

## Annual Report 2009-10 of Component-3

### 1. Project profile:

a) **Component:** Research on Sustainable Rural Livelihood Security (SRLS)

b) **Subproject title: Sustainable Farming System to Enhance and Ensure Livelihood Security of Poor in Purulia, Bankura and West Midnapore Districts of West Bengal”**

*File No—NAIP(SRLS-C)III-85/2006*

### **Objectives:**

- i) To increase food security and enhance income through increased productivity in *Aman Rice*.
- ii) To ensure irrigation through water harvesting.
- iii) To enhance farmers’ income through productivity enhancement of livestock and fisheries.
- iv) To ensure farmers’ income through productivity enhancement of Cotton, Cashew and Groundnut.
- v) To trigger entrepreneurship among small and marginal farmers and landless laborers through Commercial Seed Production, Vermicompost and Dry Flower.

c) **Sanction date: April 1st,2008**

d) **Completion date: June, 30<sup>th</sup>, 2012**

e) **Sanction budget (Rs. in Lakhs): 543.37 lakhs**

f) **Partners:**

- I. Bidhan Chandra Krishi Viswavidyalaya (Lead Centre),**
- II. West Bengal University of Fisheries and Animal Science (WBUFAS),**
- III. Kalyan Krishi Vigyan Kendra, (Purulia Ramakrishna Mission),**
- IV. Access Development Services,**
- V. Indian Grameen Service(IGS).**

g) **Subproject website address (URL): [www.bckvnaip03.co.in](http://www.bckvnaip03.co.in)**

a) **Technical Progress:** Technical Progress: During the year (all quantified)

Intervention	Target (Quantified)		Achievements (Quantified) this year		Achievements(Quantified) Cumulative		Remarks (Reasons for part/non-achievement)
	Farmers no.	Area (ha)	Farmers no.	Area (ha)	Farmers no.	Area (ha)	
1. Productivity Enhancement of Aman Rice	400	60	332	45.2	332	45.2	-
2. Introduction of Ground nut in kharif season and Improved Technology	100	10	295	36.36	423	51.03	-
3. SRI method of Rice Production	100	15	80	9.2	99	11.73	-
4. Introduction of Vegetable Cultivation	700	30	1251	59.64	1251	59.64	-
5. Introduction of Mustard	350	45	332	37.71	332	37.71	-
6. Rejuvenations and Inter Cropping of Cashew.	50	10	57	15	57	15	-
7. Area Expansion and Scion Bank of Cashew	50	10	67	10	67	10	-
8. Water Harvesting	160	30	142	43.6	142	43.6	-
9. Sesame Cultivation	641	71.2	329	34.67	696	77.73	-
<b>10. Livestock interventions</b>	<b>Farmers no</b>	<b>Input</b>	<b>Farmers no</b>	<b>Input</b>	<b>Farmers no</b>	<b>Input</b>	
	500		396		396		-
a) Fisheries (kg)		250	20	246	20	246	-
b) Sheep (Garol)(no.)		150	15	81	15	81	-
c) Goat (Black)(no.)		750	318	475	318	475	-
d) Pig(no.)		100	22	70	22	70	-
e) Poultry(no.)		3500	21	2745	21	2745	-
f) Animal Health camp and immunization camp(no.)		10		11		11	-
11. Enterprise related to Vermicompost							Very little awareness about vermicompost. Major problem is
a) Training of Vermicompost	400		300		300		

Intervention	Target (Quantified)		Achievements (Quantified) this year		Achievements(Quantified) Cumulative		Remarks (Reasons for part/non-achievement)
	Farmers no.	Area (ha)	Farmers no.	Area (ha)	Farmers no.	Area (ha)	
b)Vermicompost Structure(no.)	450		389		389		about availability of raw materials.
12.Enterprise related to Dry Flower							This off-bit trait is not very successful.
a)Training to women on Dry Flower	300		200		200		
b)Product Catalogue of Dry Flower	2		1		1		
c)Market Linkage ( with companies)	5		4		4		
<b>13. Social Mobilization</b>	<b>Unit Number</b>		<b>Unit Number</b>		<b>Unit Number</b>		
a) Village Committee	15		19		19		
b)Cluster Committee	3		3		3		
c) Farmers' Group Formation			186		186		
d)Cluster Sustainable Fund in Clusters	3		3		3		
e) Linkage with Line Departments	10		9*		9*		
f) Program Up Scaling (agencies involved)	3		1**		1**		
g)Marketing of Produced Crops	5 crops		4 crops		4 crops		
<b>13. Total Farmers Covered(no.)</b>	<b>3501</b>		<b>3601</b>		<b>3987</b>		
<b>14. Total Area covered(ha)</b>		<b>211.2</b>		<b>209.82</b>		<b>255.41</b>	

\*.ADO, KPS, Up-Prodhan , District Seed Certification, Krishi Karmadaksha

\*\* NABARD has already sanctioned Rs. 2.5 Lakhs, # to the local market with higher price

(i) **5 major innovations/achievements during the year and as on date (Cumulative)**

a) During the year (all quantified)

1. Improved technology in **Aman Rice** and introduction of **SRI (System of Rice Intensification)** technology in rice cultivation ( 412 farmers in 54.6 ha land).
2. Introduction and improvement in **Vegetable Cultivation** (1251 farmers in 59.64 ha land)
3. Successful introduction of Kharif **Ground nut** and **Sesame** along with market linkage with remunerative price( total 991 farmers in 114.09 ha).
4. Improved management practice, area expansion and introduction of intercropping in **Cashew** ( 124 farmers in 25 ha land).
5. Enterprise Modal for **Livestock** involving the Swarnajayanti Gram Swrojgar Yojana(SGSY)Groups through introduction of superior breeds (396 beneficiaries)

(ii) **Information on results framework: Performance indicators for the period**

<b>Indicator</b>	<b>Base Line Value</b>	<b>Performance</b>
1.Improved Aman Technologies	25%.	Adopted (75%) Refinement
2.SRI method of Rice.	0	75% Adopted (Introduction)
3.Introduction of Vegetables Cultivation.	0	100% adopted ( Introduction)
4.Introduction of Ground Nut Cultivation.	0	Kharif Ground Nut.Introduction. 100% Adoption.
5.Sesame Cultivation	0	Introduction. 100% Adoption.
6.Improved Management, & Intercropping in Cashew .	0	Introduction. 100% Adoption.
7.Commercial Seed Production	0	0
8.Entrepreneurship in Vermi Compost.	0	50% Adoption. Application in Vegetables.
9.Entrepreneurship in Dry Flower	0	25% Adoption. Needs Market linkage
10.Superior Breed of Cow and Goat.	0	Introduction. 100% Adoption.
11.Water Harvesting Structure.	0	Introduction. 100% Adoption. Year round vegetables Cultivation.
12. Increase in Agriculture Services and processing enterprises in project area Skill training on different crops and Livestock. Work Integration with Line Agencies, Cashew Scion supply Value Addition to Natural Waste products (Dry Flower)	0	100% service enhancement

Indicator	Base Line Value	Performance
Market intelligence on crops, Livestock, vermicompost Farmers' Institution like Village Committee and Cluster Committee		
13. Increase in Agriculture based Employment in participating Farming Household Enhancement of Farmers Income Generation of Labor Employment for Agriculture related activities.	0	Vegetables – Rs. 30000 Income per 0.3 acre. Groundnut- Employment Generation & Income Enhancement (Rs. 3000-5000/ ha) Cashew – Employment Generation. Sesame- Income Enhancement (Rs. 9000/ ha.) Rice- Employment Generation.
Number of farmer groups involved in project component activities---186	0	Very Good Membership 1710

## 2. Financial Management

### Statement of Budget released:

(Rs. lakhs)

Lead Centre/ Co-partners	Total Sanctioned Budget	Funds Released up to March 2009	Sanctioned budget for the current year (2009-10)	Funds released for the current year (2009-10)
BCKV	294.18	115.017	96.02	60.443
WBUFAS	83.71	26.79	25.55	17.77
Kalyan KVK	44.06	14.797	15.19	11.213
Access	60.71	17.21	18.99	8.96
BASIX	60.71	15.71	18.99	1.96
<b>All centre</b>	<b>543.37</b>	<b>189.524</b>	<b>174.74</b>	<b>100.306</b>

### Statement of expenditure:

(Rs. lakhs)

Lead Centre/ Co-partners	Funds Utilized up to March 2009	Funds utilized up to March 10*	Date of Submission of Latest SOEs			Dates of Submission of AUCs
			Apr to Jun 09	Jul to Sep 09	Oct to Dec 09	
						<b>08-09</b>
BCKV	104.201	60.44	28.7.09	23.10.09	13.1.10	22.8.09
WBUFAS	25.16	19.23	14.7.09	8.10.09	12.1.10	9.7.09
Kalyan KVK	12.65	14.28	10.7.10	28.9.09	3.1.10	26.6.09
Access	12.44	17.09	4.8.09	6.11.09	29.1.10	3.6.09
BASIX	4.77	12.994	29.7.09	3.11.09	5.2.10	26.5.09
<b>All centre</b>	<b>159.221</b>	<b>124.034</b>				

\*Figures may change as the Audit has not yet been completed

3. **Procurement:** a) During the period

Major Items (Above Rs 5.0 Lakhs)	Budget	Utilization (%)	Remarks
BCKV	-	-	-
WBUFAS	-	-	-
Kalyan KVK	-	-	-
Access	-	-	-
BASIX	-	-	-
All centre	-	-	-

**b) Cumulative**

Major Items (Above Rs. 5.0 Lakhs)	Budget up to Mar. 10	Utilization (%)	Remarks
BCKV	1300000	99.95	-
WBUFAS	300000	96.64	-
Kalyan KVK	-	-	-
Access	-	-	-
BASIX	-	-	-
All centre	-	-	-

- i) Project website created: **Yes**
- ii) Project website/webpage updated: **Yes**
- iii) Media products developed/disseminated/Trainings organized

Products (CDs, Manuals, Bulletins, Paper clippings etc.)	Copies Supplied (no)
“Dry Flower tairir padhati” (preparation of Dry flower: 40 Pages Books in Bengali.)	100
“Dry Flower tairir padhati” (preparation of Dry flower: 40 Pages Books in English.)	100
“Dry flowers niye byabasar mul katha” (marketing strategies on dry flowers)	100
Leaflet on “Prthagata Aman Chashe Sar Prayoger Padhati” (Fertilizer application of Traditional aman Paddy, variety Swarna & Lalat).	200
Leaflet on ‘SRI Padhatite Sar Prayog’ (Fertilizer application for SRI, variety Swarna & Lalat).	50
Leaflet on “Banijyic Bij Utpadan Padhatite Sar Prayog” (Application of Fertilizer for Commercial Seed production, variety Swarna & Lalat).	25
Leaflet on Vermicompost production prerequisite	200
Leaflet on “Unnata Maner Sabji Bij Utpadan” (Quality seed production for vegetables).	100
NAIP-03 Annual report(April2008-March2009)	50
House journal	200
Farmers Card	1500

4. Salient features of innovations/ achievements including techno-economic viability, marketability and its impact on income and employment generation along with one good photograph/ bar chart/ table with caption of most significant contribution.

**Major Interventions/Up scalable technologies in the area**

1. Rice ( Improved Aman and SRI)
2. Vegetable Cultivation
3. Live Stock (Poultry and Goat)
4. Mustard Cultivation
5. Ground nut cultivation

**Income Projection for Landed Farmers( Model description: Single Farmer wise)**

Average Holding=0.587 ha=4.33 Bigha

Base line values: 1.41 ha(Small-20% wieghtage by numbers ) and 0.37 ha(Marginal-80% wieghtage by numbers )

Intervention	Land (Bigha)	Income Enhancement	Total(Rs.) per yr
SRI( Khharif)	4	1500 /bigha	6000
vegetable( 2 seasons)	0.33bigha(Homestead + Land)	3000/seasons	6000
Ground nut(Rabi)	2	2000/bigha	4000
Mustard	2	1000/bigha	2000
Live stock	1 family	1000/month	12000
		<b>Total</b>	<b>30000</b>

**BCR Calculation for landed Farmers**

Head	Amount( Rs.)	Fund /Farmer /yr
Total Consortium Fund	54337000	Rs.4528
Total Operational Fund	34400000	Rs.2887
<b>Total Farmers</b>	<b>3000 no.</b>	
Income/yr from interventions/Farmer	31000	
<b>Benefit (Total fund)/year</b>	<b>26472</b>	<b>28133 (operational cost)</b>
<b>BCR (Total Fund)</b>	<b>5.8</b>	<b>9.8 (operational cost)</b>

### Income Projection for Landless Farmers( Model description: Single Farmer wise)

Average Holding=0.03ha=0.225 bigha

Intervention	Unit	Income Rate	Total(Rs.) per yr
Vegetable ( Year round)	0.225bigha	250/dec	5568
Live stock	1 family	1000/month	12000
Generation of Labour days	20 Labour days/family/yr	Rs.100 per labour day	2000
		<b>Total</b>	<b>19568</b>

### **BCR Calculation for Landless Farmers**

Head	Amount ( Rs.)	Fund /Farmer /yr
Total Consortium Fund	54337000	Rs.4528
Total Operational Fund	34400000	Rs.2887
<b>Total Farmers</b>	<b>3000 No.</b>	
Income/yr from interventions	19568	
<b>Benefit (Total fund)</b>	<b>15041</b>	<b>16702(operational cost)</b>
<b>BCR (Total Fund)</b>	<b>3.3</b>	<b>5.8(operational cost)</b>

### **Case Studies**



#### **PURULIA CLUSTER**

- **Farmer Name** : Kalipada Roy
- **Village** : Lakhanpur
- **Gram Panchayat** : Agoya Narrah
- **Category** : General

- **Source of Income : Cultivation**
- **Intervention Issues:**
- **A) Improved Management: Optimization of Seedling Numbers, Appropriation of Fertilizer dose & method of application, reduced water level.**
- **B) Variety: Introduction of HYV replacing non descriptive variety.**
- **C) Yield Enhancement: 75%**

Status	Intervention	Variety	Area (Bigha)	Cost of cultivation (Rs.)	Production (Yield in-kg/bigha)	Net Income (Rs.)	Net Profit (Rs.)	Benefit: Cost
Past	Traditional Paddy	-	0.5	1420	400	1550.00	130	.09
Present	SRI	Lalat	0.5	1302	700	3000.00	1698	1.30



### **PURULIA CLUSTER**

**Farmer Name : Bhobotosh Soren**  
**Village : Sindurpur**  
**Gram Panchayat: Agoya Narrah**  
**Category : ST**

**Source of Income : Cultivation.**

**Intervention Issues: Water from Dug well, Cultivation Technique, Application of vermi compost.**

Intervention	Year	Variety	Area (bigha)	Cost of cultivation	Production (Yield)	Gross Income (Rs.)	Net Profit(Rs.)	BCR
Ladies Finger	2008-09: Rabi	Arka Anamica	0.5	795/-	650 kg/bigha	3225.00	2430.00	3.05

### Lodhashuli Cluster



**Name: Smt. Malati Manna,**

**Gram Sangsad: Mohanpur, Village: Lohamelia, Lodhashuli**

**Member of Jagaran Self Help Group**

**Category: Schedule Caste**

**No. of Family Member: 5 (Husband, Wife and 3 children)**

**Monthly Income: Rs.1500/-**

**Source of Income: Barbary and Selling of Tree Leaves**

**Intervention: Goat (5 nos She Goat), Date 12/08/2009**

**Present status of She Goat (Doe): 3 Doe kidded 5 kids (month of kidding January, 2010) and 2 were pregnant (expected month of kidding March, 2010- they may kid 3 kids). Price of kid at marketing age: @ Rs.1000/-. Price of mother stock: @ Rs.1500/-**

Investment from Project				Expected Return after 6 months from kidding			
Cost of Goat (Rs.)	Cost of Feed (Rs.)	Cost of Medicine incl. vaccine (Rs.)	Total (Rs.)	Selling of kids (Rs.)	Price of Expected kids (Rs.)	Price of Mother Stock (Rs.)	Total (Rs.)
5000/-	1200/-	200/-	6400/-	5000/-	3000/-	7500/-	15500/-

## Other achievements

1. **Ensuring critical irrigation mitigating seasonal drought through construction of Dug Well and Ponds in Aman Rice and Vegetables.**
2. Linkage with Bank – Farmers groups started linking with bank ( SGSY SHG groups)
3. Linkage with NABARD- NABARD has extended support in terms of program up scaling in the same cluster (NABARD has already given 2 lakhs To ACCESS at Lodhashuli Cluster.)
4. Agriculture department & KVK – Acting as Trainers.
5. The linkage with secondary and tertiary market has been initiated by selling farmers produce [Groundnut – 10 Tons ( Done ) and Mustard – 30 tons (planned)]
6. **Establishment of Cluster Sustainability Fund.**
7. **Distribution of Farmers’ card** for input distribution and Crop Monitoring card for collecting field data.
8. Status of Grass Root institutions in the three clusters are given below:

Institution	Lodhashuli		Borjora		Purulia		Impact
	No.	Membership	No.	Membership	No.	Membership	
Producer Groups	130	1100	20	200	36	410	Training, Input Requisition
Village Committee	7	60	4	28	8	65	Input Distribution, Farmers’ selection. Decision Making.
Cluster Committee	1	10	1	8	1	16	Requisition, Stakeholders participation, Plan of Work .