

Sustainable Farming System to Enhance and Ensure Livelihood Security of Poor in Purulia, Bankura and West Midnapore Districts of West Bengal” (BCKV, Kalayani).

Environmental and Social Safeguards Management

No. of consortium partners: 5

1. Bidhan Chandra Krishi Viswavidyalaya, Kalayani (Lead Centre),
2. WBUAFS, Kolkata
3. Kalyan Krishi Vigyan Kendra, Purulia
4. Access Development Services, Kolkata
5. Indian Gramin Services, Kolkata

No. of Districts covered: 3

Duration: 4 years.

Budget: 546.57 Lakhs.

Project Objectives:

- i) To increase food security and enhance income through increased productivity in Aman Rice.
- ii) To ensure irrigation through harvesting water.
- iii) To enhance farmers’ income through productivity enhancement of livestock and fisheries.
- iv) To ensure farmers’ income through productivity enhancement of cotton and cashew as second crop to *Aman* Rice.
- v) To trigger entrepreneurship among small and marginal farmers and landless laborers through commercial seed production.
- vi) To trigger entrepreneurship among women community and landless laborers.

Brief Project Description:

This is a multi disciplinary consortium project with an aim to improve the livelihood security of the rural people in three backward districts of West Bengal through innovations in low cost technology transfer, sensitive and effective decentralized and stakeholders’ driven institutional mechanisms and need based support systems. The objective would be achieved through

- Productivity enhancement of *aman* paddy
- Water harvesting through watershed approach
- Productivity enhancement of livestock
- Productivity enhancement of fisheries
- Productivity enhancement of cotton and cashew
- Commercial seed production of paddy, maize, mustard, lentil, jute and wheat
- Enterprise related to vermicompost, medicinal plant, commercial nursery and dry flower

B) Environmental Category B

2. Major issues in the sub-project

Social:

The major social issues to be addressed are whether the technology interventions will have impact on food security and income generation of the landless and small holding farm

enterprise. Whether the interventions will have impact on the women, in increasing her presence in paid work with the benefit of reducing drudgery.

Environmental:

The project will have mostly positive impact on environment as it focuses on increasing the productivity of wastelands through conserving soil, water and other resources through balanced application of technology. The interventions will also focus on minimizing chemical pesticide use in the environment through promotion of Integrated Pest Management (IPM) and Integrated Nutrient Management (INM) practices. In cotton cultivation minimum of pesticide use is the means of reducing cost of production without compromising productivity. In three clusters, interventions related to high yielding varieties of crops and animals may replace their indigenous practices and varieties.

3. Safeguard Policies Triggered (World Bank Policies)

Safeguard Policies Triggered (World Bank Policies)	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[]
Natural Habitats (OP/BP 4.04)	[]	[]
Pest Management (OP 4.09)	[X]	[]
Cultural Property (draft OP 4.11-OPN 11.03 -)	[]	[]
Involuntary Resettlement (OP/BP 4.12)	[]	[]
Indigenous Peoples (OD 4.20)	[X]	[]
Forests (OP/BP 4.36)	[]	[]
Safety of Dams (OP/BP 4.37)	[]	[]
Projects in Disputed Areas (OP/BP 7.60)	[]	[]
Projects on International Waterways (OP/BP 7.50)	[]	[]

4	Risk related issues (not covered under 3 above but perceived to be important in the sub-project)
	Several development programmes (both government and donor funded) have implemented in West Bengal and there is well set method in place for identifying the poorest of the poor. This project will also follow similar protocol. Still issues related to equity could emerge due to the differential capacity of landless, small and marginal farmers and women in internalizing the interventions.
5)	Impact assessment (enclosures I and II)
	The project mostly will have positive impact as it involves improving the natural resource management and enhancing the crop and animal productivity through farming systems approach. Wherever negative impact is perceived through individual interventions, appropriate mitigation measures have been planned which are detailed in Enclosures I and II.
6)	Potential indirect and/or long-term impacts due to anticipated future activities in the project areas (assessment of anticipated conflict/complimentarily with the current as well as those proposed for the next five years) in the areas of activities of the sub-project.

	<p>The state line departments have different development programs to serve the poor. The current project will target interventions focusing on small holders and landless population improving the productivity of their assets and providing better access to the technologies that has the potentials to increase productivity.</p> <p>Since the Zilla Parishad and Gram Panchayats will be involved from the beginning in all the interventions, the possibility of conflicts within the community is minimum. A good deal of complementarities is envisaged between this project and other initiatives of the central and state governments like the National Rural Employment Guarantee Programme (NREGP), National watershed development program and Bio Village programs. Renovation and construction of minor water harvesting structures are proposed through community action, it will be carried out through the Panchayati Raj department. The different skill development programs run by District Rural Development Agency (DRDA) will be integrated with the different income generation programs as envisaged in the project for women.</p>
7)	<p>Identify the key stakeholders and describe mechanisms for consultation with and to them done/disclosure so far done including pre-project consultation with the stakeholders, stakeholders' workshop before formulating the full proposal, discussing the full proposal with some stakeholders before submission to the PIU.</p>
	<p>Farmers, Panchayat Raj Institutions, research institutions, government line departments and non-government organizations engaged in improving rural livelihoods are the key stakeholders for this project. During project preparation phase visits to the three districts and identified villages involved intensive consultation with farms and rural households. Discussions and brainstorming sessions with stakeholders and workshops were organized during the pre project consultation. At the cluster level, an open ended PRA in identifying issues and possible interventions was carried out which involved all the stakeholders including farmers, land less, village artisans and women.</p>
8 a)	<p>i. Environment- The screening of environmental issues has been done to include possible impacts and appropriate mitigation measures are proposed (enclosure I)</p> <p>ii. Pest management – Encouraging the use of Integrated pest management practices will discourage the use of chemical pesticides. This will provide advantage of environment and health security to the farmers. Field demonstrations and training of farmers on IPM and INM are integral part of the subproject.</p> <p>ii. Indigenous people The proposed interventions are either through augmenting or making adjustments in the livelihood system of the indigenous people without causing any major changes in their way of life. It will only improve their income, nutrition and livelihood security. However, planned efforts would be made to ensure that tribals are included and derive full benefit from the projects intervention.</p>
8(b)	<p>Several development programmes (both government and donor funded) have implemented in West Bengal and there is well set method in place for identifying the poorest of the poor. This project will also follow similar protocol. The selection of beneficiaries will be made through involvement of local institutions and communities; preference will be given to a willing partner. The selection of the families would have proportionate representation from the small, marginal and landless farmers, women and SC and ST group. Subproject implementation plan would be prepared and agreed with the communities and displayed. Participatory approach and transparency in the</p>

	implementation would be maintained. Gender issues would be adequately addressed
9	<p>Consultation/disclosures to be done in future: Local disclosure through mechanisms such as launch workshop, interfaces during the implementation stage of the sub-project for sharing the results and soliciting feedback, circulating project brochures and implementation progress from time to time, putting up annual reports on the website and annual stakeholder workshops wherever feasible.</p> <p>Communications in vernacular will be undertaken through reports and small workshops involving all stakeholders. The project brochures will be distributed in local languages. Stakeholders' workshop will be organized at the cluster level to share information about the project performance.</p>

Amit kv. Roy.

Consortia PI

National Coordinator

National Director

Table1: Environmental safeguard: Activities, Issues, Impact and Mitigation Measures.

Activities	Issues	Anticipated level of Impacts		Mitigation Measures (Negative Impact) ⁴
		Positive	Negative	
Integrated management of crop-soil-moisture-plant nutrients	Improved soil health due to Popularizing and strengthening IPM combining organic manures, bio-fertilizers, indigenous plant products, bio-regulators and chemical fertilizers, in rice based farm production system	4		
	Stress on external inputs		1	Developing low-cost mass production facilities for different bio-fertilizers in the project area
Water harvesting through watershed methods involving civil engineering and community mobilisation	Effects on availability water resources through installing small rainwater harvesting structure model, 'Jalkund' (50-100 m ³ water storage capacity)	4		
Interventions on productivity enhancement of livestock	Improved livestock health and prevention of diseases	4		
	Increased productivity through nutrition management with locally available feeds and fodder / concentrate mixture and area spec mineral supplement.	4		
Interventions related to productivity enhancement of fisheries	Improved biodiversity: through Development of integrated fish farming system with water and soil quality management emphasizing locally available and economically important fish species.	4		
Enterprise related to medicinal plant	Enhanced agro biodiversity due to production of medicinal plants (Vinca, Kakmachi, Kalmegh & Hena)	3		

Table1: Social safeguard: Activities, Issues, Impact and Mitigation Measures

Activities, Issues, Impact and Mitigation Measures				
Activities	Issues	Anticipated level of Impacts		Mitigation Measures (Negative Impact) ⁴
		Positive	Negative	
Integrated management of crop-soil-moisture-plant nutrients; livestock interventions	Enhanced income, employment and nutritional security due to productivity enhancement of <i>aman</i> paddy, productivity enhancement of livestock, fisheries, cotton and cashew	4		
Water harvesting through watershed methods involving civil engineering and community mobilisation	Change in occupation patterns and effect on community ownership of natural resources	3		
Commercial seed production of paddy, maize, mustard, lentil, jute and wheat	Enhanced income and year round employment through agro-techniques of seed production and low-cost processing by small and marginal farmers in paddy, maize, mustard, lentil, jute and wheat	4		
Empowerment through capacity building and skill development of stakeholders including men and women farmers.	Enhanced skill for adoption of different interventions through different training programmes, exposure visits etc, information dissemination through establishment of rural technology centers	(4)		
	Reduced role of middle men, contractors through formation of SHG/CIG/SHG Federation	(4)		
	Gender empowerment through involvement of women in different committees, formation of women SHGs	(4)		
	Social conflicts among different members		(1)	All the interventions to be decided and implemented in participatory mode through involvement of village level committees, panchayati raj members

Activities, Issues, Impact and Mitigation Measures				
Activities	Issues	Anticipated level of Impacts		Mitigation Measures (Negative Impact) ⁴
		Positive	Negative	
Enterprise related to vermicompost, medicinal plant, Commercial Nursery and dry flower	Enhanced income and year round employment through popularizing dry flower production technology by women through decentralized mode of production.	3		
	Micro-Entrepreneurship development through production of vermicompost by women in homestead land	3		
	Enhanced income through production of medicinal plants (Vinca, Kakmachi, Kalmegh & Hena) on commercial basis.	3		

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