

Live Better with the Flood - An Approach for Sustainable Livelihood Security in District Dhemaji, Assam

Environmental and Social Safeguards Management in NAIP*

(To be given as separate social and environmental safeguards Annexure while submitting the Full proposal. This will be examined by the help desk and PIU and will be dully signed by the CPI, National Coordinator of the Component concerned and the National Director)

1) Basic information :

A) Project Data

- **Statistics** (component 3)
No. of consortium partners: 4
No. of district covered: 1 in Assam
Duration: 3 years, 3 month (2009-10 to 2012-13)
Budget: Rs.290.64645lakhs
- **Project objectives** :
 - a. To improve the livelihood of the rural poor with efficient management of natural resources by enhancing productivity, profitability and diversity of farming system
 - b. To improve the delivery mechanism through skill development of the primary stakeholders on improved practices of Agriculture, Livestock, Pisciculture and Post Harvest Technology.
 - c. To develop institutional mechanism among the primary stakeholders for adopting the approaches and establishing marketing linkage for income generation activities.
- **Brief Project Description** :

This is a multi disciplinary consortium project with an aim to promote the livelihood of the rural people in Dhemaji district of Assam through innovative technology intervention involving proper management of existing resources and effective utilization of pre and post flood situation along with efficient institutional mechanisms.

Major technological interventions proposed

- Integrated model of farming system, livestock and fishery development, farm mechanization, restructuring of cropping pattern etc will be the major interventions considering three phases of flood prone situations like Pre Flood Situation, During flood (Disaster Preparedness) and Post Flood Operation
- The SLA in the different phases will be addressed through Integrated Approach based on family as a unit with back up support of institutions, training, credit, extension, insurance, value addition and market.
- Integration of natural resource management, farming system development and skill up gradation in addressing the project objectives.
- Intra system generation of input and skill.
- Introduction of value addition to the product and improved marketing for enhancing profitability and employment opportunities
- Development of Institutional mechanism for sustainability of the system

- **B) Environmental Category : B**

2) **Major Issues in the sub-project**

- Social** : The project will build the capabilities of the local people to deal better with flood and their changing characters, and finding ways for adaptive strategies for livelihood through sustainable farming practices which will be replicable, adoptable, profitable and environment friendly in flood prone conditions. The intensification and diversification of various agricultural activities along with the restructuring of cropping pattern and crop cycle management to suit the varied flood specific situation will certainly stretch the limit of the adaptive responses of the targeted communities resulting in overall socio economic benefit of the adopted district. The Integrated Farming System module for agriculture and farming system development shall contribute to the alleviation of food insecurity, malnutrition and poverty through the provision of high nutritional value food, income and employment generation. The arrangement of quality input along with support system of credit, insurance, extension and market will further add value and will act as a catalytic agent in establishing sustainable livelihood security.
- Environmental** : The project will have positive impact on environment as it will reduce the losses of crop, livestock and soil damages. Enhancement of the capacity of the communities to face the ferocity of flood and thereby living better with the flood will reduce the harmful effect of environmental changes in the locality. The Integrated Farming System in combination with crop cycle management will provide option for reduction of risk due to flood through sustainable resource management and increased farm sustainability. Integration of different enterprises, paddy, fish, livestock, vegetable, fodder where recycling of byproduct of one enterprise as input for another enterprise shall help in restoration of agricultural biodiversity along with controlling of environmental pollution besides reducing application of agrochemicals and the production cost of the food commodities.

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 disputes areas (OP/BP 7.60)		X
Projects on international waterways (OPBP 7.50)		X

* Measures to address these issues is given in 8(a)

4)	Risk related issues (not covered under 3 above but perceived to be important in the sub-project)
	Though the use of chemical and fertilizers may not be compatible in the project district but combination of these with IPM and INM may nullify the bad effect of chemicals. Further, liming for reduction of soil alkalinity will not affect the soil quality as there are changes of soil P ^H in the flood affected district. Another issue like interface with communities is also important to the subproject and measures to address this issue is given in 8(b)
5)	Impact assessment (Enclosures-I and II)
	I. A long term mechanism of development Sustainable Rural Livelihoods Security through improved farming system in combination with alternate crop cycle management in flood affected area along with the effective natural resource management will have a positive impact in the community particularly in reducing poverty and vulnerability to climate change. II. The restructuring of cropping pattern, integrated farming system, livestock & fishery development and strengthening of nonfarm sectors will generate high employment opportunities of the flood effected people and will enhance their livelihood. The project will also facilitate the income and employment generation of women farmers and will reduce their drudgery. The capacity building of the farmers will further change the income pattern.

6)	Potential indirect and/or long-term impacts due to anticipated future activities in the project areas (assessment anticipated conflict/complimentary with the current as well as those proposed for the next four years) in the areas of activities of the sub-project.
	The state line departments serve the target areas on a regular basis through its various schemes, programmes and with special packages. The govt. machinery is mostly concentrating on relief and rehabilitation work which dilutes immediately after receding of flood. Thus there is really lack of long term 'beyond the flood strategy'. The NAIP Project will mainly focus on building the adaptive capacity of the communities to live better with the flood with simple and innovative farming system with crop cycle management and other support services. As the community and local institution shall be involved in the implementation of the project from the beginning, scope of arising any conflict are minimum. Synergy will be established with the ongoing programs like, NREGS, BRGF, Horticultural Technology Mission, NFSM, Zilla Parishad through Farmer's Organization for building up institutional frame work and this will ensure conflict mitigation.
7)	Identify the key stakeholders and describe mechanism for consultation/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.
	Farmers, Govt Departments, Non Govt Department, AAU, eminent scientist, social activities and SHGs are the key stakeholders of the project. Participatory diagnostic survey, interaction with village key persons, village transects and farming system analysis was done for development of the project concept. Several rounds of interactions, with villagers, consortium partners and other stakeholders like, eminent scientists, social activists, were conducted. Based on the output of these discussions, the full proposal was developed. The process shall be continued during the implementation period and review of the project.
8	Measures to address issues
8(a)	The subproject includes following measures
	1. Environment-The main purpose of the subproject is to sustainably improve the flood affected areas and to reduce vulnerability to climate change. The screening of environmental issues have been done to include possible impacts and appropriate mitigation measures as proposed in enclosure I. II. Pest management – Use of integrated pest management (IPM) practices will minimize the use of chemical pesticides and thereby promotion of healthy environment and reduce health hazardous to the community. III. Indigenous people – During implementation of the project priority will be given to poor and marginal farmers including tribals reside in the proposed area of intervention. The knowledge of indigenous people will be incorporated & upgraded during the project period with capacity building trainings. It will enhance their income as well as nutritional status leading to a better livelihood. Indigenous people will be directly benefitted from the project.
8(b)	Interface with the communities
	Participatory planning will be adopted to select the beneficiaries including involvement of local institutions and communities. Representation from small, marginal and landless farmers, women and SC and ST group will be given preference during the process of selection. Subproject implementation plan will be prepared and shared with communities and with all stakeholders. Gender issue would be adequately addressed during planning and implementation of the project.
9	Consultation/disclosures to be done in future: Local disclosure through mechanisms such as launch workshop, annual review 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.
	Preliminary field survey has been conducted in the targeted project site. Flood related effects and situation analysis also have been conducted based on which project is found to be suitable for implementation in the area. Arrangement of need based stakeholders workshop will be organizes at the cluster level for which the local NGO will be primarily responsible in arranging the event like Project launching workshop, annual review etc. Cluster level review workshop will be organized with the help of local NGO in every year to bring out the local issues. All events of the project implementation and the results thereof will be put on the website for wide publicity and for maintenance of overall transparency.

Annexure- I**Safeguards Template for NAIP Projects****A: Environmental safeguard: Activities, Issues, Impact and Mitigation Measures**

Table 1: Environmental safeguard: Activities, Issues, Impact and Mitigation Measures

Activities ¹	Issues ²	Anticipated level of impacts ³		Mitigation measures
		Positive	Negative	
Restructuring of cropping pattern/crop cycle management	Reduced water logging	4		
Use of high yielding variety, integrated farming system, Intensification and diversification of cropping	Impact of use of chemicals		1	Field demonstration and training on INM and IPM are part of the subproject activities.
Reclamation of soil, use of organic compost in integrated manner	Improvement in soil health due to measures like liming of soil, INM and IPM	4		
Livestock /fishery development during pre & post flood situation, Pig production unit	Improved health and reduced disease due to better feed nutrition and health care	3		
Land and water resource development and protection of water resource	Increased availability of water resources, irrigation water for drinking, reduced soil erosion	4		
	Better Conservation of natural resource	3		
Storage of seeds/grains/fodder			1	Metallic storage structure

Annexure II**B. Social safeguards: Activities, Issues, Impact and Mitigation Measures**

Table 2: Social safeguards: Activities, Issues, Impact and Mitigation Measures

Activities ¹	Issues ²	Anticipated level of impacts ³		Mitigation measures
		Positive	Negative	
Crop cycle management, Integrated farming system and crop diversification	Family food and nutritional security	4		
	Enhanced income	3		
Use of high yielding variety	More dependence on external resources and		2	Promotion of sustainable community based organization like SHGs with the practice of savings and thrift will help in generating internal resources
Livestock and fishery development. Credit and Insurance support. Extension support from Barefoot worker	Enhanced income, and employment	4		
	More dependence on external resource		2	Promotion of sustainable community based organization like SHGs with the practice of savings and thrift will help in generating internal resources
Disease prevention care of livestock	Improved health and safety	4		
Protection of existing land and water resource	Enhanced income pattern	4		
Farm mechanization	Reduced drudgery	3		
	Unemployment of farm labour		1	Custom hiring centers would be set up to train the farm machines and earn income
Value addition of agriculture produce	Enhanced income	3		
Marketing	Enhanced income	4		