

New Project Proposal
Farmer FIRST
Enriching Knowledge - Integrating Technology

Indian agriculture embraces diverse actors in its endeavour to feed 1.21 billion people. The small, marginal & landless farmers are extremely vital for food security as land holdings are shrinking day by day. The contribution of women farmers is also immense particularly in on farm operations, harvesting, post harvest management, savings and in other activities especially in horticulture and animal husbandry sector.

In today's scenario innovation in agriculture is key to address growing challenges. The innovations in agriculture from scientists of NARS to Farmer Innovators need to be validated, integrated and scaled up. The innovation-development process consists of all the decisions, activities, and their impacts that occur from recognition of a need or problem, through research, development, and commercialization of an innovation, through diffusion and adoption of the innovation by users.

There are many agencies other than public organizations and various kinds of public-private-farmers partnerships. Earlier farming was an adapting performance. Participatory approaches and processes were central. Relationships and interactions are seen more important. Partnerships like public-private, multi-stakeholder partnership etc, and collaborations like co-management, co-breeding, co-creation, co-evolution, co-development, etc. have emerged in present day context.

Learning of different kinds has been evolved- interactive, experiential, alternative, etc. Now concern is not only with capacity building but with mind sets, perceptions, priorities and realities.

About the project

There is growing perception that the emerging demand of the farmers about the recent technological and institutional needs are not adequately addressed. Also many times, research system is not getting adequate feedback to plan and conduct demand driven research thereby, a huge gap exists in the quality of research output required at the farm level and that being developed. It is also being perceived that the research system should play a pro-active role in reaching to the farmers for getting first hand information, farmers' perceptions, feed back on generated technologies and develop new more appropriate processes, methodologies and technologies for diverse farm environments.

In the past ICAR led in responding the contemporary challenges and other issues of Indian agriculture whether it was Green Revolution (complimented with National Demonstration, 1964), upliftment of small & marginal farmers (complimented with Lab to Land Programme, 1979), watershed development, soil improvement, crop protection, focus on weaker section (complimented with Operational Research Project, 1974), technology assessment and refinement (complimented with IVLP, 1995), etc., its response was timely and need based. The

Initiatives of NAIP have extended the efforts towards improving rural livelihood of farmers living in less favoured, marginal or more complex environment.

The new proposed project – 'Farmer FIRST' is an ICAR initiative to move beyond the production and productivity and to privilege the complex, diverse & risk prone realities of majority of the farmers through enhancing farmers-scientists contact with multi stake holders-participation. Many aspects are multiple or multi; multiple stakeholders, multiple perspectives, multiple realities, multi-functional agriculture, multi-method approaches. There are concepts and domains that are new or new in emphasis like food systems, trade, market chains, value chains, innovation pathways and most of all innovation systems.

'Farmer FIRST' aims at enriching farmers-scientists interface for technology development and application. It will be achieved with focus on innovations; feedback; multiple stakeholders participation, multiple realities, multi method approaches, vulnerability and livelihood interventions.

The project is conceptualized to deal with focus on :

i) Enriching Farmers –Scientist interface

Enabling involvement of researchers for continuous interaction with farm conditions, problem orientation, exchange of knowledge between farmers and other stakeholders, prioritization of problems and setting up of research agenda.

ii) Technology Assemblage, Application and feedback

Integrating components of technology for application in different agro-ecosystems with focus on innovations and feedback.

iii) Partnership and Institutional Building

Building partnerships involving different stakeholders; development of rural based institutions; agro-ecosystem and stakeholders analysis and impact studies .

iv) Content Mobilization

Using the platform of the project having commodity institutions as partners to develop commodity specific contents for e-enabled knowledge sharing.

Objectives

The specific objectives are:

1. To take up technology development based on feedback with the participation of farmers and landless for enhancing production, productivity, income and equitability of the households.
2. To build a network of linkages with different entities around the farm house holds viz., technology institution, input support system, market, etc. for facilitating access of information, technology and marketability of produce for higher returns.

3. To find out the technical, socio-economic and environmental impact of the project to develop a database on performance of NARS technologies; perception of the farmers on technologies; agriculture as a profession in the rural settings; migration, etc.
4. To identify and integrate economically viable and socially acceptable entrepreneurial activities as models of enhanced earnings to the farmers in different agro-ecological situations.
5. To initiate special modules for farm women to enhance their participation in agricultural activities for higher earnings and livelihood security.
6. To utilize the strength of the technology institution (partners) to develop **commodity specific contents** for knowledge sharing among various stakeholders specially farmers.

Priority interventions by participating institutions

ICAR Institutes (multi-commodity focused)	Directorates/NRCs	National Bureaus	SAUs/CAUs	KVKs
▪ Research problem identification and prioritization	▪ Research problem identification and prioritization	▪ Create public awareness	▪ Research problem identification and prioritization	▪ Research problem identification and prioritization
▪ Technology assessment and refinement	▪ Collaborating with one/more SAUs/ICAR Institutes for covering other aspects of technology requirement for the particular areas	▪ Human resource development	▪ Technology assessment and refinement	▪ Technology assessment and refinement
▪ Development of household specific technology modules	▪ Technology assessment and refinement	▪ Collaborating with KVKs and regional research stations of ICAR/SAUs	▪ Development of household specific technology modules	▪ Development of household specific technology modules
▪ Development of information system	▪ Development of household specific technology modules	▪ To identify, collect and characterize genetic resources in the area in collaboration with partners	▪ Development of information system	▪ Development of information system
▪ Creation of database	▪ Development of information system	▪ To develop information network	▪ Creation of database	▪ Creation of database
▪ Content mobilization	▪ Creation of database	▪ Recognize efforts of farmers and others in genetic resource preservation and development	▪ Content mobilization	▪ Content mobilization
▪ Orientation of students to field situation (for deemed universities)	▪ Content mobilization	▪ Creating linkages with all the Farmer First projects team for	▪ Orientation of students to field situation	▪ Collaborating with one/more SAUs/ICAR Institutes/ATMA for covering

only)		creating database		important technology requirement for the particular areas
▪ Field orientation of all the scientists as part of their job chart	▪ Field orientation of all the scientists as part of their job chart	▪ Suitable reward and recognition	▪ Field orientation of all the scientists as part of their job chart	▪ Establishing linkages with line departments and private agencies in the project area
▪ Involving its regional centers for larger farmer-scientist interface	▪ Involving its co-operating centers for larger farmer-scientist interface		▪ Involving its regional centers for larger farmer-scientist interface	▪ On-site input production and management
▪ Collaborating with one/more SAUs/ICAR Institutes for covering other aspects of technology requirement for the particular areas	▪ Establishing linkages with line departments and private agencies in the project area		▪ Collaborating with one/more SAUs/ICAR Institutes for covering other aspects of technology requirement for the particular areas	▪ Conducting field studies on socio-economic perspective and impact evaluation
▪ Establishing linkages with line departments and private agencies in the project area	▪ Conducting field studies on socio-economic perspective and impact evaluation		▪ Establishing linkages with line departments and private agencies in the project area	▪ Suitable reward and recognition
▪ On-site input production and management	▪ On-site input production and management		▪ On-site input production and management	▪
▪ Conducting field studies on socio-economic perspective and impact evaluation	▪ Suitable reward and recognition		▪ Conducting field studies on socio-economic perspective and impact evaluation	▪
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Major milestones

- ICAR Institutes to work with 1000 farm-families at one location involving 2-4 villages.
- Engaging 25% time of each scientist for farm and farmer oriented activities.
- The project team may undertake number of visits as and when required. However, other scientists of the Institute to undertake required number of visits of the project site in a year and get involved in different project activities related to problem identification, prioritization, technology assessment, refinement, technology development, input production and management and impact assessment.
- Participation of project team and institute scientists at institute, village, district and state level interfaces with farmers and other stakeholders.
- Directory of prioritized problems and development of technology modules with farmers participation.
- Awareness and capacity building of farmers and other stakeholders in important areas concerning agriculture and allied sectors.
- Production of farm level technology inputs.
- Socio-economic development of farm-households.
- Development of database, information system and rural based institutions for technology, input, market and product management.
- Creation of network for germplasm collection and characterization.
- Development of strong linkage of NARS vis-à-vis farmers, development departments and other agencies.

Project Implementation, monitoring and evaluation

- 93 ICAR Institutes, 20 SAUs, 1 CAU and 8 KVKs
- NAARM, NCAP, IASRI, DKMA to provide process and methodological support, database creation and regular assessment & impact evaluation
- Monitoring by Division of Agricultural Extension