National Agricultural Innovation Project (NAIP)

Title of the Project : **Sustainable Livelihood Improvement through Need Based Integrated Farming System Models in Disadvantaged Districts of Bihar (Approved project under component-3 of NAIP)**

(Approved vide letter no. NAIP (SRLS-S)III-18/2007 Dated the 31st March, 2008)

Project Code : **NAIP** (SRLS-S) III-18/2007

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Out of the total 150 disadvantaged districts of the country identified by the Planning Commission, 15 districts are located in Bihar. The project operates in 4 such districts namely Munger, Vaishali, Samastipur, and Darbhanga. The selected disadvantaged districts are mainly facing the challenges of water resource development and management, frequent floods and water logging especially in North Bihar. The problems is also accentuated due to rampant soil erosion, frequent droughts, lack of quality livestock and good husbandry practices, under-exploitation of water endowment for fisheries and under utilization of untapped agri-based alternate income generation. Besides these bio-physical constraints and limitations, there are number of socio-economic and infrastructural shortcomings such as limited location-specific technological know how, unavailability of quality agricultural inputs, small and fragmented land holdings, lack of extension and poor delivery system, weak local institutions and poor infrastructure development. It is endeavoured to plan, design and implement appropriate land and water-centric and location-specific livelihood options through Integrated Farming System models with a potential for up-scaling to mass rural communities in the region.

The major interventions included in the project are enhancing access to groundwater for poor and marginal farmers, fisheries enhancement through fish culture in pens and cages in

chaur lands, Multiple uses of water (in tube- well irrigated low- productive system & in water congested/flooded lowlands), Animal based integrated farming system in watershed, Sugarcane-Fish based farming system in shallow *chaurs*, introduction of Makhana + Fish System in flood-prone ecosystem, introduction of mushroom production, promotion of bee keeping and vermi-composting and providing value-chain to the farmers.

The basic premise of the proposed project is to generate location-specific knowledge and better understanding of complex farming system approaches in partnership with NARS, CG Centres, NGOs and Civil Societies. This, in turn, would lead to new products (technologies, institutions, management or policy recommendations), and will have impact on livelihoods at local level. The project proposes to address farmers' centric livelihood security based on farmers' resources and perspective. The project is proposed to be implemented in the four disadvantaged districts of Bihar at the 7 selected clusters/sites in a participatory bottom up approach through a consortium of ICAR-RCER, RAU (SAU), other ICAR Institutes, CG Centres such as IWMI & IFPRI and a nationally recognized credible NGO. The farmers' participation will be ensured right from planning and implementation to marketing and final achievement of target to make it sustainable and acceptable to cross section of society with special focus on small and marginal farmers, share croppers and landless agricultural labourers. At each cluster level, local alliance is proposed to have a linkage with wider group of constituency and stakeholders beyond the selected site for free flow of ideas, exchange of views, publicity of the work, strengthen linkages and wider dissemination of the work and dialogue process. These Local Alliances will federate into the Regional Level Alliance. Involvement of State agencies, district authorities, and existing rural institutions will be sought right from planning, design and site selection, implementation, capacity building and up-scaling.

The proposed paradigm of research and development for improvement of agriculture and livelihood options will be achieved through capacity building of all the stakeholders including farmers and rural community, researchers, development agencies, and NGOs. The project proposes to improve the human as well as institutional capacities through biophysical, social, economic and institutional interventions to bridge poverty gaps and develop suitable policy recommendations.

Consortium Partners:

S. No.	Name of consortium partners
1	Rajendra Agricultural University, Pusa, Dist.- Samastipur (Bihar)
2	Central Inland Fisheries Research Institute, Barrackpore, West Bengal
3	BAIF (Bihar Programme)
4	Central Potato Research Station, Patna
5	International Water Management Institute (IWMI)
6	International Food Policy Research Institute (IFPRI)

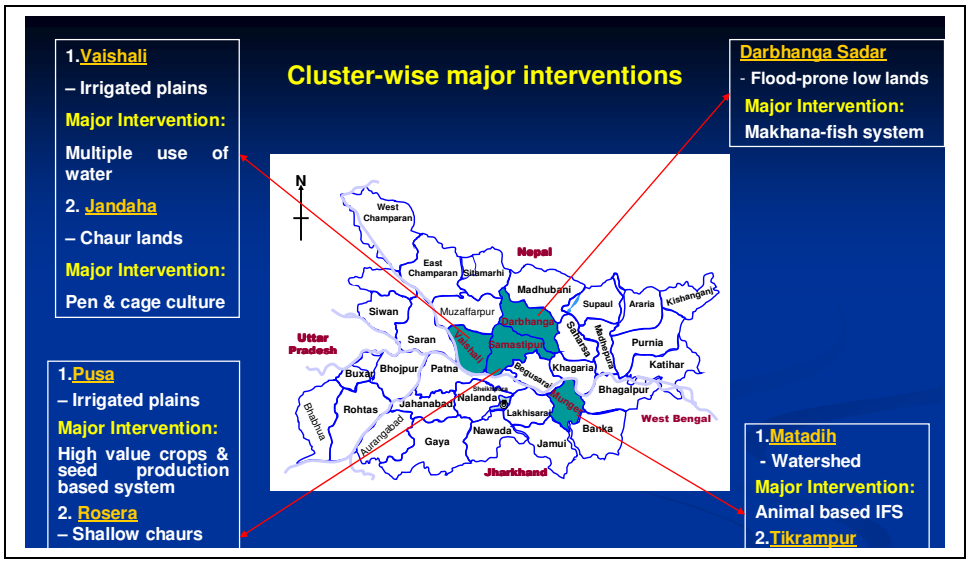
Objectives:

- Participatory development, demonstration and validation of location-specific Integrated Farming System models for livelihood improvement.
- Identify and empower resource poor farming communities for enabling sustainable livelihood security.
- Building partnerships, linkages and local institutions for livelihood improvement and its up-scaling to similar agro-ecologies.

Duration : 4 years (2008 - 2012)

Budget Outlay : Rs. 710.29 lakh

Operational Area : Vaishali, Samastipur, Darbhanga & Munger Districts of Bihar, includes Clusters-7, Villages-1610, Area -695 ha.



Overall Work Programme:

1. Development validation and promotion of mainly aqua-based integrated farming systems models in the flood prone, low land water logged areas of Bihar in participatory mode including other income generating farm based activities to improve the livelihood of the people of the project area.
2. Federation of SHG/CBOs for ownership of common pool resources and establishing linkages of federation with R & D institutions, input-output agency, financial institutions, marketing agencies and industries, ATMAs and on-going developmental programmes (Horticultural Mission, DPAP, ISOPAM, NREGS, Macro mode scheme etc.)
3. Capacity building of farmers through exposure visits & travelling workshops, awareness camps, field days, demonstrations etc.
4. Developing institutional arrangement and rural service delivery system
5. Making policy recommendations and its advocacy

EXPECTED OUTCOME/IMPACT /DELIVERABLES

The project will lead to the following measurable outcomes:

- Crop and land use diversification achieved with increase in crop diversification index by 30 percent.
- Increase in area and number of farmers/stakeholders under multi-enterprise integrated farming system by 50 percent in the target area by end of the project.
- An overall increase in farm productivity (i.e. crops, fruits, vegetables, livestock, fish) by about 25 percent in target area.
- Enhanced employment generation by 40 percent.
- Improved income generation by about 30 percent in target areas.
- Improved access of poor farmers and farm women to knowledge, credit and natural resources
- Self-employment opportunities increased by 10 percent in target areas.