

**Sustainable livestock based farming system for livelihood security in Hoshiarpur district of Punjab (Proponent: GADVASU, Ludhiana)
Environmental and Social Safeguards Management**

No. of States / UT covered : 1 (Punjab)
 No. of Districts covered : 1 (Hoshiarpur)
 Number of beneficiary farmers : 800
 Duration : 4 Years (2008-09 to 2011-12)
 Funds sought from NAIP : Rs. **400.96** lakhs
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Consortium Partners

S. No.	Consortium Partner	Name of the Co-PIs	Designation	Full address with Phone, Fax and e-mail
1.	PAU, Ludhiana	Dr S C Sharma	Director	Regional Research Station of PAU for Kandi Area, Ballowal Saunkhri District Nawan Shahr (Punjab) (M) 094172-41604
2.	Dairy Development Department, Punjab	Mr. Jaswinder Singh Mann	Deputy Director (HQ)	Deputy Director Dairy Development SCO:1106-07 Sector: 22-B, Chandigarh Ph 0172-2700055 Email: jsmannpddb@rediffmail.com
3.	The Unati Co-operative Marketing-cum-Processing Society Limited, Talwara.	Mr Jyoti Saroop	President	Main Market, Talwara PO: Talwara Tehsil: Mukerian District: Hoshiarpur Ph.:94170-36707

Project Objectives:

- Enhancement in the productivity of animals through adoption of some improved interventions
- Promotion of agro-forestry with fodder trees and medicinal plants
- Processing and marketing of various products.
- Development and training of SHGs for sustainability of various enterprises
- Socio-economic impact of various interventions on employment generation

Brief Project Description

Hoshiarpur district has two distinct regions namely *Kandi* area and plain area. *Kandi* area is comprised of 4 under-developed and 3 developed blocks whereas plain area has developed blocks. The project is proposed in the under-developed blocks of *Kandi* area. Dairy farming is the most common occupation in the area with 68% of the population engaged in this activity followed by agro forestry (27%). Total area of the target blocks is 124518 ha with area under forest varying from 6.62% to 52.29% for different blocks. Estimated net income from livestock farming and crop cultivation are Rs 5689 and Rs 2793 per annum per farm respectively. Contribution of women in total family income is about 36%. Total population of the area and livestock population are 368923 and 165232, respectively. SC population varies from 16 % to 47 %. The per capita income, milk production, fodder availability in the target areas are much lower than that of the whole district and the state. Lack of organized marketing channels, value addition of livestock and other produce, negligible training facilities are some of the major constraints in the area.

Interventions Proposed :

- Production of improved dairy animals through use of superior indigenous/ Jersey/ HF cattle and buffalo bulls/semen and increased coverage of artificial insemination
- Supplementation of mineral mixture, feeding of uromin licks and fermented dry fodder blocks after supplementing with complete ration and mineral mixture to improve production and reproduction.
- Cultivation of Guinea grass and hybrid Napier bajra for increased availability of green fodder.
- Vaccination, deworming and other health management practices of different livestock species.
- Stall-feeding of goats with limited grazing.
- Strengthening of agro-forestry with fodder trees like *subabul* etc. and medicinal plants like *Amla/ Bill/ Neem/Harar/ Bahera* in the selected villages.
- Organization of Self Help Groups (SHGs), cooperatives and lead farmers and their training programmes.

Environmental Category: B

2. Major environmental and social issues in the subproject

Social: Major social issues likely to arise on implementation of the projects are –

- 1) Inclusion of poor and disadvantaged groups
- 2) The capacity of farmers to adapt and sustain the productivity gains

3) Demonstration of economic benefits of the interventions

Only the small and marginal farmers have been included in the list of beneficiary families. These families will get different inputs at subsidized rates depending on the year of the project. However, the other families of each village can also get benefit from different interventions of the project, thereby minimizing the discrimination in the selection of beneficiary families.

The beneficiary families have been selected based upon their previous occupations. The introduction of different interventions will depend upon their previous occupation, thereby, increasing the chances of adapting and sustaining the productivity gains.

When the beneficiary families will get the productivity gains and the inputs provided will be reduced gradually, they will automatically demonstrate the economic benefits of the interventions to other non-beneficiary families of the area.

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

1. Protection of local biodiversity resources
2. Impact of use of agro chemicals on environment

The project is not likely to have any adverse environmental impacts on the project area and instead will have beneficial impacts through environmentally sensitive interventions, which will enhance the ecosystem of the project area. Since most of the technologies are low external input based and having potential to increase the productivity of livestock, these will be managed socially by the user groups and thus will not impose any burden over environment. Any adverse impact of the project on the environment will be minimized through the optimum use of natural resources. The project has been developed as a holistic approach by adopting an integrated farming system with focus on diversifying income streams leading to increase in overall livestock productivity and reduction in over exploitation of natural resource base. The project will promote cultivation of multi-cut Guinea grass and Napier bajra, maize and fodder tree plantation that will have positive impact on the vegetation cover in the project area and this will increase the supply of fodder for sustainable livestock development. Sustainability of the project on long term bases is integrated with the activities by way of resource improvement, generation of better germplasm, capacity building and social upliftment. Efficient development of farmer groups into SHGs will help in sustainability and proper management of the project in future.

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]

4. **Risk related Issues (not covered under 3 above but perceived to be important in the sub project):** No such issue is there

5. Impact Assessment

A. Environmental Safeguard: Activities, Issues, Impact and mitigation Measures

Activities	Issues	Anticipated level of Impacts		Mitigation Measures (Negative Impact)
		Positive	Negative	
Enhancement in the productivity of animals through adoption of improved interventions	Enhanced livestock biodiversity through use of superior quality semen	3		
	Waste disposal		1	The dung produced will be utilized as farm yard manure and for compost making / vermin-composting
Promotion of high yielding varieties	Loss of soil nutrients		1	Livestock farming will enrich the soil through organic manure
	Increase in productive vegetative cover	3		
	Increase in agricultural waste		1	Agricultural waste will be used as livestock fodder after enrichment through natural fermentation
	Effect on human health through food chain	3		
Use of fermented dry fodder	Effect on human health through food chain	3		
Strengthening of agro-forestry	Increase in productive vegetative cover	3		

B. Social Safeguard : Activities, Issues, Impact and mitigation Measures

Activities	Issues	Anticipated level of Impacts		Mitigation Measures (Negative Impact)
		Positive	Negative	
Mechanization of crop cultivation	Reduced drudgery	3		
	High Investment		1	Cost effective technology, training on use, operation and maintenance
Formation of SHG's, FBG's & Producer Company	Economic empowerment	3		
	Social conflicts		1	Participatory approach, Adequate capacity building would be done, involvement of panchayats , village level committees etc
Introduction of value addition, PHT etc	Enhanced income, employment generation	3		
	Change in occupational pattern		1	Participatory approach, Adequate capacity building would be done

6. Potential indirect and / or long-term Impacts due to anticipated future activities in the project areas (assessment of anticipated conflict / complimentary with the current as well as those proposed for the next five years) in the areas of activities of the sub-Project)

- Enhancement in production level (at least 50%)
- Decrease in calving/kidding interval (by 3-4 months)
- Decrease in losses due to mortality of livestock (by 60%)
- Enhancement in farm income by 50 per cent or more
- Employment generation: Self-employment of at least one family member of the beneficiary families and about 300 in the service sector including procurement, processing and marketing of inputs and produce
- Organized procurement, processing and marketing network
- Empowerment of farm women and weaker sections

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

- Implementation of the project in consortium mode is proposed with partners already working in identified areas, have inherent advantages of linkages with other programmes undertaken by them. Linkages were established with district level development agencies like Soil Conservation Department, Punjab Remote Sensing Centre, Punjab Animal Husbandry Department, Punjab Dairy Development Department, and projects like IWDP, and NABARD

Two meetings were conducted and personal contacts were established to generate the basic information and plan the future strategies.

8. Measures to address the issues

8a)

1. **Environment-** The screening of environmental issues has been done to include possible impacts and appropriate mitigation measures or employed (enclosure I)

2. **Pest management** –Field demonstration and farmers training on IPM are an integral part of the sub project
3. **Indigenous people** – Indigenous people will be benefited from the on-going project as well as uptake plan after the completion of the project as a Research-cum-Training Centre of GADVASU is being established at Talwara.
9. **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 web site and annual stakeholder workshops wherever feasible**

Linkages will be established with District Development implementing agencies. Bench marking and other project activities will be shared among stakeholders through launch workshop, yearly review workshops, mid-term workshop and concluding workshop. Effective linkages for input – technology – product consumption chain has been devised with dedicated agencies like *Unati* (an NGO), KVK, Bahawal and Punjab Dairy Development Department. Effective websites, print media, e-media will also be made use of.

Consortia PI

National Coordinator

National Director