



DFID Natural Resources Systems Programme

### Policy Brief Theme 3

## New approaches to participatory technology development

Reforms in agricultural extension policy are signalled under the 10<sup>th</sup> 5-Year Plan. The New Policy Framework for agricultural extension envisages that ***‘Demand-driven extension mechanisms will be created, by providing farmers with access to linkage mechanisms through which they would be provided all relevant information/data to help them articulate their problems and needs with reference to their production and marketing plans.’*** Further, the framework envisages a policy environment that will ***‘Promote private extension to operate in roles that complement, supplement, work in partnership and even substitute for public extension.’***

Programmes for the delivery of rural services that can reach the poor and socially disadvantaged whilst not excluding other clients are needed. This reach must be achieved in situations where typically an extension officer has to serve more than one hundred thousand individuals<sup>1</sup>.

A widely promoted idea is that ‘participatory’ approaches offer a way forward, the argument being that participation in decision making enables intended beneficiaries to have a say in the shaping of programmes that affect them.

In parallel to this emphasis within development programmes, scientists were encouraged to engage directly with their beneficiaries through participatory research. The participatory research approaches developed in response are typically characterised by high transaction costs. They have proved unsustainable without significant external sources of funds.

Given this, our research sought to develop and test methods to stimulate technology evaluation, adaptation, and development, which were inclusive of the poor and socially disadvantaged,

and could be operated effectively on a development scale.

Our approach differs from typical models of participatory technology development in the following ways:

- It is preceded by social and community development activities supported by local volunteers. Initial activities focus on livelihood development, strengthening social and human capital, and encouraging savings and loaning activities within self-help groups (SHGs)
- It involves simple data collection and management systems
- It is non-deterministic and supports exploration of any livelihood opportunities perceived by an individual
- Rather than relying on prioritisation and definition of technology development priorities or objectives it stimulates experimentation through provision of broadly targeted information, ideas and support where requested.

Our key findings are:

- Current Government policy and programmes favour the land-owning farmers
- Spending patterns, determined by analysing information from the SHG databases, together with simple scoping visits by scientists are sufficient to target promotion activities (including information on and demonstrations of research-generated technologies) and can be a substitute for the resource-intensive processes of problem identification and technology prioritisation using conventional participatory rural appraisal techniques

<sup>1</sup>Reaching these potential customers and enabling them to realise their potentials is a major challenge facing those involved in research and extension. Take for example the district of eastern Uttar Pradesh, an area where the project is in operation. There are 1,207 villages in the district. There are 13 Agriculture Extension Officers in the entire district with responsibility for providing information to the villagers. Total rural population in the district is 1,593,461. On average one extension officer is providing or doing extension activity with more than 125,000 people living in rural areas. Further, there are 60 scheduled and rural bank branches in the district. On an average one branch has to deal with nearly 26,000 people.

- Experimentation, technology adoption and suitable modification can be stimulated without scientists being required to take a central role and without taking recourse to subsidised intervention
- It is important not to presume what information is relevant to whom
- Rather than trying to introduce a 'new technology' to poorer groups it is often more effective to build upon the existing interests of the group
- Local professionals / entrepreneurs emerge seeing opportunities for 'delivery of services to the door'. These services include provision of information, access to agricultural inputs and credit
- Existing service providers become involved in the research and rapidly establish links with farmers they previously ignored as potential customers.

These findings suggest that the opportunities do exist to lower the costs of participatory technology development.

Focusing on social development, provision of relevant information and the involvement and development of local professionals providing service delivery led to a change in the role of scientists and other technical experts in the projects. Rather than leading or initiating interventions they began to operate as a resource in 'consultancy mode' acting in response to an expression of demand from an interested group.

This approach to stimulating 'participatory research' led to a wide range of innovation and experimentation around the key ideas or technologies that were broadcast. Often the routes followed were not those that scientists would have recommended. This non-deterministic approach appears to enable more effective engagement across the project's intended beneficiaries.

To enable these opportunities to be further explored and tested, and these findings to be more widely implemented, it is necessary to challenge the conventional approaches to research and development. Change will require both policy support and programmes that enable and encourage new ways of working.

These should recognise that:

- Institutional innovations and understanding of 'the process' are equally or more important than technical innovations and knowledge if the livelihoods of rural poor are to increase
- If this knowledge is to be of value in the development process, not only do agricultural research organisations need to think about how to generate these kinds of experiences, they must also document, analyse and communicate these lessons
- Research needs to be on the appropriate scale and involve relevant partnerships
- The kinds of interventions made by the project are not within the capacity of any single organisation. A partnership between research and non-research partners, those involved in rural development, and between actors with varying focus and capacity is required.

The project provided a learning platform for actors with different perspectives to share and contribute to a common objective.

The aims of this project to achieve beneficial livelihood outcomes, together with the non-deterministic approach adopted, led to a wide set of actions and diverse impacts on livelihoods. In addition to the findings with relation to the process, such shifts imply a major change in how the impacts of such programmes are judged.

Conventional agricultural research goals and objectives are set in terms of outputs. As is the case with many development and research projects, these are typically judged and monitored by their disbursement of inputs or activities (value of credit disbursed, value of loans, meetings held) or output (areas under a particular crop, yield, numbers of pieces of equipment distributed, technologies developed, linkages made, etc.). These measures presume that beneficial livelihood outcomes will follow, and therefore this is rarely explored (except with macro-economic data).

Our experience demonstrated the benefits of research strategies that shift the emphasis to the delivery of development/livelihood outcomes.

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