

Ensuring Livelihood Security Through Watershed Based Farming System Modules in Mirzapur and Sonbhadra Districts of Vindhayan Region (Proponent: BHU, Varanasi)

Environmental and Social Safeguards Management

1. Project statistics:

Component code	: NAIP SRLS Comp 3 (Livelihood Security)
State and target Districts	: Uttar Pradesh / Mirzapur and Sonbhadra
Budget	: Rs. 688.039 Lakhs
Duration	: Four years
Proposed Date of Start	: May 2008
No. Of Beneficiary Households	: 3,000
Lead centre	: Institute of Agricultural Sciences, Banaras Hindu University Varanasi – 221 005, U.P., India Ph. +91-542 – 2307100/2368993 Fax: +91-542–2368993 1. Indian Institute of Vegetable Research (ICAR) 2. Banwasi Sewa Ashram (NGO), Sonbhadra. 3. Surabhi Shodh Sansthan, Mirzapur.
Consortium Partners	:
Name of CL	: Prof. Shiv Raj Singh, Director
Name of CPI	: Prof. J.S. Bohra Ph.: +91-542-2368381 E-mail: jsbohra2005@rediffmail.com
Name of C CoPI	: Prof. S. Kushwaha Phone: +91 542 2317655 / +919936451995 (mobile) E-mail: saketkushwaha@hotmail.com

Project objectives:

1. To improve the productivity of important field crops, vegetables and orchards.
2. To make efficient use of natural resource base *viz.* water and soil
3. To enhance the productivity of existing livestock, fishery and sericulture.
4. To promote cottage industries and post harvest technology for income generation and enhanced employment.
5. To undertake capacity building of rural youth and women, and to create better market linkages for sustainability.

1. Brief project description:

Uttar Pradesh with 166 million people, it is home to one-sixth of the nation's population and almost one-fifth of the country's poor, and ranks below the national average in respect of economic and social indicators. Increase in state income was zero as against 3.5 percent national average during 1997-2004. Agriculture is the dominant economic sector of the state, employing 78% of the labour force and contributing 36% to state GDP. This sector exhibits weak and uneven growth, averaging only 2.2% annually over the last decade, and just 1.2% annually over the last five years.

Mirzapur and Sonabhadra districts are among 150 disadvantaged districts of the country identified by Planning Commission, Govt. of India. Large population (56%) of these two districts comprises of SC/ST, living mainly below the poverty line. The major area is rainfed, with little assured irrigation. Therefore, the cropping intensity is low (145.83%) having low productivity of crops (15.58 q/ha). Further, the subsistence of tribal population mainly depends on forest based product such as Honey, Kathha, *Chiraunji*, Fuel Wood, *Tendu* leaf for *Bidi* making etc. The indigenous breeds of animals particularly cow and goats thriving on grazing have very poor productivity. Post harvest losses of crops and vegetables as well as forest products are immense due to lack of basic infrastructure for processing and value addition. Marketing network is almost non existent in the region and thus middleman makes most of the profit.

More rapid and sustained agricultural growth is constrained by inefficient irrigation systems, improved seeds, cattle and fish and other inputs along with weak agricultural and marketing support services. The public extension system is not effective, resulting in limited new technology being adopted by the majority of farmers. Advice on post-harvest processing and management activities is not readily available and there are few backward-forward linkages with an undeveloped agribusiness sector. Marketing infrastructure is government controlled and essentially organized around cereal crops and pulses, and does not cater very well to the perishable and non-traditional products which hold substantial promise for both income expansion and employment generation. Therefore, appropriate interventions will have to be under taken to overcome the problems stated above for better and assured livelihood security of the target groups.

Major intervention

1. Soil and water conservation through watershed management
2. Introduction of improved varieties of field crops vegetables and fruits for enhanced productivity and input use efficiency.
3. Health care and nutritional management of cows, goats, poultry and fish for enhanced productivity.
4. Grading, standardization and processing of seeds, vegetables, fruits and milk for quality, shelf life, value addition by establishing model demonstration units in each cluster and marketing of products and byproducts.
5. Plantation of multipurpose trees on farm bunds, community lands and waste land as well as substitution of host plant for enhancing and sustaining sericulture.
6. Training and capacity building of farmers, rural youth and farmwomen.

Environmental category

B

2. Major issues in the subproject

- **Social:**

Critical social issues most likely to arise on implementation of the our project interventions are:

- 1) Empowering women and rural youth.
- 2) Inclusion of poor and disadvantaged groups
- 3) Capacity building of farmers to practice and sustain the deliverables of the project.
- 4) Demonstration of social (health and nutritional security) and economic benefits of the interventions

- **Environmental:**

Major environmental issues likely to arise on implementation of the projects are:

1. Enhancing water availability for longer use.
2. Protection of local biodiversity resources
3. Impact of use of agro chemicals on environment

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)	[]	[X]
Pest Management (OP 4.09)	[X]	[]
Cultural Property (draft OP 4.11-OPN 11.03 -)	[]	[X]
Involuntary Resettlement (OP/BP 4.12)	[]	[X]
Indigenous Peoples (OD 4.20)	[X]	[]
Forests (OP/BP 4.36)	[]	[X]
Safety of Dams (OP/BP 4.37)	[]	[X]
Projects in Disputed Areas (OP/BP 7.60)	[]	[X]
Projects on International Waterways (OP/BP 7.50)	[]	[X]

Measures to address these issues are given in 8(a).

4. Risk analysis and related issues

1. Interface with communities
2. Watershed developed on private land might face initial problems in distribution of water
Measures to address these issues are given in 8(b).

5. Impact assessment

The project will have mostly positive impacts. The major activities causing positive and negative impacts are given 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):

- Increased and sustained agricultural productivity.
- Increased income of farm household
- Capacity building of rural mass.

7. Identify the key stakeholders and describe mechanisms for consultation with and to them done/ disclosure so far done including pre-project consultations with stake holders workshop before formulating the full proposal, discussing the full proposal with some stakeholders before submission to the PIU:

- During the preparation of project proposal two stakeholder meetings and one workshops spread over two days organized.
- A preliminary survey of the project area has been done.
- Key stakeholders have been identified.
- Mechanisms of consultation have been chalked out.

8 Measures to address the issues

(a) The subproject designed includes following measures

- i. **Environment:** The major purpose of the sub project is to sustainably improve the water availability for agriculture. Though there is no potential threat on environment and displacement of habitation is not recommended but a critical screening of environmental issues has been done to include possible impacts and appropriate mitigation measures are proposed (enclosure I).
- ii. **Integrated Farming System :** Encouraging integrated farming system for better use of farm resources, recycling of waste, enhanced agricultural productivity leading to sustained social and economics growth.
- iii. **Pest management:** Encouraging the use of Integrated Pest Management(IPM) practices and to use the decision mix strategy to optimise 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.
- iv. **Indigenous people**

The tribal population in the project area is quite high and in Cluster-I, i.e. adopted villages in Myorepur Block of Sonbhadra, it is almost 100 percent. The majority of the tribal people in the area are land less/ marginal farmers having very poor livelihood and educational status. In the tribal families, the women are more active in all aspect including forming the SHG, while men are relatively less active and rigid. In the implementation of the project, priority will be given to landless and marginal ST/SC/tribal farmers. The interventions like, livestock management, bee keeping, nursery raising, poultry, processing and value addition, diversification of farming, capacity building, etc. will be more suitable for tribal farmers

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 as well as flora and fauna of the locality. It will improve the agricultural productivity, household income, nutritional and livelihood security without adversely affecting the environment. Planned efforts would be made to ensure that the poor and tribal are included and derive full benefit from the project interventions.

8(b)

i. **Interface with the communities**

The selection of beneficiaries will be made through involvement of NGOs, Consortia Partners, local institutions and communities; preference will be given to a willing partner. The selection of the families would have proportionate representation from the following groups:

- a. Small, marginal and landless farmers
- b. Women

c. SC and ST group

Subproject implementation plan would be prepared and agreed with the communities and displayed. Participatory approach and transparency in the implementation would be maintained.

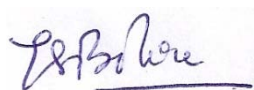
Gender issues would be adequately addressed

9. Chronology of meetings/ activities held in connection with preparation of the concept note & full proposal

S. No	Date & Location	Programme	Participants
1	11.12.2007 I. Ag. Sc., BHU	Meeting of stakeholders	18
2	18.12.2007 I. Ag. Sc., BHU	Meeting of stakeholders	22
3	22.12.2007	Meeting with farmers in cluster I	100
4	23.12.2007	Meeting with farmers in cluster II	100
5	24.12.2007	Meeting with farmers in cluster III	100
6	2 nd & 3 rd Jan. 2008	Workshop of stakeholders I. Ag. Sc., BHU	30
7	9-02-2008	Meeting with stakeholders I. Ag. Sc., BHU	16
8	17-02-2008	Meeting with stakeholders I. Ag. Sc., BHU	14

10. Consultation/ disclosures to be done in future:

Local disclosure through mechanisms such as launch workshop, interfaces during the implementation stage of the sub-projects for sharing the results and soliciting the feed back, circulating project brochures and implementation progress from time to time, putting up the annual reports on the websites and annual stakeholders workshop wherever feasible would be done. Also to compliment the issue with e-media, print media and documentaries etc. for better awareness.



Consortium PI

National Coordinator

National Director

Annexure I: Environmental safeguard: Activities, issues, impact and mitigation measures

Activities ¹	Issues	Anticipated level of Impacts ³		Mitigation measures (Negative Impact) ⁴
		Positive	Negative	
Demonstration of improved agro-techniques on field crops and vegetables by adopting proper nutrition and plant protection.	Improved health through food chain	3		.
	Impact of use of agro-chemicals		1	Care will be taken to promote integrated pest and nutrient management practices.
	Soil fertility and Health		1	Soil analysis based application of nutrients with adequate use of organic manure and integrated nutrient management.
	Loss of biodiversity		1	To the extent possible potential local land races would be adopted
Intervention on conservation, utilization and management of water	Increased availability of water for irrigation and efficient use of precipitation through creation of water harvesting structures, Field bunding and levelling.	4		
Enhancing the productivity and health of existing livestock	Improving livestock productivity and health through disease control, balanced feeding, use of green fodder, concentrates and mineral mixture.	4		
	Waste management		1	Enhanced use of FYM in crop production and in Biogas units.
	Fodder availability		1	Plantation of multi-purpose trees for fuel and fodder on farm buds, community land and waste lands. This will also improve overall environment.

Annexure II: Social safeguard: Activities, issues, impact and mitigation measures

Activities ¹	Issues	Anticipated level of Impacts ³		Mitigation measures (Negative Impact) ⁴
		Positive	Negative	
Demonstration of improved agro-techniques on field crops and vegetables.	Enhanced nutritional security, income and overall employment	4		
	Reduced drudgery through use of appropriate technology and farm machines	2		
Intervention on conservation, utilization and management of water	Increased availability of water for multiple uses.	4		
	Social conflict in water use especially on common property.		1	The activity would be taken in participatory approach involving different farmer groups, Gram Panchayat, State level authorities
Enhancing the productivity and health of existing livestock, fisheries, <i>Tasar silk</i>	Enhanced nutritional security, income and overall employment.	4		
Establishment of processing units for seed/grain, fruits, vegetables and milk.	Enhanced income, employment and availability of better quality products through value addition.	4		
Mechanizing the process of leaf tray making, promotion of basket, candle, pickle making and fruits preservation.,	Labour employment throughout the year, out migration will be checked.	3		
	Change in occupational pattern		1	Capacity building through customized training programme and motivation through participatory approach.
	Marketing of value added products.		1	Market linkage with nearby trading centres.
Establishment of E-Kiosk in each cluster	Improving connectivity and market integration	3		
	Upgradation of skill		1	Capacity building through training.