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Involving resource-poor farmers in agricultural extension

S. K. Pradhan

· Introduction

Conventional agricultural research and extension did not seem to benefit the smallholder farmers in the risk prone areas in the state of Tripura, India. The land consists of undulating hillocks, and extension and development activities did not seem to percolate into these communities. The scientists and field extensionists of the Kriki Vigyan Kendra (KVK) Farm Science Centre attributed this to:

- the gap between local practices and the technology packages advocated by KVK;
- local dependency on external institutions and subsidy; and,
- local expectations for physical inputs, such as seeds, fertilizers, animals and feed.

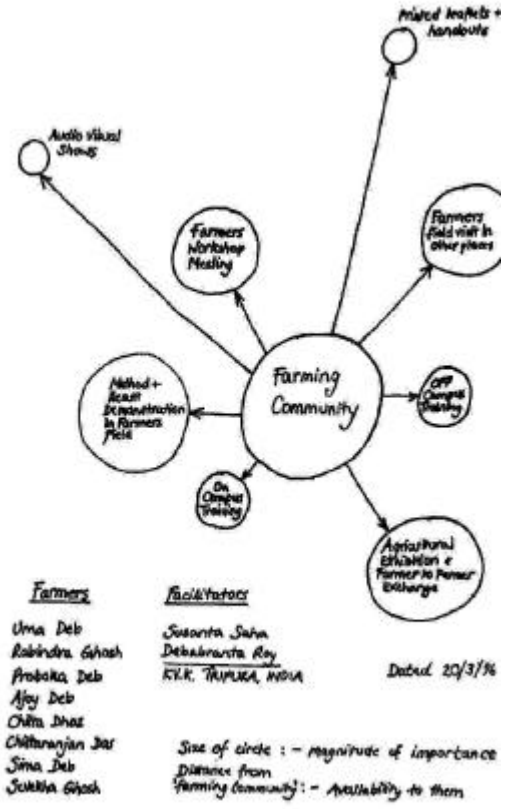
Extension and development programmes are designed to address farmers' problems. But the extension scientists may not have adequate knowledge of the farmers' circumstances and needs. Perhaps the real problem lies in the approach itself. The rich experience of the farmers, their innovations and 'age-old' practices in handling the environment are often not given any importance.

Thus we used PRA to emphasise the involvement of the local farmers in every stage of decision making, from identification of problems through to collection of data analysis and planning. The following two examples demonstrate how agricultural extension and development activities were improved in Tripura through using a participatory approach.

Improving extension through Venn diagramming

The K.V.K is meant to serve as a 'light house', to guide the progress of the farmers and the research scientists. In terms of extension services, it is important to use the right media and methods to get extension messages through to farmers. We used Venn diagrams with different groups of farmers to understand how useful various extension activities undertaken by K.V.K were for them (see Figure 1).

Figure 1. Venn diagram of the effectiveness of extension efforts



Source: PLA Notes (1997), Issue 29, pp.15–18, IIED London

Figure 1 shows that the most important extension method for farmers (depicted by the largest circle) is demonstration plots in their fields. This is followed by workshops and meetings, field visits and farmer-to-farmer exchange programmes. Least important are training programmes, audio-visual shows and printed leaflets.

The distance between the circles in Figure 1 depicts how available the method is to farmers. It shows that training opportunities are more available than other activities. But activities which are prepared at the Centre for farmers, such as audiovisual shows, handouts and leaflets, are neither readily available nor important to them. PRA tools helped us to modify our extension approach so that the right methods and media were used that interested farmers and could get the information to them efficiently.

Historical matrices and projects

Many development projects have been implemented in Tripura to improve the traditional practices of shifting cultivation. Historical matrices were used to help understand the reason for the success or failure of previous development schemes. Table 1 suggests there is little to show for the previous development activities. People have used the project means for their own ends.

In general, the loans were seen as a 'subsidy' and were not valued by the farmers. Political leaders often encouraged them not to repay the loans in exchange for their votes. This created a local perception that it was the farmers' right to get 'free' money because they are eligible voters.

Table 1. A history of development activities and comments

Location	Year	Dept.	Programme	Amount in Rs	Purpose	Present Position	Comments
Binay Krishna Jamatia	1992	Co-Operative Bank	Animal Husbandry	-	2 calves	calves sold	used the proceeds on house hold expenses, believed that the amount need not be returned since it was a govt subsidy
Pradip Tripura	1991	State Bank	Integrated Rural Development programme	12,350	piggery 10 pigs	no pigs	sold pigs, with the proceeds bought land for agriculture
Nagger Basi Tripura	1991	State Bank	Integrated Rural Development Programme	8,950	piggery 10 pigs	no pigs	sold pigs, the proceeds have been used for household expenses
Sukan Chandra Tripura	1991	State Bank	Loan mela	12,350	piggery 10 pigs	no pigs	purchased bullocks with proceeds from the sale of pigs, for agricultural purpose
Nikhil Chandra Jamatia	1988	Corporation	Tea shop	7,000	Tea Shop	nothing	More credit than cash sale - no recovery

Source: PLA Notes (1997), Issue 29, pp.15–18, IIED London

Table 2. Changes in action plans

Location	Items as per earlier plan	Items as per proposed plan
Zerkumar Tripura	• exotic pigs 3F & 1M • balanced concentrated feed up to first furrowing	• Bullock one pair • Goat 4F &1M • 10 indigenous poultry birds
Dayalaxmi Tripura	• exotic pigs 3F & 1M • balanced concentrated feed up to first furrowing	• indigenous cow -1 • indigenous poultry and ducks (10 each) • horticultural crops
Athoi Mog	• exotic pigs 3F & 1M • balanced concentrated feed up to first furrowing	• indigenous cow -1 • inland fisheries • 3 indigenous pigs with local feed
Chou Mog	• exotic pigs 3F & 1M • balanced concentrated feed up to first furrowing	• 1 indigenous cow • 1 pair bullocks • inputs for paddy cultivation

Table 1 suggests that the development schemes were different from the farmers' needs and choices. In most cases, the physical inputs of the project, such as the cows, were sold to buy an alternative product. The size and type of enterprise provided were not matched with the local farmers' abilities and capacities.

Further discussion revealed that the quality and quantity of inputs and their untimely supply were contributed to failure. Apart from project-led failure, some farmers expressed that their lack of skills also contributed to the downfall of the activities.

In the light of the findings of the historical matrices, planning exercises were used to follow up proposed new projects. An important outcome of this exercise was an attitudinal change: a self-help group was formed to help the communities develop their future activities in a more sustainable manner. Table 2 shows the radical change in the action plans of activities to be undertaken in one project.

In the previous project, the needs assessment was completed with a questionnaire survey. As most of the tribal families maintain indigenous pigs, the planners included exotic pigs in development projects. They believed that the participating families would earn more money and thus the family would be able to sustain and continue the activity. However, while some farmers prefer exotic varieties, others prefer indigenous varieties. This depends upon their resources and capacity. Most people rear one or two pigs at a time using local feed purchased on a shared rearing system. PRA was used to give them the option to plan the development activities through the self-help group and develop a repayment schedule made by them as per group consensus. Immediately the farmers shifted from exotic pigs to other items. There was great diversity in the enterprises chosen to ensure returns.

· Changes observed

Although this is just the beginning, various positive signs are being observed amongst the participating farmers, scientists, extensionists, development workers and the project. The following changes were observed during and after the PRA exercises:

- a change in attitude, away from seeing subsidies as derived from external institutions towards using their own efforts together with those of external agencies;
- a sharp increase in participation in all activities and partnership decision making process for sorting out problems; and,
- formation of a local institution for organising farmer-led research programmes.

The quality of the PRA gradually developed through time. It was initially difficult to bring together different political groups because of the high level of political consciousness within the community. It was also difficult to conduct

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PRA exercises in areas where farmers were used to subsidies and handouts.

· Conclusion

Although it is just a beginning, we increasingly feel that a more participatory approach has reduced many of the bottlenecks and poor performance associated with previous projects. This has improved our progress towards the project objectives. It is felt at all levels, from the farmers to volunteers and project personnel, that the approach and methodology has had an enormous effect on the development process. We have improved our extension approach and learned from the past to improve the development process.

- **S.K.Pradhan,** Training Organiser, Krishi Vigyan Kendra, P.O.Chebri, Dist.-Tripura (West), PIN -799 207, India.

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