes. *J. Agric. Food. Chem.: 42-1905-13*
5.	Production system and thematic area	Livestock based production system, goat farming
6.	Performance of the Technology with performance indicators	Number of services from commencement of feeding Number of successful conception Number of kid born Abnormal spermatozoa percentage Total semen volume per ejaculation Aggression score (5 point scale, 5-very aggressive-0 docile) Service performing scale (3 colored scale) a. Attractive b. Moderate c. Reluctant
7.	Final recommendation for micro level situation	Will be done after repeat of the trial
8.	Constraints identified and feedback for research	Availability of green fodder
9.	Process of farmers participation and their reaction	The trial has been set following problem identification by the farmers running goat farms

Thematic area: Feed management

Problem definition: Reproductive and behavioral effect of phytoestrogen on Black Bengal Buck

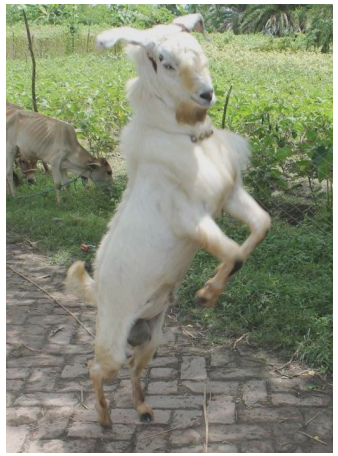
Farmers' practice : Bucks maintained additionally with fresh berseem fodder (phytoestyrogenic plants) @ 160gms/day/Kg body weight for three months along with concentrate mixture @ 150 gms/day/buck

Technology option-1: Bucks maintained additionally under ensilaged berseem fodder @160gms/day/Kg body weight for three months along with concentrate mixture @ 150 gms/day/buck

Technology option-2: Bucks maintained additionally under fresh berseem fodder (phytoestrogenic plants) treated under sunlight for 3 hours and feeding @ 160gms/day/Kg body weight for three months along with concentrate mixture @ 150 gms/day/buck

Result:

Treatments	**AVERAGE NO. OF SERVICES (/month)**	**NO OF SUCCESSFUL CONCEPTION**	**NO KID BORN**	**ABNORMAL SPERM %**	**SEMEN VOLUME (ML)**	**AGGRESSION SCORE**	**SERVICE PERFORMING SCALE**
FP	21.7	7.3	12.4	20.6	1.5	3	
Technology option -1 to be assessed	21.2	13.1	21.7	11.4	2.5	5	
Technology option -2 to be assessed	22.9	13.9	24.6	10.7	2.8	5	
CD (0.05)	1.7	2.1	2.7	1.9	0.4	-	-



OFT –9 (2013-14) Continuing

1.	Title of On farm Trial	Assessment of Causal- effect relationship of immunostimulation in goats in south 24 parganas
2.	Problem diagnose	Goats are prone to many diseases due to lack of immunity of varied origin. The availability of stimulant drugs are not always available or costly. So alternative way of stimulation is needed.
3.	Details of technologies selected for assessment/refinement	**Farmers' practice :** Goats kept without any deworming calendar maintenance and without any supplementary concentrate feeding. **Technology Option 1:** Goats dewormed with albendazole @7.5 mg/Kg body weight, per oral, every three months interval and supplementary feeding of mineral mixture @ 80 gms/goat/day for one months with interval of same and repeat. **Technology option 2:** Goats administered with levamisole injection @0.25 ml/15 kg body weight ratio deep Intramascular every three months interval **Technology option 3:** feeding of Panchagavya @1 ml/kg body weight/day for three months with interval of three months and repeat
4.	Source of Technology	"Panchakavya". Tamilnadu agricultural university, India. Retrieved 27 November 2012
5.	Production system and thematic area	Livestock based production system, goat management
6.	Performance of the Technology with performance indicators	➢ Disease incidence, ➢ Body weight ➢ Increase in productivity, ➢ Serum immune status, ➢ BC ratio
7.	Final recommendation for micro level situation	-
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Identified by farmers and jointly formulated by KVK scientist and farmer

Preparation of panchgavya

Cow dung, cow ghee, cow urine, water, cow milk, cow curd, tender coconut water, jaggery and well ripened banana. The cow dung and cow ghee will be thoroughly mixed both in morning and evening hours and kept for 3 days. After 3 days cow urine and water will be added and kept for 15 days with regular mixing both in morning and evening hours. After 15 days the remaining ingredients will be mixed and panchakavya will be ready after 30 days.

Storage of Panchakavya

It will be stored in a wide-mouthed earthen pot or concrete tank in open. Sufficient shade will be provided, and the contents will be stirred twice a day, both in the morning and the evening. It will be diluted (1:1) with clean water before use.

Total no. of trials : 8

Composition:

Cow dung: ½ part, Cow ghee- 1 part, Cow urine- 1 part,Cow curd- 2 part,Cow milk- 3 part,Banana- as required

Farmers' practice : Goats kept without any deworming calendar maintenance and without any supplementary concentrate feeding.

Technology Option 1: Goats dewormed with albendazole @7.5 mg/Kg body weight, per oral, every three months interval and supplementary feeding of mineral mixture @ 80 gms/goat/day for one month with interval of same and repea

Technology option 2: Goats administered with levamisole injection @0.25 ml/15 kg body weight ratio deep Intramascular every three months interval

Technology option 3: Feeding of Panchagavya @1 ml/kg body weight/day for three months with interval of three months and repeat

Category	**No. of trials**	***Disease incidence (%)***	***Avg. live weight at the end of 1 year (kg)***	***serum immune status (WBC- X 10^3/ml)***	**BC ratio**
Farmers' practice	8	45.01	10.38	12.51	1.52
Technology option -1 to be assessed		31.53	11.25	12.82	1.63
Technology option -2 to be assessed		**21.26**	12.50	**13.54**	1.95
Technology option -3 to be assessed		21.55	10.75	13.39	1.69
CD (0.05)		0.56	0.41	0.14	-

OFT-10 (2014-15) Continuing

1.	Title of On farm Trial	Assessment of profitability of Cabbage under upland land situation of coastal saline belt of South 24- Parganas by effective control measures against *Spodoptera litura*.
2.	Problem diagnose	Low productivity of Cabbage due to infestation of *Spodoptera litura*
3.	Details of technologies selected for assessment/refinement	**Farmer practice:** No soil treatment + Spraying of chemical insecticides (Chlorpyriphos 50 EC + Cypermethrin 5 EC) @ 1.5 ml/L (6 spray) **Technology Option 1:** Soil treatment with *Metarhizium anisopliae* (2.5 kg/ha) along with cowdung manure (10q/ha) + three foliar spray with *Metarhizium anisopliae* (@ 5g/litre) at 15 days interval **Technology Option 2**: Soil treatment with *Metarhizium anisopliae* (2.5 kg/ha) along with Neem cake (5q/ha) + three foliar spray with *Metarhizium anisopliae* (@ 5g/litre) at 15 days interval **Technology Option 3:** Soil treatment with *Metarhizium anisopliae* (2.5 kg/ha) along with Vermicompost (7.5q/ha) + three foliar spray with *Metarhizium anisopliae* (@ 5g/litre) at 15 days interval (Fertilizer 80:40:40 Kg NPK/ha, Spacing: 60 cm x 60 cm, Variety:Rare Ball, same for all treatments; cowdung manure @10q/ha in farmers practice in addition)
4.	Source of Technology	1. Anand, R., Prasad, B. and Tiwary, B. P., 2009. Relative susceptibility of *Spodoptera litura* pupae to selected entomopathogenic fungi. In Biocontrol, 54:85-92, available online at http://www.peipfi-komdasulsel.org/wp-content/uploads/2012/03/Fungi.pdf 2. Ekesi, S., Maniania, N. K., Mohamed, S. A. and Lux, S. A. 2005. Effect of soil application of different formulations of *Metarhizium anisopliae* on African tephritid fruit flies and their associated endoparasitoids. In Biological Control, 35: 83-91, available at www.sciencedirect.com 3. OST conducted in KVK, Nimpith
5.	Production system and thematic area	Rice based production system with Integrated Pest Management
6.	Performance of the Technology with performance indicators	Population of *Spodoptera* moth in hormone trap, Pest infestation %, Yield, B:C ratio
7.	Final recommendation for micro level situation	Soil treatment with *Metarhizium anisopliae* (2.5 kg/ha) along with Neem cake (5q/ha) + three foliar spray with *Metarhizium anisopliae* (@ 5g/litre)
8.	Constraints identified and feedback for research	Production and supply of *Metarhizium anisopliae*
9.	Process of farmers participation and their reaction	The participants for this trial were identified through a group meeting followed by training on the particular technology. This was followed by regular field visit and monitoring. Considering the past history of the disease incidence and severity in the village, both the beneficiaries as well as the non-beneficiaries took interest in the trial. The OFT was well managed by the beneficiaries themselves.

Thematic area: Integrated Pest Management

Problem definition: Low productivity of Cabbage due to infestation of *Spodoptera litura*

Technology assessed: Assessment of profitability of Cabbage under upland land situation of coastal saline belt of South 24- Parganas by effective control measures against *Spodoptera litura*.

Spodoptera litura (Fab.) (Lepidoptera: Noctuidae), is a serious polyphagous pest of several cultivated crops and has attained global importance. Widespread development of resistance to chemical insecticides including the widely used pyrethroids has been reported in *Spodoptera litura*. Indiscriminate and injudicious use of pesticides has grossly poisoned almost each component of the biosphere, caused resurgence of pests and reduction of natural enemies in agroecosystems allowing rapid build-up of target and minor pests. Cabbage is cultivated as an important winter vegetable in the coastal saline belt of South 24 Parganas. However growing incidence of *Spodoptera litura* in this vegetable along with indiscriminate use of conventional pesticides has become a limiting factor for its productivity. KVK, South 24 Parganas subsequently has conducted trial to assess the efficacy of *Metarhizium anisopliae* as a fungal bio-pesticide which is species specific and ecologically safe.

Table:

Technology option	No. of trials	% of damage		*Spodoptera* moth/ trap/night		Marketable Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		30 DAT*	50 DAT	20 DAT - 40 DAT	41 DAT - 50 DAT					
Farmer's practice	15	11.67	19.07	14.13	25.33	236.6	49800	118300	68500	2.38
Technology Option – 1		5.27	7.27	12.27	16.13	280.6	47260	140300	93040	2.97
Technology Option – 2		5.13	6.27	10.87	13.2	315.8	52150	157900	105750	3.03
Technology Option - 3		7.07	8.13	12.8	16.53	284.4	51320	142200	90880	2.77
CD (0.05)		0.44	0.53	0.97	1.06	8.3				

*DAT = Days after transplanting

Results:

Infestation of *Spodoptera litura* (larva) and the no. of *Spodoptera* moth per pheromone trap per night were found to be least in "Technology Option – 2" (soil treatment with *Metarhizium anisopliae* along with neem cake and foliar spray with *Metarhizium anisopliae*). The marketable production was highest in this treatment (315.8 q/ha). But due to higher cost of neem cake, the total cost of cultivation became higher. However considering the long term residual action of neem cake in association with *Metarhizium* against pupation of *Spodoptera* in soil, the "Technology Option – 2" is found to be more effective in controlling the pest.




OFT-11 (2014-15)

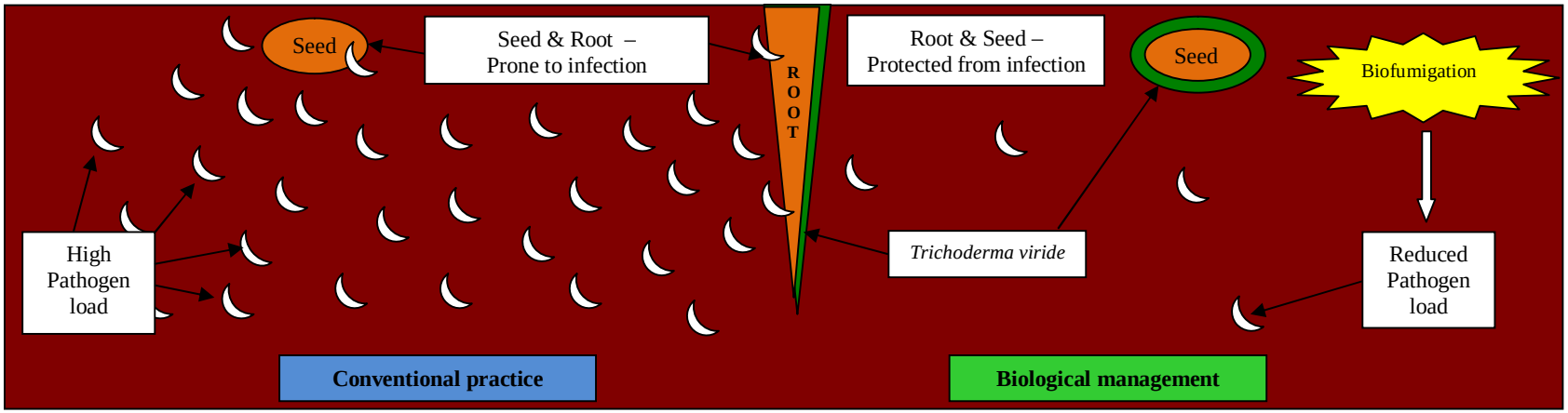
1.	Title of On farm Trial	Assessment of profitability of bottlegourd (*Lagenaria siceraria*) cultivation by managing of *Fusarium* Wilt through biofumigation approach in coastal South 24 Parganas
2.	Problem diagnose	Low productivity of bottle gourd due to fungal wilt
3.	Details of technologies selected for assessment/refinement	**Farmer practice:** No soil treatment + No seed treatment + Need based foliar spray of Carbendazim 50WP @ 1g/L **Technology Option 1:** Soil treatment with *Trichoderma viride* (@ 2.5 kg/ha) + Seed treatment with *T. viride* + soil drench with *T. viride* @ 5g/L at 30 days interval **Technology Option 2**: *Brassica juncea* green manuring + Seed treatment with Carbendazim 50WP@ 2g/kg of seeds + Soil drench with Carbendazim 50WP@ 1g/L at 15 days interval **Technology Option 3:** *Brassica juncea* green manuring + Soil treatment with *Trichoderma viride* @ 2.5 kg/ha + Seed treatment with *T. viride* + soil drench with *T. viride* @ 5g/L at 30 days interval (Fertilizer: 100:50:50 Kg NPK/ha, Spacing: 2m x 2m, Variety: Jora Bota, same for all treatments)
4.	Source of Technology	Relevante, C.A. and Cumagun, C.J.R. 2013. Control of Fusarium wilt in bittergourd and bottlegourd by biofumigation using mustard var. Monteverde. Archives Of Phytopathology And Plant Protection, Volume 46, Issue 6, pages 747-753
5.	Production system and thematic area	Horticulture based production system Integrated Disease Management
6.	Performance of the Technology with performance indicators	Disease incidence (%), Benefit-cost ratio, Yield
7.	Final recommendation for micro level situation	The trial needs to be conducted for two more years for final recommendation
8.	Constraints identified and feedback for research	Late release of land after harvesting of *Kharif* Paddy
9.	Process of farmers participation and their reaction	The participants for this trial were identified through a group meeting followed by training on the particular technology. This was followed by regular field visit and monitoring. Considering the past history of the disease incidence and severity in the village, both the beneficiaries as well as the non-beneficiaries took interest in the trial. The OFT was well managed by the beneficiaries themselves.

Thematic area: Integrated disease management

Problem definition: Low productivity of bottle gourd due to *Fusarium* Wilt

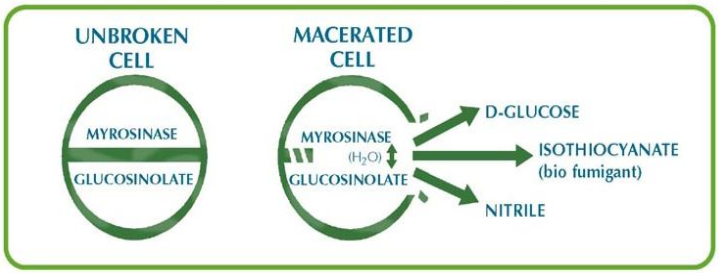
Technology assessed: Assessment of biological and chemical approach of *Fusarium* Wilt management in bottle gourd (*Lagenaria siceraria*) in coastal South 24 Parganas through

Wilt in Bottle gourd in South 24 Parganas is found to be caused by *Fusarium oxysporum f. sp. lagenariae*. The symptoms start as drooping of the green leaves and wilting of the respective vines. Often, one or two vines start wilting though the others are still live. Gradually the entire plant withers. Wilting symptom is also conjugated with golden yellow coloured gum exudation on the stem. Later, the site of gum exudation turns brownish to black and eventually dry up. Pale white mycelia growth with pinkish sporulation is observed over the dried stem. The cross section of the wilted stem show brownish discolouration of vascular bundle. *Fusarium*, being a soil borne, opportunistic fungi, is very difficult to remove from soil. The fungi infect the vascular bundle of the plant through injured root. The injury may be mechanical (during uprooting of seedlings from seedbed or during intercultural operations) or biological (due to nematode attack). There are reports of the pathogen being seed borne also. Mere chemical control neither can keep the pathogen away from the roots in soil for long term, nor can eliminate it from the soil in a cost effective manner. At the same, it is impossible to cure a plant showing wilting symptom since the damage to the vascular bundle is irreparable. So, foliar spray with chemical fungicides does not give a full proof protection against or control over the pathogen. Once the disease is established in a field, the farmer has to drop the crop for next two to three years or more. Bottle gourd is an important vegetable of the district grown during rabi-summer season. Due to inadequate knowledge about the disease, farmers spend lots of money behind indiscriminate fungicidal spray.



To address this problem, KVK, South 24 Parganas has conducted this trial with an alternative management strategy. It was decided to apply biofumigation for eradication of the pathogen and biocontrol as preventive measure.

Musturd (*Brassica juncea*) plant has been used here as source of biofumigant. Musturd was broadcasted in the field and incorporated to the soil after 30 days of sowing. The broken and decomposing tissue of mustard produces volatile isothiocyanate compounds into the soil that has antifungal property. On the otherhand, soil application, seed treatrment and soil drenching of *Trichoderma viride* helps to prevent the infection of Fusarium to the seed and the roots.



Results:

Technology option	No. of trials	Disease incidence (% of wilted plants)	Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
Farmer's practice	15	18.67	234	74464	140400	65936	1.89
Technology Option – 1		8.33	261	76820	156600	79780	2.04
Technology Option – 2		6.53	296	81240	177600	96360	2.19
Technology Option - 3		4.47	312	82660	187200	104540	2.26
CD (0.05)		1.13	6.05				

The technology option -3 gave better result over the other options. The disease incidence was least as well as the production and net return was highest in this option. The BC ratio was also higher.

OFT - 12 (2014-15) Continuing

1.	Title of On farm Trial	Assessment of the growth performance of carps in ponds of South 24 Parganas district by introducing SIF species – *Amblypharyngodon mola* and *Puntius sophore*
2.	Problem diagnose	Low profitability of domestic fish culture ponds due to culture of only carps
3.	Details of technologies selected for assessment/refinement	**Farmers practice** : Culture of different fishes in domestic ponds (Unit area: 0.065 ha) with usual package of practice for composite fish culture i. Pond preparation: Organic manure @10,000kg/ha, lime@ 400kg/ha, mahua oil cake@250ppm ii. Stocking of carps @ 10,0000/ha iii. Post stocking management: Monthly organic manuring with cow dung@1000kg/ha, lime@30kg/ha, daily supplementary feed (mustard oil cake:rice bran::1:1)@3% body weight, monthly netting **Technology option 1** : F.P.+ *Amblypharyngodon mola* @ 20000/ha **Technology option 2** : F.P.+ *Puntius sophore* @ 20000/ha T**echnology option 3** : Farmers practice + *Amblypharyngodon mola* @ 10000/ha + *Puntius sophore* @ 10000/ha
4.	Source of Technology	OST done at KVK instructional farm in collaboration with CIFE, Kolkata
5.	Production system and thematic area	**Fish based small production system / Diversified fish farming**
6.	Performance of the Technology with performance indicators	**Parameters:** Yield, length of fish, weight of fish, survivality, BC ratio
7.	Final recommendation for micro level situation	The trial needs to be conducted for 1 more year to provide final recommendation
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Identification of the problem by farmers followed by designing of the trial jointly by researcher and farmer and managed by farmer

Thematic area: **Diversified fish farming**

Problem definition: Low profitability of domestic fish culture ponds due to culture of only carps

Technology assessed: Assessment of the growth performance of carps in ponds of South 24 Parganas district by introducing SIF species- *Amblypharyngodon mola* and *Puntius sophore*

Farmers practice : Culture of different fishes in domestic ponds (Unit area: 0.065 ha) with usual package of practice for composite fish culture

i. Pond preparation: Organic manure @10,000kg/ha, lime@ 400kg/ha, mahua oil cake@250ppm
ii. Stocking of carps @ 10,0000/ha
iii. Post stocking management: Monthly organic manuring with cow dung@1000kg/ha, lime@30kg/ha, daily supplementary feed (mustard oil cake:rice bran::1:1)@3% body weight, monthly netting

Technology option 1 : F.P.+ *Amblypharyngodon mola* @ 20000/ha
Technology option 2 : F.P.+ *Puntius sophore* @ 20000/ha
T**echnology option 3** : Farmers practice + *Amblypharyngodon mola* @ 10000/ha + *Puntius sophore* @ 10000/ha

Table:

Technology option	No. of trials	Length – weight relationship						Survivality (%)			Yield (q/ha)			Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Length of fish (mm)			Weight of fish (gm)												
		Carp	*A. mola*	*P. sophore*	Carp	*A. mola*	*P. sophore*	Carp	*A. mola*	*P. sophore*	Carp	*A. mola*	*P. sophore*				
Farmers practice	7	245	-	-	425	-	-	81	-	-	34.42	-	-	186550	344200	157650	1.84
Technology option 1		240	78.20	-	420	4.52	-	81	83	-	34.02	0.75	-	190150	355200	165050	1.87
Technology option 2		243	-	62.40	410	-	6.50	79	-	81	32.39	-	1.05	190550	339650	149100	1.78
Technology option 3		235	78.57	63.20	415	4.6	6.60	80	85	84	33.20	0.39	0.554	190350	348110	157760	1.83
SEm±		2.02	0.16	0.37	3.54	0.03	0.038	0.63	0.64	0.659	0.85	0.17	0.20				
CD (p=0.05)		4.14	NS	NS	7.25	NS	NS	NS	NS	NS	NS	NS	NS				

N.B. 1. Cost of cultivation in **Farmers practice** involves the cost of pond preparation, carp fish seed and post stocking management
2. Cost cultivation in **Technology option 1** involves cost of **Farmers practice** and cost of *A. mola* seed-24kg(20000X1.2g) @Rs150/- = **Rs3600/-**
3. Cost cultivation in **Technology option 2** involves cost of **Farmers practice** and cost of *P. sophore* seed-40kg(20000X2.0g) @Rs100/- = **Rs4000/-**
4. Cost cultivation in **Technology option 3** involves cost of **Farmers practice** and cost of *A. mola* seed-12kg(10000X1.2g) @Rs150/- = Rs1800/- + cost of *P. sophore* seed-20kg(10000X2.0g) @Rs100/- = Rs2000/- i.e. **Rs.3800/-**
5. Gross return is calculated as follows:
   a. **Farmers practice :** Carp 34.42q@Rs.100/-per kg = Rs.344200/-
   b. **Technology option 1:** Carp 34.02q@.Rs.100/-per kg = Rs.340200.00, *A.mola* 0.75q@ Rs.200/-per kg = Rs.15000.00 i.e.**Rs. 355200/-**
   c. **Technology option 2:** Carp 32.39@.Rs.100/-per kg = Rs.323900.00, *P.sophore* 1.05q@ Rs.150/-per kg = Rs.15750.00 i.e.**Rs. 339650/-**
   d. **Technology option 3:** Carp 33.20q@.Rs.100/-per kg = Rs.332000.00, *A.mola* 0.39q@ Rs.200/-per kg = Rs.7800.00, *P.sophore* 0.554q@ Rs.150/-per kg = Rs.8310.00 i.e.**Rs.348110/-**

Results: The trial reveals that the addition of SIF species in carp culture ponds has little bearing on the production of carps but provides additional income from the same water body. However, it has been observed that in Technology option 2, carp production is hampered due to voracious

feeding habit of *P.sophore* for which the income and net return is reduced considerably. So far, it is observed that Technology option 1 gives the best result due to higher consumer preference and market price of *A.mola.*

The trial needs to be carried out for another year for final result and successful dissemination of the standardized technology.

OFT-13 (2014-15) Continuing

1.	Title of On farm Trial	Assessment of the profitability of carp ponds of South 24 Parganas district by introducing *Notopterus chitala* and *Ompok pabda*
2.	Problem diagnose	Low profitability of domestic fish culture ponds due to culture of only carps
3.	Details of technologies selected for assessment/refinement	**Farmers practice :** Culture of different fishes in domestic ponds (Unit area: 0.065 ha) with usual package of practice for composite fish culture i. Pond preparation: Organic manure @10,000kg/ha, lime@ 400kg/ha, mahua oil cake@250ppm ii. Stocking of carps @ 10,000/ha iii. Post stocking management: Monthly organic manuring with cow dung @1000kg/ha, lime@30kg/ha, daily supplementary feed (mustard oil cake:rice bran::1:1)@3% body weight, monthly netting **Technology option 1**: F.P.+ *Notopterus chitala* @ 1500/ha **Technology option 2**: F.P.+ *Ompok pabda* @ 1500/ha
4.	Source of Technology	**:** i) OST done at KVK instructional farm in collaboration with CIFE, Kolkata ii) Borah, B. C.; Bhagawati, A. K.; Deka, P. Culture possibility of Ompok pabda (Ham.) under controlled condition. *Journal of the Agricultural Science Society of North-East India* 2000 Vol. 13 No. 2 pp. **207-208**
5.	Production system and thematic area	**Fish based small production system / Diversified fish farming**
6.	Performance of the Technology with performance indicators	**Parameters:** Yield, length of fish, weight of fish, survivality, BC ratio
7.	Final recommendation for micro level situation	The trial needs to be conducted for 1 more year to provide final recommendation
8.	Constraints identified and feedback for research	Seeds of the two fish are not readily available in sufficient quantity hence arrangement for controlled breeding may be made
9.	Process of farmers participation and their reaction	Identification of the problem by farmers followed by designing of the trial jointly by researcher and farmer and managed by farmer

Thematic area: **Diversified fish farming**

Problem definition: Low profitability of domestic fish culture ponds due to culture of only carps

Technology assessed: Assessment of the profitability of carp ponds of South 24 Parganas district by introducing *Notopterus chitala* and *Ompok pabda*

Farmers practice : Culture of different fishes in domestic ponds (Unit area: 0.065 ha) with usual package of practice for composite fish culture

i. Pond preparation: Organic manure @10,000kg/ha, lime@ 400kg/ha, mahua oil cake@250ppm
ii. Stocking of carps @ 10,000/ha(650pc. in 0.065ha)
iii. Post stocking management: Monthly organic manuring with cow dung @1000kg/ha, lime@30kg/ha, daily supplementary feed (mustard oil cake:rice bran::1:1)@3% body weight, monthly netting
iv. **Technology option 1**: F.P.+ *Notopterus chitala* @ 1500/ha(100pc. in 0.065ha)
v. **Technology option 2**: F.P.+ *Ompok pabda* @ 1500/ha(100pc. in 0.065ha)

Table:

Technology option	No. of trials	Length – weight relationship						Survivality (%)			Yield (q/ha)			Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Length of fish (mm)			Weight of fish (gm)												
		Carp	*N. chitala*	*O. pabda*	Carp	*N. chitala*	*O. pabda*	Carp	*N. chitala*	*O. pabda*	Carp	*N. chitala*	*O. pabda*				
Farmers practice	7	245	-	-	425	-	-	80	-	-	34.00	-	-	186550	340000	153450	1.82
Technology option 1		210	420	-	410	530	-	75	77	-	30.75	6.35	-	202550	434500*	231950	2.15
Technology option 2		215	-	155	415	-	135	80	-	62	33.20	-	1.25	195500	369500#	174000	1.89
SEm±		5.20	-	-	3.54	-	-	1.82	-	-	1.27	-	-	-	-	-	-
CD (p=0.05)		10.66	-	-	7.25	-	-	NS	-	-	2.60	-	-	-	-	-	-

N.B. 1. Cost of cultivation involves the cost of pond preparation, fish seed and post stocking management
2. Gross return is calculated as follows:
**N.chitala* 6.35q @ Rs.200/- per kg = Rs.127000.00, carp 30.75q@Rs.100/-per kg = Rs.307500/-
#O.pabda 1.25q @ Rs.300/- per kg = Rs.37500.00, carp 33.20q@ Rs.100/-per kg = Rs.332000/-

Results:

The trial reveals that the addition of *N.chitala,* even in such small quantity, in carp culture ponds provides sufficient additional income from the same water body. It has also been observed that in Technology option 2 too, addition of *O.pabda* has provided better return than in the Farmers practice. However, due to less body weight of *O.pabda,* the profit margin is less than that in Technology option 1. Hence, so far it has been revealed that Technology option 1 may be disseminated for large scale adoption provided steps are taken so that the seeds of *N.chitala* is made readily available to the farmers.

Another year of the same trial is required to ascertain the success of Technology option 1 and then disseminate the same.

OFT- 14 (2014-15)

1.	Title of On farm Trial	Assessment of different post harvest management practices of Sapota in upland situation of South 24 Parganas district
2.	Problem diagnosed	The self life of Sapota is low. Where as the shelf life of sapota ripen by traditional method is 3 days. The disadvantage of traditional method is that only 40-60% fruits become ripen properly after 3 days of keeping in summer and 5-6 day in winter.
3.	Details of technologies selected for assessment/refinement	**Traditional practice :** Sapota kept in mud container with carbide (in a small container 50 gm of carbide for 100 fruits) and covered it **Technology option-1** to be assessed: Sapota kept in mud container with rice bran and covered with jute sac **Technology option -2** to be assessed: Sapota kept in mud container after applying ethaphon (1000 ppm). The fruits are dipped in GA (300 ppm.) and Carbendazim 50WP (1000 ppm) solution at a pre-packing stage.
4.	Source of Technology	http://nhb.gov.in/report_files/sapota/SAPOTA.htm
5.	Production system and thematic area	Horticultural production system Post Harvest management of Fruits
6.	Performance of the Technology with performance indicators	Shelf life, % of fruits ripen in a basket/mud container, acceptable test quality, texture (hedonic scale)
7.	Final recommendation for micro level situation	NA
8.	Constraints identified and feedback for research	NA
9.	Process of farmers participation and their reaction	NA

Thematic area:

Problem definition:

Technology assessed: **Traditional practice :** Sapota kept in mud container with carbide (in a small container 50 gm of carbide for 100 fruits) and covered it
Technology-1 to be assessed: Sapota kept in mud containerwith rice bran and covered with jute sac
Technology-2 to be assessed: Sapota kept in mud container after applying ethaphon (1000 ppm) . The fruits are dipped in GA (300 ppm.) and Bavistin (1000 ppm.) solution at a pre-packing stage.

Results:

Table:

Technology option	No of trial	Shelf life	% of fruits ripen in a basket/mud container	acceptable test quality	texture	Market price	
Traditional practice	5	The result is awaited					
Technology 1:	8						
Technology 2:	8						

OFT- 15 (2014-15)

1.	Title of On farm Trial	Assessment of different managemental aspect towards nutrition garden at School in South 24 Parganas district
2.	Problem diagnosed	Nutrition garden in school campuses is an important way to improve nutritional quality of mid day meal. In some schools it is initiated and not managed properly due to poor participation of student and school management committee and as a result nutrition garden is not continued through out the year.
3.	Details of technologies selected for assessment/refinement	**Traditional practice :**Management of School nutrition garden by the student group guided by one assistant teacher selected by the Headmaster/ Headmistress of the school. **Technology-1 to be assessed: :Management of** School nutrition garden by a committee comprises with student, guardian representative and PRI representative from SMC **Technology-2 to be assessed: Management of** School nutrition garden by the Student cabinet , monitored by one teacher representative selected by the student
4.	Source of Technology	www.**jansahas**india.org http://www.pacsindia.org/grants/cso-partners/madhya-pradesh/jansahas
5.	Production system and thematic area	Food & nutrition security
6.	Performance of the Technology with performance indicators	Season for growing crop, participation of Student in land preparation sowing, watering, intercultural management, harvesting for mid day meal, Dietary diversity score of MDM.
7.	Final recommendation for micro level situation	It is started in July 2014 so final recommendation will be available after harvesting the winter crop in February 2016.
8.	Constraints identified and feedback for research	School management committee does functioning properly in south 24 pgs district and nutrition gardening is not included under school development plan. Some school cannot maintain due to absence of school boundary.
9.	Process of farmers participation and their reaction	Selection of crop is done by the student, teacher and parents' representative. It may be included as an activity of physical education in 10^{th} standerd.

Thematic area- Food and nutrition security

Problem definition: Nutrition garden in school campuses an important way to improve nutritional quality of mid day meal . In some schools it is initiated and not managed properly due to poor participation of student and school management committee and as a result nutrition garden is not continued through out the year.

Technology assessed: **Traditional practice :**Management of School nutrition garden by the student group guided by one assistant teacher selected by the Headmaster/ Headmistress of the school

Technology-1 to be assessed: Management of School nutrition garden by a committee comprises with student, guardian representative and PRI representative from SMC

Technology-2 to be assessed: Management of School nutrition garden by the Student cabinet, monitored by one teacher representative selected by the student

Technology option	No of trial	Season for growing crop	Actor	**Extent of participation**					**DDS**	
				land preparation	sowing	watering	intercultural management	harvesting for mid day meal	**before**	**after**
Traditional practice	8	Rainy	Student	*OOOO*	OOOO	OOO	O	OO	**3.3**	**3.5**
			Teacher	*OO*	OO	O	O	O		
Technology 1:	8	Rainy	Student	*OOOOO*	OOOO	O	O	O	**3.3**	**3.3**
			Guardian	*OO*	OO	O	O	O		
Technology 2:	8	Rainy and Winter	Student	*OOOOO*	OOOOO	OOOO	OOOOO	OOOOO	**3.3**	**4.2**
			Teacher	*OOO*	OOOO	OO	OOO	**OOOOO***		

***Parameters for extent of participation have been measured through participatory method with 5 seed tool.*

3.2 Achievements of Frontline Demonstrations

A. Details of FLDs implemented during 2013-14

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	
1.	Sunflower	Crop diversification	Component demonstration: Variety:DRSH-1 along with Micro nutrient spray: Boron @ 2.0 g/L of water Local chek: Variety - Ganga Kaveri without Boron spray	15	20	33	17	50	

Details of FLDs implemented during 2014-15

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	
1.	Sunflower	Crop diversification	Component demonstration: Variety:DRSH-1 with Micro nutrient spray: Boron @ 2.0 g/L of water Local chek: Variety - Ganga Kaveri without Boron spray	20	24	17	43	60	
2.	Maize	Crop diversification	Component demonstration: Variety – Vivek QPM-9 along with NPK @ 100:50:50 kg/ha Local chek: Variety – PAC-740 with NPK @ 60:30:30 kg/ha	4	4	28	4	32	
4	Pointed Gourd	Yield improvement through pollination management	Introduction of male plant in the conventional pointed gourd cultivation field Component demonstration: Male Root as planting material	-	1	5	10	15	
5	Betel vine	Protected Cultivation	Introduction of Hi-tech Pan boroz for better production with quality leaf Component demonstration: Hi-tech Boroz structure	48 ha	9.3	87	99	186	Fall in subsidy from NHM scheme
6	Ber (Jujuba)	Introduction of new crop	Introduction of new fruit crop BAU Ber for better profitability Component demonstration: Seedling of BAU Ber	0.65 ha	10	6	4	10	
7.	Tomato	Integrated Pest and Disease management	Use of Panchagavya, a fermented product of 5 products of Cow (cow dung, cow urine, milk, curd and ghee), at 30, 45 & 60 days after transplanting of tomato (SG1458) Component demonstration: Panchagavya	0.065	0.33	3	7	10	

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	
8.	Bird rearing	Feeding management	Introduction of scientific rearing practice of budgerigar bird for profit maximization by the womenfolk of remote Sundarban Component Demonstration: Deworming- 3 months interval @ 2 drop per bird Feeding: leafy vegetables two days per week @ 200 gms for 100 birds Calcium- at the time of laying 1 drop per bird.	60 (no)	60 (no)	24	36	60	
9.	Bottom feeder in carp ponds	Freshwater fish culture	Introduction of *Pangasius pangasius* as bottom feeder in carp culture ponds Component demonstration: *Pangasius pangasius*	0.65	0.65	7	3	10	

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					
Sunflower, 2013-14	Rabi-Summer	Irrigated	Clay	228.4	29.7	392.2	Kharif Paddy	2nd week of January'14	Last week of April'14	97.2	2
Sunflower, 2014-15	Rabi-Summer	Irrigated	Clay	219.1	33.8	411.5	Kharif Paddy	2nd week of January'15	Last week of April'15	25.0*	3*
Maize , 2014-15	Rabi-Summer	Irrigated	Clay	227.3	35.4	378.9	Kharif Paddy	Last wk. of Januuary'15	1st wk. of may,2015	25.0*	3*
Pointed Gourd	Rabi, 2013-14	Irrigated	Non-saline sandy loam to clay loam	159.9	27.5	482.2	Paddy	2nd week of January, 2014	Harvesting started by March, 14 and continued upto June, 2014	97.2	2
Pointed Gourd	Rabi, 2014-15	Irrigated	Non-saline sandy loam to clay loam	167.9	31.8	541.2	Paddy	2nd week of January, 2015	Harvesting started by March, 2015 and will continue upto June, 2015	25.0*	3*
Betel vine	Round the year	Irrigated	Clay loam to loam (Non-saline)	180.3	43.4	1036.5	Vegetable	October, 2014	Harvesting started by February, 15	106	9
Ber (Jujuba)	Round the year	Irrigated	Salibne/ non-saline sandy loam to clay loam	140.7	35.2	974.6	Vegetable	July, 2014	Harvesting started by January, 15	1153	59
Tomato	Rabi - Summer	Irrigated	Clay loam	210.3	27.5	468.2	*Kharif* paddy	4th week of September'14	February, 2015	493	24
Bird rearing	Round the Year	Homestead	-	-	-	-	*Nil*				
Bottom feeder (*Pangasius pangasius*) in carp ponds	Round the Year	Homestead	-	-	-	-	*Common carp*	July'14	May'15		

* Rainfall data calculated upto March, 2015.

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops, 2013-14

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
Sunflower	Crop diversification	Component demonstration: Variety:DRSH-1 along with Micro nutrient spray: Boron @ 2.0 g/L of water Local chek: Variety - Ganga Kaveri without Boron spray	50	20.0	16.66	11.41	46.0	24038	56660	32602	2.35	20630	34237	13584	1.65

Frontline demonstrations on oilseed crops, 2014-15

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
Sunflower	Crop diversification	Component demonstration: Variety:DRSH-1 with Micro nutrient spray: Boron @ 2.0 g/L of water Local chek: Variety - Ganga Kaveri without Boron spray	60	24.0	Yet to be harvested										

* 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

Frontline demonstration on pulse crops: NA

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
	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 crops (2014-15)

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)			
					Demonstration	Check		Parameter	Demo	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Maize	Crop diversification	Component demonstration: Variety – Vivek QPM-9 along with NPK @ 100:50:50 kg/ha Local chek: Variety – PAC-740 with NPK @ 60:30:30 kg/ha	32	4	The crop is in growth stage													
Pointed Gourd (2013-14)	Yield improvement through pollination management	Introduction of male plant in the conventional pointed gourd cultivation field	15	1	323.9	271.4 (Conventional cultivation, without introduction of male plant)	19.34	Fruit length (cm) Fruit weight (g) Immature yellowing % Shelf life (days)	7.3 28.2 5 6.2	6.2 24.1 14 3.5	51200	129500	78300	2.53	50700	102000	51300	2.01
Pointed Gourd (2014-15)	Yield improvement through pollination management	Introduction of male plant in the conventional pointed gourd cultivation field	15	1	-	Harvesting started by March, 2015 and will continue upto June, 2015. Result would be compiled out after June, 2015.												
Betel vine	Protected Cultivation	Introduction of Hi-tech Pan boroz for better production with quality leaf	186	9.3	27800 no./unit (500 sqm) Upto March, 2015	23200 no./ unit (500 sqm) Upto March, 2015 **(**Boroz made up of bamboo and paddy straw)	19.83	***Data on parameters**			202000	417000	215000	2.06	214000	348000	134000	1.63
Ber (Jujuba)	Introduction of new crop	Introduction of new fruit crop BAU Ber for better profitability	10	1	69.1 t/ha	Vegetable – 47t/ha (cauliflower 22t/ha + potato 25t/ha)	45.17	Fuel wood	32 t/ha	-	292000	829200	537200	2.84	-	-	-	-

***Data on parameters**

Data	Demo	Check
Temp (^{0}C) at 12.05 pm, on 09.03.15; (environ-mental temp- 33.5)	30.1	32.4
RH (%) (environ-mental RH- 45)	47	56
Light intensity (Lux) (Outside – 1,08,500)	32600	5100 - 98300
Leaf colour	Uniformly green	Scorching discolour-ation in some leaves
Chlorophyll (SPAD) 3rd leaf from top mature leaf	 41.5 55.7	 37.8 48.1
Leaf shape (length/width)	1.13	1.17
Avg. leaf weight (g)	4.08	3.61
Leaf thickness (mm)	0.24	0.21
Plant internodal length (cm)	7.35	7.05
Disease severity (5 point scale)	1.5	4

Other crops, 2014-15

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)			
					Demonstration	Check		Parameters	Demo	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Tomato	Integrated Pest Management	Use of Panchagavya in SG1458 variety of tomato at 30, 45 and 60 days after transplanting	10	0.065	512	468 (SG1458 variety without application of Pancha -gavya)	9.40	Early blight (1-5 scale) White fly (no./leaf) Tomato leaf curl virus Leaf miner (%) Beneficial insect (Lady bird beetle) Beneficial insect (Spider) Avg. fruit wt (g)	2 0.55 4.58 3.82 1.12 1.22 79.1	4 2.04 12.34 9.12 0.14 0.38 73.9	72380	307200	234820	4.24	75560	280800	205240	3.72
	Total																	

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.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Dairy																	
Cow																	
Buffalo																	
Poultry																	
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Ornamental bird	Feeding management	Introduction of scientific rearing practice of budgerigar bird for profit maximization by the womenfolk of remote Sundarban Component Demonstration: Deworming- 3 months interval @ 2 drop per bird Feeding: leafy vegetables two days per week @ 200 gms for 100 birds Calcium- at the time of laying 1 drop per bird.	60	60	Scientific rearing of Budgerigar birds	Rearing of Budgerigar birds without scheduled deworming and supplement nutrition	-	Hatch – 92% Colour of chick – 4 (5point scale)	Hatch – 68% Colour of chick – 2 (5point scale)	75/pair of bird/year	480/pair of bird/year	405/ pair of bird/year	6.4	155/ pair of bird/ year	310/ pair of bird/ year	155/ pair of bird/ year	2.0
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

Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters /Yield (kg)		% change in major parameter	Other parameter			*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
					Demo	Check		Items	Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																		
Mussels																		
Ornamental fishes																		
Bottom feeder in carp ponds	Composite fish culture	Introduction of *Pangasius pangasius* as bottom feeder in carp culture ponds	10	10 (0.065ha)	67.6	36.0 (common carp)	87.8	Av.length (cm)	26.5	19.5	15720	29745	14025	1.90	14685	25520	10835	1.74
								Av.wt.(g)	**825**	**450**								
								Girth of fish(cm)	**9.2**	**11.5**								
								Survivavility (%)	**82**	**80**								
		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	Innovative (Iron frame of 10"height and 12" diameter having 4ft long perforated plastic pipe - 4" dia, inserted into the centre stand of iron frame) production technique of oyster mushroom	42	42 (10nos /unit)	1.25kg/kg straw	1 kg/2 kg straw (Traditional practice: Small plastic bag placed upon bamboo rack)	21%	-	-	16540	37220	20680	2.25	11350	19100	7750	1.68
Button mushroom																
Vermicompost (Outsourced from RKVY under FPI&H, GoWB)	Two chambered composting structure (10 ft X 4 ft X 3 ft structure with central divider along length)	15	15	1 tonne per unit per 3 month cycle	0.7t/unit/3month cycle (single chamber of 10 ft X 4 ft X 3 ft size)	43	-	-	Recurring @3000 per 3month) = 12000 per year	21000 per year	9000 per year	1.75	Recurring @2800 per 3 month = 11200 per year	14700 per year	3500 per year	1.31
Sericulture																
Apiculture																
Integrated farming system model (Outsourced from RKVY, BGREI programme of Dept of Agril, GoWB)	KVK developed landshaping and land embankment cultivation technology in North and South 24 Parganas	717	717 units of 0.26 ha	HYV Paddy, Vegetable, Fish	Traditional paddy	Paddy: 23% Vegetable and fish 100% each	Increased cropping intensity to 250%, reduction in soil salinity and increased job opportunity		Average: 75000/unit (non recurring) 17000/unit (recurring)	80000/ year	63000/ year	4.71	8000	13000	5000	1.63
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

Women empowerment

Category	Name of technology	No. of demonstrations	Observations						
			Parameters			Demonstration			Check
Farm Women (continuing programme of last year)	Nutrient efficient diet preparation Utilization of unfamiliar food sources (Drumstick leaves fry/cauliflower leaves/ash gourd leaves/*Kundri/Batua/ Sushni sag/bengalgram leaves*)to prepare nutrient efficient diet	63	1)Diet diversity score 2)Menu of daily diet Drumstick leaves fry/ cauliflower leaves/ash gourd leaves/*Kundri/Batua/ Sushni sag/bengalgram leaves*			5.8 Twice in a week (45 % family)			3.3 Once in six month (13% family)
Pregnant women									
Adolescent Girl (continuing programme of last year)	Innovative Teaching learning material for health Play tools for reproductive health awareness Food flag of micro nutrient education	120	1)Behavioral changes in health practice a.Contact with Annesha clinic b.Hand wash before eating c.Inclusion of Iron rich vegetables and pulses in daily diet 2)a. knowledge score for health & nutrition issue increased b.Knowledge Score			19% 66% 21% 62% 6.8			4% 15% 5% 13% 3.65
Other women									
			Demonstration (2014)			Check (2013)			Remarks
			Normal	SAM	MAM	Normal	SAM	MAM	
Children	Tracking of malnourished children through Ngo Ideas tool box	ICDS center -67 No of children-1139	2626 (85.15)	159 (5.15)	299 (9.69%)	1906 (74.05)	222 (8.62)	446 (17.22%)	Data collected through underweight measurement
	Active feeding with innovative tools for SAM, MAM children	No of ICDS-17 No of children-341	Hand wash before eating	Apathy to food	Quantity of food intake	Hand wash before eating	Apathy to food	Quantity of food intake	Spot feeding occurring in 58% ICDS. Supplied food is not shared with other children
			88.5%	nil	46 gm	3%	OOOO*	27 gm	
Neonatal									
Infants									

*Measured with 5 seeds technique

Tracking of children through NGO IDEA tool Box

Spot feeding at ICDS center

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)			
					Demonstration	Check									

* 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	Vivek QPM 9	32	4	Crop is in cob formation stage						
Paddy										
Sorghum										
Wheat										
Others (pl.specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower	DRSH-1	60	24	Crop is in grain filling stage						
Groundnut										
Soybean										
Others (pl.specify)										
Total										
Pulses										
Greengram										
Blackgram										
Bengalgram										

Redgram										
Others (pl.specify)										
Total										
Vegetable crops										
Bottle gourd										
Capsicum										
Cucumber										
Tomato	SG-1458	1709	44	51 t/ha	27 t/ha	88.9 %	58900	204000	145100	3.46
Brinjal										
Okra	JK 7315	1102	31	16 t/ha	11.5 t/ha	39 %	31000	64000	33000	2.06
Onion										
Potato										
Field bean										
Chilli	Tejaswini	3327	72	12.5 t/ha	8 t/ha	56 %	48000	225000	177000	4.69
Total										
Commercial crops										
Cotton										
Coconut										
Others (pl.specify)										
Total										
Fodder crops										
Napier (Fodder)										
Maize (Fodder)										
Sorghum (Fodder)										
Others (pl.specify)										
Total										

Technical Feedback on the demonstrated technologies

S. No	Crop	Feed Back
1	Pointed Gourd	The result is very impressive. It needs to continue for another 2 years for establishment of the technology.
2	Betel vine	The technology spread among the betel vine farmers like wildfire. At present more than 2000 number of farmers approached KVK for this new system of *Pan* Boroz for modifying their own system of betel vine cultivation.
3	Ber (Jujuba)	The Ber opened up a new entrepreneurship model. But due to area expansion for this crop, a decline in market price is observed.
4	Ornamental birds	Ornamental birds lay more eggs with improved hatchability with feeding of different green leaves of leafy vegetables
5	Tomato	The positive result created interest among the neighbouring farmers who are now enquiring about the preparation of Panchagavya.
6	Pangas fish	Introduction of pangas has given remarkable result with respect to increment of yield and also control of molluscs
7	Less familier food	Increased diet diversity in the family without spening exess money
8	Innovative teaching methodology for adolescent girls	Increased access to Annesha Clinic under NRHM by adolescent
9	Nutrition eduation through Ngo Ideas tool box education	Increased awareness about rights and entitlements to attain food and nutrition security

Farmers' reactions on specific technologies

Sl. No	Feed Back
1	The result is very impressive. The keeping quality of the pointed gourd is far better than the earlier system.
2	This hi-tech paan boroz is resilient against climatic vagaries. Farmers are now making this new *boroz* by their own initiative & cost.
3	Due to area expansion of Ber, a decline in market price is observed. Yet it is profitable than any vegetable crop. Also, this crop is quite resilient against climatic vagaries.
4	Pangas has wide acceptance in the market as tablefish and grows well in ponds infested with molluscs
5	Preparation of panchagavya is very time consuming.
6	Children learn to eat vegetables
7	Teaching session is joyfull and topics are related improve quality of life
8	Learned to raise voice against malpractice
9	Seed yield of Sunflower is higher in boron applied fields compare to non application of boron
10	Wilt of Sunflower is satisfactory control when Sunflower seed were treated with *Trichodrama viride* and *Pseudomonas fluorescens* each @ 10g /kg of seed
11	In FLD plot of maize, the crop has a satisfactory growth.

Extension and Training activities under FLD

SL. No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	04.04.14, 16.04.14, 28.04.14, 11.09.14, 27.11.14, 12.03.15 05.12.14, 18.12.14, 04.03.15	9	247	Field days were observed with Deputy Director of Horticulture (South 24 Parganas), GoWB, Field Consultants, Dept. of FPI & Hort. GoWB, Panchayat members, progressive farmers, etc. and with officials of other KVKs.
2.	Farmers Training	25.09.14,17.10.14,28.10.14 30.06.14, 15.09.14, 25.07.14, 26.07.14	7	304	
3.	Media coverage		2	-	Radio programme on vegetable cultivation and betel vine
4.	Training for extension functionaries	09.06.14	1	35	Hi-tech paan boroz for the extension personnel of Puduchhery

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

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	1	5	7	12	10	5	15	15		15	30	12	42
Resource Conservation Technologies													
Cropping Systems													
Crop Diversification	2	11		11	48	3	51				59	3	62
Integrated Farming	10	139	2	141	201	4	205	6		6	346	6	352
Integrated Farming (CKM)	4	28	2	30	65	33	98	1	1	2	94	36	130
Water management													
Seed production	1	16		16	4		4	2		2	22		22
Nursery management	1	34		34	4		4				38		38
Integrated Crop Management	3	37		37	42	5	47				79	5	84
Fodder production													
Production of organic inputs	2	8		8	8		8	16		16	32		32
Others, if any													
Crop Intensification	1	17		17	17		17				34		34
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management-Micro irrigation													
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising													
Export potential vegetables	2	60	-	60	-	-	-	-	-	-	60	-	60
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)	2	76	2	78	13	-	13	-	-	-	89	2	91
Others, if any (Cultivation of Vegetable)													
Mal-nutrition and physiological disorders in vegetable crops and its management.	1	20	-	20	5	-	5	-	-	-	25	-	25
b) Fruits													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													

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
Propagation techniques of Ornamental Plants													
Others, if any													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
Betel vine management													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
IV. Livestock Production and Management													
Dairy Management	1	18	0	18	7	0	7	0	0	0	25	0	25
Poultry Management	4	9	22	31	70	41	111	3	14	17	82	77	159
Piggery Management													
Rabbit Management													
Disease Management	1	4	0	4	2	1	3	1	4	5	7	5	12
Feed management	1	0	23	23	1	6	7	0	0	0	1	29	30
Production of quality animal products	1	0	0	0	0	29	29	0	1	1	0	30	30
Others, if any													
Goat farming	1	13	5	18	17	10	27	0	0	0	30	15	45
Ornamental bird rearing	2	0	40	40	0	36	36	0	1	1	0	77	77
Integrated farming and poultry-duckery	1	24	0	24	15	0	15	0	0	0	39	0	39
Others, if any Feeding of ornamental birds	1	11	1	12	16	5	21	0	0	0	27	6	33
Health management of backyard poultry and duck	1	18	2	20	18	7	25	12	0	12	48	9	57

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
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	3	-	51	51	1	69	70	-	1	1	1	121	122
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women	2	3	20	23	-	23	23	-	-	-	3	43	46
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building	1	-	21	21	-	9	9	-	-	-	-	30	30
Women and child care													
Others, if any													
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	2	15	24	39	13	12	25	0	3	3	28	39	67
Integrated Disease Management	1	18	3	21	14	0	14	0	0	0	32	3	35
Bio-control of pests and diseases	1	11	4	15	20	1	21	0	0	0	31	5	36
Bio intensive IDM													
Organic Farming	2	45	0	45	24	0	24	2	0	2	71	0	71
Production of bio control agents and bio pesticides													
Others, if any													
VIII. Fisheries													
Integrated fish farming	2	8	-	8	38	3	41	3	-	3	49	3	52
Carp breeding and hatchery management	1	7	-	7	24	13	37	1	-	1	32	13	45
Carp fry and fingerling rearing													
Composite fish culture & fish disease	6	132	3	135	66	2	68	3	-	3	201	5	206
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													

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
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, as mentioned below													
Breeding of endangered indigenous fish	1	9	1	10	1	-	1	-	-	-	10	1	11
Culture of stress tolerant fish	1	4	-	4	23	1	24	12	-	12	39	1	40
Freshwater fish culture	1	36	-	36	8	-	8	-	-	-	44	-	44
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs	1	22	0	22	18	0	18	0	0	0	40	0	40
Mobilization of social capital													
Entrepreneurial development of farmers/youths	2	32	0	32	10	32	42	0	0	0	42	32	74
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	**71**	**890**	**233**	**1123**	**823**	**350**	**1173**	**77**	**25**	**102**	**1790**	**608**	**2398**

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
Mushroom Production													
Bee-keeping													
Integrated farming	1	3	1	4	3	0	3	0	0	0	6	1	7
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops	3	60	3	63	43	1	44	-	-	-	103	4	107
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	2	53	2	55	13	19	32	2	6	8	68	27	95
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing	1	8	0	8	5	0	5	0	0	0	13	0	13
Quail farming													
Piggery													
Rabbit farming													
Ornamental bird rearing	1	10	0	10	4	0	4	0	0	0	14	0	14
Poultry production													
Ornamental fisheries	4	24	39	63	3	27	30	4	5	9	31	71	102
Enterprise development													
Para vets													
Para extension workers													
Composite fish culture	14	190	131	321	35	11	46	5	1	6	230	143	373
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Carp breeding and hatchery management	2	11	1	12	12	2	14	0	0	0	23	3	26
Fry and fingerling rearing	1	16	5	21	14	5	19	0	0	0	30	10	40
Integrated fish farming													
Breeding of endangered indigenous fish	2	35	0	35	19	0	19	0	0	0	54	0	54
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Agri-clinic and agri-business	1	20	0	20	7	0	7	0	0	0	27	0	27
Integrated Pest Management	2	41	0	41	48	0	48	0	0	0	89	0	89
Integrated Crop Management													
Export quality betel vine production	2	101	7	108	14	1	15	-	-	-	115	8	123
TOTAL	**36**	**572**	**189**	**761**	**220**	**66**	**286**	**11**	**12**	**23**	**803**	**267**	**1070**

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													
Value addition													
Integrated Pest Management													
Integrated Disease Management	1	13	0	13	7	0	7	0	0	0	20	0	20
Biological Control	1	14	2	16	4	0	4	0	0	0	18	2	20
Integrated Nutrient management													
Management of problematic soil													
Rejuvenation of old orchards													
Protected cultivation technology (Green Houses, Shade Net etc.) of vegetables													
Formation and Management of SHGs	2		25	25		42	42					67	67
Group Dynamics and farmers organization													
Leadership development													
Information networking among farmers													
Capacity building for ICT application	2	74	2	76	15	0	15	0	0	0	89	2	91
Capasity building for Watershed Management													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Integrated fish farming	1	8	5	13	0	0	0	0	1	1	8	6	14
Carp breeding and hatchery management													
Breeding of endangered indigenous fish													
Composite fish culture	2	12	6	18	-	-	-	-	-	-	12	6	18
Artificial insemination	2	78	0	78	20	0	20	5	0	5	103	0	103
Azolla cultivation													
Prani bandhu (45days)													
Household food security	1	7	-	7	27	5	32	-	-	-	34	5	39
Women and Child care	1	13	-	13	6	-	6	-	-		19	-	19
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Krishak Mitra													
Friends of Coconut Tree (FOCT)	7	176	-	176	116	-	116	2	-	2	294	-	294
National Vegetable Initiative for Urban Cluster													
Evaluation and monitoring tool	1	9	17	26	2	2	4	-	-		11	19	30
Technological interventions for coastal agri-horticulture	1	25	-	25	10	-	10	-	-	-	35	-	35
Natural Resource Management, Farm Production System & Livelihood Support System	1					23	23					23	23
Training of Programme Coordinators	1	7	1	8	0	0	0	0	0	0	7	1	8
Diploma in Agriculture Extension Services for Input Dealers (DAESI)	1	33	1	34	4	0	4	2	0	2	39	1	40
TOTAL	**25**	**469**	**59**	**528**	**211**	**72**	**283**	**9**	**1**	**10**	**689**	**132**	**821**

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													
Resource Conservation Technologies													
Cropping Systems													
Crop Diversification	2	3		3	53	2	55	7		7	63	2	65
Integrated Farming	1	7		7	23	5	28				30	5	35
Water management													
Seed production	1	4		4	22		22				26		26
Nursery management													
Integrated Crop Management	4	78	0	78	45	12	57	0	0	0	123	12	135
Fodder production													
Production of organic inputs													
Others, (Value adition)	2	15	2	17	42		42				57	2	59
Crop Intensification	1	20		20							20		20
Pest management													
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management													
Water management (Drip irrigation)	1	6	-	6	38	-	38	-	-	-	44	-	44
Enterprise development													
Skill development for vegetable cultivation													
Yield increment													
Production of low volume and high value crops	1	19	-	19	-	-	-	-	-	-	19	-	19
Off-season vegetables	1	16	-	16	9	-	9				25	-	25
Nursery raising													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
Layout and Management of Orchards	1	30	3	33	-	-	-	-	-	-	30	3	33
Cultivation of Fruit-Ber													
Management of young plants/orchards	1	17	-	17	5	-	5	-	-	-	22	-	22
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
Hormonal treatment for sex modification in Cucurbits and Papaya	1	6	-	6	13	2	15	-	-	-	19	2	21
c) Ornamental Plants													
Nursery Management													
Management of potted plants													

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
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils	1	-	-	-	19	-	19	-	-	-	19	-	19
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
IV. Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
Rabbit Management	1	4	0	4	0	20	20	0	0	0	4	20	24
Disease Management	1	26	30	56	13	23	36	1	2	3	40	55	95
Feed management													
Production of quality animal products													
Rearing of ornamental birds													
Awareness on vaccination of animals	1	17	0	17	5	0	5	0	0	0	22	0	22
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition	2	1	29	30	12	35	47	-	-	-	13	64	77

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
gardening													
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet	1	-	3	3	-	19	19	-	-	-	-	22	22
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs	13	14	59	73	247	191	438	-	7	7	261	257	518
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care	22	-	263	263	-	228	228	-	-	-	-	491	491
Others, if any													
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	4	36	5	41	56	23	79	4	0	4	96	28	124
Bio-intensive IDM	2	4	2	6	42	17	59	0	0	0	46	19	65
Bio-intensive IPM	2	8	0	8	48	13	61	0	0	0	56	13	69
Integrated pest and Disease Management	1	6	0	6	18	11	29	0	0	0	24	11	35
Bio-control of pests and diseases	1	3	0	3	24	13	37	0	0	0	27	13	40
Integrated Disease Management	1	14	0	14	11	0	11	0	0	0	25	0	25
Indigenous Technological Knowledge (ITK)	1	6	0	6	14	8	22	0	0	0	20	8	28
Production of bio control agents and bio pesticides	1	19	2	21	14	7	21	0	0	0	33	9	42
Others, if any													
VIII. Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease	2	12	6	18	39	8	47	6	2	8	57	16	73
Fish feed preparation & its application to fish pond, like													

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, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, as mentioned below													
Introduction of new species and varietal replacement	1	6	0	6	12	0	12	2	0	2	20	0	20
Tilapia culture	1	2	0	2	18	0	18	0	0	0	20	0	20
Culture of stress tolerant fish	1	10	0	10	19	0	19	1	0	1	30	0	30
Breeding and culture of endangered indigenous fish	2	37	10	47	6	2	8	0	0	0	43	12	55
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production	1	4	1	5	13	11	24	0	0	0	17	12	29
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs	11	56	18	74	255	148	403	1	6	7	312	172	484
Mobilization of social capital													
Entrepreneurial development of farmers/youths													
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
TOTAL	**91**	**506**	**433**	**939**	**1135**	**798**	**1933**	**22**	**17**	**39**	**1663**	**1248**	**2911**

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
Mushroom Production													
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing	1	0	4	4	0	30	30	0	8	8	0	42	42
Quail farming													
Piggery													
Rabbit farming													
Poultry production	1	0	21	21	0	6	6	0	3	3	0	30	30
Ornamental fisheries	2	12	1	13	8	17	25	0	0	0	20	18	38
Para vets													
Para extension workers													
Composite fish culture	4	43	-	43	69	12	81	4	8	12	116	20	136
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
Breeding and culture of endangered indigenous fish	1	16	5	21	3	1	4	-	-	-	19	6	25
Maintenance of reproductive health	6	-	104	104	-	62	62	-	-	-	-	166	166
Importance of wash for attaining nutrition security	2	16	21	37	25	29	54	-	-	-	37	54	91
TOTAL	**17**	**83**	**160**	**243**	**105**	**157**	**262**	**4**	**19**	**23**	**192**	**336**	**528**

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													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care	1	-	10	10	-	10	10	-	-	-	-	20	20
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
TOTAL	**1**	**-**	**10**	**10**	**-**	**10**	**10**	**-**	**-**	**-**	**-**	**20**	**20**

Consolidated table (ON and OFF Campus)

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	1	5	7	12	10	5	15	15		15	30	12	42
Resource Conservation Technologies													
Cropping Systems													
Crop Diversification	4	14		14	101	5	106	7		7	122	5	127
Integrated Farming	11	146	2	148	224	9	233	6		6	376	11	387
Integrated Farming (CKM)	4	28	2	30	65	33	98	1	1	2	94	36	130
Water management													
Seed production	2	20		20	26		26	2		2	48		48
Nursery management	1	34		34	4		4				38		38
Integrated Crop Management	7	115	0	115	87	17	104				202	17	219
Fodder production													
Production of organic inputs	2	8		8	8		8	16		16	32		32
Crop Intensification	2	37		37	17		17				54		54
Others, (Value addition)	2	15	2	17	42		42				57	2	59
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management, IPM and IDM													

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
of Horticultural crops													
Water management-– Micro Irrigation	1	6	-	6	38	-	38	-	-	-	44	-	44
Skill development for vegetable cultivation													
Enterprise development													
Skill development training for onion cultivation													
Yield increment													
Production of low volume and high value crops	1	19	-	19	-	-	-	-	-	-	19	-	19
Off-season vegetables	1	16	-	16	9	-	9				25	-	25
Nursery raising													
Export potential vegetables	2	60	-	60	-	-	-	-	-	-	60	-	60
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.) of horticultural crops	2	76	2	78	13	-	13	-	-	-	89	2	91
Others, if any (Cultivation of Vegetable)													
Mal-nutrition and physiological disorders in vegetable crops and its management.	1	20	-	20	5	-	5	-	-	-	25	-	25
b) Fruits													
Layout and Management of Orchards	1	30	3	33	-	-	-	-	-	-	30	3	33
Cultivation of Fruit – Ber													
Management of young plants/orchards	1	17	-	17	5	-	5	-	-	-	22	-	22
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any(INM)													
Hormonal treatment for sex modification in Cucurbits and Papaya	1	6	-	6	13	2	15	-	-	-	19	2	21
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
Betel vine management													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													

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
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III. Soil Health and Fertility Management													
Soil fertility management													
Soil and Water Conservation													
Integrated Nutrient Management													
Production and use of organic inputs													
Management of Problematic soils	1				19		19				19		19
Micro nutrient deficiency in crops	2	86	-	86	20	-	20	8	-	8	114	-	114
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
IV. Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
Rabbit Management	1	4	0	4	0	20	20	0	0	0	4	20	24
Disease Management	1	26	30	56	13	23	36	1	2	3	40	55	95
Feed management													
Production of quality animal products	1	0	0	0	0	29	29	0	1	1	0	30	30
Others, if any Goat farming	1	13	5	18	17	10	27	0	0	0	30	15	45
Ornamental bird rearing	2	0	40	40	0	36	36	0	1	1	0	77	77
Awareness on vaccination of animals	1	17	0	17	5	0	5	0	0	0	22	0	22
Rearing of ornamental birds													
Integrated farming and poultry-duckery	1	24	0	24	15	0	15	0	0	0	39	0	39
Feeding of ornamental birds	1	11	1	12	16	5	21	0	0	0	27	6	33
Health management of backyard poultry and duck	1	18	2	20	18	7	25	12	0	12	48	9	57
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	5	1	80	81	13	104	117	-	1	1	14	185	199
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet	1	-	3	3	-	19	19	-	-	-	-	22	22
Minimization of nutrient loss in processing													

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
Gender mainstreaming through SHGs	13	14	59	73	247	191	438	-	7	7	261	257	518
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women	2	3	20	23	-	23	23	-	-	-	3	43	46
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building	1	-	21	21	-	9	9	-	--	-	-	30	30
Women and child care	23	13	263	276	6	228	234	-	-	-	19	491	510
Others, if any													
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII. Plant Protection													
Integrated Pest Management	6	51	29	80	69	35	104	4	3	7	124	67	191
Integrated pest and disease management	1	6	0	6	18	11	29	0	0	0	24	11	35
Integrated Disease Management	2	32	3	35	25	0	25	0	0	0	57	3	60
Bio-control of pests and diseases	2	14	4	18	44	14	58	0	0	0	58	18	76
Bio-intensive IDM	2	4	2	6	42	17	59	0	0	0	46	19	65
Bio-intensive IPM	2	8	0	8	48	13	61	0	0	0	56	13	69
Indigenous Technological Knowledge (ITK)	1	6	0	6	14	8	22	0	0	0	20	8	28
Organic farming	2	45	0	45	24	0	24	2	0	2	71	0	71
Production of bio control agents and bio pesticides	1	19	2	21	14	7	21	0	0	0	33	9	42
Others, if any													
VIII. Fisheries													
Integrated fish farming	2	8	-	8	38	3	41	3	-	3	49	3	52
Carp breeding and hatchery management	1	7	-	7	24	13	37	1	-	1	32	13	45
Carp fry and fingerling rearing													
Composite fish culture & fish disease	8	144	9	153	105	10	115	9	2	11	258	21	279
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													

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
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
Breeding and culture of endangered indigenous fish	3	46	11	57	7	2	9	-	-	-	53	13	66
Culture of stress tolerant fish	2	14	-	14	42	1	43	13	-	13	69	1	70
Freshwater fish culture	1	36	-	36	8	-	8	-	-	-	44	-	44
Introduction of new species and varietal replacement	1	6	-	6	12	-	12	2	-	2	20	-	20
Tilapia culture	1	2	-	2	18	-	18	-	-	-	20	-	20
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production	1	4	1	5	13	11	24	0	0	0	17	12	29
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs	12	78	18	96	273	148	421	1	6	7	352	172	524
Mobilization of social capital													
Entrepreneurial development of farmers/youths	2	32		32	10	32	42				42	32	74
WTO and IPR issues													
Others, if any													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
XII. Others (Pl. Specify)													
Total	**162**	**1396**	**666**	**2062**	**1958**	**1148**	**3106**	**99**	**42**	**141**	**3453**	**1856**	**5309**

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
Mushroom Production													
Bee-keeping													
Integrated farming	1	3	1	4	3	0	3	0	0	0	6	1	7
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops	3	60	3	63	43	1	44	-	-	-	103	4	107
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	2	53	2	55	13	19	32	2	6	8	68	27	95
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing	1	0	4	4	0	30	30	0	8	8	0	42	42
Quail farming													
Piggery													
Rabbit farming													
Ornamental bird rearing	2	12	1	13	8	17	25	0	0	0	20	18	38
Poultry production	1	0	21	21	0	6	6	0	3	3	0	30	30
Ornamental fisheries	4	24	39	63	3	27	30	4	5	9	31	71	102
Para vets													
Para extension workers													
Composite fish culture	18	233	131	364	104	23	127	9	9	18	346	163	509
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Carp breeding and hatchery management	2	11	1	12	12	2	14	-	-	-	23	3	26
Fry and fingerling rearing	1	16	5	21	14	5	19	-	-	-	30	10	40
Integrated fish farming													
Breeding of endangered indigenous fish	3	51	5	56	22	1	23	-	-	-	73	6	79
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													

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
Enterprise development													
Agri-clinic and agri-business	1	20	0	20	7	0	7	0	0	0	27	0	27
Integrated Pest Management	2	41	0	41	48	0	48	0	0	0	89	0	89
Integrated Crop Management													
Maintenance of reproductive health and nutritional Status	6	-	104	104	-	62	62	-	-	-	-	166	166
Importance of wash for attaining nutrition security	2	12	25	37	25	29	54				37	54	91
Modern technology for export quality betel vine production	2	101	7	108	14	1	15	-	-	-	115	8	123
TOTAL	**53**	**655**	**349**	**1004**	**325**	**223**	**548**	**15**	**31**	**46**	**995**	**603**	**1598**

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													
Integrated Pest Management													
Integrated Disease Management	1	13	0	13	7	0	7	0	0	0	20	0	20
Biological Control	1	14	2	16	4	0	4	0	0	0	18	2	20
Management of Problematic Soil													
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
Protected cultivation (Green Houses, Shade Net etc.) of vegetables													
Formation and Management of SHGs	2		25	25		42	42					67	67
Group Dynamics and farmers organization													
Leadership development													
Information networking among farmers													
Capacity building for ICT application	2	74	2	76	15	0	15	0	0	0	89	2	91
Capacity building for Water shed management													
Capacity building on Natural Resource	1					23	23					23	23

Management, Farm production system and livelihood support system													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Artificial Insemination	2	78	0	78	20	0	20	5	0	5	103	0	103
Azolla cultivation													
Prani bandhu (45 days)													
Integrated fish farming	1	8	5	13	0	0	0	0	1	1	8	6	14
Carp breeding and hatchery management													
Breeding of endangered indigenous fish													
Composite fish culture	2	12	6	18	-	-	-	-	-	-	12	6	18
Household food security	1	7	-	7	27	5	32	-	-	-	34	5	39
Women and Child care	2	13	10	23	6	10	16	0	0	0	19	20	39
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Krishak Mitra													
Friends of Coconut Tree (FOCT)	7	176	-	176	116	-	116	2	-	2	294	-	294
National Vegetable Initiative for Urban Cluster													
National Vegetable Initiative for Urban Cluster													
Hi-Tech Horticulture for the East Singbhum District of Jharkhand													
Crop intensification													
Evaluation and monitoring tool	1	9	17	26	2	2	4	-	-	-	11	19	30
Training of Programme Coordinators	1	7	1	8	0	0	0	0	0	0	7	1	8
Technological interventions for coastal agri-horticulture for the extension personnel of Puduchhery	1	25	-	25	10	-	10	-	-	-	35	-	35
Diploma in Agriculture Extension Services for Input Dealers (DAESI)	1	33	1	34	4	0	4	2	0	2	39	1	40
TOTAL	**26**	**469**	**69**	**538**	**211**	**82**	**293**	**9**	**1**	**10**	**689**	**152**	**841**

Please furnish the details of training programmes as Annexure in the proforma given below

Date	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										
21.04.14	PF	Quality management of cotton	1	Off	32		32	21		21
24.04.14	PF	Quality management of cotton	1	Off	25	2	27	21		21
20.05.14 to 21.05.14	PF	Selection of kharif rice varieties, seed treatment & nursery management	2	On	38		38	4		4
23.05.14	PF	Management of *Aila* affected soil & selection of salt tolerant kharif paddy varieties	1	Off	19		19	19		19
16.06.14	PF	Technique of kharif paddy seed production (Certified)	1	off	26		26	22		22
23.06.14 to 24.06.14	PF	Technique of kharif paddy seed production (Certified)	1	On	22		22	6		6
26.06.14	PF	Use of organic manure and bio-fertilizer in kharif paddy	1	Off	38		38			
08.07.14 To 09.07.14	PF	Landshaping an option for multiple cropping	2	On	19	4	23	4	2	6
24.07.14	PF	Possibilities of multiple cropping in land shaping plot	1	Off	30	5	35	23	5	28
13.08.14 to 14.08.14	PF	Fertilizer management and intercultural operation in low land paddy	2	On	22	5	27	16	5	21
01.09.14 to 03.09.14	PF	Integrated farming	3	On	40		40	18		18
01.09.14 to 06.09.14	PF	Integrated farming under BGREI	6	On	41	2	43	31	2	33
04.09.14 to 05.09.14	PF	Vermicomposting	2	On	20		20	16		16
08.09.14 to 13.09.14	PF	Integrated farming under BGREI	6	On	53		53	36		36
08.09.14 to 10.09.14	PF	Integrated farming	3	On	30		30	25		25
24.09.14 to 27.09.14	PF	Integrated farming	6	On	30		30	16		16
24.09.14 to 27.09.14	PF	Suitable cropping pattern for rabi & summer season in land shaping plot	2	On	40		40	18		18
20.10.14 to 23.10.14	PF	Integrated farming	4	On	33		33	25		25
27.10.14 to 30.10.14	PF	Boro paddy through SRI	4	On	34		34	17		17
10.11.14 to 13.11.14	PF	Advance technology on second crop cultivation in sundarbans	4	On	27		27	13		13

10.11.14	PF	Account maintenance of SHGs under IWMP	1	Off	34	21	55	23	13	36
15.11.14	PF	Account maintenance of SHGs under IWMP	1	Off	29	5	34	29	4	33
17.11.14	PF	Account maintenance of SHGs under IWMP	1	Off	12	24	36	12	22	34
19.11.14	PF	Account maintenance of User Group's under IWMP	1	Off	54	5	59	54	4	58
20.11.14	PF	Account maintenance of SHGs under IWMP	1	Off	32	14	46	31	13	44
17.11.14 to 20.11.14	PF	Advance technology on second crop cultivation in sundarbans	4	On	30		30	13		13
19.11.14 to 22.11.14	EP	Capacity building on account maintenance of SHGs &User Group's under IWMP	4	On		35	35		25	25
24.11.14 to 27.11.14	EP	Natural resource management, Farm production and micro enterprise under IWMP	4	On		32	32		17	17
01.12.14 to 06.12.14	PF	Integrated farming	6	On	43		43	27		27
15.12.14 to 16.12.14	PF	Modern technology on sunflower cultivation	2	On	35		35	26		26
17.12.14 to 18.12.14	PF	Production of Vermicompost	2	On	12		12	8		8
19.12.14	PF	Strenthening of SHGs & UGs activities under IWMP	1	Off	42	14	56	28	8	36
22.12.14 to 24.12.14	PF	Livelihood activities(handicrafts) under IWMP	3	On		32	32		32	32
26.12.14 to 27.12.14	PF	Account maintenance of SHGs under IWMP	2	On	40		40	18		18
29.12.14 to 30.12.14	EP	Livelihood activities(Agarbati & candle making) under IWMP	2	On	42		42	10		10
02.01.15 to 03.01.15	PF	Maize cultivation	2	On	24	3	27	22	3	25
06.01.15	PF	Cotton cultivation under residual moisture	1	Off	43		43	40		40
14.01.15	PF	Modern technology on Sunflower cultivation	1	Off	20	2	22	20	2	22
27.01.15 to 30.01.15	PF	Livelihood activities(Food processing, agarbati & candle making) under IWMP	4	on		23	23		23	23
13.02.15	PF	Boro paddy cultivation through SRI	1	off	20		20			
19.02.15	PF	SHG group formation	1	Off	3	14	17	3	12	15
24.02.15	PF	Account maintence of UGs	1	Off	39	2	41	19	2	21
26.02.15	PF	Account maintence of UGs	1	Off	21	32	53	13	30	43
02.03.15	PF	Summer Greengram cultivation under residual moisture	1	Off	32		32	14		14

04.03.15	PF	Summer Greengram cultivation under residual moisture	1	Off	28		28	12		12
07.03.15	PF	Account maintence of UGs	1	Off	23	6	29	22	6	28
10.03.15	PF	Account maintence of SHGs	1	Off	22	36	58	21	36	57
19.03.15	PF	Integrated Farming	1	On	17		17	7		7

Date	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
Horti-culture										
30.04.14	PF	Hormonal treatment for sex modification in Cucurbits and Papaya	1	Off	19	2	21	13	2	15
16.05.14	PF	Early kharif vegetable cultivation on the land embankment	1	Off	19	-	19	19	-	19
26.05.14 – 30.05.14	PF	Integrated Farming	5	On	-	30	30	-	30	30
02.06.14 – 03.06.14	RY	Modern technologies in vegetable cultivation during rainy season	2	on	17	-	17	17	-	17
09.06.14	EP	Important technological interventions for coastal agri-horticulture for the extension personnel of Puduchhery	1	on	35	-	35	10	-	10
21.06.14	PF	Scientific management of guava orchard during mansoon and post mansoon season	1	Off	22	-	22	5	-	5
30.06.14 – 05.07.14	EP	Friends of Coconut Tree	6	on	40	-	40	6	-	6
25.07.14	PF	Improved method of Horticultural crop production through Shade house structure	1	On	44	2	46	-	-	-
26.07.14	PF	Improved method of Horticultural crop production through Shade house structure	1	On	45	-	45	13	-	13
13. 08.14 - 14.08.14	RY	Modern technology for export quality betel vine production	2	on	69	6	75	10	-	10
16.08.14	PF	Improved method of early vegetable cultivation on the Land Embankment for the low lying areas	1	off	25	-	25	9	-	9
18.08.14 - 23.08.14	EP	Friends of Coconut Tree	6	on	40	-	40	23	-	23
25.08.14 - 30.08.14	PF	Integrated Farming for better profitability in the Sundarban agro-	6	On	45	1	46	41+1	1 (ST)	43

		climatic situation								
01.09.14 - 06.09.14	PF	Integrated Farming for better profitability in the Sundarban agro-climatic situation	6	On	19	-	19	9	-	9
15.09.14	PF	Management of Ber fruit orchard for better profitability	1	Off	30	3	33			
17.09.14 - 20.09.14	RY	Modern technology for export quality betel vine production	4	On	46	2	48	4	1	5
27.10.14 - 01.11.14	EP	Friends of Coconut Tree	6	On	32	-	32	5	-	5
08.12.14 – 12.12.14	RY	Modern advances in horticultural technologies for self employment generation	5	On	14	26	40	5+1	19+6	31
15.12.14 - 20.12.14	EP	Friends of Coconut Tree	6	On	40	-	40	15+2	-	17
18.12.14	PF	Drip irrigation and mulching for better crop management in fruit and vegetable cultivation	1	Off	44	-	44	38	-	38
22.12.14	PF	Mal-nutrition and physiological disorders in vegetable crops and its management.	1	On	25	-	25	5	-	5
30.12.14 – 31.12.14	PF	Modern system of market oriented vegetable cultivation for the city market	2	On	30	-	30	-	-	-
01.01.15 – 02.01.15	PF	Modern system of market oriented vegetable cultivation for the city market	2	On	30	-	30	-	-	-
12.01.15 – 17.01.15	EP	Friends of Coconut Tree	6	On	46	-	46	20	-	20
02.02.15 – 06.02.15	PF	Integrated Farming	5	On	30	5	35	15	3	18
09.02.15 – 14.02.15	EP	Friends of Coconut Tree	6	On	50	-	50	40	-	40
18.02.15 – 21.02.15	RY	Horticulture Nursery Management	4	On	54	1	55	8+1	-	9
23.02.15 – 28.02.15	EP	Friends of Coconut Tree	6	On	46	-	46	7	-	7
17.03.15 – 20.03.15	RY	Advanced technologies of market oriented vegetable cultivation	4	On	43	2	45	23	1	24
23.03.15 – 26.03.15	RY	Advanced technologies of market oriented vegetable cultivation	4	On	43	2	45	20	-	20

Date	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 Husbandry										
23.04.2014	F & FW	Ornamental bird rearng	1	On	0	40	40	0	23	23
24.04.2014	F & FW	Ornamental bird rearng	1	On	0	37	37	0	14	14
05.05.14-07.05.14	F & FW	Poultry and duckery	3	On	24	0	24	15	0	15
08.05.14	RY	Ornamental bird rearing	1	On	10	0	10	4	0	4
04.06.14-6.06.14	PF	Dairy farming	3	On	25	0	25	7	0	7
10.06.14-11.06.14	F & FW	Poultry farming	2	On	12	33	45	12	30	42
12.06.14-13.06.14	F & FW	Poultry farming	2	On	12	19	31	9	14	23
16.06.14-17.06.14	F & FW	Poultry farming	2	On	26	24	50	25	24	49
18.06.14-19.06.14	F & FW	Poultry farming	2	On	10	23	33	5	9	14
20.06.14-21.06.14	F& FW	Duck Farming	2	On	3	9	12	3	5	8
25.6.14-27.6.14	RY	Goat farming	3	On	13	0	13	5	0	5
26.06.14	F & FW	Feed management of ornamental birds reared by womenfolk of Sundarbans	1	On	1	29	30	1	6	7
04.07.14	F & FW	Awareness on vaccination of animals	1	off	17	0	17	5	0	5
27.10.14-10.12.2014	EF	Artificial Insemination	45	On	55	0	55	10	0	10
03.12.14	RY	BACKYARD POULTRY	30	OFF	0	30	30	0	9	9
16.12.14-19.12.14	F & FW	POULTRY REARING	30	ON	0	30	30	0	30	30
06.01.15-09.01.15	F & FW	GOAT FARMING	4	ON	30	15	45	17	10	27
07..01.15	F & FW	DISEASE MANAGEMENT	1	OFF	40	55	95	14	25	39
08.01.15	F & FW	Rabbit management	1	Off	20	4	24	0	20	23
13.01.15	RY	Ornamental bird rearing	1	Off	6	18	24	4	17	21
16.01.15	F & FW	Feeding of ornamental birds	1	On	11	1	12	16	5	21
20.1.15	RY	Goat farming	1	Off	0	42	42	0	38	38
28.01.15-31.01.15	F & FW	Health management of backyard poultry and duck	4	On	48	9	57	30	7	37
13.02.15-29.03.15	EF	Artificial insemination	45	On	48	0	48	15	0	15

Date	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										
19.04.14	F & FW	Ecofriendly pest management principles and practices	1	Off	30	0	30	8	0	8
19.05.14 – 23.05.14	F & FW	IPM of major summer crops	5	On	0	32	32	0	15	15
06.05.14	F & FW	Integration of eco-friendly chemical pesticides and organic plant protection measures	1	Off	36	0	36	31	0	31
10.07.14	F & FW	Bio-intensive pest management of vegetables	1	Off	27	13	40	24	13	37
05.08.14	F & FW	Use of relatively eco-safe modern generation pesticides in vegetables	1	Off	24	11	35	18	11	29
13.08.14	F & FW	Use of indigenous technical knowledge in preparation of bio-pesticides	1	Off	20	8	28	14	8	22
25.08.14 – 30.08.14	RY	Skill development training on modern agri-horti practices	6	On	6	1	7	3	0	3
27.08.14	F & FW	Management of Bacterial wilt in Bitter Gourd	1	Off	25	0	25	11	0	11
08.09.14	F & FW	Pest and diseases management in kharif paddy	1	Off	26	6	32	23	5	28
24.09.14 - 27.09.14	EP	Pest and disease management of agricultural crops through the use of internet and SMS alert in mobile	4	On	40	0	40	9	0	9
22.10.14	F & FW	Role and use of organic pesticides for winter crop disease management	1	Off	23	9	32	22	8	30
27.10.14 - 30.10.14	RY	Self-employment generation by farm advisory service in agriculture	4	On	27	0	27	7	0	7
01.10.14 – 30.09.15	**EP**	Diploma in Agriculture Extension Services for Input Dealers	52	On	39	1	40	6	0	6
10.11.14	F & FW	Bio-intensive pest management of sunflower, summer green gram and okra	1	Off	20	13	33	17	13	30
21.11.14	F & FW	Integrated crop management of winter vegetables with special emphasis on plant protection aspects	1	Off	25	12	37	19	12	31
10.11.14 – 15.11.14	RY	Training of friends of coconut trees with special emhasis on plant protection measures	6	On	51	0	51	37	0	37

25.11.14 – 28.11.14	EP	Pest and disease management of agricultural crops through the use of internet and SMS alert in mobile	4	On	49	2	51	6	0	6
12.12.14	F & FW	Organic plant protection through botanicals, bioagents, biopesticides and organic pesticides	1	Off	33	9	42	14	7	21
22.01.15	F & FW	Role and use of organic pesticides for winter crop disease management	1	Off	23	10	33	20	9	29
05.01.15 – 08.01.15	F & FW	Recent advances in Integrated pest and disease management	4	On	28	7	35	13	0	13
12.01.15 – 15.01.15	F & FW	Integrated disease management of ail-cultivated vegetables	4	On	32	3	35	14	0	14
20.01.15 – 23.01.15	F & FW	Production of bio-control agents and their use in agriculture	4	On	31	5	36	20	1	21
02.02.15 – 06.02.15	F & FW	Integrated Farming	5	On	28	0	28	19	0	19
10.02.15 – 13.02.15	F & FW	Modern advances in Horticultural Technologies	4	On	43	0	43	7	0	7
12.02.15	F & FW	Integrated management of pest and diseases in Chilli with special reference to chilli leaf curl virus	1	Off	21	11	32	15	8	23
16.02.15 – 21.02.15	RY	Training of friends of coconut trees with special emhasis on plant protection measures	6	On	38	0	38	11	0	11
25.02.15	F & FW	Hands-on training on vermicomposting	1	Off	17	12	29	13	11	24
09.03.15 – 12.03.15	EP	Integrated disease management of vegetable and field crops (KPS)	4	On	20	0	20	7	0	7
11.03.15 - 14.03.15	EP	Production of biocontrol agents and their uses in agriculture (ADA & BTM)	4	On	18	2	20	4	0	4
17.03.15	F & FW	Integrate pest and disease management of Ail cultivated winter vegetables	1	Off	19	11	30	14	10	24

Date	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
Fishery										
01.04.14-05.04.14	RY	Carp & prawn culture as an avenue for income generation	5	On	16	7	23	3	-	3
19.04.14-20.04.14	EP	Integration of horticulture & poultry with fish farming	2	On	8	6	14	-	1	1
21.04.14	PF	Method of pond preparation for carp & tilapia culture	1	Off	29	7	36	21	4	25

28.04.14-30.04.14	RY	Induced breeding of carps in eco-hatchery	3	On	13	2	15	11	2	13
02.05.14	RY	Methods of pond preparation for carp culture	1	Off	30	20	50	25	20	45
06.05.14-07.05.14	RY	Optimum resource utilization through farming of diverse fish crops	2	On	11	-	11	1	-	1
22.05.14-24.05.14	PF	Induced breeding of carps in eco hatchery	3	On	32	13	45	25	13	38
29.05.14-31.05.14	RY	Commercial production of carp fry and fingerlings from freshwater ponds	3	On	30	10	40	14	5	19
09.06.14-11.06.14	EP	Induced breeding of carps in eco-hatchery	3	On	10	1	11	1	-	1
10.06.14-13.06.14	PF	Small scale seed production and larval rearing of Asian catfish	3	On	10	1	11	1	-	1
30.06.14	PF	Introduction of *Notopterus chitala* and *Ompok pabo* and varietal replacement of bottom feeders in carp culture ponds	1	Off	20	-	20	14	-	14
01.07.14-03.07.14	PF	Mixed culture of carp and prawn	3	On	28	-	28	6	-	6
04.07.14	RY	Management of carp grow-out ponds	1	Off	22	-	22	20	-	20
15.07.14-19.07.14	RY	Small scale seed production and larval rearing of Asian catfish	5	On	32	-	32	11	-	11
16.07.14-18.07.14	PF	Mixed fish and prawn culture in freshwater ponds of South 24 Parganas	3	On	32	-	32	11	-	11
18.08.14-22.08.14	RY	Breeding and culture of desi magur	5	On	22	-	22	8	-	8
25.08.14-26.08.14	PF	Composite fish culture in domestic ponds	2	On	25	5	30	2	2	4
27.08.14-28.08.14	RY	Composite fish culture in domestic ponds	2	On	35	-	35	5	-	5
29.08.14-30.08.14	PF	Composite fish culture in domestic ponds	2	On	25	-	25	7	-	7
01.9.14-29.9.14	RY	Freshwater fish culture technology	30	On	1	-	1	1	-	1
08.09.14-12.09.14	RY	Ornamental fish farming	5	On	4	-	4	1	-	1
15.09.14-19.09.14	PF	Integrated fish farming	5	On	18	-	18	14	-	14
18.09.14-19.09.14	RY	Additional income generation through culture of ornamental fish in carp ponds	2	On	12	6	18	4	2	6
22.09.14-27.09.14	PF	Integrated fish farming	6	On	31	3	34	27	3	30
25.09.14	PF	Culture of all male tilapia for increased profitability	1	Off	20	-	20	18	-	18
12.11.14-15.11.14	PF	Mixed fish and prawn culture in freshwater ponds of South 24 Parganas	4	On	47	-	47	35	-	35
27.11.14-06.12.14	EP	Training-cum-exposure for the Programme Coordinators	10	On	7	1	8	-	-	-
09.12.14	RY	Freshwater pisciculture	1	On	14	31	45	-	-	-

09.12.14-12.12.14	RY	Ornamental fish farming	4	On	15	-	15	2	-	2
12.12.14	PF	Promotion of stress tolerant fish species	1	Off	30	-	30	20	-	20
17.12.14-20.12.14	PF	Culture of stress tolerant fish in brackishwater inundated coastal impoundments	4	On	39	1	40	35	1	36
22.12.14	RY	Additional income generation through culture of ornamental fish in carp ponds	1	On	-	65	65	-	30	30
15.01.15	PF	Culture management for desi magur	1	Off	20	5	25	-	-	-
17.01.15	RY	Culture management for desi magur	1	Off	19	6	25	3	1	4
20.01.15	PF	Culture management for desi magur	1	Off	23	7	30	6	2	8
21.1.15	RY	Freshwater Pisciculture	1	On	7	5	12	2	2	4
24.1.15	RY	Freshwater Pisciculture	1	On	19	-	19	9	-	9
4.2.15	RY	Freshwater Pisciculture	1	On	16	6	22	-	-	-
09.02.15-13.02.15	RY	Technological options for carp and prawn culture in freshwater impoundments as an avenue for income generation	5	On	28	20	48	3	2	5
11.2.15	RY	Freshwater Pisciculture	1	On	4	32	36	-	3	3
12.2.15	RY	Mixed fish & prawn farming	1	On	14	5	19	2	-	2
17.2.15	RY	Mixed fish & prawn farming	1	On	20	6	26	2	1	3
18.2.15	EP	Pond fish culture	1	On	7	6	13	-	-	-
20.02.15	EP	Freshwater pisciculture	1	On	5	-	5	-	-	-
27.2.15	RY	Mixed fish & prawn farming	1	On	21	30	51	3	3	6
12.03.15	RY	Modified composite fish culture for countering climatic hazards in ponds	1	Off	32	-	32	14	-	14
18.03.15	PF	Freshwater pisciculture for the farmers of Bihar	1	On	44	-	44	8	-	8
26.03.15	RY	Pond fish culture	1	On	24	1	25	9	1	10

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Home science										
1.04.14-5.04.14	EP	Management of nutrition garden and application of gender friendly agricultural Implements for drudgery reduction	6	on	34	5	39	27	5	32
21.04.14-25.04.14	EP	Identification & management of high risk mother	6	on	19	-	19	6	-	6
21.04.14-25.04.14	FW	Management of nutrition garden and application of gender friendly agricultural Implements for drudgery reduction	6	on	1	54	55	1	31	32

23.04.14-24.04.14	FW	Management of Moderately acute malnourished Children	2	off	-	20	20	-	14	14
28.04.14-29.04.14	FW	Management of Moderately acute malnourished Children	2	off	-	20	20	-	15	15
28.04.14-02.05.14	FW	Management of nutrition garden and application of gender friendly agricultural Implements for drudgery reduction	6	on	-	27	27	-	12	12
01.05.14	FW	Management of Moderately acute malnourished Children	1	off	-	25	25	-	2	2
05.05.14-09.05.14	FW	Integrated farming system	5	on	-	30	30	-	9	9
06.05.14	FW	Management of Moderately acute malnourished Children	1	off	-	25	25	-	13	13
21.05.14-22.05.14	FW	Management of home stead garden	2	on	-	40	40	-	27	27
22.05.14	FW	Nutrition management of Pregnant lactating mothers	1	Off	-	-	22	-	19	19
02.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	25	25	-	2	2
05.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	25	25	-	13	13
07.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	20	20	-	-	-
12.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	18	18	-	-	-
16.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	24	24	-	4	**4**
17.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	21	21	-	11	11
19.06.14	FW	Management of Moderately acute malnourished Children	1	Off	-	22	22	-	5	5
21.05.14	FW	Management of Moderately acute malnourished Children	1	Off	-		24	-	-	-
23.05.14	FW	Management of Moderately acute malnourished Children	1	Off	-		23	-	21	21
24.06.14	FW	Gender mainstreaming through SHG	1	Off	-	20	20	-	15	15
02.07.14	FW	Management of Moderately acute malnourished Children	1	Off	-	16	16	-	9	9

03.07.14	FW	Management of Moderately acute malnourished Children	1	Off	-	44	44	-	27	27
04.07.14	FW	Management of Moderately acute malnourished Children	1	Off	-	30	30	-	18	18
10.07.14	FW	Management of Moderately acute malnourished Children	1	Off	-	24	24	-	13	13
11.07.14	FW	Management of Moderately acute malnourished Children	1	Off	-	22	22	-	9	9
05.08.14	FW	Gender mainstreaming through SHG	1	Off	-	18	18	-	1	1
05.08.14	RY	Management of Nutritional health on Adolescent girl	1	Off	-	16	16	-	6	6
08.08.14	FW	Importance of WASH to maintain nutrition security	1	Off	-	18	18	-	13	13
12.08.14	FW	Management of Moderately acute malnourished Children	1	Off	-	29	29	-	24	24
14.08.14	RY	Management of Nutritional health of Adolescent girl	1	Off	-	30	30	-	10	10
21.08.14	RY	Management of Nutritional health on Adolescent girl	1	Off	-	18	18	-	2	2
22.08.14	FW	Gender mainstreaming through SHG	1	Off	7	36	43	4	21	25
23.08.14	RY	Management of Nutritional health on Adolescent girl	1	Off	-	25	25	-	4	4
29.08.14	RY	Management of Nutritional health on Adolescent girl	1	Off	-	21	21	-	2	2
08.09.14	EP	Anthropometric measurement for children (0-8 years) to identify malnourished children	1	Off	-	20	20	-	10	10
29.10.14	FW	Management of home stead garden	1	Off	13	22	35	12	22	34
31.10.14-2.11.14	EP	Orientation on addressing food and nutrition security through right based approach	3	on	11	21	32	2	2	4
10.11.14	FW	Strengthening & Account maintenance of SHG	1	Off	35	20	55	27	11	38
15.11.14	FW	Strengthening & Account maintenance of SHG	1	Off	23	13	36	23	12	35
15.11.14	FW	Strengthening & Account maintenance SHG	1	Off	21	13	34	21	11	32
19.11.14	FW	Strengthening & Account maintenance SHG	1	Off	37	22	59	37	21	58
19.11.14	FW	Strengthening & Account maintenance SHG	1	Off	19	27	46	19	25	44
20.11.14	FW	Strengthening & Account maintenance SHG	1	Off	37	28	65	36	27	63

28.11.14	FW	Strengthening & Account maintenance SHG	1	Off	17	18	35	17	17	34
10.12.14	FW	Strengthening & Account maintenance SHG	1	Off	9	16	25	7	16	23
02.12.14	FW	Management of Nutritional health on Adolescent girl	1	Off	-	66	66	-	36	36
02.12.14	FW	Management of home stead garden	1	Off	-	42	42	-	13	13
15.12.14	FW	Management of Moderately acute malnourished Children	1	Off	-	12	12		5	5
18.12.14	FW	Management of Moderately acute malnourished Children	1	Off	-	12	12	-	-	-
27.12.14	FW	Management of Moderately acute malnourished Children	1	Off	-	10	10	-	10	10
19.01.15-22.01.15	FW	Mushroom Cultivation at home stead level to attain food and nutrition security	4	on	3	21	24	-	3	3
27.01.15-30.01.15	FW	Income generating activity of SHG	4	on	-	22	22	-	2	2
12.02.15	FW	Account maintenance of SHGs	1	Off	-	36	36	15	21	36
13.02.15	FW	Account maintenance of SHGs	1	Off	41	5	46	41	5	46
03.03.15	RY	Importance of WASH to attain nutrition security	1	Off	17	23	40	12	14	26
06.03.15	RY	Importance of WASH to attain nutrition security	1	Off	20	31	51	13	15	28

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants		Self employed after training				
				Male	Female	Total	Type of units	Number of units	Number of persons employed	Number of persons employed else where
Ornamental bird rearing	Alternative livelihood option	Ornamental bird rearing for employment generation	1	10	0	10	100 birds/unit	8	11	-
Goat farming	Enterpreneurship development	Scientific rearing of goat	3	13	0	13	200 goats	1	5	
Betel vine	Export quality betel vine production	Modern technology for export quality betel vine production	4	115	8	87	Betel vine production unit	87	150	36
Seedling / sapling	Nursery Management of Horticulture crops	Horticulture Nursery Management	5	68	27	12	Own nursery	12	35	27
Vegetable	Protected cultivation of vegetable crops	Advanced technologies of market oriented vegetable cultivation	4	103	4	107	Own Vegetable production unit	107	107	-
Fish seed	Efficient utilization of water resources	Commercial production of carp fry and fingerlings from freshwater ponds	3	30	10	40	Small and medium ponds	22	31	11
Carp fish	Efficient utilization of water resources	Composite fish culture in domestic ponds	2	35	-	35	Medium and big ponds	29	36	6
Desi magur (Asian catfish)	Improvement of backyard system performance	Small scale seed production and larval rearing of Asian catfish	5	32	-	32	Backyard hatchery	8	17	13
Ornamental fish	Diversification of existing production system	Ornamental fish farming	4	15	-	15	Ponds & cisterns	8	11	7

*training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes

Sl. No	Title	Thematic area	Month	Dura-tion (days)	Client	No. of courses	No. of Participants									Sponsoring Agency
					PF/RY/EF		Male			Female			Total			
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1.	Strengthening of backyeard poultry farming	Poultry management	June	2	PF	4	9	70	3	22	41	14	31	111	17	159	IWMP, govt WB
2.	Strengthening of backyeard duck farming	Poultry management	June	2	PF	1	4	2	1	0	1	4	4	3	5	12	IWMP, govt WB
3.	Feed management of ornamental birds reared by womenfolk of Sundarbans	Feed management	June	1	PF	1	0	0	0	23	6	0	23	7	0	30	SSKVK, Narendrapur
4	Artificial insemination	Dairy management	October	45	EF	1	45	6	4	0	0	0	45	6	4	55	ARD Dept, GOWB
5	Artificial insemination	Dairy management	Febryary	45	EF	1	33	14	1	0	0	0	33	14	1	48	ARD Dept, GOWB
6	Advanced technologies of market oriented vegetable cultivation	Protected cultivation of vegetable crops	Merch, 15	4	RY	2	43	43	-	3	1	-	46	44	-	90	Dist. Hort. Office, South 24 Pgs., Dept. of FPI & Hort., GoWB
7	Important technological interventions for coastal agri-horticulture for the extension personnel of Puduchhery	Technological interventions for coastal agri-horticulture	June, 14	1	EP	1	25	10	-	-	-	-	25	10	-	35	Dept. of Ag. Govt. of Puduchery
8	Modern system of market oriented vegetable cultivation for the city market	Export potential vegetables	Dec., 2014 & Jan., 2015	2	PF	2	60	-	-	-	-	-	60	-	-	60	Dist. Hort. Office, Purba Midnapur, Dept. of FPI & Hort., GoWB
9	Friends of Coconut Tree	Friends of Coconut Tree	June, 14 – Feb., 15	6	EP	7	176	116	2	-	-	-	176	116	2	294	Coconut Dev. Board, GoWB
10	Integrated farming in Land shaping plot under BGREI	Integrated farming	September	6	PF	1	10	29	2	-	2	-	10	31	2	43	BGREI
11	Integrated farming in Land shaping plot under BGREI	Integrated farming	September	6	PF	1	17	33	3	-	-	-	17	33	3	53	BGREI
12	Integrated farming	Integrated farming	September	3	PF	1	22	18					22	18		40	IWMP
13	Vermicomposting	Vermicompost	September	2	PF	1	4	16					4	16		20	IWMP
14	Integrated farming	Integrated farming	September	3	PF	1	5	25					5	25		30	IWMP

15	Integrated farming	Integrated farming	September	4	PF	1	14	16					14	16		30	IWMP
16	Integrated farming	Integrated farming	October	4	PF	1	8	25					8	25		33	IWMP
17	Capacity Building on Management of Account for SHG and UG under IWMP	Account Maintanance	November	4	PF	1				10	25	-	10	25		35	IWMP
18	Implementation of NRM farm production and Microenterprise and Livelihood Support System activities	Livelihood	November	4	EP	1				15	17		15	17		32	IWMP
19	Integrated farming	Integrated farming	December	6	PF	1	16	27					16	27		43	Govt. of WB
20	Production of Vermicompost by SHG and UGs	Vermicomopost	December	2	PF	1	4	8					4	8		12	IWMP
21	Training on Livelihood for SHG and UG under IWMP	Enterpreniurship development	December	3	PF	1	-	32						32		32	IWMP
22	Account Maintanance under IWMP	Formation and management	Decembeer	2	PF	1	22	18								40	IWMP
23	Livelihood for SHG and UG under IWMP	Enterpreniurship development	December	2	PF	1	32	10								42	IWMP
24	Self employment of women folk through food processing, Incense stick and Candle making	Enterpreniurship development	January	4	PF	1		16		7				23		23	IWMP
25	Integrated farming	Integrated farming	March	1	PF	1	10	6	1							17	Sasya Shyamala KVK
26	Carp & prawn culture as an avenue for income generation	Composite fish culture	April	5	RY	1	13	3	-	7	-	-	20	3	-	23	Asutosh College,Kolkata
27	Mixed culture of carp and prawn	Composite fish culture	July	1	PF	1	22	6	-	-	-	-	22	6	-	28	Dept. of Forest, Govt of West Bengal
28	Composite fish culture in domestic pond	Composite fish culture	August	2	PF	1	23	2	-	3	2	-	26	4	-	30	Dept. of Forest, Govt of West Bengal
29	Composite fish culture in domestic pond	Composite fish culture	August	2	RY	1	30	5	-	-	-	-	30	5	-	35	Dept. of Forest, Govt of West Bengal
30	Ornamental Fish Farming	Ornamental fisheries	September	5	RY	1	3	1	-	-	-	-	3	1	-	4	Chebri KVK,Tripura

31	Additional income generation through culture of ornamental fish in carp ponds	Ornamental fisheries	September	2	RY	1	8	-	4	4	-	2	12	-	6	18	Raha Fisheries College, Assam Agricultural University
32	Training programme on Integrated Farming under BGREI	Integrated farming	September	6	PF	2	8	38	3	-	-	3	8	38	6	52	BGREI
33	Freshwater Pisciculture	Composite fish culture	December	1	RY	1	14	-	-	31	-	-	45	-	-	45	Serampore College, Hooghly
34	Additional income generation through culture of ornamental fish in carp ponds	Ornamental fisheries	December	1	RY	1	-	-	-	35	27	3	35	27	3	65	Uchcha Balika Vidyamandir
35	Freshwater pisciculture	Composite fish culture	January	1	RY	1	5	2	-	3	2	-	8	4	-	12	Sammilani Mahavidyalaya, Kolkata
36	Freshwater pisciculture	Composite fish culture	January	1	RY	1	10	7	2	-	-	-	10	7	2	19	CIFE, Kolkata
37	Freshwater pisciculture	Composite fish culture	February	1	RY	1	16	-	-	6	-	-	22	-	-	22	Maharaja Manindra Chandra College, Kolkata
38	Freshwater pisciculture	Composite fish culture	February	1	RY	1	4	-	-	29	3	-	33	3	-	36	Vivekananda College, Kolkata
39	Mixed fish and prawn farming	Composite fish culture	February	1	RY	1	12	1	1	5	-	-	17	1	1	19	Charuchandra College, Kolkata
40	Mixed fish and prawn farming	Composite fish culture	February	1	RY	1	19	2	-	4	1	-	23	3	-	26	Vijaygarh Jyotish Roy College, Kolkata
41	Pond Fish Culture	Composite fish culture	February	1	EP	1	7	-	-	6	-	-	13	-	-	13	Skyline Apartments, Kolkata
42	Freshwater pisciculture	Composite fish culture	February	1	EP	1	5	-	-	-	-	-	5	-	-	5	CIFE, Kolkata
43	Mixed fish and prawn farming	Composite fish culture	February	1	RY	1	18	3	-	27	2	1	45	5	1	51	City College, Kolkata
44	Freshwater pisciculture	Composite fish culture	February	1	PF	1	36	8	-	-	-	-	36	8	-	44	CIFE, Kolkata
45	Pond Fish Culture	Composite fish culture	March	1	RY	1	15	9	24	-	1	-	15	10	-	25	CIFRI, Barrackpore
46	IPM of major summer crops	Integrated Pest Management	May	5	F & FW	1	0	0	0	17	12	3	17	12	3	32	ATC, Narendrapur

47	Integrated disease management of vegetable and field crops	Integrated Disease Management	March	4	EP	1	13	7	0	0	0	0	13	7	0	20	Office of ADA, Dept of Ag, GoWB
48	Production of biocontrol agents and their uses in agriculture	Biological Control	March	4	EP	1	14	4	0	2	0	0	16	4	0	20	Office of ADA, Dept of Ag, GoWB
49	Training of friends of coconut trees with special emhasis on plant protection measures	Integrated Pest Management	November, February	6	RY	2	41	48	0	0	0	0	41	48		89	Coconut Development Board
50	Diploma in Agriculture Extension Services for Input Dealers	DAESI	October to September	52	EP	1	33	4	2	1	0	0	34	4	2	40	Dept of Ag, GoWB
51	Bio-intensive pest management of vegetables	Bio-control of pests and diseases	July	1	F & FW	1	3	24	0	0	13	0	3	37	0	40	NICRA
52	Use of relatively eco-safe modern generation pesticides in vegetables	Integrated pest and Disease Management	August	1	F & FW	1	6	18	0	0	11	0	6	29	0	35	NICRA
53	Use of indigenous technical knowledge in preparation of bio-pesticides	ITK	August	1	F & FW	1	6	14	0	0	8	0	6	22	0	28	NICRA
54	Role and use of organic pesticides for winter crop disease management	Bio-intensive IDM	October	1	F & FW	1	1	22	0	1	8	0	2	30	0	32	NICRA
55	Bio-intensive pest management of sunflower, summer green gram and okra	Bio-intensive IPM	November	1	F & FW	1	3	17	0	0	13	0	3	30	0	33	NICRA
56	Integrated crop management of winter vegetables with special emphasis on plant protection aspects	ICM	November	1	F & FW	1	6	19	0	0	12	0	6	31	0	37	NICRA
57	Integrated management of pest and diseases in Chilli with special reference to chilli leaf curl virus	IPM	December	1	F & FW	1	6	15	0	3	8	0	9	23	0	32	NICRA
58	Hands-on training on vermicomposting	Production of Vermicompost	February	1	F & FW	1	4	13	0	1	11	0	5	24	0	29	NICRA

59	Integrate pest and disease management of Ail cultivated winter vegetables	IPM	March	1	F & FW	1	5	14	0	1	10	0	6	24	0	30	NICRA
60	Management of nutrition garden and application of gender friendly agricultural Implements for drudgery reduction	Household food security by kitchen gardening and nutrition gardening	April	5	PF		3	27	4		5		3	32	4	39	World vision
61	Management on integrated farming system	Integrated Farming	May	5	PF						21	9	21	9		30	ATC Sameti
62	Anthropometric measurement for children (0-8 years) to identify malnourished children	Mother &child care	September	1	EF						10	10	10	10		20	Prasari
63	Hose hold Mushroom Cultivation	Mushroom production	January	4	PF		3			18	3		21	3		24	Holdia Tata Petro Chemicals

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

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	25	284	200	484	16	6	22	300	206	506
Kisan Mela	1	10730	8199	18929	157	27	184	10887	8226	19113
Kisan Ghosthi	-	-	-	-	-	-	-	-	-	-
Exhibition	2	4605	3495	8100	54	18	72	4659	3513	8172
Formation of SHGs under IWMP	18	98	166	264	-	-	-	98	166	264
Formation of User Groups under IWMP	13	131	48	179	-	-	-	131	48	179
Formation of Watershed Committee's	8	72	39	111	-	-	-	72	39	111
Film Show	83	1731	884	2615	28	13	41	1759	897	2656
Method Demonstrations	18	283	592	875	2	8	10	285	600	885
Farmers Seminar	5	115	213	328	29	17	46	144	230	374
Workshop	2	40	22	62	6	0	6	46	22	68
Group meetings	16	59	414	473	6	10	16	164	325	489
Lectures delivered as resource persons	157	3139	1662	4801	127	17	144	3266	1679	4945
Advisory Services	223	831	150	981	27	2	29	858	152	3519
Scientific visit to farmers field	305	3094	743	3837	-	-	-	3094	743	3837
Farmers visit to KVK	1212	2243	319	2562	-	-	-	2243	319	2562
Diagnostic visits	81	497	358	835				497	358	835
Exposure visits	13	337	12	349	7	1	8	344	13	357
Ex-trainees Sammelan	1	115	68	183	-	-	-	115	68	183
Soil health Camp	15	221	61	282	-	-	-	221	61	282
Animal Health Camp	192	35124	7521	42645	-	-	-	35124	7521	42645
Agri mobile clinic	2	45	25	70	-	-	-	45	25	70
Soil test campaigns	14	174	69	243	-	-	-	174	69	243
Farm Science Club Conveners meet	16	0	0	0	120	68	188	120	68	188
Self Help Group Conveners meetings	19	150	80	230	30	18	48	180	98	278
Mahila Mandals Conveners meetings	-	-	-	-	-	-	-	-	-	-
Celebration of important days	-	-	-	-	-	-	-	-	-	-
Celebration of ICAR foundation day -16.07.14	1	32	11	43	12	0	12	44	11	55
International womens' day 2015	7	-	191	191	4	37	41	4	228	232
Breast feeding week	5	-	197	197		16	16	-	213	213
World food day	1	8	30	38	12	4	16	20	34	54
National Science day (28.02.2015)	1	40	0	40	-	-	-	40	0	40
PRA	3	91	62	153	-	-	-	91	62	153
Mid term evaluation	4	80	130	210	31	12	43	111	142	253

Community score card	2	22	16	38	6	2	8	28	18	46
PIA	2	-	-	-	-	-	-	-	-	-
Surgical cases (operations done)	45	29	16	45	0	0	0	29	16	45
Total	**2512**	**64420**	**25993**	**90393**	**674**	**276**	**950**	**65193**	**26170**	**93852**

B. Other Extension activities

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Newspaper coverage	6	-	-	-	-	-	-	-	-	-
Radio talks	5									
TV talks	5									
Popular articles	2									
Extension Literature	3	442	1261	1703	31	18	49	473	1279	1752

3.5. Production and supply of Technological products

Village seed

Crop	variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Total				

KVK farm

Crop	variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Paddy	NC-492	20	60000	90
	Pratikha	18	52000	80
	CR-1009	8	28000	100
	IET-5656	16	35000	80
	Dudshwar	16	32000	40
	Super Shyamaly	8	15600	110
	WGL-20471	11	18500	40
	Barsha	60	80000	80
Grand Total		157	321100	620

Production of planting materials by the KVKs

Crop	Variety	Quantity of seed/seedling	Value (Rs)	Number of farmers provided
Vegetable seedlings				
Cauliflower	BS - 101	5,000	2000	35
Cabbage	Rare Ball	15,000	6000	35
Tomato	SG-1458 (F_1), DEV (F_1)	45,800	90320	47
Brinjal	Bhangor, Muktakeshi	14,200	6480	16
Chilli	Tejaswini	4,880	3120	21
Onion	Sukhsagar	64,800	40130	40
Others				
Fruits				
Mango	Himsagar, Amrapali, Mallika	11,780	640100	102
Guava	Allahabad Safeda, Baruipur Khaja, L-49	2,980	104300	58
Lime	Pati	1,900	90500	61
Papaya	Ranchi	15,670	92350	132
Banana	Kanch Kala, Kanthali	4,000	20000	12
Sapota	Cricket Ball	16,760	684200	163
Others				
Ornamental plants	Inca, Chrysanthemum, Dahlia	18,000	40,500.00	11400
Medicinal and Aromatic				
Plantation				
Spices				
Turmeric	Local	10 q	8,000.00	6
Ginger	Local	5 q	40,000.00	8
Colocasia	Bidhan Chaitanya	27 q	13,500.00	4
Elephant yams	Gajendra	33 q	49,500.00	12
Fodder crop saplings				
Forest Species				
Others, pl.specify				
Total			13,19,000.00	12152

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
Bio Fertilisers				
Bio-pesticide	*Metarhizium anisopliae*	143.5 kg	21,285.00	171
	*Sl*NPV	4.2 L	630.00	12
Bio-fungicide	*Pseudomonas fluorescens*	559.9 kg	73,446.00	1118
	Trichoderma viride	515.3 Kg	70,220.00	1030
	Trichoderma harzianum	11.2 kg	1,174.00	24
Bio Agents	*Trichogramma chilonis*	642 trichocards (Having 38.52 lakh *Trichogramma* wasp)	3,210.00	62
Others				
Total			1,53,465.00	2307

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows	J.C, HF. C, GIR Sahiwal C.	81	27,20,000	-
Buffaloes				
Calves	-	11	62000	-
Others (Pl. specify)				
Poultry				
Broilers	Hygrow	200 (4 cycle)	91000	-
Layers				
Duals (broiler and layer)	RIR, Nirvik, Hitkari, Upkari	400	21000	36
Goat	Black Bengal	102	198000	85
Rabbit	White New Zealand	31	7500	29
Guinea pig	-	18	17000	-
Ornamental bird	Budgerigar, Cockatail	351	35100	145
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp-Spawn	Catla, rohu, mrigal, calbasu, bata	2.4 million	10000.00	8
Indian carp-fry & fingerlings	Catla, rohu, mrigal, calbasu, bata	903.1kg	156749.00	180
Exotic carp (fry & fingerlings)	Silver carp, java punti, common carp	512	88866.00	103
Others (Pl. specify)				
1.Ornamental fish	Gold fish, angel, koi carp,milky carp, rosy barb, venus tetra, gourami, fighter, guppy, molly, swordtail, platy	25834	25834.00	72
2.Cat fish fingerlings	*Clarias batrachus*	35500	122000.00	42
3.Climbing perch fry	*Anabas testudineus*	7311no.	8622.00	5
4.Tilapia	*Tilapia nilotica*	12000	12000.00	12
Grand Total			3575671	717

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

Item	Title	Authors name	Number	Circula-tion
Research paper	Management of causal agents of chilli leaf curl complex through bio-friendly approaches	Patel, L.C. and Mondal, C.K. The Journal of Plant Protection Sciences. **5**(2): 20-25 (2014)		
	Study on utility and revival through community approach in Sundarban Mangrove	Mondal, C.K., Mondal, B. and Sarkar, D. International Journal of Social Science. **3**(2): 191-203 (2014)		
	Farmers' practices and their perception to manage bacterial wilt of solanaceous vegetables in Sundarban region of West Bengal, India	Mandal, S., Mondal, B. and Mondal, C.K. International Journal of Advanced Biological Science and Engineering. **2**(2): 49-56. (2015)		
Seminar /conference / symposia papers	"Relay cropping boosted cropping intensity" published in ICAR News, Vol 20 No. 2, April-June 2014	D. K. Roy, P. K. Garain and C. k. Mondal	-	-
	"Restitution of the rural youth to family farming in coastal saline zone of Sundarban" published in Books of Abstract, National Seminar on "Rural youth in family farming: need and challenges", RYFF, December 18-19, 2014, T3:20, pg. no. 74-75	S. Rahaman, A. Maji, P. K. Garain & N. J. Maitra		
	Guava fruit Fly Management using different fruit wrapping materials published in Books of Abstract of International Conference on Horticulture for nutritional, livelihood and environmental security in hills: opportunity and challenges, 22-24 May, 2014, page no. D44-D45	C. K. Mondal, N. J. Maitra, A. K. Singh, P. K. Garain and A. Maji		
	Poster on "Eco-friendly management of *Spodoptera litura* in cabbage through application of *Metarhizium anisopliae* under coastal saline belt of South 24 Parganas" displayed in the National conference on "Indigenous innovation and foreign technology transfer in fertilizer industry: Needs, constraints and desired simplification" on **17 January 2015**	P. K. Garain, C. K. Mondal and N. J. Maitra		

	Public-private partnership for crop diversication: Need of hour	Singh, A.K., Maitra, N.J. and Mondal, C.K. In: Proceedings of the National Conference on 'Agricultural diversification for sustainable livelihood and environmental security', November, 18-20.Pp-161-162		
	Innovative models for joyful learning on nutritional care by mother and adolescent girl	Manasi Chakraborty		
	Region specific modification of dietery Diversity questionnaire tool for effective participatory assessment and nutrition education	Manasi Chakraborty		
Books	Scientific goat rearing	S.Roy	1000	250
Bulletins				
News letter				
Popular Articles				
Book Chapter	"Macher pronodito projonon" Chapter in CIFRI Training manual titled "Antordeshio matsyo chaase shathik porichalonar madhyame sundarboner manusher jibikar bikash"	Prasanta Chatterjee	100	55
Extension Pamphlets/ literature	Nona jal plabita elakar upajukto mach tilapiar chas	Prasanta Chatterjee Tapas Sahana	500	110
	Desi magur macher projonan o chas	Prasanta Chatterjee Sailendranath Biswas Amit Das	500	45
Technical reports	Participatory Research-cum-Extension Programme on seed production and culture of desi magur for the fish farmers of different districts of West Bengal (mid term report)	Prasanta Chatterjee	10	5
	Participatory Research-cum-Extension Programme on seed production and culture of desi magur for the fish farmers of different districts of West Bengal (full report)	Prasanta Chatterjee	10	5
Electronic Publication (CD/DVD etc)	Short video on magur	Prasanta Chatterjee Tapas Kumar Sahana Amit Das	15	5

	Short video on NICRA activity	Prabir Kumar Garain Prasanta Chatterjee Atit Maji Tapas Sahana	20	-
TOTAL			2155	475

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:

S. No.	Name of programme	Name of KVK personnel and designation	Date and Duration	Organized by
1	Integrated farming with commericial approach	Dr. S Roy, SMS (A.H.) Mr. P. K. Garain, SMS (P.P.)	12.03.15 – 13.03.15, 2 days	BCKV, Kalyani
2	Annual Workshop of KVKs	Dr. N. J. Maitra, Shri S.K.Samui & Dr. Manasi Chakraborty	03.04.14 to 04.04.14, 2 days	ZPD Office, Zone-II, Kolkata
3	Meeting on ADMI project	S.K. Samui SMS (Agronomy)	14.07.14	ICMARD building, Ultodanga, Kolkata
4	Meeting on ADMI project	S.K. Samui SMS (Agronomy)	25.07.14	ICMARD building, Ultodanga, Kolkata
5	Meeting on ADMI project	Dr. N. J. Maitra & Shri S.K. Samui,SMS(Agronomy)	16.08.14	ZPD Office, Zone-II, Kolkata
6	Workshop on DPR preparation of IWMP	Dr. Dipak Roy Programme Assistant (Agronomy)	23.06.2014	SAMETI,(ATC) Narendrapur
7	Meeting on physical & financial progress of IWMP	Dr. Dipak Roy Programme Assistant (Agronomy)	19.06.14	DDA Office, New Administrative Building,Alipore,Kolkata
8	ATMA G.B. meeting	Dr. Dipak Roy Programme Assistant (Agronomy)	10.06.2014	D.M office, New Administrative Building,Alipore,Kolkata
9	Meeting with Zonal Project Director regarding implementation of catfish project in collaboration with fisheries department	Prasanta Chatterjee SMS(Fishery)	22.4.14	
10	Meeting on "Planning of road map for fisheries resource & development in W.B. by ICAR.	Prasanta Chatterjee SMS(Fishery)	21.6.14	ZPD,Kolkata
11	Celebration of ICAR Foundation Day	Prasanta Chatterjee SMS(Fishery) Prabir Kumar Garain SMS (Plant Protection)	16.07.14	RAKVK, Nimpith
12	Launching workshop on "Participatory Research-cum-Extension Programme on seed production and culture of desi magur for the fish farmers of different districts of West Bengal"	Prasanta Chatterjee SMS(Fishery)	16.07.14	RAKVK, Nimpith
13	Meeting on fishery component of ADMI project at ICMARD,Kolkata	Prasanta Chatterjee SMS(Fishery)	24.7.14	WBADMI
14	Invited lecture on "Magur breeding & culture"in the District Level Fishery Training at	Prasanta Chatterjee SMS(Fishery)	21.08.14	Fisheries Dept., GOWB

	Mathurapur-I block			
15	Workshop on "Preparation of prespective plan for fisheries development in West Bengal"	Prasanta Chatterjee SMS(Fishery)	30.8.14	CIFRI,Barackpore
16	Delivered lecture on "Fish culture technologies as livelihood options in South 24 Parganas" in Mati Krishi, Uddan Palan, Matsya o Prani Sampad Mela-2015	Prasanta Chatterjee SMS(Fishery)	21.01.2015	Dept. of Agriculture, GOWB
17	Capacity building Training on "Technology demonstration for climate resilience and value-added agro-met advisories"	Prasanta Chatterjee SMS(Fishery) Prabir Kumar Garain SMS (Plant Protection)	30.01.15-31.01.15	CRIDA, Hyderabad
18	Invited as resource person to deliver lecture on "Role of KVK towards aquaculture development in the Sundarbans & the work so far carried under NICRA project" at Joygopalpur, Basanti	Prasanta Chatterjee SMS(Fishery)	21.03.15	NICRA,WBUAFS
19	Invited as resource person to deliver lecture on "Breeding & seed production of major and minor carps" in the training programme on Inland fisheries management with emphasis on livelihood development in Sundarbans	Prasanta Chatterjee SMS(Fishery)	23.03.15	CIFRI, Barrackpore
20	Attended special meeting for "International seminar on aquatic resources and sustainable management" to be held on 17-19 Feb.,2016	Prasanta Chatterjee SMS(Fishery)	25.03.15	Central Calcutta Science & Culture Organisation for Youth
21	Training cum workshop for KVKs on Plant Health Management	Prabir Kumar Garain SMS (Plant Protection)	4-6 June 2014	National Institute of Plant Health Management, Hyderabad
22	Review workshop and Felicitation ceremony for 2013-14 batch of DAESI programme	Prabir Kumar Garain SMS (Plant Protection)	19.08.2014	SAMETI, Narendrapur
23	Model Nursery Acredation Programme at Amtala	Prabir Kumar Garain SMS (Plant Protection)	06.09.2014	NHB, Kolkata
24	ATMA G.B. meeting	Prabir Kumar Garain SMS (Plant Protection)	03.02.2015	D.M office, New Administrative Building,Alipore,Kolkata
25	Attended meeting for pre-service, 6-month residential training of newly recruited KPS at the office of ADA (Gen), Dept of Ag., Jessop Building, GoWB	Prabir Kumar Garain SMS (Plant Protection)	25.03.2015	Office of ADA (Gen), Dept of Ag., Jessop Building, GoWB
26	Delivered a speech on "CBDM: Preparedness and response Mechanisms" in the Workshop on Community based disaster management	Prabir Kumar Garain SMS (Plant Protection)	2-3 March, 2015	Dept. of Rural Development and Management, University of Kalyani
27	Inauguration programme of Diploma in Agricultural Extension Services for Input Dealers	P. K. Garain SMS(Plant Protection)	16.10.2014	SAMETI, Narendrapur
28	International Seminar on '**Integrating Agriculture & Allied Research: Prioritizing**	Dr. C.K. Mondal SMS (Horticulture)	06.11.14 – 09.11.14	Crop and Weed Science Society, BCKV, West Bengal, India

	Future Potentials for Secure Livelihoods'			
29	Winter school on 'Diagnosis, Assessment and Management of Salt Affected Soils and Poor Quality Waters to Improve Productivity and Livelihood Security'	Dr. C.K. Mondal SMS (Horticulture)	21 days (11.11.14 – 01.12.14)	Central Soil Salinity Research Institute, ICAR, Karnal, Haryana
30	ARYA Workshop at NAARM, Hyderabad	Dr. N. J. Maitra Programme Coordinator & Dr. C.K. Mondal SMS (Horticulture)	11.03.15 – 12.03.15	Directorate of Extension, ICAR & NAARM, Hyderabad
31	Best practices for F&N security	Manasi Chakraborty	1.03.14-9.03.14	WHH, Germany
32	Proposal submission on NRC at Nimpith	Manasi Chakraborty	16..06.14-18.06.14	WHH, Germany
33	Modification bof PIA tool to apply it Globally and identication of best practices on Food & nutrition security in Peru and Bolivia	Manasi Chakraborty	20.10.14-1.11.14	WHH, Germany
34	Launching WELT WERT Programme	Manasi Chakraborty	3.11.14-6.11.14	SRAN
35	Right based approach in all project	Manasi Chakraborty	22.12.14-31.12.14	WHH, Germany

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

3.7.1. "Kripakhali" canal – the lifeline of Bongheri farmers

Background

Bongheri, a frequent flood prone and cyclone hit coastal village in Sundarban area, is still on its way to recover from the after-shock of "*Aila*". The 4-km long Kripakhali Canal was the only source of sweet water irrigation for 560 farm families covering an area of 200 acre. During *Aila* (super cyclone coupled with flooding) in 2009, the canal was heavily silted up along with brackish water inundation. This resulted in severe reduction of storage capacity and rendered the available water unsuitable for agricultural usage. The defunct sluice gate could not control the further backflow of sea water into the canal. Farmers had no scope of taking a second crop during pre-kharif (Summer) or post-kharif (Rabi). Even the productivity of Kharif paddy reduced from 21.12 q/ha in 2007 to 15.86 q/ha in 2010. Area under chilli and other vegetables reduced drastically leading to severe limitation for scope of agricultural labour work. Farmers and farm women had no other choice than opting for seasonal migration during the lean period. The rate of migration increased to 12%. A daily migrant had to travel 40 minute by cycling, 4 hour by train/bus/auto and another 40 minute by walking to reach Kolkata and back. 1736 Kilo Calories of energy were lost, only due to travel, per person per day!

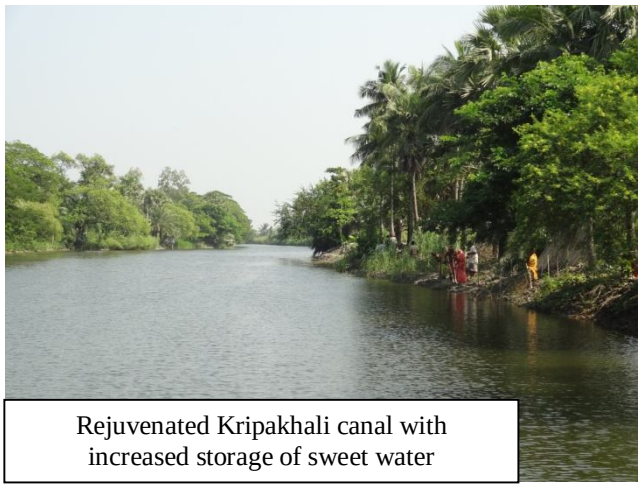
Kripakhali Canal after *Aila* in 2009

The National Initiative on Climate Resilient Agriculture (NICRA) was launched in this village in 2011 with a promise to bring the smile back to the faces of these 560 farm families. A planned intervention along with the active support of the villagers helped them not to wait longer. The villagers could reap the harvest in the very next season after the intervention.

Intervention

Under the NRM activities of NICRA project, the canal was renovated including re-excavation of the silt all along the 1-km length with a depth varying from 3-4 ft, strengthening of the canal embankment and plantation of trees along the embankment. The defunct sluice gate was renovated through financial assistance from SDB, GoWB.

Desiltation and renovation work in progress



Rejuvenated Kripakhali canal with increased storage of sweet water

Impact

As a result, 3600 acre-inch of fresh rainwater could be harvested during 2012 monsoon season. The assured irrigation facilities, thus created, helped the farmers to take up Sunflower in 100 acre, Chilli in 50 acre and other vegetables in another 50 acre. The earth work created job opportunity of 9000 person-days during the period of canal renovation. The increase in agricultural activities assured another 6000 person-days of labour work for the villagers. The villagers now have a happier option to remain attached with their families through out the year as they can take up cultivation during Rabi or Summer season. The rate of migration has come down to 8%. Productivity of paddy (now 37 q/ha) has been restored well above the "before *Aila*" average. More importantly, with the assured fresh water irrigation, farmers now have a diversified cropping choice in the form of different vegetables as well as Oil seeds (sunflower) and Sugarcane. Thus, the overall intervention helped to return Bongheri its "lifeline" of agriculture in true sense.

3.7.2. Ornamental Fishery – changes the colour of life

Name of farmer	Prosun Halder
Village	Mandal Para
Block	Mathurapur II
Address	P.O.-Khari, Dist.-South 24 Parganas, Pin-743349
Contac details(Phone, mobile, email Id)	09641325035
Landholding (ha)	0.286 (own) + 0.133 (lease)

Background:

Prosun Halder is a thirty four years old progressive ornamental fish farmer of Mandal Para village, under South 24 Parganas district in West Bengal. From his childhood he wanted to do something different that will motivate others. Family poverty forced him to drop study when he was in Higher Secondary level and joined a job as helper and operator in a Packaging and printing company in Delhi in 1998. From 1998-2008 he worked in different companies in Kanpur, Bombay, Daman, Panipath and Simla. He went to Nigeria and joined there as a Production Manager in a company in 2008 and came back to India in 2011 due to his parent's illness. After that he got married and decided to stay along with his family members. In 2012 he took training from RAKVK, Nimpith on ornamental fish breeding and culture and started his own ornamental fish breeding and rearing unit.

He constructed ten numbers of cemented tanks (7'x3.5'x3.5') and three pieces of aquariums (5'x1.5'x1.5') for this purpose. He was inspired with the success and took this effort as a fulltime profession. In 2013 he bought two ten katha ponds on lease and started a large scale production unit. He fixed forty five numbers of 'Hapa'(rectangular net enclosure) of 4'x12'x3.5'inside the ponds

and started culturing different fish varieties like Molly, Guppy, Swordtail, Gourami, Tiger Barb, Rosy Barb, Widow Tetra ,Angel, Goldfish, Oscar, Red Tail and Rainbow Shark, Tiger Shark, Milky and Veiltail Carp, Banana Cichlid etc. He employed one person permanently and two temporary labours on requirement basis for eight to ten days per month in his farm. His total investment was about Rs.2,00,000.00 in 2013. In the year 2014 he procured another two ponds, of 30 katha and 3 katha. He also made twenty new 'Hapa' in this year. His total investment was around Rs. 80,000.00 and the total turn over was Rs.2,30,000.00. So the net profit was Rs.1,50,000.00. He is expecting to get around Rs.2,50,000.00 from the next rearing period. He has also started to give consultancy to the other youths and motivating them to take up ornamental fish culture as a livelihood option in his area.

Awards/ rewards/ appreciation received		
Impact factors	**Before adoption**	**After adoption**
Crop / Agricultural practice	Unscientific carp culture	Ornamental fish culture
Yield of crop / product	Negligible quantity of tablefish	Different types of ornamental fishes like- Molly, Guppy, Swordtail, Gourami, Tiger Barb, Rosy Barb, Widow Tetra ,Angel, Goldfish, Oscar, Red Tail and Rainbow Shark, Tiger Shark, Milky and Veiltail Carp, Banana Cichlid etc .
Sale value	Rs.19,000.00/year	Rs.2,30,000.00/year
Input Cost	Rs.5,500.00	Rs.30,500.00
Labour Cost	Own labour	Rs.36,000.00
Any Other Cost	Rs.2,000.00	Rs-14,000.00
Net Saving / Net Profit	Rs.11,500.00	Rs-1,49,500.00

Impact

Two rural youths Sabyasachi Mandal and Gopal Sardar have started ornamental fish rearing under the guidance of Prosun. Prosun gives technical advice to them and help them to get input like seeds, net, feed, medicines etc. Prosun also help them by linking them to the marketing channel. Many farmers from his village and different adjoining villages come to Prosun almost regularly to get information about ornamental fish farming and trading.

Mr. Prosun has received "Best Farmer" award from SAMETI, Narendrapur in 2014

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

3.8.1. Use of WhatsApp in pest and disease diagnosis - an innovative use of ICT for remote farmers in Sunderban

Background

Timely diagnosis and proper identification of pest damages, diseases and/or disorders has always been problematic for farmers as well as extension personnel in Agriculture. It is not always possible for a distantly located farmer to visit the KVK premises with pest/disease symptom. Telephonic conversations also fail to give a clear understanding to the Subject Matter Specialist many times. Installation and use of web-based video conferencing is still a dream for remote villages due to the technical feasibility and economic viability. Hence a simple as well as cost effective innovative technology was used by KVK-Nimpith to connect to the remote farmers. The objective was to give the remote farmers an easy access to plant protection section of the KVK so that their field problems can easily be shared, correctly diagnosed and timely advised with remedies.

The Innovative Methodology

(a) WhatsApp, a web based messenger service, now widely being used through smart phones, has been used as the media for sharing of the informations both ways.

(b) 40 agri input dealers from 5 different blocks of South 24 Parganas were selected as nodal points for facilitating farmer-KVK interaction. They are well educated and situated to use smart phones and access WhatsApp. These input dealers are connected directly to the Subject Matter Specialist (Plant Protection) of the KVK in real time through WhatsApp.

(c) They are not any ordinary input dealers but the ones who have completed MANAGE affiliated one-year diploma course named DAESI (Diploma in Agriculture Extension Services for Input Dealers) at KVK Nimpith, South 24 Parganas. They were capacitated in various aspects of Agriculture with special emphasis on plant protection. These dealers are in a process of being engaged in the mainstream agriciutural extension system through imparting them formal agricultural education.

(d) These Agri input dealers act as first point of contact for the farmers in agri related consultancy. Today's input intensive agriculture makes it compulsory for the Indian farmers to keep contact with their nearby input dealers. And this input related dependency is much often extended to sharing of farming related informations. Farmers like to share their daily problems with persons they deal daily. They go to input dealers to purchase seeds and enquire about any new or better variety. They go to input dealers for fertilizers and expect knowledges regarding types and dose of it. Farmers enquire input dealers abot new pumpsets or sprayers. And for the last but most important, farmers are totally blind in plant protection related decissions without the support of input dealers. So, Farmers expect the input dealers to perform multi faceted role in answering queries. Diagnosis, identification and solution to pest and diseases is the most important decission making support they sought from the dealers.

(e) The trained input dealers now ask the farmers to come to their shop with live specimen of disease/pest infested plants. They take pictures of the specimen and send it to the KVK scientist through WhatsApp in no time.

(f) Plant Protection specialist of KVK, after receiving the live picture and having further discussion with the farmers over phone, now is able to predict the nature of the problem more precisely. Necessary advisory is then sent through the messenger immediately.

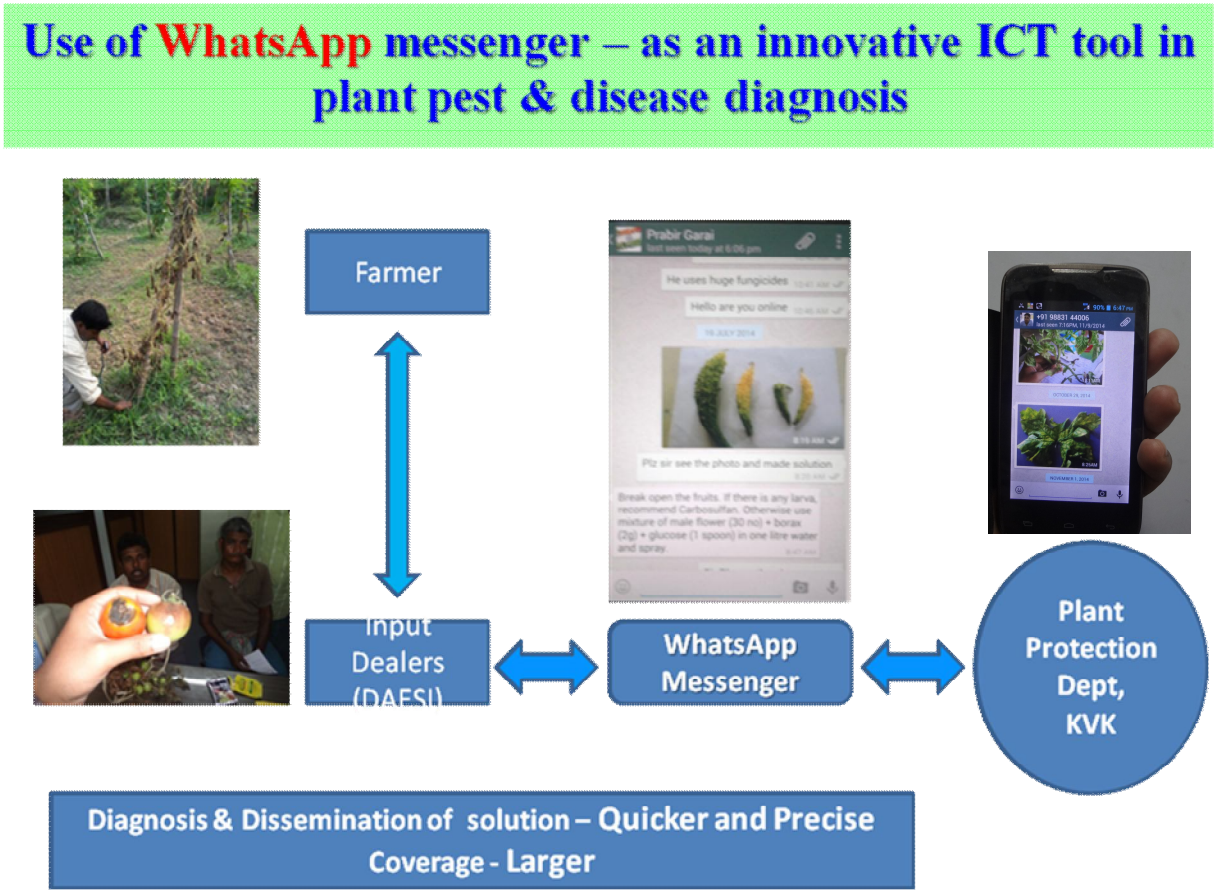
Impact

a) This innovative methodology has resulted in increased accuracy of diagnosis as there is involvement of both audio and visual information.

b) It has also helped in increasing the credibility of the trained input dealers as they have a minimum chance of selling a wrong pesticide or prescribing a wrong dose.

c) From the farmers' point of view, this methodology has helped them co come closer to the KVK even staying at their remote villages.

d) Moreover, use of such widely accepted technology (WhatsApp and smart phone) has helped to grow interest among many young farmers (Rural Youth) also.



3.9 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)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

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

- Identification of courses for farmers/farm women
  - Rural Youth
  - In-service personnel

Applications are invited from the interested people through the farm science club or may be collected directly from the KVK. On receiving the application, structure questionnaires are given to the prospective trainees to fill up and submit the same to KVK.

The applications are scrutinize by the respective disciplines and called for to appear in a semi-structure interview for final selection. Participants are also selected by conducting PRA in villages where basing on their needs and problems, the interventions are made which quiet often points to training. Subsequently schedules of training programme are set according to seasonality and included in the KVK action plan for the particular year.

In addition to the above mentioned procedures for selecting participants for a training programme, persons are also open to apply through website or by contacting respective experts over mobile phone, the number of which is generally obtained from KVK web site, ZPD web site, Kisan Call Center, ETV Annadata, Doordarshan Agricultural programme and other sources.

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

Sl. No	Name of the Equipment	Quantity
1	Systronics Spectrophotometer (Model 167)	1
2	Systronics pH meter (Model 335)	1
3	Systronics Connductivity Bridge (Model 304)	1
4	Flame Photometer (Model 128)	1
5	Afcoset Electronic Balance(Model EK1200G)	1
6	Afcoset Electronic Balance(Model ER 200A)	1
7	REMI Centrifuge (Model R 23)	1
8	Head of the REMI Centrifuge(Cat.R236)	1
9	REMI Magnetic Stirrer (Model 1)	1
10	REMI Magnetic Stirrer (Model 2)	1
11	REMI Stirrer (Model RQ 121D)	1
12	Refrigerator LG Brand - 20 lits	1
13	Suction Pump PRECIVAC (Model DC 101)	1
14	Silica Crucible 100 ml.	6
15	Scientific Calculator FX	2
16	Rubber Cork Borer	1
17	Thermometre 360^{o}C	4
18	Moisture Box	6
19	Stop Watch	1
20	Mortar and Pestle (Wooden)	1
21	Mortar and Pestle (Porcelain)	6
22	Filter Paper (Whatman)	10
23	Seive	6
24	Hand Vaccum Pump (Terson)	1
25	Almirah	1
26	Double Glass Distillation Apparatus- 5 lits	3

Sl. No	Name of the Equipment	Quantity
27	Barnstead Type Distillation – Table model	1
28	Stokes Type Wall Hanging Distillation	1
29	Micro Kjeldhal Digestion Apparatus	1
30	Micro Digestion Apparatus (Mantle Heaters)	1
31	Micro Distillation Unit – Improved-Wangner	1
32	Micro Distillation Set (with S.S.Tank)	1
33	Kjeldhal Flask of BOROSIL	18
34	Kjeldhal Flask Head	6
35	Blower for Kjeldhal Flask of BOROSIL	2
36	Mechanical Shaker	1
37	Over (Digital controller)	1
38	Raymond Mill	1
39	Muffle Furnace (Upto 1200^{o}C)	1
40	High Precision Water Bath-12”X10”X8”	1
41	Hot Plate 12”X10”	1
42	C.V.T. Input – 2 KVA	1
43	C.V.T. – 5 KVA	1
44	Filtering Flask – 250 ml Borosil	6
45	Filtering Flask – 500 ml Borosil	6
46	Burette - 50 ml Borosil	6
47	Burette – 10 ml Borosil	2
48	Rubber Cork	100
49	Weight Box – 1 set	1 set
50	Platinum Crucible - 20—25 ml	1

3.11.b. Details of samples analyzed so far :

Year	Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
2014-15	Soil Samples	1441	1342	54	108075.00
	Water Samples	100	44	18	3000.00
	Total	1541	1386	72	111075.00

3.12. Activities of rain water harvesting structure and micro irrigation system: Outsourced from RKVY and BGREI, GoWB

No of training programme	No of demonstrations	No of plant material produced	Visit by the farmers	Visit by the officials
17	717	24800	3540	16

3.13 Technology week celebration on “Family farming – key to food and nutrition security” from 06.02.15 to 10.02.15:

Type of activities	No. of activities	Number of participants	Related crop/ livestock technology
Seminar, Demonstration, Quiz competition, Exhibition, Crop and animal show -cum-competition, dog show, prize distribution and cultural programmes.	14	More than 19000 no.	Family farming – key to food and nutrition security

3.14. RAWE programme - is KVK involved? NA

No of student/ARS trained	No of days stayed

3.15. List of VIP visitors including the officials of ZPD and DEE

Date	Name of the person	Purpose of visit
16.04.2014	Dr. Gitanjali Chaturvedi The World Bank, New Delhi Ranjan Samanta Ray The World Bank, New Delhi	NAIP project documentation
05.07.2014	Pratima Mondal, Member of Parliament (MP), Joynagar Constituency	Interaction with KVK scientists
12.09.2014	Dr. D.G. Raghupathi NDDB Anand Dr. A. Roy Burman NDDB Dairy Services, Delhi Camp, Rahuri	Accredation of KVK Training centre for Prani Bondhu
28.10.2014	Dr. Tarun Naskar, Member of Legislative Assembly (MLA)	To attend SAC Meeting
28.11.2014	CIFE QRT members	Observing collaborative work of CIFE with KVK and other fishery activities of Nimpith KVK

4.0 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)
Rearing of budgerigar birds	742	87.0	300/month/10pairs unit	900/month/10 pairs unit
Goat pox vaccination	1245	95.0	6000/year/5 goats unit	14000/year/5 goats unit
Alternate month supplement of calcium in layer birds	200	65.0	600/year/bird	840/year/bird
Feeding of azolla in layer duck	150	75.0	450/year/duck	925/duck/year
Standing (half an hour) posture after milking in cows	180	92.0	Milk for home consumption	250/month apart from home consumption for 5 months
Hi-Tech betel vine Boroz	530	97%	11,15,000/ha/year	16,40,000/ha/year
BAU ber cultivation	35	89%	3,90,000/ha	7,40,000/ha
Sunflower in rice fallow saline low land	55	92 %	9800/ha	17200/ha

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

4.2 Cases of large scale adoption

a) Hi-Tech *Pan Boroz* : A new vista in Betel vine cultivation

Betel leaf is one of the important commercial crops of the district South 24 Parganas. Out of total cultivable area of 368197 ha of the district, betel leaf occupies 2685 ha area covering around 35000 number of households from six coastal blocks (Sagar, Namkhana, Kakdwip, Pathar pratima, Mathurapur II and Kulpi). This crop has become mainstay of occupation for three blocks namely Sagar, Namkhana and Pathar Pratima.

Weather affected traditional Boroz

Betel vine is a shade loving crop usually grown in artificial shade structure, called *Boroz*, made up of bamboo, paddy straw and other related bio-degradable items. Growing betel vine within this structure are prone to numerous diseases and insect pests. Also, in the coastal area these structures are frequently affected by storms and cyclones.

New plantation in Hi-Tech Boroz

Considering these aspects Ramkrishna Ashram KVK conceptualized a durable *boroz* structure using GI pipes on concrete basement fitted with green shade net, 75% on the top and 50% on the side walls. Unlike traditional *boroz*, this new *boroz* is made up of non-degradable items and there by chances of pest and disease attack is very less. Also, this modern *boroz* is fitted with micro-sprinkler irrigation facility, which not-only reduces irrigation cost, but maintains temperature and humidity within the boroz during the hot summer and dry winter. Another advantage of this hi-tech *boroz* is the uniformity in shading, there by uniform coloration of leaf is achieved.

Adopting this modern boroz, farmers are experiencing better profitability in betel vine cultivation due to lower cost of cultivation, minimum/no recurring cost for maintenance of *boroz* structure, higher production and higher market value of the produce (leaf) due to good colour, shape (roundish) and luster of the leaf.

Since 2011-12, KVK has demonstrated nearly 650 number of units in collaboration with Department of Horticulture, Govt. of W.B., South 24 Parganas through National Horticulture Mission programme. To construct a Hi-Tech boroz of 500 sqmt size, the costing is Rs 3,00,000/- (Rupees Three Lakh). Farmer need to bear 50% of the total cost and the rest half is assisted by State Dept. of Horticulture through NHM scheme. KVK has made an arrangement of getting bank loan of the farmers' contribution amount (50% of the total cost) through a tying-up programme with Axis Bank, Joynagar Branch. For the ease of the farmers, door step bank account opening was done at village level. At present around 2000 farmers approached KVK for getting this type of hi-tech *boroz* in lieu of their traditional one.

Hi-tech paan boroz with micro-irrigation

b) Promotion of Fodder cultivation brings boon to livestock farming

Agriculture is the mainstay of livelihood for majority of the people, about 68% of the total cultivable lands is low lying, mostly mono-cropped and low yielding because of excessive rainfall resulting in water-logging due to impeded drainage system in monsoon. Paucity of irrigation water coupled with high salinity in soil during summer, inundation of cultivable land with brackish water and non availability of area specific technology for efficient utilization of natural resources hinders the prospect of raising a second crop in the region.

The frequency of natural calamity in this area is 4.4 per year affecting the Sundarbans as a whole and island villages in particular, destroying all their resources and even their home including livestock population facing forced selling and the land also became degraded due to ingression of saline water.

In this background, promotion of fodder cultivation technology seems to be a viable option for the farming communities as livestock population mostly small ruminants in this area forms a major portion of the animal population.

Survey has revealed that the overall health status of livestock may be improved upto a satisfactory level with supplementation of green fodder.

4.3 Details of impact analysis of KVK activities carried out during the reporting period: Given in Annexure "Community Score Card for monitoring ICDS Service to have better access to food and nutrition by the mother & children"

4.4 Details of innovations recorded by the KVK

Thematic area	
Name of the Innovation	
Details of Innovator	
Back ground of innovation	
Technology details	
Practical utility of innovation	

4.5 Details of entrepreneurship development

S. No	Name of the enterprise	Orchard of BAU-Ber cum fruit nursery
1.	Name & complete address of the entrepreneur	Abdul Maleque Molla Vill: Bhumru, PO: Bhangar Raghunathpur, PS: Kasipur, South 24 Parganas, WB-743502 9732758335, malequemolla260@gmail.com
	Intervention of KVK with quantitative data support:	Training, advisory, monitoring, linkage with State Department for Subsidy Scheme, financial organization, linkage for marketing of produce, regular consultation
	Time line of the entrepreneurship development	2 Year (2012-2014)
	Technical Components of the Enterprise	Fruit orchard with fruit and forestry nursery, Paddy and Potato seed merchant

	Status of entrepreneur before and after the enterprise	Before the entrepreneurship he was a normal vegetable-cum-paddy farmer. Now, along with his farming he employed 4 persons in his nursery enterprise. During the seasonal seed business he employs another 2 persons for supporting him. Presently his annual turnover is Rs. 4 – 5 lakh. His business is in growing phase.
	Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	In his nursery business he produce seedlings, grafts, budded saplings by his own as well as by his trained labours. He assures the quality of seedling and seed, so, still now his consumers are very much satisfied with his products. The main success key in his business is his 'After sales care'. He usually visits the farmers filed to whom he supplied his seedling / seed, atleast thrice a year. He himself, being a successful farmer, provides guidance to his consumer farmers, making their farming successful. In most of the cases, he consults KVK expert for guiding his farmers. For this reason, his consumer farmers rely upon him very much.
	Horizontal spread of enterprise	Not yet
2.	Name of the enterprise	Crop Doctor
	Name & complete address of the entrepreneur	Swapan Bhunia Vill: Khansaheb Abad, PO: Rudranagar, PS: Sagar, South 24 Parganas 9800650883
	Intervention of KVK with quantitative data support:	Training, linkage with State Department for Subsidy Schemes, linkage with bank for loan support, regular consultation
	Time line of the entrepreneurship development	1 Year (2013-2014)
	Technical Components of the Enterprise	Betel vine Hi-tech production unit and Crop Doctor (Advisory service)
	Status of entrepreneur before and after the enterprise	Before the entrepreneurship he was a vegetable-cum-paddy farmer. Now, along with his farming he provides advisory to fellow farmers of surrounding three blocks, particularly on betel vine cultivation. Now-a-days, he is called as 'Crop Doctor' by the betel vine farmers. He earns around Rs. 100/- to Rs. 250/- per visit, according to the problem and distance. In case of serious problem he consults KVK scientist. His monthly income now is Rs. 12000 – 15000.
	Present working condition of enterprise in terms of raw materials availability, labour availability, consumer preference, marketing the product etc. (Economic viability of the enterprise):	His service is mostly scientific, bio-based and environment friendly. As a result, farmers solve their problem with low cost involvement. Mr. Bhunia's reputation and acceptance is flourishing very quickly.
	Horizontal spread of enterprise	Not yet

4.6 Any other initiative taken by the KVK

4.6.1. Extension of animal health care services in remote areas in West Bengal through Mobile Veterinary Clinic (MVC)

RAKVK in collaboration with Department of Animal Resources & Animal Health, Govt. of West Bengal is providing Veterinary Services in rural interior and disadvantaged areas of remote Sundarbans. Factors adversely influencing delivery of Veterinary services through existing Veterinary institutions are distance of remote villages from existing Veterinary institution and natural barriers to reach such pockets, lack of inadequacy in transportation system. Therefore, it is felt essential to provide desire Veterinary services in this pocket interior pockets so as to enable the livestock owners to avail the opportunity of animal health care services (both preventive & curative) to consider animal resources development as a livelihood option and maximize profit through livestock sector. It is envisaged to provide preventive, curative as well as breeding facilities in the said inaccessible and difficult areas normally become uncovered in general, through qualified Veterinarians and modern facilities.

Mobile Veterinary Clinic (MVC) is operated as an alternative model of rural animal health care delivery system for a specified area with earmarked team of Veterinary Professionals along with supporting equipments & medicine, etc.

Objective:

1. To provide 'On Spot' free diagnosis and ailing animals and birds in the remote areas of the state.
2. Arrangement of vaccination of livestock and birds against economically important diseases.
3. Correction of fertility problems of livestock awareness generation regarding Breeding & fertility management.
4. To detect the common diseases prevalent in the area.
5. To create awareness on specific animal husbandry practices among the farmers.

Clinic/animal health camp/awareness camp organized (block wise):
(From 23.02.2015 to 31.03.2015)

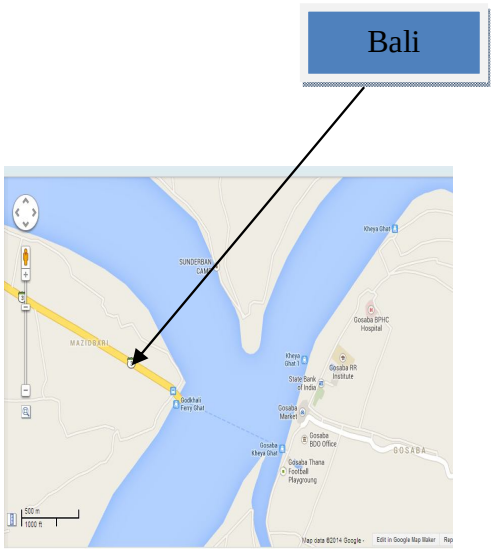
Block	Total no of Animal health camp organized	Total number of farmers	Total no animals treated/covered		Total number of Awareness camp organized	Total number of farmers attended	Topic of awareness
Sagar	23	498	Cattle	838	6	278	1. Deworming and its impact on animal production 2. Minimal care- more milk 3. Health care management 4. Scientific housing- less diseases incidence
			Sheep	140			
			Goat	711			
			Poultry	919			
			Pig	-			
			Buffalo	-			
			Any other	DUCK -14 DOG - 2			
Patharpr	23	595	Cattle	1225	4	94	1. Gramin

atima			Sheep	101			padhotite murgi palon 2. Desi chagol chas o tar upokarita 3. Vaccination of animals 4. Swine flu-awareness
			Goat	851			
			Poultry	3728			
			Pig	-			
			Buffalo	-			
			Any other	Duck-67			
Gosaba	23	592	Cattle	999	4	69	1. Importance of Deworming 2. Importance of Vaccination in animal 3. Health care management of animals 4. Profit maximization from animal husbandry practices
			Sheep	184			
			Goat	897			
			Poultry	1402			
			Pig	-			
			Buffalo	-			
			Any other	Dog-2			
Hinjalganj	21	485	Cattle	1044	4	77	1. Importance of Deworming 2. Vaccination of animals and its benefit 3. Cross Breeding in Cattle 4. Black Bengal Goat-our own property
			Sheep	46			
			Goat	1041			
			Poultry	2644			
			Pig	-			
			Buffalo	-			
			Any other	DOG-2			
Sandeskhali I	21	596	Cattle	988	5	97	1. Deworming and its importance 2. Goat rearing practice 3. Feeding of cattle 4. Poultry rearing practice 5. Duck rearing and its managements
			Sheep	132			
			Goat	531			
			Poultry	395			
			Pig	0			
			Buffalo	0			
			Any other	DUCK- 75 DOG - 3			
Sandeskhali II	22	511	Cattle	897	3	78	1. Importance of Deworming 2. Banglar kalo chagol palon 3. Murgi palon
			Sheep	310			
			Goat	519			
			Poultry	942			
			Pig	--			
			Buffalo	4			
			Any other	Duck- 138			
Total no of animals covered in South 24 parganas					Ruminants: 5946 Poultry including duck: 6130 Others: 4		
Total no of animals covered in North 24 parganas					Ruminants: 5512 Poultry including duck: 4194 Others: 5		

Few glimpses of field activities:

		
Conducting AH camp at Gosaba	**Mass deworming camp at Gosaba**	**Treatment of animals at Gosaba**
		
Awareness camp at Sandeskhali I	**Medicines Distribution Sandeskhali I**	**Dressing of animals at Sandeskhali I**
		
Treatment of animals at Sandeskhali II	**Conducting camp at Sandeshkhali II**	**Mass deworming at Sandeskhali II**
		
Registration at camp at Hingalganj	**Conducting camp at Hingalganj**	**Conducting camp at Hingalganj**

4.6.2. **Developmental programme for Bali Island :**



(a) Background and purpose:

The Sundarbans falls under the complex-diverse-risk prone (CDR) agro-ecosystem situated between $20^0 2'$ to $22^0 6'$North latitude and $88^0 25'$ to $89^0 00'$ East longitudes. It consists of 102 islands of which 54 are colonized and rest is reserved forest, falling under the Sundarban Biosphere – a world heritage site. Although, agriculture is the mainstay of livelihood for majority of the people, about 68% of the total cultivable lands is low lying, mostly mono-cropped and low yielding because of excessive rainfall resulting in water-logging due to impeded drainage system in monsoon. Paucity of irrigation water coupled with high salinity in soil during summer, inundation of cultivable land with brackish water and non availability of area specific technology for efficient utilization of natural resources hinders the prospect of raising crop in the region.

Bali Island is geographically challenged areas for livestock management both in terms of good quality inputs as wells as primary veterinary care. All the farming conditions assumed to be not sustainable because of multiple factors affecting the present rearing practices of small holders. In the present day scenario of global climate change, it is imperative that more stress is given on sustainability in agriculture rather than maximization. Sustainability implies that in every aspect of agricultural development, optimization is more rational for effective harnessing of our eco-system. However, the approach of optimization in some cases may lead to reduction in productivity and profitability. Hence, intensification of agriculture in a sustainable manner may be more justified particularly in cases of small holdings. Sustainable Intensification offers a practical pathway towards the goal of producing more food with less impact on the environment, intensifying food production while ensuring the natural resource base on which agriculture depends is sustained, and indeed improved, for future generations.

In this milieu, Ramkrishna Ashram KrishiVigyan Kendra, Nimpith, West Bengal, conceptualized the overall development of Bali island of Gosaba Block of Sundarban in collaboration with CARI, Andaman and ZPD, Zone II, Kolkata with its animal resources. The programme was planned so that most of the prevailing farming situations like dairy farming, goat rearing and backyeard poultry may be improved with sustainability, profitability and suitability compared with the prevailing situation.

(b) Dairy development programme:

45 day long training on dairy development and Prani bandhus:

30 selected unemployed rural youth were trained on campus so as to generate skilled primary veterinary worker vis-à-vis creating job opportunities for them. The training was attended by a group of reputed resources persons from different institutes and Universities like WBUAFSc, BCKV, CARI, IVRI, ERS, LDC, Govt. of West Bengal. The training also covered practical demonstration and hands-on practice including visit to different institutes. The trainees were also exposed to field conditions for handling the cases so as to make them empowered to face their own population. The participants will be equipped with cryocans and other accessories of AI to develop their own cattle population both interms of productivity and reporductivity. The

follow-up refreshing of knowledge and interaction will be organized in every 6 months interval for following 2 years to solve their burning problem and upgrade them.

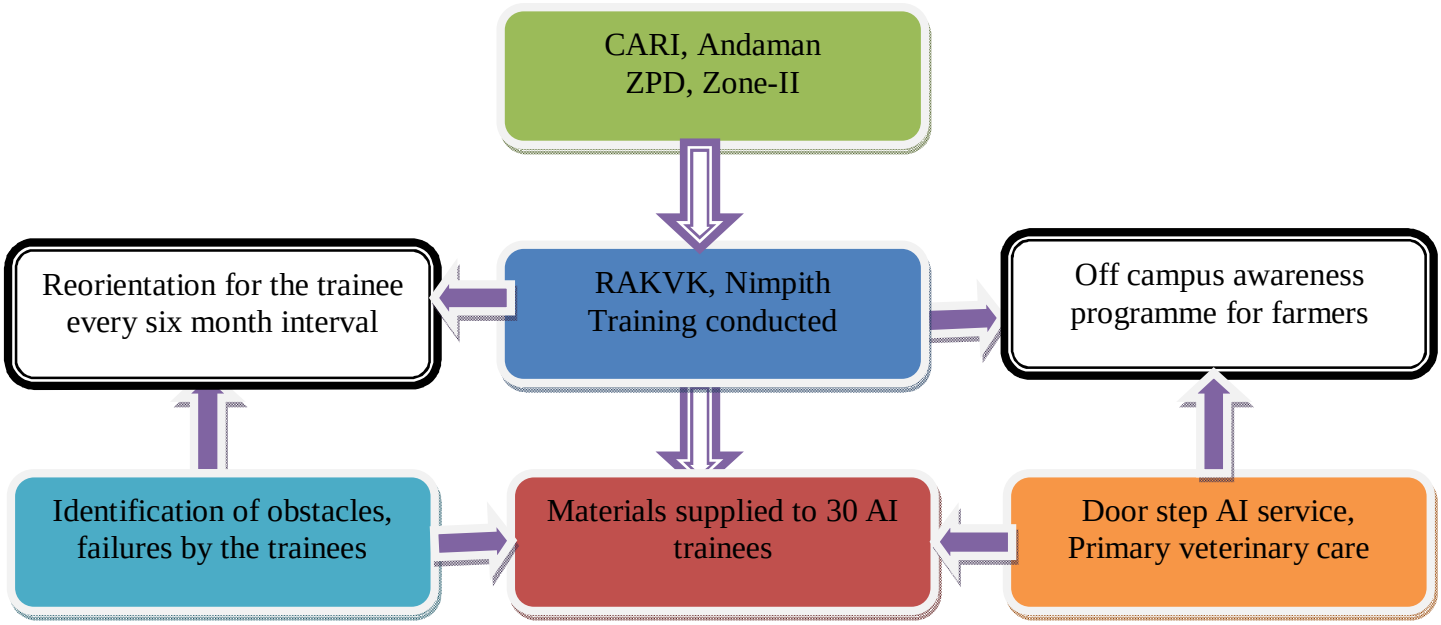
Observations and future scope of development:

Commercial dairying is a non-farm activity, which offers the potential for generating additional income and employment opportunities for the rural households and improving their nutritional standards. The Artificial insemination services are now being rendered door step and the farmers are getting more benefit in terms of quality service and additionally more numbers are animals are covered.

However, the present scenario reflects that the most of the existing cattle population in Bali Island are nondescript. The milk production is average 1.5 lit/day for a period of maximum 120-130 days in a calving year. Upgradation of existing genetic resources for better milk production through better management will at least take 5 years to have the benefit of AI.

The demand of milk in the island is far away from the production which reflects a status of malnutrition especially for the children and mothers.

Model developed and applied for dairy development:



(c) Poultry and goatery development programme:

Capacity building and development of goatery and poultry:

Rural women folk of Bali Island are farming the goatary and backyard poultry since long time but due to lack of proper understanding and timely veterinary service, the venture remains unsuccessful and unprofitable. KVK Nimpith in collaboration with CARI, Andaman and ZPD-Zone II organized intensive hands on training programme for 145 rural women and they have been distributed with good quality germplasm of black Bengal goat and RIR chicks along with feed for successful sustainable farming. Other sorts of care and management are being regularly taken along with closed monitoring on the farming situation.



Observations and future scope of development for poultry:

The birds have already attained bodyweight of 2-2.5 kg on an average. The survival rate of the birds is 89.5%. The programme recognizes that distribution of older birds (at least 15 day old) along with vaccination against Ranikhet, Pox and IBD will assure better survivality and more assured production.

- There is ample scope of development of entrepreneurship through broiler farming.
- Installation of incubator in the village level may benefit the farmers for production of their own stock.

(d) Observations and future scope of development for goatery:

Development of goatery by the rural women folk of Bali island is appeared to be beneficial and motivated the other rural women for this farming. The feed that have been distributed have been proved effective in terms of body weight gain of the distributed goats.

The following feedbacks have been received and may be considered:

- More number of farmers may be incorporated.
- Buck exchange programme may be taken up after three years.
- Locally available feed resources may be analyzed for any specific deficit.

- Area specific mineral mixture for goats for Bali region may be tried.



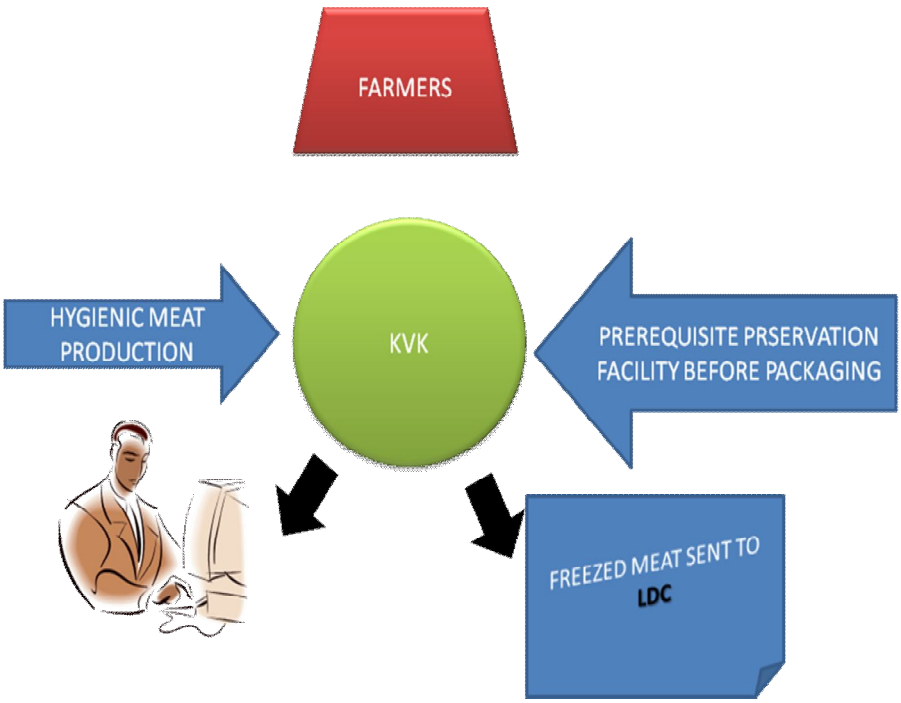
(e) Animal health and vaccination camp

Animal population at Bali Island was mostly not cared with veterinary services for a long period, hence the productivity and profitability form the farming diminished to a very low level. KVK Nimpith alone and also in collaboration with IVRI, ERS organized several animal health and vaccination camp to cover maximum number of animals and birds of the island.

4.6.3. MARKET LINGAE DEVELOPMENT:

Animal husbandry and its allied activities have the potential to revolutionize the rural economy. These sectors have capacity to provide opportunities for livelihood to people at the place where and in the situation they are. Poverty reduction is an imperative for the millions of rural poor. The possibilities for improving living conditions of the rural people through innovative livelihood options are high. Alternative livelihoods continue to be based primarily on animal husbandry, and the extraction of natural resources.

Goat and sheep farming is very popular to land less rural people because it has advantage of minimum capital investment. Besides, Bengal goats and Garole sheep are highly prolific, have high disease resistance capacity and above all the meat is very popular. At the time of ceremony or to fulfill the family need they can sell these animals easily to the middle man and can earn money just like ATM. But, the middle-man is getting maximum benefit by taking the advantage of their weak situation and getting their produce at very lower price. So the farmer are not getting the actually price out of this farming. Thus, the interest of farming is decreasing day by day. In this respect KVK played a role to wipe out the middle man by making linkage with Livestock Development Corporation and farmers. Additionally KVK also providing



the facility for minimal processing of the meat as the Livestock Development Corporation dose not purchase live animal. With these interventions, now the farmers are coming to KVK for processing of their meat on a specified day and selling the same to Livestock Development Corporation. The LDC is directly giving the due price to the farmers on spot, hence, the farmers are not being exploited and interest to the farming is restored. Thus Creation of marketing opportunity played a pivotal role for promoting different animal husbandry activities by the rural farmers.

4.6.4. National Vegetable Initiative for Urban Cluster:

This is a new programme under RKVY scheme, initiated for the Joynagar – II block of South 24 Parganas district. In this programme traditional vegetable growers would be trained in market oriented vegetable cultivation technique, with a view to sell their quality produce in the nearby urban market. The farmers would be motivated to form producers' group. The group will maintain their own bank account for the financial help in cultivation among themselves. Ultimately the groups will form a federation and federation will make their own business through forming a 'Vegetable Producers' Company'.

The programme has been initiated by the middle of 2014 with the financial help of Dept. of FPI & Horticulture, Govt. of West Bengal. The group formation and other related parts are maintained by a reputed NGO 'Access Development Service'. KVK is participating with this programme as scientific-technical partner. Training and HRD components for this NVIUC programme along with demonstration and testing would be conducted as per guidance and help of KVK.

4.6.5. Coconut Producers' Society:

This is a programme of Coconut Development Board in joint collaboration with KVK, Nimpith. The coconut growers of each Gram Panchayet of South 24 Parganas district are motivated to form producers' group. Each group should consist of atleast 10 members and each member should have atleast 10 number of palm. Each member of the producers' society will get training on coconut palm management at KVK and will get cost of inputs for palm management from CDB. Still now 151 coconut producers' society has been developed in the South 24 Parganas district. Ultimately the groups will form a federation and federation will make their own business through forming a 'Vegetable Producers' Company'.Coconut arganas district. In this programme traditional vegetable growers would be trained in market oriented vegetable cultivation technique, with a view to sell their quality produce in the nearby urban market.

4.6.6. Diploma in Agricultural Extension Services for Input Dealers (DAESI)

The public extension system of our country alone is not enough to make our farming community keep appraised on the daily developments in Agriculture. Hence the Ministry of Agriculture, Govt. of India in its National Agricultural Policy and in the 10th Plan approach paper emphasized on the need for reforms in agricultural extension of our country through increased participation of Multi Agency Extension Serviceces like Multi National Companies, corporate bodies, Voluntary Organizations, Farmers' Associations and Input Dealers, etc.

2013-14 batch of DAESI

The large network of about 3 lakh Agri-Input Dealers in our Country are acting as an important source of Farm Information to the Farming Community. However, nearly 90% of them do not have any formal Agriculttural Education. They act basically as businessmen without realizing the implication of "laws" relating to handling of Agricultural Inputs. If they are transformed into para-professionals by providing adequate agricultural knowledge, they can be very useful in Market led Extension.

Considering all these facts and opportunities, the National Institute of Agricultural Extension Management (MANAGE), Hyderabad, has designed Diploma in Agricultural Extension Services for Input Dealers (DAESI), a One Year Diploma Course which imparts formal agricultural education to the dealers so that they can couple their business with extension services.

Objectives of the Course:

- To orient on location specific crop production technologies of broad-based agriculture and specific package of practices related to field problems
- To build capacity of Input dealers in efficient handling of Inputs
- To impart knowledge about the laws governing regulation of Agricultural Inputs
- To make Input Dealers an effective source of farm information at the village level (one stop shop) for the farmers/farm women

Initiative taken by RAKVK, Nimpith:

This course has been popularized since 2004-05, but mostly in South Indian States like, Andhra Pradesh, Tamilnadu, etc. It is the first time that any States from the Eastern part of the country has thought off such programme in 2013-14. Ramkrishna Ashram Krishi Vigyan Kendra, Nimpith and SAMETI, Narendrapur are the two pioneer Institutes that have taken initiative to implement this diploma course for the benefit of the farmers of South 24 Parganas District. 40 Agricultural Input Dealers from different Blocks of the District are selected for each of the Course centers. The course started on 27th September, 2013 and is continuing since.

Methodology:

The course will be completed 48 weekly classroom interactions as well as field visits. The weekly classes are mutually agreed upon to be conducted on every Thursday (market holiday for most Dealers). Supply of study materials, use of multi-media instructional devices, engagement of experts as Resource Persons and continuous monitoring as well as final evaluation are being followed upon.

Content and coverage:

Along with the basic Agricultural knowledge and practices, more emphasis is given on development of problem-solving apprehensive capabilities among the trainees. This will help the farmers to be mostly benefitted from the course. The overall course is divided into some modules like 1. Local Agro-ecological situation, 2. Soil and integrated nutrient management, 3. Crop production technology, 4. Integrated Pest and Disease Management, 5. Water management, 6. Extension management and 7. Agriculture related Laws.

The 2013-14 batch was completed by September 2014. From October 2014 the next batch (2014-15) started with another 40 input dealers. More and more numbers of Agri-Input Dealers are enquiring for enrollment for the next session. Hope this novel approach will bring enormous changes in the mind of the Input Dealers towards a sustainable production system with minimal exploitation of ecological resources.



4.6.7. Low cost backyard catfish rearing

Generally rearing of the Asian catfish spawn and fry is undertaken in plastic or enamel trays or in FRP or cement tanks. However, RAKVK has promoted rearing of these catfish seeds in small glass trays with beneficial results. With respect to cost and survivality of the seeds, it has been observed that glass trays are far better than all the other options. Rearing in glass trays allows proper monitoring and management throughout the critical rearing phases of the fish.




Eventually, this technology of catfish seed rearing has been successfully disseminated in village level through a catfish project funded by the State Fisheries Dept., Govt. of West Bengal.

4.6.8. Demonstration of Aquaponics in the fishery unit of Nimpith KVK

Aquaponics is a combination of aquaculture (the growing of aquatic organisms) and hydroponics (the growing of plants in water without soil). This integrated system works by the formation of a symbiotic relationship wherein the nutrients and resources are recycled between the two systems. The fish provides wastes, which the bacteria turn into plant nutrients, providing the plants with food and the fish with clean water.

In this integrated system, a **fish chamber** is stocked with the omnivorous fish *Tilapia* at a stocking density of approximately 1 fish per 22.5lts. of water. The capacity of the fish chamber is 450 lts. where 20 fish are stocked. The fish are fed with formulated dry feed @ 3% of their body weight twice daily.

On an elevated platform over the fish chamber there are 3 grow beds for plants (**plant bed**) with dimensions of 57cm X 36cm X 20cm each. The 3 grow beds are filled with stone chips, marble chips and fine gravels respectively to observe growth performance of the plants in the three different media. 1 month old sapling of *Basella* and tomato are planted in each of the beds.

A **nitrification chamber** of dimensions 56cm X 36cm X 48cm is fixed below the plant bed platform and is provided with stone chips bed and under gravel filter at the bottom for the growth of beneficial nitrifying bacteria which converts the harmful nitrites into nitrates. This chamber is also provided with a underwater pump for lifting nutrient rich water from this chamber to the plant bed.

When the system is operated, the pump lifts water from the nitrification chamber to the three plant beds from where there is a system by which the excess water from the beds falls into the fish chamber. This water is clean as the plants absorb the nutrients for their growth. Again from the fish chamber the surplus water with fish metabolites and feed residues are passed into the nitrification chamber.

4.6.9. Report on observation of International Women's Day, 2015

In 2015, **International Women's Day**, celebrated globally on 8 March, to highlight the Beijing Declaration and Platform for Action, a historic roadmap signed by 189 governments 20 years ago that sets the agenda for realizing women's rights. While there have been many achievements since then, many serious gaps remain.This is the time to uphold women's achievements, recognize challenges, and focus greater attention on women's rights and gender equality to mobilize all people to do their part. The Beijing Platform for Action focuses on 12 critical areas of concern, and envisions a world where each woman and girl can exercise her choices, such as participating in politics, getting an education, having an income, and living in societies free from violence and discrimination. The theme of the day is **"Empowering Women Empowering Humanity: Picture it!"**

In this context RAKVK, Nimpith has observed the International Women's Day through different programme from 7th – 9th March,2015. The programme was inaugurated by Mrs. Sujata Ghosh, Joint Secretary, Governrnent of West Bengal in presence of Mrs.KetakiMondal, Lady Counselor of Annesha Clinic, Joynagar II, NRHM, Swami SadanandaMaharaj, Chairman, RAKVK and Dr.NilendujyotiMaitra, Programme Coordinator, RAKVK. The first day programme was designed for adolescent girls and next two days for farm women and extension worker, mothers groups, SHG members. **The celebration was decorated with Purple colour to symbolize justice and dignity.** The reason behind the choice of colour is that the Women's Social and Political Union (WSPU)in Great Britain adopted from 1908 the colour scheme of purple, white and green to symbolise the plight of the Suffragettes. Purple symbolises justice and dignity - two values strongly associated with women's equality

Respected Joint secretary madam delivered a lecture on "self-confidence and self-reliance and education-the way for dignified life". Mrs. Mondalemphasized the engendering health through NRHM. Dr.Maitra shared his views on roles of women for any social change or movement. Dr. M. Chakraborty, SMS (Home Sc.) discussed on the rights and entitlements for food &nutrition security. **A story writing competition was organized for adolescent girls** on – my wish, my dream. **Role play was performed on dignified women** like Malala, Kalpa Chawla, Sudha Chandan Mother Teresa, Helen Keller, Sister Nibedita, Sri Sri Ma Sarada and more. **Go as you like – event was organized on renowned women-** famous for their achievement and dedication for changing the orthodox society like-RokeyaBegam, Jhansir Rani, DokoriBala and more.

Rural women performed cultural events. **They also shared their experiences for overcoming the challenges, how they are recognizing themselves as empowered, success of their life.Play events were also organized for joy and fun among rural women. Movies on women empowerment, and psychology of adolescent girls were also played to make them feel for dignified life.**

Lightening of the programme by rural women and one internee from Germany

Speech deliberation by Joint Secretary, GoWB

4.6.10. RAKVK Nimpith celebrates 86th ICAR Foundation Day:

The 86th Foundation Day of Indian Council of Agriculture Research (ICAR) was celebrated on 16th July, 2014, by Ramkrishna Ashram Krishi Vigyan Kendra at Nimpith, South 24 Parganas, WB. The programme was attended by representatives from the State Agriculture Department and 120 participants including farmers, entrepreneurs, students, etc.

The programme was started with the mesmerizing sweet note of ICAR song "*Jaya Jaya Krishi Parishad Bharat Ki…..*". A brief history and the role of ICAR in Indian context were discussed by the KVK scientists. ICAR, since its inception in 16th July, 1929, has been serving our country with pioneering work in achieving national self-sufficiency in food grains apart from creating enormous diversity in food production. KVKs play an important role in bridging the gap between the ICAR and its other subsidiary Institutes and the farming community.

The participants also interacted with their queries and enthusiasm regarding effect of climate change on their farming and how the issue being addressed by ICAR. They were happy to learn that a novel project "NICRA" is being implemented in their district to mitigate and get prepared for the climatic vagaries in future days.

To commemorate the efforts of the NICRA farmers along with this special celebration day it was earlier decided by the ICAR to felicitate them as "Smart Farmers". 100 such farmers from the NICRA village were accordingly given certificates to encourage them to spread the concept of climate resilient agricultural technologies in the surrounding villages.

The representatives of the State Agriculture Department also emphasized on developing specific technologies for the farming communities of vulnerable agro-ecological situations like in Sundarban. They acknowledged the role of KVK, Nimpith and ICAR for their support in the development of the agriculture situation of the District.

Inauguration of the programme with ICAR Song

Representative of Member of Legislative Assembly, Joynagar Constituency participated in the programme to encourage the farmers

5.0 LINKAGES

5.1 Functional linkage with different organizations

Sl. No.	Name of organization	Nature of linkage
1.	WBLDC	Marketing of goat, sheep and broiler duck meat from the farmers production.
2.	East Singhbhum KVK, Jharkhand	Training
3.	Indian Veterinary Research Institute, Eastern Regional Station, Kolkata	
4.	Central Institute of Fisheries Education, Salt Lake, Kolkata	
5.	University of Calcutta, West Bengal	
6.	University of Kalyani, Kalyani, Nadia, West Bengal	
7.	West Bengal State University, Barasat	
8.	District Rural Development Cell, North- 24 Parganas, WB	
9.	District Rural Development Cell, South- 24 Parganas, WB	
10.	SDB, GOWB	
11.	Vivekananda College, Kolkata	
12.	ATMA, Howrah	
13.	ATMA, Darjeeling	
14.	ATC & SAMETI, Narendrapur	
15.	ATMA, South 24 Parganas	Joint Survey
16.	Irrigation Dept., GOWB (Formation of water users association-WUA and preparation of micro plan of centrally sponsored pilot project for South 24 Parganas on repair, renovation & restoration of water bodies	
17.	TMC MM-II, DOCD, GOI (Cotton)	Demonstration
18.	SDB, GOWB (Cotton Cultivation)	
19.	CICR, Nagpur (IRM)	
20.	Advanta, Excel Crop Care Ltd.	
21.	National Horticulture Mission, Mayukh Bhavan, Salt Lake, Kolkata, West Bengal	
22.	BGREI, GOWB	
23.	District Horticulture Office, Alipur, South 24 Parganas	
24.	Directorate of Oilseed Research, Hyderabad	
25.	Institute of Animal Health and Veterinary Biologicals, Kolkata, West Bengal	Joint diagnostic survey
26.	West Bengal University of Animal & Fishery Sciences, Kolkata, West Bengal	
27.	Indian Veterinary Research Institute, Eastern Regional Station, Kolkata	
28.	National food security mission	Participation in meeting
29.	Directorate of Extension, BCKV, Mohanpur, Nadia	
30.	Sundarban Milk Union Limited, South 24 – Parganas	Collaborative programme
31.	Central Institute of Fisheries Education, Salt Lake, Kolkata & Versova, Mumbai	
32.	Vivekananda College, Kolkata	
33.	Dept. of ARD & PO, South 24- Parganas	
34.	Cotton Corporation of India (CCI), Kolkata	Marketing of farm produce
35.	CRM Services, Kolkata	
36.	Colour Zone, Ashoknagar, North- 24 Pgs	
37.	Central Glass and Ceramic Research Institute	Research and Extension

Sl. No.	Name of organization	Nature of linkage
38.	Paschim Banga Go Sampad Bikash Sanstha	Impart expertise training
39.	Indian Veterinary Research Institute	Research, project implementation and farmers demonstration of modern technologies
40.	Bidhan Chandra Krishi Visvavidaslaya, AICRPFP Unit	Distribution of fodder seed and demonstration of planting materials for animal feed to the farmers
41.	West Bengal University of Animal and Fishery Sciences	Demonstration of different field operation cases to VAC course students
42.	Animal Resource Development Department, Govt W.B.	Organization of animal health and vaccination camp.
43.	Department of Forest, Govt W.B.	Impart animal husbandry training and advisory services to the farmers.
44.	State department of panchayat and rural development	Training programme
45.	National Institute of Plant Health Management (NIPHM), Hyderabad	NIPHM will offer training to the KVK staff free of cost and provide technical back stopping in the areas of plant health management
46.	MANAGE, Hyderabad	A one-year diploma course is being implemented by the KVK in collaboration with MANAGE, Hyderabad. The name of the course is "Diploma in Agricultural Extension Services for Input Dealers". 40 Agri input dealers from different blocks of the District are studying this course. Weekly classes (every Thurseday) are arranged for this 48 week long course.
47.	Bio-science Division, Indian Statistical Institute, Kolkata	Collaborative research on Study on distribution of Plant Parasitic Nematodes in Betel Vine Rhizosphere
48.	Department of Forest, Govt W.B.	Impart fishery training, advisory services and fish seed to the farmers.
49.	West Bengal University of Animal and Fishery Sciences	Inviting as resource person in NICRA training programmes
50.	Central Inland Fisheries Research Institute	Inviting as resource person in training programmes and conducting exposure of farmers in KVK and KVK adopted villages
51.	Central Calcutta Science and Culture Organisation for Youth	Inviting in meetings, seminars and symposia

5.2. List special programmes undertaken during 2014-15, by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NHM/NFDB/Other Agencies

a) Programmes for infrastructure development

Sl. No.	Name of the programme/scheme	Purpose of the programme	Date/ Month of initiation	Funding agency	Amount (2014-2015) (in lakh)
1	All India Coordinated Research Project on Sunflower **(**AICRP**)**	Development of early duration Hybrids for rainfed situations and Rabi-Summer	July,2009	Director of Oil Seeds Research, Rajendranagar, Hyderabad	22.00
2.	FLD on Sunflower	Demonstration on Sunflower cultivation	2011-12	Director of Oil Seeds Research, Rajendranagar, Hyderabad	0.75
3.	Tribal Sub Plan	Popularization of Sunflower cultivation in the tribal belt of West Bengal	Dec., 2011	Director of Oil Seeds Research, Rajendranagar, Hyderabad	14.50
4.	Cotton Development Mission **(**CDM**)**	Production of Raw Cotton and improve the bio mass statusof the North and South 24-Parganas districts.	2007-2008	Directorate of Agriculture, Govt. of West Bengal	11.40
5.	NFSM (Commercial crops)	Intensive Cotton Development in the North and South 24-Parganas districts.	2014-15	Department of Agriculture, (Development Branch) Govt.of West Bengal	11.45
6.	NFSM-IRM (Insecticide Resistance Management)	Experimentation and collection of information for the pest fron the village level cotton field and monitoring for *Helicoverpa armigera* etc.	December, 2004	Director of Cotton Development, Central Institute For Cotton Research, ICAR,Nagpur	4.15
7.	National Initiative on Climate Resilient Agriculture **(**NICRA**)**	Strategies to enhance adaptive capacity to climate change in vulnerable regions of district	Mar., 2011	Indian Council of Agricultural Research, New Delhi.	17.40
8.	Bali island programme	Over all development of the farming community of bali farmers	2014	NEH, Barapani	20.00
9.	Alternative livelihood option for the coastal villages of Sundarbans	Protection of forest by preventing deforestation	Jan., 2014	Deptt. of Forest, Govt. of West Bengal	3.39

10.	Participatory Research-cum-Extension Programme on seed production and culture of desi magur for the fish farmers of different districts of West Bengal	Establishment of indigenous magur breeding centres in 5 blocks of South 24 Parganas to cater the need of magur seeds and to develop a standard package of practice for the culture of magur fingerlings to tablesize fish	July,2014	Department of Fisheries, Govt. of West Bengal	13.50
11.	IWMP-6	Integrated watershed development programme	Oct., 2012	Deptt. Of Agril. Govt. W.B.	77.85
12.	IWMP-7	Integrated watershed development programme	Oct., 2012	Deptt. Of Agril. Govt. W.B.	64.88
13.	IFS programme through RKVY in North 24 Parganas	KVK Landshaping Programme	2014-15	Deptt. Of Agril. Govt. W.B.	500.40
14.	IFS programme through RKVY in South 24 Parganas	KVK Landshaping Programme	2014-15	Deptt. Of Agril. Govt. W.B.	306.50

(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.)**
Technology Week and Anuual Agriculture Exihibition	Demonstration of Innovative technologies for lage scale adoption	February, 2015	NABARD	121500.00
Composite fish culture	Alternative livelihood option for the coastal villages of Sundarbans for protection of forest by preventing deforestation (providing quality fish seed and training)	July & August, 2014	Deptt. of Forest, Govt. of West Bengal	132160.00 + trgaining cost
AICRP on IFS	Providing quality fish seed	June, 2014	BCKV	12125.00

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.)		Rem-arks
				Variety/breed	Produce	Qty.	Cost of inputs	Gross income	
1.	Carp hatchery	1989-90	355.0	Indian major carps and exotic carps (catla, rohu, mrigal, calbasu, bata, silver carp, java punti, common carp)	Carp spawn	2.4 million	5230.00	10000.00	
2.	Nursery and grow-out ponds	1985-86	4.276 ha	Indian major carps and exotic carps and tilapia (catla, rohu, mrigal, calbasu, bata, silver carp, java punti, common carp)	1.Carp fry & fingerlings 2.Tablefish (carp) 3.Tablefish (tilapia)	1415.1 kg 2095.0 kg 334.5kg	300372.00	245615.00 252490.00 86920.00	
3.	Ornamental fish and catfish breeding cum rearing unit	1997-98	505.0	1.Ornamental fish (goldfish, angel, koi carp, milky carp, rosy barb, venus tetra, gourami, fighter, guppy, molly, swordtail, platy) 2.Catfish (*Clarias batrachus* - desi magur)	Fry & adult Fingerlings	25834no. 35500no.	82750.00	25834.00 122000.00	
	Total						388352.00	742859.00	

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	
Cereals									
Paddy	08.06.14	05.11.14	0.8	NC-492	Foundation	20	23940	60000	
	02.07.14	16.11.14	0.64	Pratikha	Foundation	18	23600	52000	
	25.06.14	26.11.14	0.4	CR-1009	Certified	8	12000	28000	
	21.06.14	23.11.14	0.8	IET-5656	TL	16	24000	35000	
	05.06.14	20.11.14	0.8	Dudshwar	T.L	16	20000	32000	
	04.06.14	05.11.14	0.4	Super Shyamaly	T.L	8	10000	15600	
	10.07.14	05.11.14	0.46	WGL-20471	T.L	11	12250	18500	
	08.06.14	12.12.14	2	Basha	TL	60	34300	80000	
Pulses Greengram	03.02.14	17.04.13	2	PDM-84-139	T.L	22	40000	101800	
Oilseeds	24.11.14	27.02.15	0.4	B-9	TL	3.2	9000	15400	
Fibers									
cotton	27.12.12	24.05.13	0.26	Surabhi	Fiber	4	7400	16100	
Sapota	Orchard	July – August, 2014	0.3	Cricket ball	Ripe fruit	112	18400	29000	
Brinjal	01.09.15	Nov., 14 to March., 15	0.13	Bhangar	Fresh vegetable (immature fruit)	48	17300	28900	

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	
Contd…….									
Tomato	12.08.15	Oct., 14 to Jan., 15	0.13	SG 1458	Fresh vegetable (ripe fruit)	42	11400	17900	
Onion	18.10.15	March, 15	0.1	Sukh Sagar	Fresh vegetable (bulb)	17	6900	11600	
Potato	24.11.15	Feb., 15	0.08	Kufri Jyoti	Fresh vegetable (tuber)	13	7800	9000	

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	
1	*Metarhizium anisopliae*	143.5 kg	14,900.00	15,285.00	
2	*Sl*NPV	4.2 L	504.00	630.00	
3	*Pseudomonas fluorescens*	1024.9 kg	94,012.00	95,446.00	
4	*Trichoderma viride*	515.3 Kg	49,154.00	50,900.00	
5	*Trichoderma harzianum*	11.2 kg	821.00	1,174.00	
6	*Trichogramma chilonis*	642 trichocards (Having 38.52 lakh *Trichogramma* wasp)	2,568.00	2,800.00	

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.	Cost of inputs	Gross income	
1.	Cows	J.C, HF. C, GIR Sahiwal C.	Milk	1154 q	33.86 lakh	42.25 lakh	
			Heifers	30			
2.	Calves	-	-				
3.	Broilers	Hygrow	Meat	24.3 q	181100.00	227850.00	
4.	Duals (broiler and layer)	RIR, Nirvik, Hitkari, Upkari	Egg	400 nos.	1000.00	1600.00	
5.	Ornamental bird	Budgerigar, Cockatail	Ornamental	554 nos	88640.00	110800.00	
6..	Rabbit	White New Zealand	Ornamental	31 nos	3100.00	4650.00	
7.	Guinea pig	-	Ornamental	18 nos	740.00	900.00	
8.	Goat	Black Bengal	Meat	102 nos	164000.00	173670.00	
9.	Indian major carps and exotic carps	Catla, rohu, mrigal, calbasu, bata, silver carp, java punti, common carp	Carp spawn	2.4 million	5230.00	10000.00	
10.	Indian major carps and exotic carps	Catla, rohu, mrigal, calbasu, bata, silver carp, java punti, common carp	Carp fry & fingerlings	1415.1 kg	74400.00	213615.00	
11.	Indian major carps and exotic carps	Catla, rohu, mrigal, calbasu, bata, silver carp, java punti, common carp	Tablefish	9595.0 kg	382850.00	452490.00	

Sl. No	Name of the animal / bird / aquatics	Details of production		Amount (Rs.)		Remarks

Contd…

12.	Ornamental fish	Goldfish, angel, koi carp, milky carp, rosy barb, venus tetra, gourami, fighter, guppy, molly, swordtail, platy	Fry and adult	25834 no.	17630.00	25834.00	
13.	Catfish	*Clarias batrachus*	Fingerlings	35500no.	35120.00	122000.00	
14.	Tilapia	*T.nilotica*	Tablefish	334.5kg	38122.00	86920.00	

6.5 Utilization of hostel facilities

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April, 2014	194	910	-
May,2014	224	852	-
June,2014	281	594	-
July,2014	70	300	-
August,2014	227	953	-
September,2014	367	1938	-
October, 2014	135	2835	-
November,2014	192	722	-
December,2014	328	3374	-
January,2015	301	1409	-
February,2015	768	5982	-
March, 2015	310	1495	-
Total	3397	21,364	-

(For whole of the year)

6.5 Utilization of staff quarters

Whether staff quarters has been completed: Yes
No. of staff quarters:
Date of completion:
Occupancy details:

Months	Q I	QII	Q III	QIV	Q V	QVI
April, 2014	Full	Full	Full	Full	Full	Full
May,2014	Full	Full	Full	Full	Full	Full
June,2014	Full	Full	Full	Full	Full	Full
July,2014	Full	Full	Full	Full	Full	Full
August,2014	Full	Full	Full	Full	Full	Full
September,2014	Full	Full	Full	Full	Full	Full
October, 2014	Full	Full	Full	Full	Full	Full
November,2014	Full	Full	Full	Full	Full	Full
December,2014	Full	Full	Full	Full	Full	Full
January,2015	Full	Full	Full	Full	Full	Full
February,2015	Full	Full	Full	Full	Full	Full
March, 2015	Full	Full	Full	Full	Full	Full

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute	-	-	-
With KVK	State Bank of India	Nimpith	11259497721

7.2 Utilization of funds under FLD on Oilseed *(Rs. In Lakhs): From DOR, Hyderabad*

Item	Released by ICAR		Expenditure		Unspent balance as on 31.03.2015
	Kharif	Rabi	Kharif	Rabi	
Sunflower	-	Rabi	-	0.75 lakh	Nil

7.3 Utilization of funds under FLD on Pulses *(Rs. In Lakhs) N.A.*

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2013
	Kharif	Rabi	Kharif	Rabi	

7.4 Utilization of funds under FLD on Maize *(Rs. In Lakh) N.A.*

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2012
	Kharif	Rabi	Kharif	Rabi	
TOTAL					

7.5 Utilization of KVK funds during the year 2014-15 (Not audited)

S. No.	Particulars	Sanctioned (in lakh)	Released (in lakh)	Expenditure (in lakh)
A. Recurring Contingencies				
1	Pay & Allowances	114.44	114.44	114.42113
2	Traveling allowances	0.50	0.50	0.49966
3	HRD	0.15	0.15	0.15
4	Contingencies			
A	Stationery, telephone, postage and office contingency	1.97	1.97	1.96979
B	POL, repair of vehicle , tractor and equipments			
C	Training of farmers	1.39	1.39	1.38915
D	Training materials			
E	Training Extension Functioneries			
F	Training of Rural Youth			
G	Frontline Demonstration	0.65	0.65	0.64890
H	On Farm Testing	0.61	0.61	0.60970
I	Maintenance of building	0.38	0.38	0.37970
J	TSP	3.47	3.47	3.47
TOTAL (A)		123.56	123.56	123.53803
B. Non-Recurring Contingencies				
1				
2				
3				
4				
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**123.56**	**123.56**	**123.53803**

7.6. 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 (Cash+Bank+Fixed+Kind)
2012-13	22.30163	13.21855	12.20310	23.31708
2013-14	23.31708	20.46900	19.064	24.72208
2014-15	24.72208	78.32079	55.10503	54.37398

7.6.(i) Number of SHGs formed by KVKs- 41 (ii) association of KVKs with SHGs formed by other organizations indicating the area of SHG activities - Strengthening, Skill development

7.7 Details of marketing channels created for the SHGs

Animal husbandry and its allied activities have the potential to revolutionize the rural economy. These sectors have capacity to provide opportunities for livelihood to people at the place where and in the situation they are. Poverty reduction is an imperative for the millions of rural poor. The possibilities for improving living conditions of the rural people through innovative livelihood options are high. Alternative livelihoods continue to be based primarily on animal husbandry, and the extraction of natural resources.

Goat and sheep farming is very popular to land less rural people because it has advantage of minimum capital investment. Besides, Bengal goats and Garole sheep are highly prolific, have high disease resistance capacity and above all the meat is very popular. At the time of ceremony or to fulfill the family need they can sell these animals easily to the middle man and can earn money just like ATM. But, the middle-man is getting maximum benefit by taking the advantage of their weak situation and getting their produce at very lower price. So the farmer are not getting the actually price out of this farming. Thus, the interest of farming is decreasing day by day. In this respect KVK played a role to wipe out the middle man by making linkage with Livestock Development Corporation and farmers. Additionally KVK also providing the facility for minimal processing of the meat as the Livestock Development Corporation dose not purchase live animal. With these interventions, now the farmers are coming to KVK for processing of their meat on a specified day and selling the same to Livestock Development Corporation. The LDC is directly giving the due price to the farmers on spot, hence, the farmers are not being exploited and interest to the farming is restored. Thus Creation of marketing opportunity played a pivotal role for promoting different animal husbandry activities by the rural farmers.

7.8. Special programme on Food and Nutrition :

Nutrition programme has been designed on the basis of Zero hunger Challenge- Mission

ZERO HUNGER CHALLENGE — Our Mission

The Zero Hunger Challenge is a global initiative which aims to build support around the goal of achieving Zero Hunger. It was launched by the UN Secretary General Ban Ki-moon and calls on everyone – governments, the private sector, NGOs, the public – to do their part to achieve this goal. It is all based on a shared conviction that hunger can be eliminated in our lifetimes.

- The first issue Zero Stunted children less than2 years has been approached by Nimpith KVK through 1000 days approach.
  Reduction of stunting (Height/ Age) – chronic Malnutrition is long term goal. So 1000 days a is the way to improve maternal and child nutrition between pregnancy and two years of age. this help to prevent acute malnutrition (under weight-weight/age)and in turns to reduce stunting.
  Target Area- block-Patharpratima, Joynagar –II (32 villages-11 backward village)

  Target pregnant mother-4256
  Target children-3884 no (0-3 yrs)

Case Study- Tuhin Mondal ICDS no - 88 Village-Baishhata

I am Tuhin Mondal. I am in the yellow portion of growth card. I am a MAM child.

Changes

ACTIVITIES

Training on

- Community management of malnourished children
- Method of Hand Washing
- Preparations of Weaning food from locally available food
- Tracking with NGO IDEA tool box
- Rights & entitlements of PDS, MGNREGA, NRHM

Demonstration

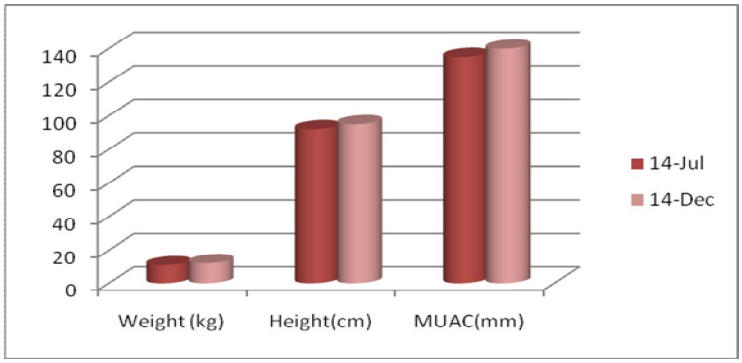
Nutrition Garden

Cooking of nutrient rich diet from local less familiar low cost foods

Improved Factors:

Factors	July, 2014	December, 2014
Frequency of meal	2	4
Dietary diversity score	2.1	3.3
Hand Washing	Only with water	With soap

Outcome:



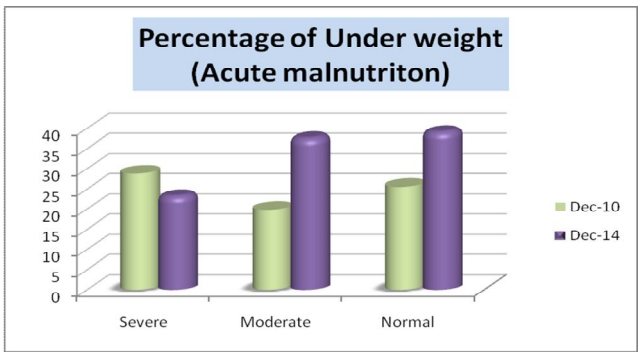
Factors	July, 2014	December, 2014
Weight	11 kg.	12.2 kg
Height	92cm.	95cm.
MUAC	135mm.	140mm.

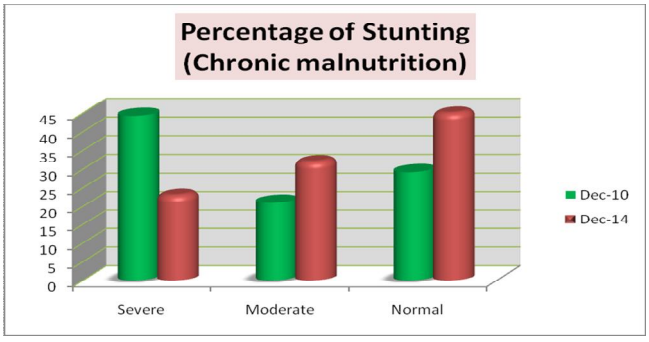
Case Study of SAM ICDSno village

Name of the child: Preeti Bar
Mother: Rakhi Bar
Village: Taranagar
D.O.B.: 22. 06. 2013
Ntritional Status of the Child:

Factors	January 2014	November 2014
Weight	6.1 (y)	10.3 (G)
Height	66.9	77.6
MUAC	12.5	13.5

Challenges	Measures Taken	Present Situation
LBW Child (2.1kg.)	Tracking, monitoring, counseling	Normal nutritional status
Frequency of meal was only 2	Home Visit , Counseling of the mother	Frequency of meal is 4.
Suffered from hernia	Operated	Normal
Disliking for food	cooking demonstration	Generally don't take food from outside
DDS was very poor (3)	Nutrition garden	DDS is good (6)



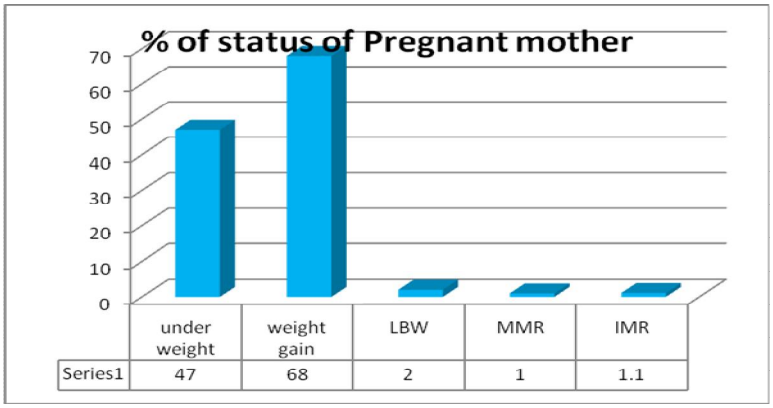


Case Study of high risk Pregnant mother ICDSno -206

Name of the pregnant woman: Kabita Maity
Husband's Name: Shibu Maity
Village: Gangapur (Banashyamnagar G.P.)
Age: 17
Age of marriage: 16
Gravita: 1st
Nutritional Status of the Woman: under weight, Anaemic

Challenges	Measures Taken	Present Situation
Low body weight & BP	Tracking, monitoring, counseling	Body Weight increases 10 kg in 9 months
Suffering from anaemia (9.2mg/dl)	Intake proper food & IFA tablets	Hemoglobin count is normal (12 mm/dl)
Suffered from hernia	Operated	Normal
Morning sickness	Dry food intake in morning & frequency of meal increased	Situation is improved
DDS was poor (4)	Counselling, Nutrition garden	DDS is good (7)

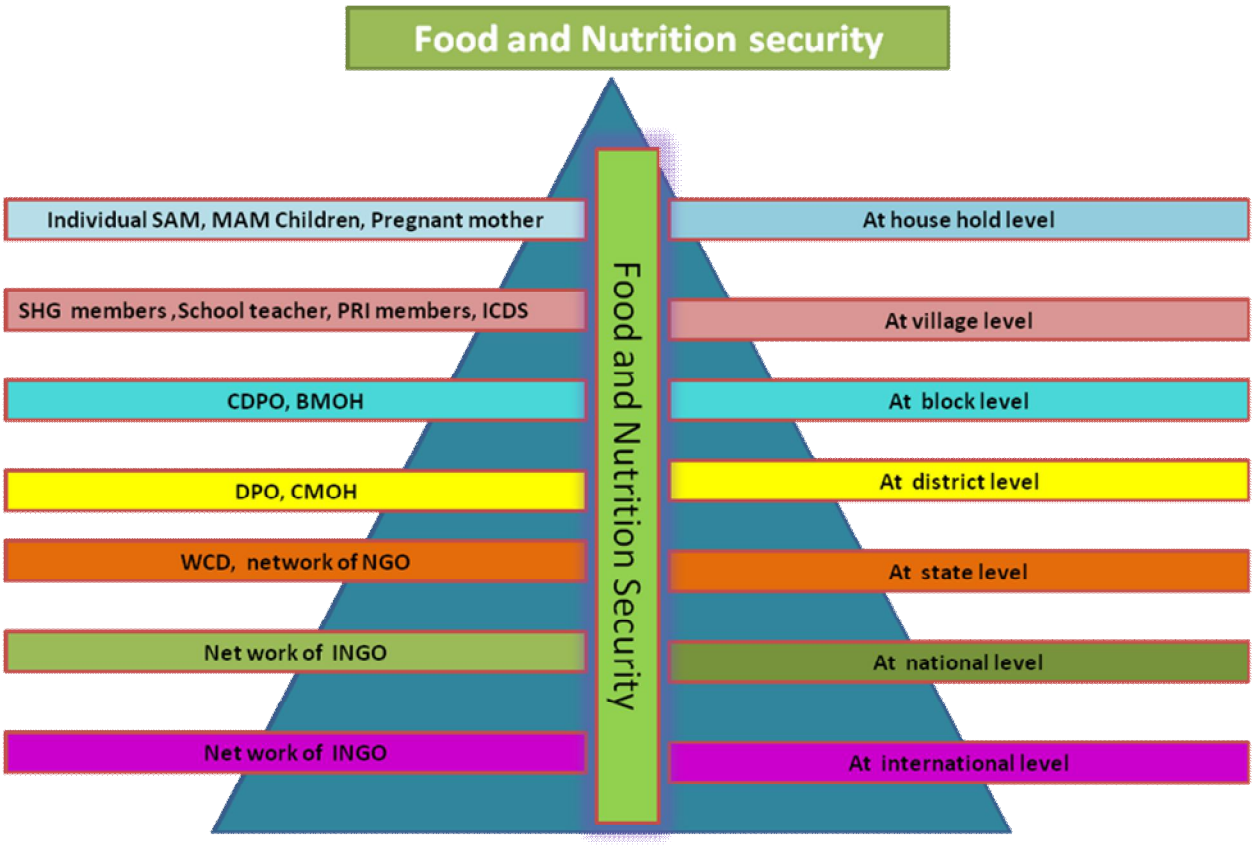
Factor	3 month of gestation	6 months of gstation	9 month of gestation
Weight	40 kg	45 kg	50 kg



Total no of pregnant mother:1574
% of mother gained weight represented as out of under weighed mother

Right based approach programme has been implemented to address 100% access to adequate food all round the year.

Challenges	Activity	outcome
% people never received foods from PDS	Sensitization programme	
PDS centers too far from hamlet	Microplanning	One new extension centre established in Sapla village
		348 No of card issue
People ignorant about rights & entitlements of PDS	Stakeholder meeting with micro planning report containind identified problems and probable activities	54% hh demanding their rights and entitlements for PDS
New cards for PDS were stopped		97 % pds displaying entitlement, stocks, rates in the boards
No display board at PDS centers		823.17m canal excavation under MGNREGA
Not Sufficient MGNREGA work for Job card holders		


Food and Nutrition security
Food and Nutrition Security
Individual SAM, MAM Children, Pregnant mother
SHG members ,School teacher, PRI members, ICDS
CDPO, BMOH
DPO, CMOH
WCD, network of NGO
Net work of INGO
Net work of INGO
At house hold level
At village level
At block level
At district level
At state level
At national level
At international level


স্টক বোর্ড
বিবরণ
A.P.L
B.P.L
A.A.Y
চাউল
গম
আটা
চিনি
তেল
সাবান


রেট বোর্ড
এম.আর.ডিলার- সফেদ আলি হালদার
গ্রাম- পো:- বাইশহাটা
থানা- জয়নগর • দ: ২৪পরগণা
বিবরণ
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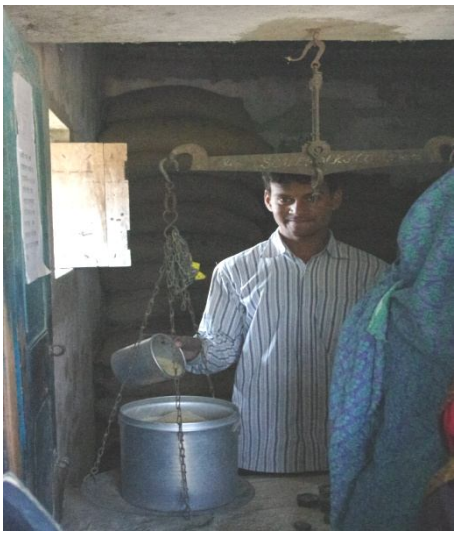


Evaluation Of Right Based programme on Food and Nutrition Security February 2015

Indicator	2010	2011	2012	2013	2014
Food diversity	1	1	3	3	4
Enough food always	2	2	2	4	4
Govt.Services	1	2	3	3	4
Strong organization	1	1	2	2	3

Community score card has been implemented in ICDS to have beter access to Food and Nutrition security. The detailed report has been attached in Annexture- Participetory impact assessment has been done in backward villages of Joynagar II block. The detailed report has been attached in Annexture-

7.9 Joint activity carried out with line departments and ATMA

Name of activity	**Season**	**With line department**	**With ATMA**	**Both**
NVIUC	Spring – Summer, 2015	Deptt. of FPI & Hort., GOWB	-	-
Shade Net house structure	Rainy, 2015	Deptt. of FPI & Hort., GOWB	-	-
Poly lining of farm ponds	Summer, 2015	Deptt. of FPI & Hort., GOWB	-	-
Implementation of NWDPRA	Throughout the year	Deptt. of Agril, GOWB	-	-
Large Scale Cotton Demonstration	Rabi-Summer 2014-15	Deptt. of Agril, GOWB	-	-
IRM on Cotton	Rabi-Summer 2014-15	CICR Nagpur	-	-
AICRP on Sunflower	Kharif & Rabi -summer	DOR, Hyderabad	-	-
Bengal Goat Conservation	Throughout the year	-	RKVY	-
Activities coup up with Climate Resilient	Throughout the year	NICRA, New Delhi	-	-
IWMP	2011-16	Deptt. Of Agril, GOWB	-	
BGREI	2014-15	Deptt. Of Agril, GOWB	-	-
Training programme of Prani Bandhu	2014-15	Collaboration with PBGSBS	-	-
Conducting FOCT training programme	2014-15	Coconut Development Board, (Ministry of Agriculture, GOI), BJ-108,Sector-II,Salt Lke,Kolkata-700 091	-	-
Diploma in Agricultural Extension Service for Impute Dealers (DEASI)	2014-15	National Institute for Agricultural Extension Management (MANAGE) Hyderabad	-	-

8. Other information

8.1. Prevalent diseases in Livestock/Crops

Name of the disease	Crop/animal	Date of outbreak	Number of death/ % crop loss	Number of animals vaccinated
FMD	Cattle	No outbreak, only sporadic death	-	-
Anthrax	Cattle		-	-
Coccidiosis	Poultry		-	-
Epizootic ulcerative syndrome	Fish	No outbreak intermittant mortality during winter months	-	-
Brown Plant Hopper	Kharif Paddy	October, 2014	Not significant overall	

8.2. Nehru Yuva Kendra (NYK) Training - N.A.

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

8.3. PPV & FR Sensitization training Programme: NA

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

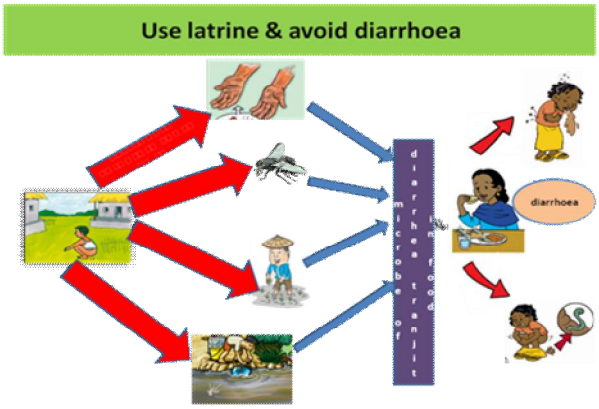
8.4. SMS PORTAL

Date of start of functioning of SMS portal: 19.12.2013								
No. of messages	No. of calls	No. of farmers covered	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other
105	581	19419	52	21	4	2	17	9

8.5 Observation of Swacha Bharat Programme

Date of Observation	Activities undertaken
22.05.14	Demonstration on Hand WASH
02.10.2014	Street procession with banner of "Swachha Bharat Programme" by KVK staffs and local people at Nimpith.
02.12.14	Demonstration on Hand WASH (Water Sanitation and health)
02.12.14	Demonstration on Hand WASH
09.12.14	Demonstration on Hand WASH
09.12.14	Demonstration on Hand WASH
16.12.14	Demonstration on Hand WASH
19.12.14	Demonstration on Hand WASH
20.12.14	Demonstration on Hand WASH
22.12.14	Demonstration on Hand WASH
22.12.14	Demonstration on Hand WASH
24.12.14	Demonstration on Hand WASH
24.12.14	Demonstration on Hand WASH
24.12.14	Demonstration on Hand WASH
06.02.15 -08.02.15	Exhibition Swachh Bharat Mission
07.02.15	Seminar on importance of Swachh Bharat Mission in health security at household level
07.02.15	Quiz Competition on personal hygiene & Cleanliness
07.02.15	Drawing Competition on Nirmal Gram
12.02.15	Training& Demonstration on Hand WASH
03.03.15	Training on importance of WASH to attain nutrition security
06.03.15	Training on importance of WASH to attain nutrition security
10.03.15	Demonstration of steps of hand wash
12.03.15	Distribution of container of hand wash in primary school
18.03.15	Demonstration of steps of hand wash
21.03.15	Demonstration of steps of hand wash
Sept 2014 – March 2015	Microplanning of Village- Identification of Household of resource poor Farmer- linking with Toilet construction programme (SWACCH BHARAT MISSION) implemented by BDO Joynagar- II including backward village. Outcome – Baishhata GP- 182 nos; Beledurganagar GP-30 nos

WASH (Water Sanitation and health) maters for **nutritional outcomes**, the programs have been designed to improve WASH also to lead to have better nutrition. Improvements in water and sanitation the key drivers in **reductions in child stunting.**



Posters on Hygiene & Cleanliness to prevent Disease displayed in exhibition

Steps of Hand Washing

Seminar on importance of Swachh Bharat Mission for health security at household level

ZPD (Zone II) visiting the Stall on Swachh BharatMission

Rural Women Visiting the Stall on Swachh Bharat Mission

Drawing competition on Swachh Bharat Mission

Prize distribution of drawing competition

Quiz Competition on personal hygiene & Cleanliness

Teacher supervising hand wash before midday meal

Student disposes waste properly after training

8.6 Observation of National Science day

Date of Observation	Activities undertaken
28.02.2015	• Seminar with 40 farmers on "Science for Nation Building" • Display of agricultural technologies at KVK resource centre and demonstration unit

8. 7. Programme with Seema Suraksha Bal (BSF) - NA

Title of Programme	Date	No. of participants

8.8. Agriculture Knowledge in rural school:

Name and address of school	Date of visit to school	Areas covered	Teaching aids used
Bele Durganagar High School Vill - Bele Durganagar, Block – Joynagar II	03.07.14	Preparation and management of nutrition garden in school campus and backyard to attain nutrition security	Visual aids- Flash card on food groups , picture card, food value chart, books,pamplets Audio visual aids- Flim, PPT
Madhya purba Adarsha Vidyapith Vill- Madhya Gurguria Block- Kultali	09.07.14	Maintenance of Nutritional status by using local less familiar foods	Visual aids- Flash card on food groups , picture card, food value chart,books,Pamplets Audio visual aids- Flim, PPT
Jouthia Banni Vidyapith Jouthia Vill-Jouthia Block – Joynagar II	14.07.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
B/Ambikanagar Haripriya High School Vill- Binodpur Block- Kultali	21.07.14	Use of locally available herbs to prevent diseases	Visual aids- Flash card on food groups , picture card on symptoms of disease , food value chart Audio visual aids- Flim, PPT
Ramkrishna Ashram Type High School Vill- Nimpith Block – Joynagar II	20.08.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
Ramkrishna Vidyavaban Vill- Nimpith Block – Joynagar II	21.08.14	Preparation and management of nutrition garden in school campus and backyard to attain nutrition security	Visual aids- Flash card on food groups , picture card, food value chart, books,pamplets Audio visual aids- Flim, PPT
Nimpith Ashram Sarada Vidya Mandir Vill- Nimpith Block – Joynagar II	27.08.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
Debipur H M Vidyapith Vill- Debipur Block- Kultali	05.09.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
Karunamayee High School Vill- Debipur Block- Kultali	09.09.14	Use of locally available herbs to prevent diseases	Visual aids- Flash card on food groups , picture card on symptoms of disease , food value chart Audio visual aids- Flim, PPT

Dakshim Kashinagar High School Vill- Dakshim Kashinagar Block-Kultali	24.09.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
Bele Durganagar High School Vill - Bele Durganagar, Block – Joynagar II	03.07.14	Preparation and management of nutrition garden in school campus and backyard to attain nutrition security	Visual aids- Flash card on food groups , picture card, food value chart, books,pamplets Audio visual aids- Flim, PPT
Madhya purba Adarsha Vidyapith Vill- Madhya Gurguria Block- Kultali	09.07.14	Maintenance of Nutritional status by using local less familiar foods	Visual aids- Flash card on food groups , picture card, food value chart,books,Pamplets Audio visual aids- Flim, PPT
Jouthia Banni Vidyapith Jouthia Vill-Jouthia Block – Joynagar II	14.07.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
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Ramkrishna Ashram Type High School Vill- Nimpith Block – Joynagar II	20.08.14	Maintenance of Reproductive hygiene and health by Adolescent by use of locally available food	Visual aids- Flash card on health and hygiene &food groups , picture card, food value chart, books ,Pamplets Audio visual aids- Flim, PPT
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8.9. Report on Citizens' Client Charter (attending the requests seeking guidance on agricultural technology and technology products)

Sl. No.	Services/ Transaction	Process	Service Standard	No. of such services attended by KVKs and ATICs during the year	No. of such services pending with KVK/ATIC beyond 30 days
1.	539	Personal contact by the Service Sectors with the responsible person of KVK	1 to 30 days	**3269 no. of services**	**Nil**

8.10. Community Radio Station: NA

Date of establishment:
Amount of fund received year wise:
Source of fund:
Achievements:

Sr. no	Community Radio Stations (CRS)	No of programmes in the year	Total broadcast hrs in a month	Please specify details of the broadcasts
A.	Agricultural broadcasts • Talks/interviews/discussions with experts, PG students/ and farmers on Agricultural technologies • Agroclimatic conditions, weather and marketing advisory • Phone–in programme of interface with experts • Phone-in programme with interface of progressive/innovative farmers • Success stories of progressive farmers • Success stories in FLD/OFT/ Trainings /Extension activities • Women in agriculture programme • Discussions on current issues in agriculture and allied sectors. • KVK happenings • Agricultural University professors. • Any other(please specify)			
B.	Community development broadcasts Please specify the programmes like rural development, educational, health, environment, public service broadcasts, sports etc.			

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

Lead Farmers : 36 no.
Innovative : 16 no.
Progressive : 339 no.
Total : 391 No.

8.12. Utilization of HRD fund (Rs 0.50 Lakh provided to KVKs)

Training programme/ Seminar/ Symposia/ Workshop etc attended	Duration	Name of the participants	Designation	Organizer of the training Programme	Amount spent for the purpose (Rs.)
Orientation workshop for writing project proposal	2 days	Dr. C. K. Mondal	SMS (Horticulture)	CRIDA	0.15 lakh

8.13. Revenue generation:

SL. No.	Name of Head	Income (Rs.)	Sponsoring agency
1.	Contingencies & outsourcing of contractual services	23,40,000.00	BGREI in North 24 Parganas, Dept. of Agriculture, GoWB
2.		13,65,000.00	BGREI in South 24 Parganas, Dept. of Agriculture, GoWB
3.		2,75,000.00	NFSM, CDM and CCI
4.		2,78,000.00	NFSM-IRM
5.		6,21,157.00	MVC, North & South 24 Parganas, Dept. of ARD, GoWB
6.		9,60,000.00	IWMP (I & II), Dept. of Agriculture, GoWB

8.14. Resource Generation:

SL. No.	Name of the programme	Purpose of the programme	Sources of fund	Amount (Rs. lakhs)	Infrastructure created
1	Renovation of training hall and furniture	To accommodate trainees comfortably	NAIP and RKVY, Dept. of Agriculture, GoWB	**17.91 lakh**	Renovated training hall, chair, tables
2	Construction of farm women hostel – 1st floor	To accommodate more no. of trainees	RKVY, Dept. of FPI&H, GoWB	**49.77 lakh**	Creation of 36 beded rooms

8.15. Performance of Automatic Weather Station in KVK

Date of establishment	Source of funding i.e. IMD/ICAR/Others (pl. specify)	Present status of functioning
January, 2007	IMD	Working condition

8.16. IPNI Trail (**Applicable for KVKs identified under IPNI trial): NA**

I Name of Crop
II No. of farmers involved
III Area (ha.)
IV Date of sowing
V Crop Season
VI Result of trial with photographs however detailed results/observation should be sent as per performance after crop harvest
VII Amount Spent

9. Achievement under TSP Project

Name of the village adopted under TSP	Block	Population of the village			ST Population of the village			Percentage of ST population to total population
		M	F	T	M	F	T	
Bali Island	Gosaba	1052	932	1984	277	133	410	20.67%

Asset created under TSP: Coconut climbing machines to 101 no. of ST farmers were provided
Fund received under TSP in 2014-15 : 3.47 lakh

10. PROGRESS REPORT OF NICRA KVK (Technology Demonstration component) 2014-15
(**Applicable for KVKs identified under NICRA)**

Natural Resource Management

Name of intervention undertaken	Numbers under taken	No of units	Area (ha)	No of farmers covered / benefitted	Remarks
Up gradation of monocropped land to multiple on with integration of fish	-	3	0.93	3	
Optimization of horticultural production through land embankment development	-	6	1.44	6	
Desiltation of defunct water harvesting structure	-	3	0.24	3	
Vermicompost making	-	4	-	4	
Soil test based nutrient application	-	101	22.54	101	

Crop Management

Name of intervention undertaken	Area (ha)	No of farmers covered / benefitted	Remarks
Promotion of salt tolerant crops			
Promotion of sweet potato	0.94	14	Sweet potato, variety: Sree Vardhini
Promotion of sunflower	4.26	32	Variety : KBSH 53

Livestock and fisheries

Name of intervention undertaken	Number of animal covered	Number of units	Area (ha)	No of farmers covered / benefitted	Remarks
Preventive vaccination	512(Nos. of animal)	1	-	184	Combined vaccine for HS, BQ, FMD for bovines and goat pox for caprine
De-worming of animals	512 (Nos. of animal)			184	Advised and scheduled to be repeated after 3 months
Animal health check-up	512 (Nos. of animal)			184	Infertility and nutritional status check-up was performed and accordingly corrective measures were taken up
Mineral Mixture Supplementation	512 (Nos. of animal)			184	Multiparous small ruminants were provided with area specific mineral mixture for increasing the ovulation number
Feed enrichment	-			42	Urea-straw molasses mixture was demonstrated and farmers were advised for adopting the practice to minimize the overall feed cost

Fodder production	-			48	Selected farmers were linked with NIFTD programme
Breed up gradation	-			2	Two selected young youth of the village were trained for 45 days on modern practices of AI for cross breeding and breed up gradation
Fishery (stress tolerant fish tilapia)	-	12	0.24	**12**	-
Ornamental Bird	144	7		**7**	
Dual purpose	200	10		**10**	

Institutional interventions

Name of intervention undertaken	No of units	Area (ha)	No of farmers covered / benefitted	Remarks
Custom hiring for timely operations	1	-	Entire village	The farmers of the NICRA village benefited from the CHC by regularly hiring power tiller, cono-weeder and hand sprayer. Considering the delayed onset of monsoon and deficient rainfall, the CHC played an important role in facilitating timely sowing of the *Kharif* Paddy.
Community nursery	1	-	-	Members of VCRMC have initiated a mangrove nursery for transplanting along the river embankment

Capacity building

Thematic area	**No. of Courses**	**No. of beneficiaries**		
		Males	**Females**	**Total**
Natural resource management	1	18	7	25
Crop management	5	168	57	225
Pest and disease management	12	270	121	391
Weed control	-	-	-	
Live stock management	2	35	21	56
Fishery	4	95	23	118
Fodder and feed management	1	23	9	32
Vermi-compost	1	17	12	29
Total	**26**	**626**	**250**	**876**

Extension activities

Thematic area	**No of activities**	**Males**	**Females**	**Total**
Agro advisory services	8	143	59	202
Awareness	4	92	32	124
Field Day	16	234	94	328
Group discussion	3	39	16	55
Diagnostic .visit	24	183	103	286
ICAR day celebration	1	75	21	96
Total	56	**766**	**325**	**1091**

Detailed report should be provided in the circulated Performa

11. National Initiative on Fodder Technology Demonstration (NIFTD)
(**Applicable for KVKs identified under NIFTD)**

Name of the fodder crop	Date of sowing	Area (ha)	No. of farmers involved	Demonstration Yield (q/ha)			Check Yield			% increase
				H	L	A	H	L	A	
Maize (Vivek)	26.01.14	0.15	5	480	375	427.5	412	338	375	14
Barseem	16.10.14	0.15	5	770	648	709	686	562	624	13.6
Cowpea	23.2.14	0.15	5	228	210	219	172	154	163	34.35

Economic of Demonstration

Name of the fodder crop	Demonstration Cost/Rs/ha			Check Cost (Rs/ha)		
	Gross cost	Gross return	BC ratio	Gross cost	Gross return	BC ratio
Maize	30075	47500	1.58	29170	39750	1.36
Barseem	24740	37230	1.50	24422	34363	1.40
Cowpea	23550	32030	1.36	23110	29580	1.28

12. Awards/Recognition received by the KVK: NA

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
1	Krishi Ratna	Nirmal Bhunia Vill: Thakurer Chak Block: Joynagar II	2015	Dept. of Agril, GoWB	Rs. 10,000.00	Integrated Farming

ANNEXURE - I

Integrated Watershed Management Programme (IWMP)

Objectives of IWMP

- Conservation, development and sustainable management of natural resources
- Enhancement of agricultural productivity and production in sustainable manner
- High water use efficiency
- Livestock, Pisciculture, other household production/ development
- Development/ conservation of waste land
- Reduction in regional disparity between irrigated and rainfed areas
- Creation of sustained employment opportunities for the rural community including the landless

Scenario of Sankijahan IWMP-6 & Binodpur Maa Sarada IWMP-7/2011-12

Name of Watershed	No. of mouzas	Name of Mouza	Gram Panchayat	Name of Block	Geographical area (ha)	Effective project area (ha)
Sankijahan IWMP	5	Kaikhali, Gopalganj, Dakshin Garankati, Madhududanpur & Sankijahan	Gopalganj	Kultali	3695	3280
	4	Katamari, Madhabpur, Dakshin Durgapur, Deulbari	Deulbari Debipur	-Do-	2545	2120
Total	**9**		**-**	**-**	**6240**	**5400**
Binodpur Maa Sarada IWMP	4	Purba Gurguria, Madhya Gurguria, Debipur Gurguria & Bhubenaswari	Gurguria Bhubenaswari	-Do-	3485	2463
	5	Maipith, Binodpur, Baikuntapur, Kishorimohanpur & Bhubeneswari Char	Maipit Baikuntapur	-Do-	3007	2037
Total	**9**		**-**	**-**	**6492**	**4500**

a) Entry point activity:

i) Culverts: 18 Nos. (17 Nos. in 8 villages of IWMP-6 and one in IWMP-7)

ii) Sluice gate: 2 Nos.under IWMP-6

iii) Solar street light: 28 Nos. (in 3 villages namely, Debipur Gurguria, Madhya Gurguria & Debipur Gurguria under IWMP-7)

iv) Guard Wall: 1 (at Purba Gurguria F.P. school of IWMP-7)

v) School benches: 150 sets (52 sets in12 schools of 6 villages under IWMP-6 and 98 sets in 10 schools of 5 villages under IWMP-7)

a) Formation of SHGs & UGs under Sankijahan IWMP-6/2011-12

Village	No. of SHG	No. of beneficiary		No. of Female Group	No. of UG	No. of beneficiary		No. of Female Group
		Male	Female			Male	Female	
Kaikhali	7	52	51	2	5	62	12	-
Gopalganj	10	122	15	-	6	77	13	-
Dakshin Garankati	9	33	103	7	5	71	20	1
Madhusudanpur	6	58	34	2	4	58	1	-
Sankijahan	9	77	64	4	4	46	7	-
Madhabpur	1	10	2	-	4	50	2	-
Katamari	7	28	80	5	4	61	3	-
Deulbari	7	107	12	-	2	25	5	-
Dakshin Durgapur	7	79	26	-	2	31	-	-
Total	**63**	**566**	**387**	**20**	**36**	**481**	**63**	**1**

Formation of SHGs & UGs under Binodpur Maa Sarada IWMP-7/2011-12

Village	No. of SHG	No. of beneficiary		No. of Female Group	No. of UG	No. of beneficiary		No. of Female Group
		Male	Female			Male	Female	
Maipith	**6**	**-**	**73**	**6**	**1**	**20**	**-**	**-**
Baikunthapur	14	54	124	5	1	11	-	-
Binodpur	6	-	90	6	7	95	13	-
Kishorimoha-npur	13	58	101	5	1	13	-	-
Bhubaneswari	15	15	183	14	3	39	3	-
Madhya Gurguria	5	59	20	-	4	51	5	-
Purba Gurguria	8	37	62	4	1	14	-	-
Debipur	8	22	79	6	7	92	3	-
Bhubaneswari Char	4	-	40	4	-	-	-	-
Total	**79**	**245**	**772**	**50**	**25**	**335**	**24**	**-**

b) Formation of Watershed Association:

- 4 Nos. of micro watershed have been formed under IWMP-6 namely, Nabipukur Micro Watershed, Piyali Micro Watershed, Thakurani Micro Watershed & Matla Micro Watershed

- 4 Nos. of micro watershed have also been formed under IWMP-7 namely, Sundarban Micro Watershed, Oriyan Nala Micro Watershed, Makri Micro Watershed & Dipanchal Micro Watershed



c) Institution and Capacity Building:IWMP-6 & 7

Year	No of Training	No of Participants
2012-13	12	365
2013-14	18	667
2014-15	41	1611

Year	No of Training	No of Participants
2012-13	12	360
2013-14	30	870
2014-15	37	1342


ANNEXURE – II

Project on Insecticide Resistance Management (IRM), under NFSM

Target Area: **328 farmers of 11 villages covering 170 acre of land under cotton cultivation**

To combat the increasing insecticide resistance problems in Cotton, Ramkrishna Ashram KVK, with financial support from CICR-Nagpur, started the Insecticide Resistance Management (IRM) project, in the year 2004-05. The year 2014-15 was the 11th consecutive year of the project.

Project activities:

(a) **Laboratory study on insecticide resistance:** The most important activity is monitoring of the level of resistance of cotton pests, mainly of American bollworm (*Helicoverpa armigera)* to different groups of insecticides. The insect showed maximum level of resistance (upto 32%) against the organo-phosphorus and synthetic pyrethroids group, among the seven groups of insecticides studied. New generation insecticides (Novaluron, Emamectin benzoate and Flubendiamide) were found most effective against American bollworm.

(b) **Development of IRM strategies:** Based on the pest incidence pattern and insecticide resistance study, an integrated pest management schedule is developed with the use of environmentally benign insecticides, botanical pesticides and biocontrol agents for the following crop stages:
Window 1: Early sucking pests incidence up to 60 DAS and incidence of *Earias* and *Spodoptera* at 60 – 75 DAS
Window 2: Incidence of American bollworm (*Helicoverpa armigera*) at 75 – 90 DAS
Window 3: Incidence of Jassid at 90 – 120 DAS

(c) **Dissemination of IRM strategies:** Through various extensional activities like group meeting, training, field visits, field days, TV shows, etc., the IRM strategies were disseminated among the farmers.

Consequence IRM strategies on pest incidence:

(a) Year wise insect pest incidence on cotton

It was observed that there were fewer incidences of sucking pests and boll worms and a marked increase in the activities of natural enemies in the IRM fields in comparison to other fields. The prevalence of sucking pests like aphids, jassids and thrips were less in IRM villages in comparison to that in non- IRM villages. Similarly, more or less the same decreasing trend in incidence pattern of bollworm complex like *Helicoverpa armigera, Earias sp.* and *Spodoptera litura* were observed due to effective dissemination of IRM strategies.

(b) Year wise spray status in IRM and non IRM villages

The farmers of IRM villages applied fewer numbers of sprays than those in non IRM villages. It was reduced from 2.60 during 2007 to 1.70 during 2014 in IRM villages whereas in non IRM villages it varied from 3.91 during 2007 to 3.25 during 2014. This accounts for a sizeable profit per unit area in the IRM villages than in non IRM ones.

(c) Productivity and net return of cotton:

As an impact of dissemination and implementation of IRM strategies, those farmers are now fetching a better yield as well as net return compared to the farmers of non-IRM villages.

The average yield was 9.6 q/ha in IRM villages compared to 7.78 q/ha in non-IRM villages. With regards to total expenditure and net return/ha, IRM farmers spent less and earned more net profit than non-IRM farmers. The cost of cultivation is increasing over the last two years due to the increased cost of labour, fertilizers and pesticides. But due to application of judicious amount and less number of sprays in the IRM villages, the farmers always obtained a better net profit over the non-IRM farmers.

ANNEXURE-III

All India Coordinated Research Project on Sunflower, RAKVK, NIMPITH

List of major research programmes undertaken by the center:

PLANT BREEDING

- **Management of Genetic Resources**

- During *rabi* 2014-15, this centre has evaluated a total of 14 CMS lines with their corresponding maintainers, 20 R lines, 33 GMUs lines,7 ID lines,6 population,10 GP/GNPL lines and 8 AKSFI lines and 5 exotic collections for seed yield/plant (g) and other yield attributing parameters. The very good genetic variations in respect to seed yield and other yield contributing traits is exhibited among the lines.

  Among the inbred lines the best seed yielder are GMU-389(32g),GMU-1174-4-2(30g),GMU1034(30g),GNPL-10(35g),AKSFI-52-1(35g) and AKSFI-71(32g).

  Heterosis Breeding and Its exploitation

- **Best entries/hybrids for Seed yield** are 207A X AK-345(2133 kg/ha),234A X RHA 138-2 (2133kg/ha), 607A X AK-345(2100 kg/ha), CMS-16AxRHA-95C-1(2089kg/ha),249AXRHA-6D-1(2022 kg/ha) are the highest seed yielder sunflower hybrid in this trial in comparison to the check hybrids KBSH-44 and DRSH-1 which recorded seed yield of 2011 kg/ha and 1811 kg/ha respectively . The hybrids, DCMS-16A XR-35(2006),CMS-2A XAK-345(1956kg/ha), PET-2-7-1A x RHA-138-2(1956kg/ha) also recorded at par with the best check hybrid, KBSH-44(2011 kg/ha) with respect to seed yield.

- **Best entries/hybrids for Oil content (%)** : 16A XR-83(2042,42.5%), DSF-2A X AK-345(1933 kg/ha,41.7%), 16A X R-5294 (1958 kg/ha,41.2%),PET-2-7-A X R-273 (2175 kg/ha, 42.6%) observed the good performing sunflower hybrids at **Nimpith** region in respect to seed yield and oil content in comparison to KBSH-44(2289 kg/ha, 32.3%)and DRSH-1(2142 kg/ha, 41.5%) respectively.

- The sunflower hybrids 234A X RHA-138-2(2133kg/ha,38%), 16A XR-35(1917kg/ha,37.5%),207A X AK345 (2139kg/ha,,37.7%) ,249A XRHA-6D-1(2020kg/ha,37.6%) observed the good performing hybrids at **Nimpith** region in respect to seed yield and oil content in comparison to KBSH-44(2011 kg/ha, 31.3%)and DRSH -1(1811 kg/ha, 40.5%) respectively.

- During *rabi-summer* 2014-15 about 45 new single experimental hybrids were being developed utilizing 5 CMS lines and 17 Restorer lines for further testing during next year 2014-15 in *rabi summer* season. Similarly the promising hybrids advanced from single cross hybrid trial to station hybrid trial were also multiplied and evaluated for different yield attributing traits for the year(2014-15) in *rabi-summer* season at Nimpith.

- **Coordinated Varietal Hybrid Trial *:*** *(Rabi- Summer)*: Initial/ Advanced Hybrid Trial (IAHT): Best Entry : Entry No.IHT-200 (2620 kg/ha) , IHT-195&207(2643 kg/ha), IHT-206 (2436 kg/ha).

  - **Advanced Hybrid Trial of Pre-released Sunflower hybrid :**
  - Best Promising are (According to farmer's choice): **LSFH-171(2240 kg/ha)**, RSFH-18-87(2050kg/ha),SVSH-475(1958kg/ha), SVSH-498(2006kg/ha) (semi dwarf & medium duration with good seed yield).
  - PSCHT-KH-13-22, PSCHT-KH-13-15, PSCHT-KH-13-62,PSCHT-KH-12-36, & PSCHT-KH-13-3 (Dwarf, Medium duration, good head).
  - PSCHT-KH-12-26, PSCHT-KH-12-36, KBSH-73 (Dwarf & Early but good head and good seed yielder).
  - PSCHT-KH-12-66& PSCHT-KH-13-12(Semi dwarf, Medium duration, good head & good central grain filling).

- **Multi-location Trial of Promising Sunflower Hybrids**

  i) Preliminary evaluation of new single cross Sunflower hybrids (Station Hybrid Trial) :

  A total of 38 sunflower hybrids along with the two national check hybrids, KBSH-44 and DRSH-1 were evaluated in this trial in a randomized block design in a plot size of 3.0m x 3.0m. The data pertaining to seed yield and other yield attributing traits. The field observation reveals that the hybrids 207A x AK-345(2133 kg/ha),234A X RHA 138-2 (2133kg/ha), 607A X AK-345(2100 kg/ha), CMS-16AxRHA-95C-1(2089kg/ha),249AXRHA-6D-1(2022 kg/ha) were the highest seed yielder sunflower hybrid in this trial in comparison to the check hybrids KBSH-44 and DRSH-1 which recorded seed yield of 2011 kg/ha and 1811 kg/ha respectively . The hybrids, DCMS-16A XR-35(2006), CMS-2A x AK-345(1956kg/ha), PET-2-7-1A x RHA-138-2(1956kg/ha) also recorded at par with the best check hybrid, KBSH-44(2011 kg/ha) with respect to seed yield. In this trial the hybrids like 234A XRHA-138-2(2133kg/ha,38%), 16A XR-35(1917kg/ha,37.5%),207A X AK345 (2139kg/ha,,37.7%) ,249A XRHA-6D-1(2020kg/ha,37.6%) observed the good performing hybrids at **Nimpith** region in respect to seed yield and oil content in comparison to KBSH-44(2011 kg/ha, 31.3%)and DRSH -1(1811 kg/ha, 40.5%) respectively.

ii) Advance station hybrid trial :1: A total of 22 sunflower hybrids along with the three check hybrids, KBSH-41 KBSH-53 and DRSH-1 were evaluated in this trial in a randomized block design with three replications with 3m X 3m plot size. The Sowing was done in 1st week of December,2013. The sunflower was grown here in proper winter season. In this situation all hybrids take around 7-10 days more time to flower or mature. The data pertaining to seed yield and other yield attributing traits for these test hybrids along with the checks is presented in Table 7. Highly significant differences were observed for seed yield and other yield attributing traits among the test hybrids. The field observation reveals that when the sunflower hybrids were sown in December month, the hybrid **PSCHT-KH-13-21(2720kg/ha) & PSCHT-KH-13-19(2700kg/ha)** were the highest seed yielder sunflower hybrid which was **12-13% higher** than best check hybrid **KBSH-53(2414 kg/ha)** and **17-18%** higher than second check hybrid **DRSH-1(2308 kg/ha).** The other very promising sunflower hybrids are P-KH-13-35(2540kg/ha), SAHT-KH-13-01(2510 kg/ha), P-KH-13-62(2440 kg/ha) & P-KH-13-84(2440 kg/ha).

iii) Advanced Station Hybrid Trial 2: A total of 50 hybrids in 2013-14 along with the two national check hybrids, KBSH-44 and DRSH-1 were evaluated in this trial in a randomized block design with three replications with 3.0 m x 1.8 m plot size. The area representing the medium to high soil salinity (EC 2.0-3.0dS/m) throughout the sunflower growing season. The data pertaining to seed yield and other yield attributing traits for the best promising sunflower test hybrids along with the checks. Highly significant differences were observed for seed yield and other yield attributing traits among the test hybrids. The field observation reveals that the hybrid **PSCHT-12-36** was the highest seed yielding sunflower hybrid in this trial which recorded the **seed yield of 1410 kg/ha** which was **75.5% higher** than best check hybrid **KBSH-44** and **53.6%** higher than second check hybrid **DRSH-1.** The hybrids Viz. **PSCHT-12-66(1050kg/ha, 30% higher thenKBSH-44),PSCHT-12-19(1040kg/ha,29% higher thenKBSH-44),PSCHT-KH-12-38 (1010 kg/ha, 25% higher thenKBSH-44) and PSCHT -12-42 (956kg/ha, 18% higher thenKBSH-44.** also significantly out yielded the best check **hybrid KBSH-44 and DRSH-1(2067 kg/ha)** with respect to seed yield. This experiments reveals that the any of the above mentioned sunflower hybrid may fulfil the **desirability and aspiration of the sunflower grower in the coastal saline belts of West Bengal in near feature.**

iv) **Multilocation trial-:**A total of 15pipeline sunflower hybrids along with the four check hybrids, KBSH-41, KBSH-44,KBSH-53 and DRSH-1 were evaluated in this trial in a randomized block design with three replications in a plot size of 3.0m x 3.0m in at Nimpith-KVK- AICRP-research plot and Baruipr Farm, Instt. of Ag. Sciences., Calcutta University and radhakantapur village in farmer's field. The data pertaining to seed yield and other yield attributing traits. Highly significant differences for seed yield and other yield attributing traits among the test hybrids. The field data reveals that the hybrids **LSFH-171(2240 kg/ha)**,RSFH-18-87(2050kg/ha),SVSH-475(1958kg/ha), SVSH-498(2006kg/ha) were the highest seed yielding sunflower hybrid in this trial in comparison to the check hybrids KBSH-44 ,KBSH-53 and DRSH-1 which recorded seed yield of 2054 kg/ha,1874 kg/ha and 1795 kg/ha respectively **where as the hybrid LSFH-171,RSFH-18-87,SVSH-475&498 took 95-98 to maturity but KBSH-44, KBSH-53 and DRSH-1 took 102-105 days to maturity.** These three hybrids also semi-tall in nature and 20-30 cm less plant height compare to the national check hybrids. **The semi-tallness and earliness (coupled with good seed yield) were the main two reasons for their selection by local sunflower farmers in the coastal saline belts of West Bengal.**

- **Major crop production technology developed and recommended :**

- Seed treatment with Bio-inoculants like *Trichoderma viride (10g/kg of seed) + Pseudomonas fluorescens(10g/kg of seed) for management of seed borne disease of sunflower like sunflower wilt.*
- Seed treatment with Bio-inoculants/Bio-fartilizer like (*Azatobactor* & PSB) (10g/kg of seed) for increasing seed yield and decreasing the cost of chemical fartilizers.
- Use of bio-fungicides like *Trichoderma viride* (10 g/L) & *Pseudomonas flurescens* (10g/lit of water) for spraying at crown region before 1st & 2nd irrigation for the management of Sunflower wilt .
- 0.2% Boron spray at the ray floret stage for increasing seed yield.
- Proper thinning (single plant/hill) before 1st irrigation (21-25 DAS).
- Emphasis on application of organic manures / vermicompost for enhancement of soil fertility and seed yield of sunflower.
- Use of IPM based pesticides (e.g. Fluobendamide)for management of the Sunflower boll warm (*Spodoptera letura L.*).

Other extension activities for popularizing the Technology Developed

TRIBAL SUBPLAN PROGRAMME ON SUNFLOWER

On the whole 12 villages covering three blocks (Sonamukhi , Chatna and Gangajalghanti)of Bankura district,4villages covering two blocks (Jambani and Binpur-II) of Pachim Medinipur district and 4 villages covering two blocks (Kashipur and Raghunathpur -II) of Purulia district were brought under sunflower cultivation in *rabi-summer* season in 204-15.The area is about 200 acres of land in the tribal belts. In the year 2013-14, 200 acre of land covering three blocks (Sonamukhi , Chatna and Gangajalghanti) of Bankura district , Raghunathpur –II block of Purulia District and jhargram Subdivision of West Medinipur district were brought under sunflower cultivation in *rabi-summer* season.

- Existing practice: Mustard (seed yield 350kg/acre, Gross return Rs.14,450.00/acre,Net Return Rs.4528.00 / acre B:C ratio -1.40) comparison to the cultivation of sunflower with hybrid DRSH-1, the seed yield was recorded 750kg/acre, Gross returnRs.26250.00/acre, net return Rs.12060.00 /acre and B: C ratio 1.84.

Achievement under TSP Project (* Through AICRP-Sunflower Programme)

*** Tribal Sub-Plan programme on Sunflower -2014-15**

I Name of Crop: Sunflower
II No. of farmers involved: 482
III Area (ha.) : 80 ha
IV Date of sowing: 2nd week of December,2014 – 2nd week of January , 2015
V Crop Season: *Rabi- Summer*
VI Result of trial with photographs however detailed results/observation should be sent as per performance after crop harvest:
VII Amount Spent: **Rs. 16,63,007.00**

Achievement under **TSP Project** (**Tribal Sub-Plan Project on Sunflower**)

Name of the village adopted under TSP	Block	Population of the village			ST Population of the village			Percentage of ST population to total population
		M	F	T	M	F	T	
Nakrakonda,	Block: Sonamukhi, Dt: Bankura	27	21	48	27	21	48	100%
Ganrerdanga,	Do	21	18	39	21	18	39	100%
Sukonsole,	Do	26	22	48	38	33	81	59.2%
Nonardanga,	Do	18	17	35	18	17	35	100%
Narasinghapur,	Block: Chatna, Dist: Bankura	29	23	52	29	23	52	100%
Banrshi,	Do	31	25	56	31	25	56	100%
Gursukra,	Do	39	32	71	39	32	71	100%
Gidhuria	Block: Chatna, Dist: Bankura	31	27	58	31	27	58	100%
Dunda	Do	17	15	32	17	15	32	100%
Kaduri	Do	27	22	49	27	22	49	100%
Bamundiha	Block: Gangajalghanti Dist: Bankura	41	36	77	41	36	77	100%
Goalberia	Block : Kashipur Dist.- Purulia	59	43	102	59	43	102	100%
Jamuadi	Block-Raghunathpur-II Dist.- Purulia	43	36	79	43	36	79	100%
Muchkunda	Do	37	32	69	37	32	69	100%
Dignagar	Do	41	34	75	41	34	75	100%
Chhandpara	Block : Binpur-II Dist: West Medinipur	32	24	56	32	24	56	100%
Pindra	Do	46	37	83	46	37	83	100%
Belia	Block-Jamboni Dist: West Medinipur	39	32	81	39	32	81	100%
Kayama	Do	34	29	63	34	29	63	100%
Sardhara	Do	23	19	42	23	19	42	100%

Details of Activities under TSP Project on Sunflower under AICRP

Activities	Area /No.	No. of participants			Approx. expenditure (Rs.)
		M	F	T	
No. of on-farm trials	-	-	-	-	-
Frontline demonstrations	80 ha	157	43	200	8,74,127.00
Farmers trained		317	131	448	78,400.00
No of extension activities –Field day	12	337	142	479	19,160.00
Input made available	-`	-	-	-	-
Seed (q)	6				2,06,460.00
Planting material (No)	-	-	-	-	-
Livestock strains and finger lings	-	-	-	-	-
No of poultry, duck, pig, goat provided	-	-	-	-	-
No. of farm Implements provided :					
a. Submersible Bore well	**1**				**1,09,960.00**
b. Spade	**482**				**77,120.00**
c. Irrigation Delivery pipe	132				2,37,600.00
d. Sprayer	136				1,36,000.00
e. Diesel Pump set	4				96,000.00
f. Manual Sunflower thresher	12				84,000.00
g. Sickle	482				48,200.00
Others, if any, please specify					
a. Fertilizers and Bio inoculants:					3,51,842.00
b. Pesticides:					99,340.00
c. Boron					30,000.00
Exposure visit	6 Nos.				88,925.00
Exhibition	-	-	-	-	-
Kisan Mela	-	-	-	-	-

ANNEXURE-IV

Participatory Research -cum- Extension Programme on Seed Production and Culture of Desi Magur for the Fish Farmers of Different Districts of West Bengal

Year	:	2014-15
Sanctioned amount	:	Rs. 13,50,000.00
Funded by	:	Department of Fisheries, Govt. of West Bengal

Objectives

1. **To establish indigenous magur breeding centres** in 5 blocks of South 24 Parganas district to cater the need of magur seeds for the farmers in the locality
2. To develop a standard package of practice for the **culture of magur fingerlings to tablesize fish** in the freshwater impoundments of these 5 blocks.

Project achievements

1. Beneficiary selection

Beneficiaries were all ex-trainees of Ramkrishna Ashram KVK and were selected from the 5 blocks on the basis of their experience in fish culture, progressive mindedness, positive aptitude and successful adoption of different fish culture technologies demonstrated by the KVK in different training programmes.

2. Project initiation workshop

Before launching the project, a project initiation workshop was organized at RAKVK on 16th July,2014 to build awareness regarding the project to the project beneficiaries, farmers of the locality and block level public officials. The date of the workshop coincided with the ICAR foundation day for which it provided an important dimension to all present. Those present were also given a firsthand demonstration on the breeding technique of desi magur which also aroused immense interest among the beneficiaries and hence served the main purpose.

3. Construction of hatchery

The hatchery construction work started on 23rd July,2014 and was completed on 27th July,2014. Each hatchery comprised of 5 rectangular metallic trays and 40 rectangular glass trays. Other accessories were also provided as per the project lay out.

4. Capacity building

Standard breeding and culture procedures of desi magur were extended to the project beneficiaries in a 5 day capacity building programme organized at the KVK from 18th to 22nd August, 2014. The training was also attended by the FEOs of the 5 blocks of South 24 Parganas and 2 FEOs from Nadia and D.Dinajpur districts. The Joint Secretary and Joint Director of the Fisheries Department, Govt. of West Bengal was present on the inaugural day of the programme.

The schedule included different aspects of breeding, larval rearing, feeding, water management, etc. of desi magur and also its culture, pond management and hazards and their remedial measures.

5. Performance of hatchery units

Due to late initiation of the project, only a single cycle of breeding and rearing could be achieved. But the results are encouraging and show great promise for the future.

Hatchery units (Project cost for 6 units **Rs. 6,00,000/-**)

Sl.No.	Name of beneficiary	Block	No. of seed (45 day old) produced	Amount generated (Rs.)
1	Sachin Sardar	Kultali	25000	1,00,000.00
2	Dilip Kumar Das	Pathar Pratima	40000	1,60,000.00
3	Milon Sinha	Joynagar- II	90000	3,60,000.00
4	Prasun Halder	Mathurapur II	500	1,000.00
5	Basudeb Mondal	Magrahat -II	2000	8,000.00
6	RAKVK	Joynagar-II	30500	1,22,000.00
			Total	**7,51,000.00**

6. Distribution of magur fry

Magur fingerlings were successfully supplied from the newly established project hatcheries to the farmers of the five blocks for culture as per the project objectives. The excess production were sold to local farmers and even to the farmers of North 24 Parganas, Purba Medinipur and Paschim Medinipur districts.

The success from this year's magur breeding has encouraged the entrepreneurs to a great extent and they have collectively decided to produce about 10 lakh magur seeds in the next year, 2 lakhs by each of them.

7. Performance of culture units

Ten beneficiaries (culturists) of the five blocks were provided with desi magur fingerlings from the project hatcheries for culture in pond (2500 pcs.) and nylon cage (500pcs.) as per the guidelines laid down in the project.

It has been observed that in all the cases, the fingerlings released in nylon cages did not fared well and their growth rate and survivality was insignificant. This may be due to accumulation of residual food and excreta in the cages and also cannibalism.

However, those released in ponds gave good growth rate and survivality. The following table shows the sampling data of magur from the culturists ponds and their projected success rate at the end of the culture period of 8 months.

Culture units (Project cost for 11 units **Rs.4.58, 700/-**)
(3000 seeds/unit) – 5 months (Mid September, 2014 to Mid February, 2015)

Sl. No	Name of beneficiary	Block	Av. length (cm)	Av. weight (g)	Expected survivality (%)	Expected no. of fish	Expected amount to be generated @Rs.400.00 /kg for av. 100 gm. wt. of fish (Rs.)
1	Sushanta Roy	Kultali	17.50	56.00	50	1500	60,000.00
2	Tilak Roy Chowdhury	Kultali	17.00	52.50	55	1650	66,000.00
3	Bhadreswar Bhowmick	Magrahat –II	15.26	42.17	45	1350	54,000.00
4	Bikash Mandal	Magrahat –II	15.13	38.42	40	1200	48,000.00
5	Taraknath Halder	Mathurapur -II	17.64	51.34	50	1500	60,000.00
6	Pranab Kr. Naskar	Mathurapur -II	16.86	47.25	50	1500	60,000.00
7	Dilip Kr. Bera	Pathar Pratima	15.94	44.62	50	1500	60,000.00
8	Premangshu Sasmal	Pathar Pratima	15.33	43.58	45	1350	54,000.00
9	Chandan Naskar	Joynagar-II	17.77	53.12	45	1350	54,000.00
10	Gouranga Mondal	Joynagar-II	18.75	63.50	55	1650	66,000.00
11	RAKVK	Joynagar-II	17.70	51.00	50	1500	60,000.00
					Total	**16050**	**6,42,000.00**

N.B. The expected survivality from the culturists ponds are projected as per their management and health status of the fish observed during sampling.

8. Inference

The performance of the hatchery and culture units under the project has so far shown great promise and conforms with the project objectives as, although first–timers, all the hatchery units has been successful. Sampling data has revealed that the growth of the fingerlings in the culture ponds is also promising enough to enthuse interest among the farmers to once again culture desi magur and bring the fish back from the verge of extinction.

The following inferences can be drawn from the performance of the project so far.

- The hatchery units had successfully produced the seeds though it was started in late season.
- The hatchery owners faced the huge demand of seeds in their own block and other different blocks and districts. They could not meet the demand but they are confident about the marketability of the seeds and they are ready to invest for the extension of the hatchery in future.
- To keep the farmers of other areas interested, the hatchery owners had to supply them with some nominal quantities of seed.
- There have even been queries from neighbouring states to supply magur seeds.
- Other youths of the locality want to make new hatchery by observing the success of the hatchery. They are regularly in contact with the hatchery owners and RAKVK.
- Media coverage of the project has generated huge enthusiasm among the farming communities and they are regularly making contact to either get seeds or making their own magur breeding unit.
- The hatchery owners got job satisfaction, pride and profit with their profession and achieved a new identity in their village.
- The culturists are now assured to get the seeds from their block or nearby place. They feel that the quality and purity of the seeds are unquestionable when they collect it from the hatchery.
- The growth performance and survivality of the magur fingerlings in the culture units are quite satisfactory. It is expected that the average body weight would be about 100g or more at the end of the culture period.
- The farmers are confident to adopt magur culture, either monoculture or alongwith carps.
- There has been a huge pressure on the hatcheries of the project to supply magur seeds which is a positive sign with regards to sustenance and justification of the project.

Hence it is quite imperative that the project should be given due thrust and extended for few more years for successful replication in other blocks of the district as well as in other districts of West Bengal.

ANNEXURE-V

Community Score Card for monitoring ICDS Service to have better access to food and nutrition by the mother & children

Community Score Cards are qualitative monitoring tools that are used for local level monitoring and performance evaluation of services, projects and even government administrative units by the communities themselves. The CSC process is an instrument to exact social and public accountability and responsiveness from service providers. However, by including an interface meeting between service providers and the community that allows for immediate feedback, the process is also a strong instrument for empowerment.

The community score card had been applied in ICDS and joint action plan has been developed by all stakeholders. Measures are taken by the all stakeholder and as a result the quality services are available to have better access to food and nutrition security

Action Plan

S.No	Indicator	Action to be taken	By whom and when
1	Infrastructure facility	Proceedings for permanent AWC were in process. Require no objection letter from villagers.	Mr.Parbati,Mr.Dudhkumar, Annada Madol. Within a month
2	Quality of food	Nutritive quality of food should be improved by community participation	Supervisor will consult the matter with CDPO
3	Preschool education	AWW would aware the mothers about joyful learning in preschool education	AWW & beneficiary mothers.
4	Conduction of mothers meeting	Notice board should be present mentioning date & time	Mr. Arjun Dhara would aware mothers about scheduled date & time
5	Growth monitoring	Application to the CDPO for new weighing machine	Mr.Parbati, Mr. Dudhkumar with AWW. Within 15 days
6	Communication system	All happening Should be communicated to PRI member by AWW & community people	PRI member, Aww & villagers. Within 2 months
7	Relation with CDPO	Representative from KVK would help the villagers to form liaison with concerning CDPO of AWC	Dr. Manasi Chakraborty,Laskhi Ghosh. Within December
8	Meeting of 4th Saturday	PRI, Sub center staff, Health supervisor, ICDS supervisor should present in meeting	PRI member

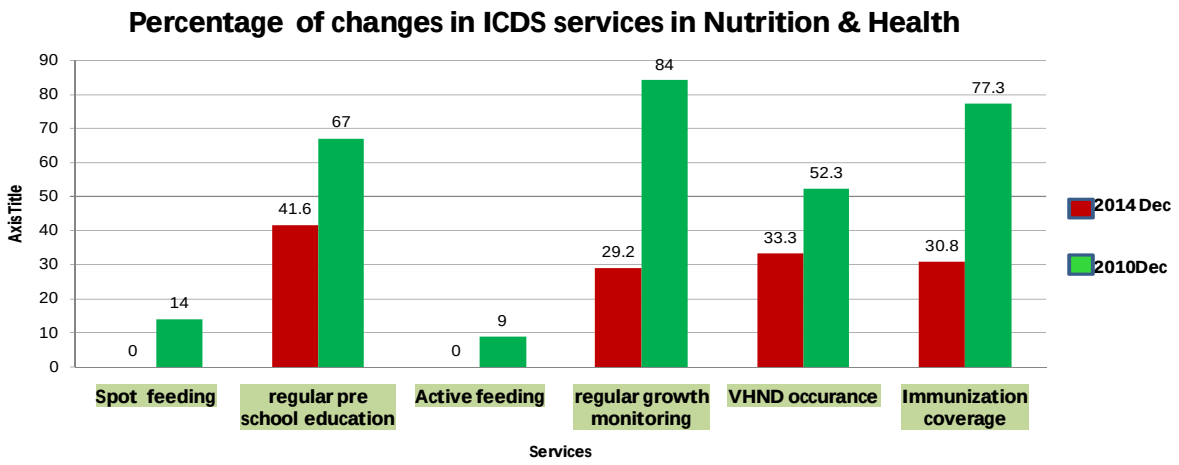
Present Condition of ICDS Center No. – 88- Baishata, Joynagar II

Factor	Previous condition	Present condition
Preschool Education	No proper pre-school education	Continuing pre-school education with teaching tools
Home visit	No home visit	Home visit of malnourished and mothers after delivery
Monthly meeting	no	Yes
Quality of food	Raw material distributed	Cooked food distributed Good
DDS	2.2	3.6
Nutrition Garden	no	yes
Building construction	no	Land gifted by villager. Building will be constructed
Spot Feeding	no	No

Nutrition garden of ICDS managed by mother

Pre-school education at ICDS center

Changes in ICDS services (total no of ICDS- 108)



Participatory impact assessment had done on and from 10th April to 12th April, 2014.

Days Programme

Day - I		
I	Inauguration	Swami Sadananda Maharaj
II	Welcome & Introduction	Dr. N. J .Maitra & Dr M Chakraborty
III	PIA Process Background & Objective	Mr. Rajesh Jha
IV	Project background of KVK	Dr. M Chakraborty
V	MDG & MDG Themes	Mr. Rajesh Jha
VI	Understanding Rights and Entitlements	Mr. Rajesh Jha
	PIA Exercise	
Step - 4	Critical Analysis	Mr. Rajesh Jha
Step - 5	Orientation/ List of Govt. Programme	Mr. Rajesh Jha
Step - 6	Time line & Collection of Factors	Group Work
	Finalization of Factors in Plenary	In Plenary

Day - II		
	Recap	
Step - 7	Factor Collection and Ranking	Group Work
Step - 8	Trend Analysis	Group Work
Day - III		
Step - 9	Stakeholder Analysis	Group Work Plenary
	Action Planning	Plenary
	Evaluation	
	Valedictory	

Day -1

Welcoming:

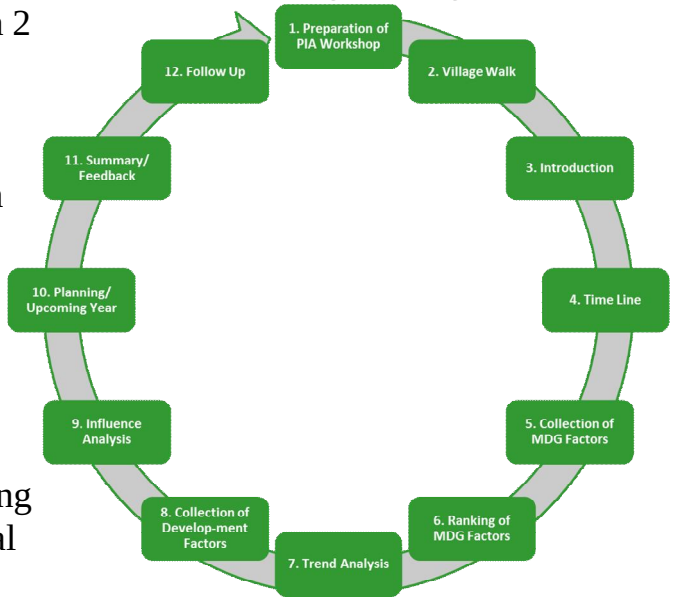
Swami Sadananda Maharaj, Secretary of SRAN welcomed the participants. After the inauguration Dr. N. J Maitra Programme Co-ordinator of RAKVK, Nimpith greeted the participants and describe the project area of special nutrition Programme FHFI Project.

Village walk was skipped since the participants out of their daily schedule find difficult to manage for four days workshop and also they are very much familiar of the millennium village location and already visited most of the location in Millennium Village in previous months. The moderator requested participants to recall their observations from the field during the PIA Exercise.

Introduction:

Dr. M chakraborty shared the background information about the Fight Hunger First Initiative (FHFI) project that is operational in 2 Blocks, 32 villages of Sundarbans.

Introducing PIA Mopderator Mr. Rajesh Jha said that it was first used in India at the start of the millennium village Project. Mr. Rajesh Jha shared that PIA was immerged as a very useful tool that could help people in community based monitoring of services and development status. He shared the process steps involved in PIA.



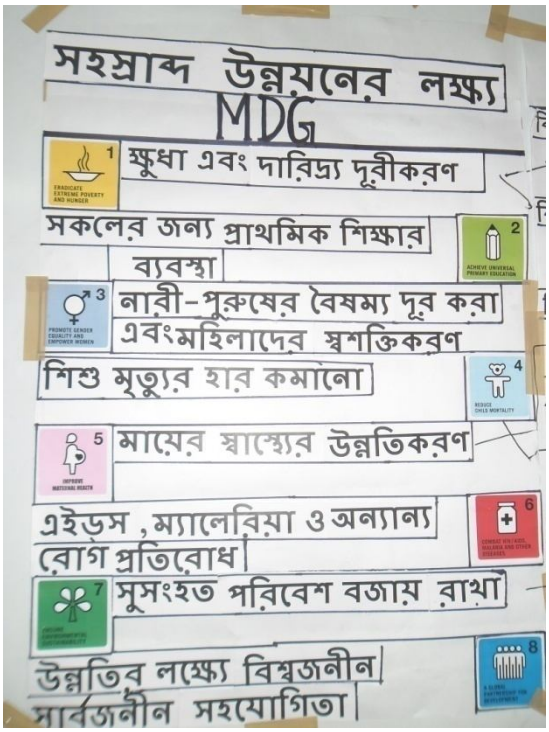
The process steps involved in PIA exercise are brain storming and also helps in a visioning exercise for community leaders to assess local conditions and act accordingly.

Objective of PIA:

- To help local community, other stakeholders to identify and analyze the factors that are contributing to local area development as well as the constraints and challenges.
- To collect a fair view and idea of working areas where various actors can come together to overcome the existing barriers to accessibility of services for the poor.

Millennium Development Goals:

Mr. Rajesh briefed the participants about Millennium Development Goals and their significance. In the year 2000, 189 countries across the world came out with a major resolution to address the global challenge of poverty. The deliberation on poverty includes a discussion on what contributes to poverty? Going by the general characteristics 8 goals were fixed to be achieved by the year 2015. These goals are universally known as Millennium Development Goals and all the countries present affirmed their solidarity and efforts to attain these goals. India is one of the important signatory of this MDG declaration and it has introduced some flagship programme keeping these MDGs in mind. These MDGs are as follows –



1. Eradicate extreme Poverty and hunger.
2. Achieve Universal Primary Education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/Aids, Malaria and other diseases.
7. Ensure environmental sustainability.
8. Global partnership for development.

FHFI project has identified 6 rights respective to these MDGs and through PIA process of community it aims to identify the current status and desired areas of improvement in line with MDGs. MDG-3 and 8 have been crossed cutting to the approach. MDG-8 has been localized in terms of local corruption of various stake-holders including the PRIs, line agencies of Govt. Departments, civil society organization and other actors to development.

The right based approach for PIA process in line with MDGs is as follows –

MDGs					
Right Based Approach Under FHFI	**Access to Employment and Livelihood Rights** **Access to Food & Nutrition Security Rights**	**Access to Education Right**	**Access to Child Health And Nutrition Right**	**Access to Maternal Health And Nutrition Right**	**Access to Common and Natural Resources**

Understanding Rights And Entitlements:

Briefing the basic concept of rights and entitlements Dr. Chakraborty said that individual and society need certain basic amenities and environment for their well-being and overall development. Fulfillment of these essential conditions is just a right and obligatory for the states.

*9-36.

Step-4: Critical Analysis -

Moderator through a case of malnourishment explain the root cause analysis process to help PIA members analyze and identify various factors attributing to that problem and focus on the root cause of that problem. For example, a child is malnourished because his mother is malnourished. His mother is malnourished because of early marriage, malnutrition, food taboos, ignorance etc. Her age is responsible for all these things.

The underlying causes are poverty and gender biasness in our country, for which the child get married earlier and repetition of vicious circle of malnutrition going on.

After the initial introduction the moderator formed 3 sub-groups of 6 PIA members in each group to further discuss and work on the identified themes.

Themes	PIA Members	Moderators	Assistants
Group - I Access to Employment and Livelihood Rights Access to Common and Natural Resources	1. Naba Kumar Haldar 2. Kalpana Mistri 3. Golenur Molla 4. Kalidasi Ghosal 5. Salehar Molla	Sulagna Sarkar	1. Panchu Gopal Bhandari 2. Sonali Tanti 3. Bijay Bar 4. Nibedita Haldar

Themes	PIA Members	Moderators	Assistants
Group - II Access to Child Health And Nutrition Right Access to Maternal Health And Nutrition Right	1. Nurbanu Gayen 2. Gayetree Mondal 3. Rabeya Molla 4. Dipu Haldar 5. Japamala Bhattachariya 6. Bandana Pramanik 7. Reshma Mondal	Lakshi Ghosh	1. Falguni Maity 2. Sharmistha Some 3. Mousumi Haldar 4. Balaram Pramanik 5. Samar Nashkar
Group - III Access to Food & Nutrition Security Rights Access to Education Right	1. Dayal Sardar 2. Parbati Mondal 3. Kamol Sardar 4. Dut Kumar Mondal 5. Nikhil Kumar Haldar	Dilip Mondal	1. Syamal Das 2. Lakshmi Ghosh 3. Sonali Adhikari 4. Bula Mondal

Step -5 : Orientation at List of Govt. Programme:

Moderators further requested to participants to list out various entitlements under the identified thematic areas. The PIA members came out with a exhaustive list of themes. Services through the thematic rights are –

Theme - I : Access to Employment and Livelihood Rights	Theme - II : Access to Child Health And Nutrition Right	Theme - III : Access to Maternal Health And Nutrition Right
1. MGNREGA 2. BRGF 3. Social Security Schemes (Old age pension, widow pension, Disability pension) 4. Indira Awas Yojana 5. NFBS 6. KCC 7. Animal Husbandry Department	1. ICDS Scheme 2. Mid-day Meal Scheme at school 3. Immunization 4. VHSNC 5. Link Person 6. ASHA 7. Nirmal Bharat Abhiyan 8. Primary Health Centers	1. Janani Suraksha Yojana (JSY) 2. VHND 3. ASHA 4. Immunization 5. Link Person 6. Prevention of Malaria, Filaria, Tuberculosis etc. 7. Nirmal Bharat Abhiyan 8. ICDS Scheme 9. Primary Health Centers 10. Nutrition Garden 11. Prevention of AIDS Scheme

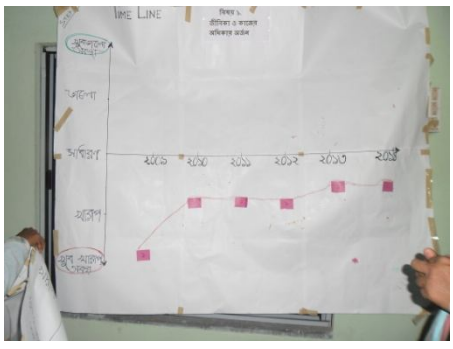
Theme - I : Access to Employment and Livelihood Rights	Theme - II : Access to Child Health And Nutrition Right	Theme - III : Access to Maternal Health And Nutrition Right
Theme - IV : Access to Food & Nutrition Security Rights	Theme - V : Access to Education Right	Theme - VI : Access to Common and Natural Resources
1. Public Distribution System (PDS) 2. Mid-day-meal 3. Annapurna Cards 4. Antyodaya Cards 5. Nirmal Bharat Abhiyan 6. Nutrition Garden	1. Mid-day-meal 2. Kanyasree Scheme 3. Pension for S.C. and S.T. students 4. Book grand 5. stipend for BPL students 6. RTE 7. Different facilities for backward community. 8. Hand Wash 9. Kishori Shakti Yojana	1. Plantation of tree 2. Water Shed 3. Land Shaping 4. forest Right Act 5. EPP 6. Distribution of safe drinking water 7. Organic Manure 8. Animal husbandry 9. Nursery

Step -6: Time line :

The trend analysis step is conducted to develop a general understanding of the developments regarding the desired right based issues and changed in the social environment overtime. It helps to develop relevant factors for further assessment and critically analyze the real life situation.

Moderator Mr. Rajesh Jha explained the process involved in time line. The participants in their subgroups to analyze the trend of relevant themes starting from the current status in the year 2014. Across the time period the situation was assessed on a 5 point scale-2 for very good condition, 1 for good condition, 0 for normal, - 1 for bad condition and -2 for very bad condition. The time line was developed in subgroups and further vetted in the plenary. After final inputs from the plenary a timeline was finally drawn to establish the trend.

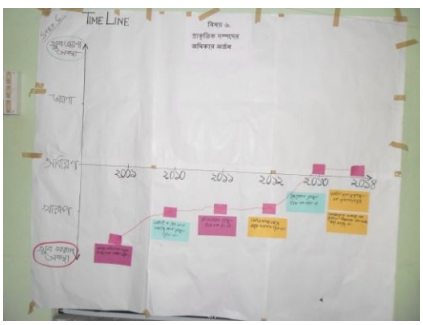
Presentation by Group 1:



Access to livelihood and employment rights

The overall trend shows that the situation has not much improved from 2009. Though it has improved from very bad condition to bad condition between 2009 to 2014.

Access to Common and Natural Resources

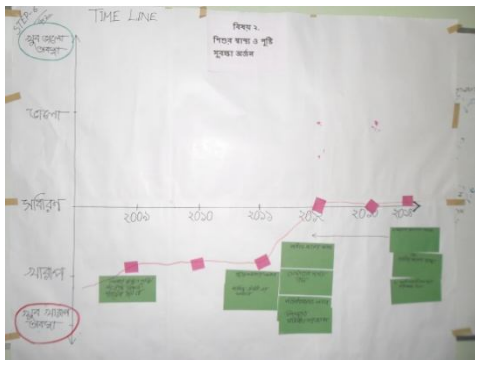


The status of natural resources and commons in the area is normal, it has improved from 2012 when the condition was bad. After that period they came to about the advantages of organic manure and nursery with the help of SRAN. But the impact is still less because of poor water resources and poor distribution of water in the agricultural land.

Linkages and convergence facilitated by SRAN with Krishi Vigyan Kendra, Nimpith and their agencies has resulted into some improvement and awareness.

Presentation by Group 2:

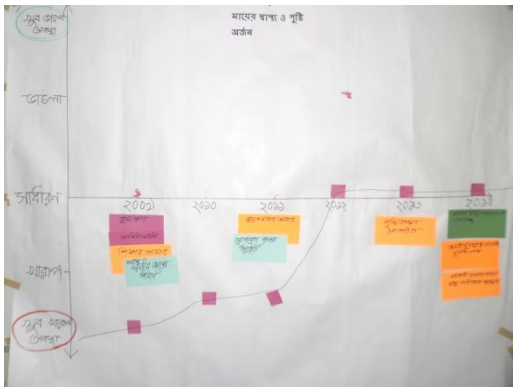
Access to Child Health and Nutrition Right



Over the time period child health and nutrition status has improved from very poor to normal conditions. After launch of NRHM there has been more focus on immunization and institutional delivery. Follow-up by ASHA and ANM has increased early initiation and exclusive breast feeding also but regularity of these practices and services are still mission. VHSNCs are mostly not functioning. Awareness programme SRAN also contributed to some development.

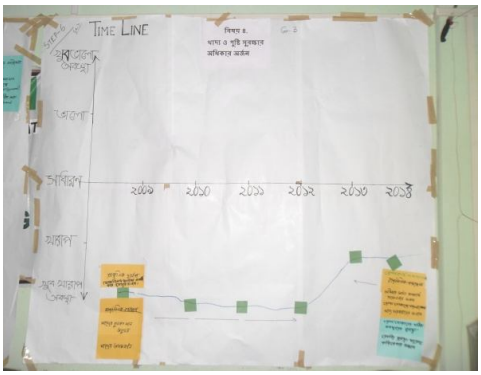
Access to Maternal Health And Nutrition Right

Maternal Health And Nutrition status at present ranked normal and it has improved since 2009 when the conditions were really very poor. Regular immunization campaigns have improved first dose as the people have become aware of immunization benefits. The institutional delivery incentives under Jajani Suraksha Yojna is became more easier. However always the medicine stock is also not available and Doctors are still less in Hospitals. The families are now aware of Nishchay yaan, there is only two Nishchy Yaan, so the services are not always available.



Presentation by Group 3:

Access to Food & Nutrition Security Rights

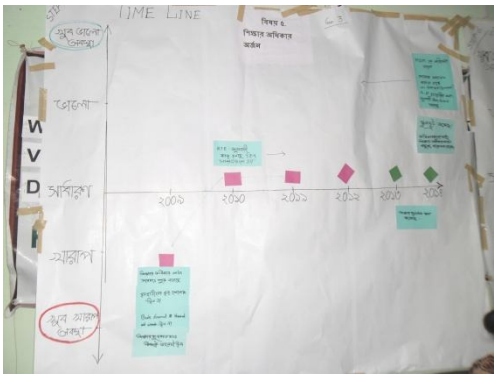


The present status of Food & Nutrition Security is poor though it has improved from the worst conditions in the year 2009. More than half of the poor families do not get subsidized food grains because they do not have BPL cards and under targeted public Distribution System the food grains is given to BPL families or under Annapurna and other schemes.

Access to Anganwadi Centers is also difficult for many of the village because the Anganwadi Centers are not located in all the villages. It is difficult for many of the families to get their children and pregnant mothers to Anganwadi Centers that are located at are distance.

Job card of MGNREGA is not available to all families and many of the families prefer to work outside the payment under MGNREGA are not regular.

Access to Education Right



Status of education in normal school is still poor though it has some improvement in comparison to status in the year 2009. At schools teachers are less in numbers and the pupil – teacher ratio prescribed by the Right to Education Act is not followed. There is still a large number of children out of school in the area. Quality of education, poverty is the major reason of such dropouts.

Day-II

The second day started with greeting by the moderator a short recap of previous day activities by the participants.

Step7: Collection of Factors and Factors Ranking:

The moderator facilitated problem analysis in a plenary to identify the core issues identified in the timeline in a but-why sequence that led to identification of responsible factors. These factors are framed in absolute terms to ascertain or non existence could affect people's access to rights and entitlements. After the framing of factors for each theme were voted and ranked.

The list of factors framed of discussions is as follows –

Theme 1 – Access to Employment & livelihood Rights		
Factors	Overall Scores	Rank
Awareness in agriculture	12	I
Monocrop	0	
Transfer of SHG group to SGSY Scheme	7	
Awareness about KCC	2	
Agricultural Training	2	
Training of animal Husbandry	2	
MGNREGA	7	II
BPL	7	III
TOTAL	39	
Theme 2 – Access to Child Health & Nutrition Rights		
Factors	Overall Scores	Rank
Services of Anganwadi Centers	1	
Nutrition Garden	8	III
Communication	0	
Safe Drinking Water	0	
Child Growth Monitoring	1	
Number of ICDS Centers	0	

Theme 2 – Access to Child Health & Nutrition Rights		
Economic Condition	3	
Child Health and Nutrition Services	10	I
Mothers Health	9	II
Medicine Supply	2	
Quality of food in ICDS Centers	5	
TOTAL	39	

Theme 3 - Access to Maternal Health And Nutrition Rights		
Factors	Overall Scores	Rank
Janani Suraksha Yojna (JSY)	0	
Health Services in Govt. Hospitals	9	III
Taboos	3	
Adequate safe drinking water	0	
Nutrition Garden	6	
Communication	1	
Infrastructure of ICDS Centers & Sub-centers	9	II
Awareness of mothers about health and nutrition	11	I
TOTAL	39	

Theme 4 – Access to Food & Nutrition Rights		
Factors	Overall Scores	Rank
Distribution of Ration Cards	8	III
Early Alarming for Disaster Management	4	
Awareness about Nutrition & Food Security Law	13	I
Services about Rationing Process	3	
Quality of Food Grains	11	II
Total number of Ration Shop	1	
TOTAL	39	

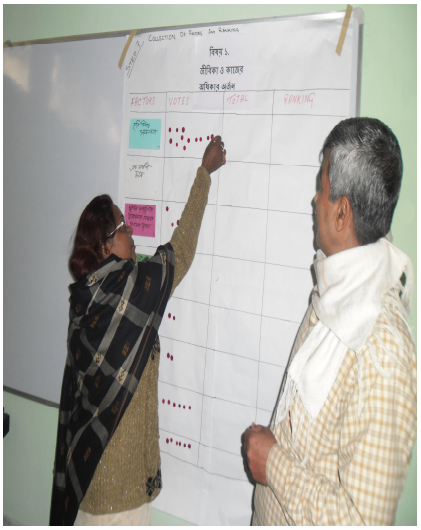
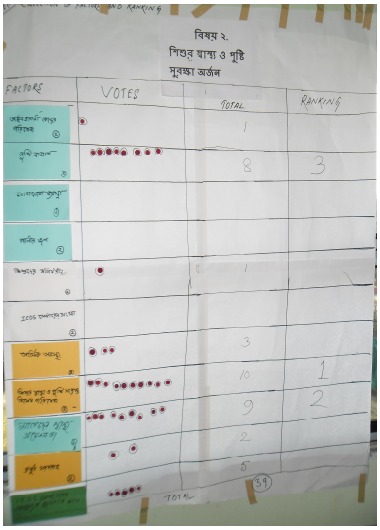
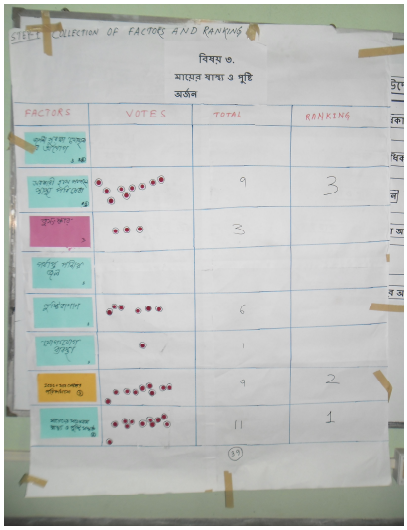
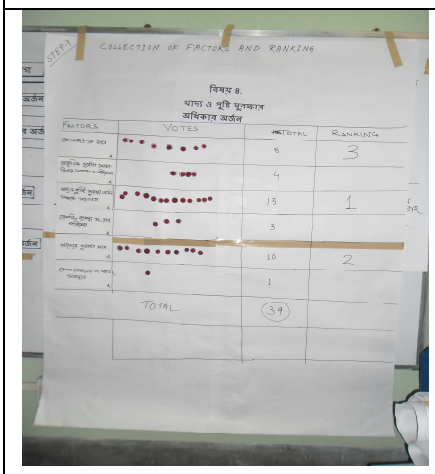
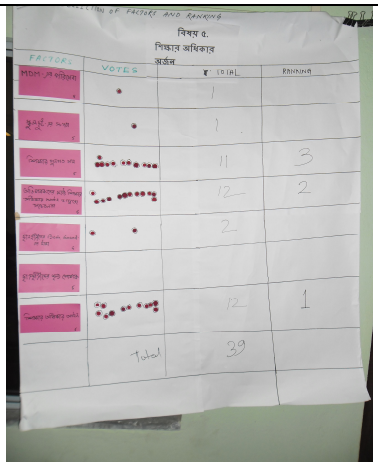
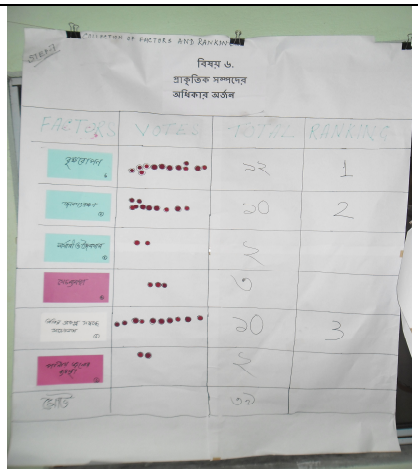
Theme 5 – Access to Education Rights		
Factors	Overall Scores	Rank
MDM Services	1	
No. of School Dropouts	1	
Quality of education	11	III
Awareness among guardians about RTE	12	I
Stipend for book grand	2	
Distribution of school dress to students	0	
RTE	12	II
TOTAL	39	

Theme6 – Access to Commons and Natural Resources		
Factors	Overall Scores	Rank
Plantation of tree	12	I
Water Reservation	10	II
Nursery and Organic Composed	2	
Irrigation of water	3	
Awareness about different schemes	10	III
Safe Drinking Water	2	
TOTAL	39	

Ranking of Factors:

The moderator briefed the participants about the factor ranking process. Each participant had 3 votes for each theme. The participants had to identify 3 most relevant factors for each theme and assign one vote to each. In case of tie of scores the factors were again discussed in the plenary and prioritized by majority. On the basis of the final tallies top 3 factors for each theme was identified and represented as per the table bellow –

Theme - I	Theme - II	Theme - III
• Awareness about agriculture • Application of MGNREGA • Services about BPL Cards	• Nutrition Garden • Awareness of mothers about health • Health of nutrition training for children	• Infrastructure of ICDS and Sub-centers • Health services in Govt. Hospitals • Awareness of mothers about health
Theme - IV	Theme - V	Theme - VI
• Number and location of PDS • Awareness about food and nutrition security • Distribution of Ration cards	• RTE • Quality of Education • Awareness among Guardians about RTE	• Plantation of tree • Reservation of water • Awareness about different schemes

Access to Employment & livelihood Rights	Awareness of mothers about health	Access to Maternal Health And Nutrition Rights
		
Access to Food & Nutrition Rights	**Access to Education Rights**	**Access to Commons and Natural Resources**
		

Step 8: Trend Analysis

Moderator Mr. Rajesh Jha trained the process steps involved in the trained analysis in the plenary. The trend analysis for each trend is carried in relevance to the three top factor ranking process. The PIA members in sub-groups had to access the actual situation of a certain factor in the project location and proceeded from past to present. The trained was established for a 6 year period starting from the year 2009. The scoring of status was done on a 6 point scale in following manner –

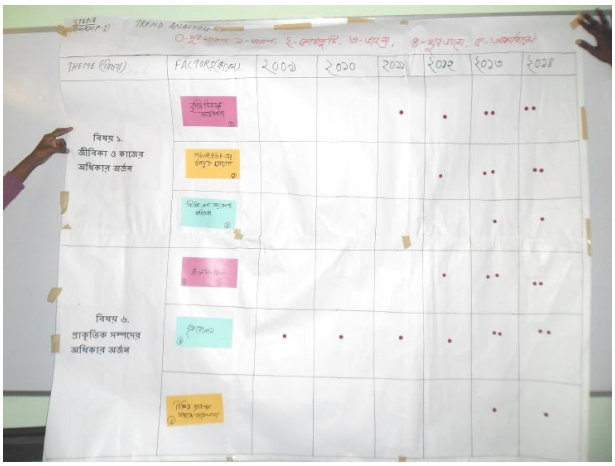
0 – Very Bad, 1 – Bad, 2 – Usual condition, 3 – Good, 4 – Very good, 5 – Excellent.

The PIA members in their respective sub-groups worked out the trends and presented in plenary where it was further discussed and finalized.

Presentation by Group – 1:

Access to Employment & livelihood Rights –

Now villagers are much aware about agricultural technologies than in the year – 2009. But the distribution of Ration cards was not properly done, especially the BPL cards due to some political issues. But, now the villagers are now much aware about MGNREGA.



Access to Commons and Natural Resources –

Access to commons and natural resources has improved significantly over the period. SRAN has facilitated convergence with KVK for the promotion of sustainable agricultural practices and the Watershed encouraged dry land farming. This has resulted into better soil salinity management.

Theme	Factors	2009	2010	2011	2012	2013	2014
Access to Employment & livelihood Rights	Awareness about agriculture	0	0	1	1	2	2
	Application of MGNREGA	0	0	0	1	2	2
	Services about BPL Cards	0	0	0	0	1	1
Access to Commons and Natural Resources	Reservation of water	0	0	0	1	2	2
	Plantation of tree	1	1	1	1	2	2
	Awareness about different schemes	0	0	0	0	1	1

Presentation by Group – 2:

Access to Child Health & Nutrition Rights –

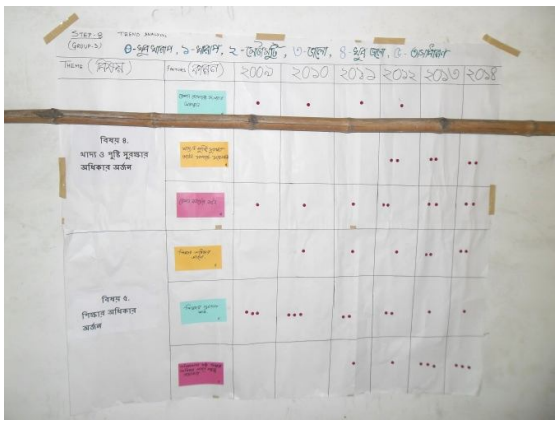
Over the time period child health and nutrition status has improved from very poor to normal conditions. After launch of NRHM there has been more focus on immunization and institutional delivery. Follow-up by ASHA and ANM has

increased early initiation and exclusive breast feeding also but regularity of these practices and services are still mission. VHSNCs are mostly not functioning. Awareness programme SRAN also contributed to some development.

Access to Maternal Health and Nutrition Rights –
Regular immunization campaigns have improved first dose as the people have become aware of immunization benefits. The institutional delivery incentives under Jajani Suraksha Yojna is became more easier. However always the medicine stock is also not available and Doctors are still less in Hospitals. The families are now aware of Nishchay yaan, there is only two Nishchy Yaan, so the services are not always available.

Theme	Factors	2009	2010	2011	2012	2013	2014
Access to Child Health & Nutrition Rights	Nutrition Garden	0	0	1	1	2	2
	Awareness of mothers about health	0	1	1	2	3	3
	Health & nutrition training for children	1	1	1	2	2	2
Access to Maternal Health And Nutrition Rights	Infrastructure of ICDS and Sub-centers	0	0	0	0	1	1
	Health services in Govt. Hospitals	0	0	1	1	2	2
	Awareness of mothers about health	1	1	2	2	3	3

Presentation by Group – 3:



Access to Food & Nutrition Rights –
More than half of the poor families do not get subsidized food grains because they do not have BPL cards and under targeted public Distribution System the food grains is given to BPL families or under Annapurna and other schemes.
Access to Anganwadi Centers is also difficult for many of the village because the Anganwadi

Centers are not located in all the villages. It is difficult for many of the families to get their children and pregnant mothers to Anganwadi Centers that are located at are distance.

Job card of MGNREGA is not available to all families and many of the families prefer to work outside the payment under MGNREGA are not regular

Access to Education Rights –

Status of education in normal school is still poor though it has some improvement in comparison to status in the year 2009. At schools teachers are less in numbers and the pupil – teacher ratio prescribed by the Right to Education Act is not followed. There is still a large number of children out of school in the area. Quality of education, poverty is the major reason of such dropouts.

Theme	Factors	2009	2010	2011	2012	2013	2014
Access to Education Rights	RTE	0	0	1	1	2	2
	Quality of Education	0	1	1	2	3	3
	Awareness among Guardians about RTE	1	1	1	2	2	2
Theme	Factors	2009	2010	2011	2012	2013	2014
Access to Food & Nutrition Rights	Number and location of PDS security	1	1	1	1	0	0
	Awareness about food and nutrition	3	3	2	2	1	1
	Distribution of Ration cards	0	0	1	1	3	3

Day-III

The third day started with greeting by the moderator a short recap of previous day activities by the participants.

Step9: Stakeholder Analysis

The moderator Mr. Rajesh Jha explained the involved in stakeholder analysis He suggested the PIA members to perform following activities in the subgroups –

Identification of important stakeholders in every theme and preparing a list of these stakeholders.

Analyzing the influence of stakeholders over the thematic areas in terms of relevance, effectiveness outreach and any other relevant criteria or information on a 4 point scale – 0 for poor, 1 for average, 2 for good and 3 for very good influence.

The active sum of these stakeholders was calculated on total scores in a row.

The sub group activities were presented in plenary for further validation and finalization.

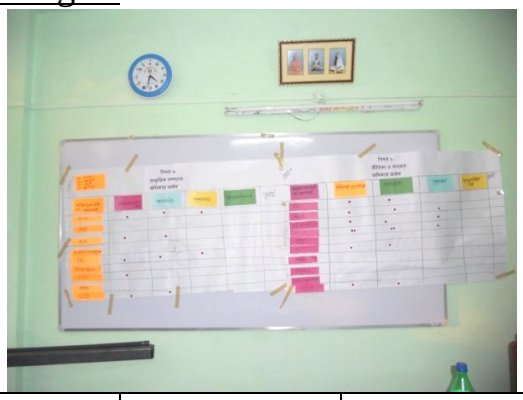
The presentation of sub groups after plenary validation is as follows –

Stakeholder Matrix

Theme – 1: Access to Employment and Livelihood Rights

The stakeholder analysis reflects that the services of BDO is important in the MGNREGA, because the services are not reaching to the poor properly.

All the villagers cannot access the PDS because of the distance.



Stakeholder	Quality of services	Effectiveness	Outreach	Active Sum
PRI	1	1	0	2
BLDO	1	1	1	3
MGNREGA	1	1	1	3
BDO	2	2	1	5
PDS	0	0	0	0
ADA	1	1	0	2
Villagers	0	0	0	0
Fishery	0	0	0	0
Forest Department	0	0	0	0
SDB	1	1	0	2
Passive Sum	7	7	3	17

Theme 2 & 3 – Access to Maternal & Child health and Nutrition:

Stakeholder analysis for these two themes was done jointly since most of the services are overlapping and complementing to each other. NGO initiatives to mother and child health and nutrition rights in the significant drive in the locality. ANMs are most accessible health practitioner on time. The nutrition and community based care is largely followed by

mothers/ family. ICDS and Anganwadi workers and ASHA.

Stakeholder	Quality of services	Effectiveness	Outreach	Active Sum
ASHA	1	2	1	4
ICDS	1	1	0	2
Doctors & Nurse	1	1	2	4
Dai	1	1	2	4
NGO	1	2	2	5
ANM	2	1	0	3
Mother & Child	2	2	0	4
Family	2	1	0	3
community	1	1	0	2
Passive Sum	12	12	7	

Theme – Access to Food & Nutrition Security Rights: The matrix reflects that the infrastructure of ICDS is not good everywhere. PDS shops are another important stakeholder, but the accessibility is poor. The dealers have negative influences on PDS due to corrupt practices and system that limits their outreach and effectiveness.

Stakeholder	Quality of services	Effectiveness	Outreach	Active Sum
Pregnant mother and child	1	1	0	2
Lactating mother and child	1	1	0	2

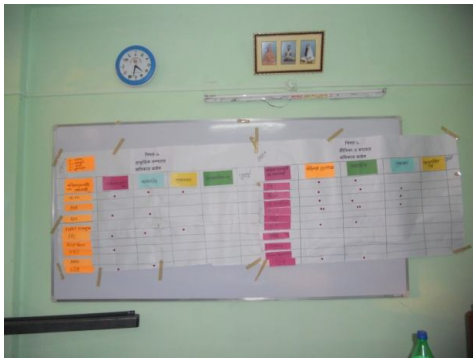
Stakeholder	Quality of services	Effectiveness	Outreach	Active Sum
Students	1	1	1	3
Villagers	1	1	0	2
ICDS	1	1	0	2
MDM	1	1	1	3
PDS	1	1	0	2
Passive Sum	7	7	2	16

Theme5 – Access to Education Rights:

The stakeholder analysis reflects that the education system is not functioning well as all the stakeholders expect children and parents to some extent are not demonstrating their concerns for schooling of children. Teachers are not serious about their role and responsibilities. The SMCs and PRIs are also unorganized and do not focus on education issues much.

Stakeholder	Quality of services	Effectiveness	Outreach	Active Sum
Students	2	1	2	5
Teachers	2	1	1	4
SMC	1	1	1	3
Mata Committee	1	1	1	3
VEC	2	2	1	5
School Inspector	2	2	2	6
Sarbasiksha Mission	3	3	3	9
Passive Sum	13	11	11	

Theme6 – Access to Natural Resources and Commons:



Block development Office works for improvement of natural resources and commons. NGOs in the area has also contributed to development of commons. Structures under MGNREGA and other schemes though vast in volume and coverage have limited impact on soil water conservation due to inappropriate selection of sites for activity.

Stakeholder	Quality of services	Effectiveness	Outreach	Active Sum
BLDO	1	1	1	3
PHE	0	0	0	0
ADA	1	1	0	2
Forest Department	0	0	0	0
PRI	1	1	1	3
Fishery Department	0	0	0	0
NGO	1	0	0	1
Villagers	0	0	0	0
SDB	1	1	0	2
Passive Sum	5	4	2	

Step10 – Action Plan:

Action Plan	Time	Responsibility
Theme1 – Access to Livelihood and Employment Rights		
Micro-planning for MGNREGA	June - 2014	PRI, Villagers, Members of SRAN
Extra PDS Shop	May - 2014	BDO, Members of SRAN
Services from Agriculture Department	May - 2014	ADA, RAKVK, Members of SRAN
Awareness about SDB	May - 2014	SDB, Members of SRAN
Theme2 & 3 – Access to Health and Nutrition Rights for Mothers and Children		
Establishment and Infrastructure Development of ICDS Center	March - 2014	CDPO, Members of SRAN
Establishment of PDS board	May - 2014	Ration Dealer, Members of SRAN
Awareness for the promotion of mothers and child health and nutrition	March - 2014	Anganwadi workers, ANM, Members of SRAN
Remove the taboos and superstitions regarding food and health	March - 2014	Anganwadi workers, ANM, Members of SRAN, ASHA
Theme4 – Access to Food Security & Nutrition Rights		
Promotion of Nutrition garden in Anganwadi and ICDS centers	May - 2014	Anganwadi workers, SRAN members, Teachers
Theme5 – Access to Education Rights		
Awareness of Mata Committee	May - 2014	SRAN Members, Teachers

Theme6 – Access to Natural Resources and Nutrition		
Integrated Farming System And Promotion of Nutrition Garden	May - 2014	BLDO, ADA, Fishery Department, Members of SRAN
Importance of social foresting and its protection	May - 2014	Forest Department

After the planning exercise a short evaluation of the workshop was conducted.

Points of Evaluation	Bad	Average	Good
Contents of the Workshop	0	0	12
Methodology	0	0	12
Time of the Workshop	0	9	3
Use of PIA	0	1	11
Moderators	0	2	10
Logistic Arrangements	0	0	12

Moderators:
Mrs. Sulagna Sarkar
Miss Lakshmi Ghosh
Mr. Dilip Mondal

Assistant:
Ms. Sonali Tanti
Ms. Bula Mondal
Ms. Falguni Maity

Location Of PIA Workshop:
Place: RAKVK, Nimpith

Total No. of Participants: 37

1. Naba Kumar Haldar
2. Kalpana Mistri
3. Golenur Molla
4. Kalidasi Ghosal
5. Salehar Molla
6. Nurbanu Gayen
7. Gayetree Mondal
8. Rabeya Molla
9. Dipu Haldar
10. Japamala Bhattachariya
11. Bandana Pramanik
12. Reshma Mondal
13. Dayal Sardar
14. Parbati Mondal
15. Kamol Sardar
16. Dut Kumar Mondal
17. Nikhil Kumar Haldar
18. Sanat Haldar
19. Debabrata Midya
20. Dilip Mondal
21. Tarun Kanti Das
22. Tarapada Ghosh
23. Bijay Bar
24. Panchu Gopal Bhandari
25. Balaram Pramanik
26. Samar Nashkar
27. Alokesh Bayen
28. Syamal Das
29. Dr. Anil Chandra Pradhan
30. Sonali Tanti
31. Bula Mondal
32. Falguni Maity
33. Sonali Adhikari
34. Nibedita Haldar
35. Sharmistha Some
36. Lakshmi Ghosh
37. Mousumi Haldar

The PIA workshop will be repeated in May 2015 to assess the impact trend.