

# 16



## More Is More

Validating rice varieties with NGOs and poor farmers

Musherraf Husain

---

### SUMMARY

New rice varieties could raise yields and improve poor farmers' quality of life, yet most have little or no access to them. Traditionally, the Department of Agricultural Extension (DAE) presents just two or three new rice varieties, and only to larger farmers, so adoption rates are low. The Bangladesh Rice Research Institute (BRRI) assumes that those varieties are good for a specific region, based on its own understanding of the varieties. But in this project, BRRI improved the validation and adoption of new varieties by presenting more of them, and by collaborating with NGOs to work with poor farmers with a farm size of less than 0.6 ha or less than 9 months of rice-provisioning ability. During a group discussion, each farmer selected a variety to test in his or her own field and received training. The fields were near each other and marked with signboards, so visiting farmers could easily make comparisons. Local staff from the DAE facilitated the training and field days with the NGO. This partnership allowed female farmers to also judge the new varieties. Adoption of the varieties was higher than before, with farmers adopting 3-4 out of the 8-10 new varieties. Once farmers identified an interesting new variety, they disseminated it themselves. Poor people can be early adopters of new rice varieties. Collaboration between DAE and NGOs opens new doors for validating and disseminating both modern and promising local varieties.

## ACTORS AND NETWORKS

BIRRI's Adaptive Research Division is charged with finding new rice technologies and validating them in farmers' fields. In this project, staff helped design the research trials, decided the rice varieties to be validated and provided technical back up. They also provided training and new rice varieties to the partner agencies' staff and farmers.

DAE, the government extension agency, has a national network of extension agents in the field. Overall, staff have a broad knowledge of agriculture and of local customs and institutions. They have less experience in action research, as they usually focus on disseminating technologies, especially to larger farmers. While testing the new method, DAE staff worked closely with the farmers doing field trials, and helped them solve day-to-day problems.

The NGO Rangpur Dinajpur Rural Service (RDRS) works to improve the livelihood of the landless, marginal and poor farmers. It has a strong agricultural, women's empowerment and credit programme, with 30 local offices and 256 federations. A federation works at the union level, and comprises 30-40 groups of poor households. About 268,000 households are affiliated to these federations. Most of the farmers who tested rice varieties with BIRRI under this new method belonged to a federation. How the RDRS federations became involved in rice seed is described in Chapter 20. RDRS selected the sites, formed farmer groups and helped with the research activities.

## EVOLUTION OF THE METHOD

Previously, BIRRI's Adaptive Research Division demonstrated rice varieties to farmers through the DAE, without involving NGOs. Farmers had few options for choosing varieties. Just a few rice varieties were shown through large demonstrations; farmers were passive recipients. The government agencies thought of large farmers as innovators, and provided them with seed and other inputs, the whole system being highly subsidised. Poor farmers were considered laggard and no consideration was given to gender. Field days were organised to generate large-scale awareness and interest among farmers. Partnerships with NGOs were not really considered.

This style continued until 2001, until, stimulated by the PETRRA project, BIRRI's Adaptive Research Division gradually came to understand its own limitations and made major philosophical adjustments. At first, the project provided inputs, but soon input costs were recovered from participating farmers through RDRS's credit scheme and revolving funds. The project triggered fundamental changes in one of the major national agricultural research institutes, BIRRI.

Throughout the country, BIRRI's Adaptive Research Division can now conduct adaptive research for a range of rice technologies cost effectively by training NGOs and DAE field workers.

## THE TECHNOLOGY VALIDATION METHOD

### Offer many varieties

BIRRI learnt to offer poor farmers more varieties at once. BIRRI used to show farmers two or three modern varieties that were already being grown to some extent in the region. In this project, we also offered some unreleased 'varieties', along with some released varieties that have been adopted in other areas and an exotic one (IR64).

BIRRI has spent 30 years developing rice varieties for specific agroecosystems and has an institutional memory of when and where specific varieties perform best. The Adaptive Research Division decided to show farmers only varieties released within the last ten years. Through another project on biodiversity by the Genetic Resources Division of BIRRI, some NGOs started collecting local varieties for conserving in the national gene bank (see Chapter 17).

### Select sites

We tested our method from 2001 to 2004 in several natural and social environments in Northwest Bangladesh, one of the poorest areas of the country, in ten upazilas of Rangpur, Dinajpur, Kurigram, Lalmonirhat, Nilfamari and Thakurgaon districts. The upazilas were chosen so that the local RDRS office could supervise the field activities.

### Identify local NGOs

We chose partner NGOs with an interest in agriculture, that worked with farmers, and were receptive to collaboration with government agencies. RDRS was selected as a partner NGO, because it has a pro-poor philosophy, 30 local offices in the greater Rangpur region and can draw on extensive rural networks through its federations. RDRS in turn identified the NGOs Janani and BRAC, and the private sector East-West Seed Company as local partners. BIRRI brought all parties together to develop a mutual understanding of the responsibilities of NGO staff and the DAE extension officers.

### Farmers evaluate varieties

The NGOs identified farmers to participate in the research, receive training and become demo farmers. Ten people were selected per group in each season and in each upazila.

BIRRI used to present just 2-3 varieties to farmers. But in this project we showed poor

Offer many varieties to a group of people and after trying they will tell you which one they like most.



farmers about 8-10 rice varieties for validation. Farmers planted each new variety beside one of their own, and staff helped farmers compare them at different intervals. In the project area, farmers mainly preferred short duration, bold grained rice varieties. The research brought DAE, NGO staff, and farmers closer together.

#### Develop capacity within partner organisations and farmers

In one-day sessions, BRRI trained staff from the partner organisations in such fundamentals as rice varieties, agronomy, insect pests and diseases, fertiliser, seed and post-harvest. For each season, the NGO and DAE selected ten farmers, men and women, who were not involved in training previously, and five neighbours of each of the participants. This allowed an exchange of experiences with the community. Staff from the local partners were invited to attend the training and field days, so they could help spread the new rice varieties.

#### Involve women in research

About 40% of the farmers who helped with the research were women, and they contributed more than BRRI had expected. The poor women were often the first to adopt a new variety. Mrs. Bulbuli Rani, the vice chairperson of the Mohendra Nagar federation in Lalmonirhat district has been an advocate and innovator; she asked to be involved in the research. In 2004, she was working with BRRI scientists and an MSc student from the Bangladesh Agricultural University to develop hybrid rice seed (see Chapter 20).

Overall, the men did not oppose women participating. Between 2002 and 2004, about 330 farmers were trained, of whom 30% were women. We held about 10 field days and visits. The field days were large events and a bit formal, but visits to the research plot to exchange views were usually done in small groups of researchers and farmers. Women participated in every step.

#### Feedback mechanism

Farmers' response to the varieties was communicated to the researchers and extension staff. The partner organisations regularly monitored the field and resolved problems quickly. BRRI staff held group discussion with farmers to gather feedback on the varieties.

Once farmers found a variety superior to their existing one, they adopted it quickly. The demo farmers all retained seed of new varieties to plant the following season, while

Mrs. Bulbuli Rani is a poor, but innovative woman. She established a small rural sewing enterprise after having received a small loan from RDRS, one of the NGOs working in Northwest Bangladesh. Her strong leadership and enthusiasm for agriculture has made her a role model in the region for involving women in action research.



neighbours and farmers who were involved in the field days demanded seed from either DAE or RDRS. This helped the Genetic Resource Division of BRRI to set targets for breeder seed production based on actual demand. NGOs involved in the rice seed network can sell farmers either foundation seed or truthfully labelled seed of the varieties they want, in a timely manner (see Chapter 17).

Figure 16.1 depicts the method, developed under the value-based PETRRA project, which pays attention to poverty, gender, participation and partnerships.

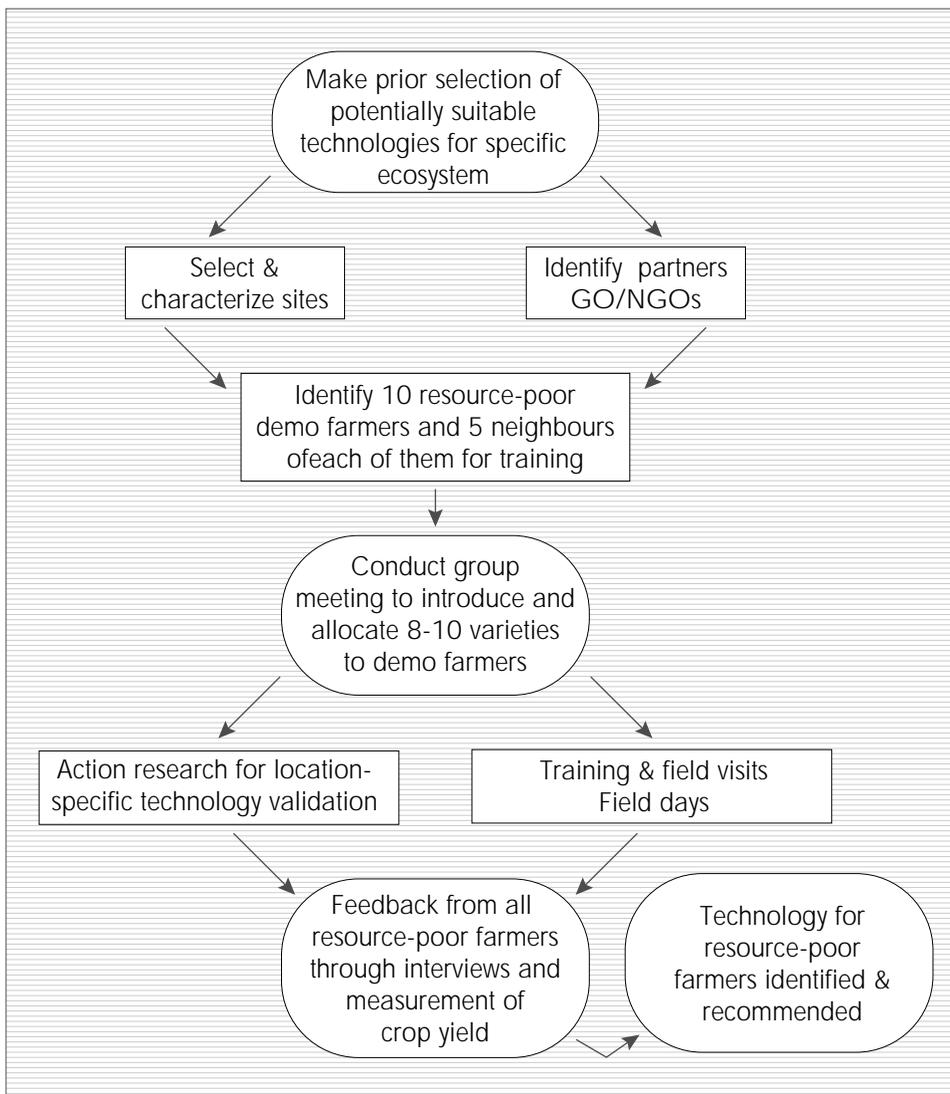


Fig. 16.1 Validating varieties with government-NGOs-farmers

## KEYS FOR SUCCESS

Partner NGOs must be enthusiastic about working with male and female poor farmers. Women play a key role in growing rice, and involving them in training and knowledge sharing helps improve productivity, as highlighted in Part II on gender. By presenting more varieties for validation, poor farmers can become early adopters and play an important role as extension agents to reach the vast farm community.

## RISKS, DIFFICULTIES AND ASSUMPTIONS

At first, DAE had little experience or interest in working with poor farmers, especially women. In future, it will be important to keep DAE field staff committed. A new experience can be unsettling, but NGO partners help reduce this discomfort. Partnerships with NGOs give DAE hands-on experience working with a new target group.

Through many contacts with researchers and extension agents, poor farmers of the RDRS federations gained more confidence to express their needs. In the future, we expect them to express their demands for varieties to RDRS and DAE, assuming that the farmers continue to enjoy good relationships with government and NGO extension agents. Strengthening links with the rice seed network will be crucial to seeing that these demands are satisfied. In Chapter 20, Samsuzzaman and Van Mele describe the crucial role federations can play in this.

## SCALING UP

The method may be applied and fine-tuned in other environments by other government agencies and NGOs to validate and disseminate pro-poor technologies other than seed. Once a technology has been validated, NGOs may disseminate it through their own network. RDRS, for instance, is already disseminating varieties through their federations in a sustainable manner.

The focal area forums offer decentralised multiple-actor platforms for validating technologies and channelling the voice of the poor about issues broader than seed (see Box 21.1).

## CONCLUSION

More is more: more NGOs, more farmers, and more varieties. To ensure a pro-poor and gender-sensitive approach, government agencies must work with NGOs and poor farmers, men and women. Giving farmers many varieties to test at once allows poor men and women to be innovators and become advocates in farmer-to-farmer extension. Farmers will grow and disseminate the varieties they like. Incorporating the method in multiple actor platforms further stimulates institutional change.