

Part I: Introduction





New Road Map

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"The rigour of relevance is sustained by virtuous circles of social energy. People do it, and do it well, because they enjoy it and see a point in it."

Chambers, 1997: 161

DOCUMENTATION

When asked to develop a strategy for the writing of this book, late October 2003, it struck me how the philosophy of organisational learning had become an integral part of PETRRA's daily life. Ahmad Salahuddin asked me at the time whether I could already write one of the case studies, although we hadn't discussed this previously. It took some convincing from his part, but eventually we both saw the benefits of putting the framework we were developing into practice: making the first case study a study case. "That's the beauty of PETRRA, everything is in the air," said Salahuddin.

Funded by the UK Department for International Development (DFID), The Poverty Elimination Through Rice Research Assistance or PETRRA project approved, managed and supported 45 sub-projects between 1999 and 2004. These had a respective focus on three broad areas: pro-poor policy (6), technologies (19), and uptake and extension (20). This last group was to become the subject of this book. In November 2003, we sent a first example of the Farmseed case study, given in Chapter 18, to all the sub-projects, along with guidelines for writers.

Conveying the concept of doing extension method research, rather than extension per se was PETRRA's first challenge. But partners were also inexperienced in analysing, reflecting and documenting processes that underpinned their innovations. People had a strong tendency to only think about technology, not about the broader context and forces shaping it.

I returned to Bangladesh and worked intensively with all project partners from January to September 2004 to help them articulate their experiences. Above all their

writing needed to stimulate reflection, since PETRRA emphasised that the learning from each sub-project had to be further institutionalised.

Formal reports gave us insights in mainly quantitative impacts, but to evaluate processes and uncover the human and institutional dimensions of each sub-project we used a broad range of tools, including narratives. The concept was relatively simple, let people tell a story while reflecting on key points.

"Stories help explain themselves; if you know how something happened, you begin to see why it happened."

Fernández-Armesto, 2003

Institutional learning was further stimulated in workshops in which we used photographs, enterprise webs, actor linkage maps and various other innovation systems analysis tools (Biggs and Matsuert, 2004; Hall et al., 2003). We also held a one-day writers' workshop for the project leaders, who later on presented their draft case studies to a broad audience of service providers at a national uptake workshop, held at the premises of the Department of Agricultural Extension (DAE) in Dhaka in April 2004.

Most cases highlight people's behaviour, values and commitment and are a deliberate attempt to bring alive in a distinctive personal manner the progress achieved by PETRRA.

LEARNING WITH PETRRA

Through a competitive bidding process, PETRRA encouraged organisations to develop pro-poor production and marketing systems, and demand-driven advisory and research services through collaborative learning at the field level. Achieving impact is not the responsibility of a single agency, nor can extension be seen as a separate subset of the innovation system (see Box 1.1). It is in this broad context that we present extension. Private sector, the government research and extension system, along with non-governmental and community-based organisations experimented with new partnerships, organisational models and methods, which grew organically within the context of each organisation; none were forced upon them.

Many innovations emerged from building on the organisations' own strengths and enabling cross-fertilisation between sub-projects. Each case study describes the origin

Box 1.1 Innovations

An innovation is a new way of doing things by applying technical, methodological or organisational knowledge. This knowledge might be acquired through extension, media, research, experience or any other source. The new idea may come from several actors, including farmers, NGOs, public and private sectors. An innovation is a change in behaviour, even a small one. For example, each person who plants a new rice variety, or buys seed from a coop for the first time, is innovating.

of ideas and their evolution. Learning by doing requires time; this meant that successes in PETRRA did not come quickly or easily. But in the end, it ensured that the majority of methods were mainstreamed into the organisations that developed them.

To mainstream methods, flexibility and ownership were key. PETRRA worked like a learning organisation, stimulating new thinking among all its members, both at management and sub-project levels, through the sharing of experiences. PETRRA linked underlying values of the learning organisation - empowerment of its members, rewards and structures fostering initiatives, and experimentation (Ayas, 1999; Stroud, 2003) - with values required to address poverty in rural development (see Box 1.2). Partners interested in experimenting with technologies and extension methods were identified competitively, a first step to ensure that sub-projects reflected these values.

In early 2000, PETRRA established the uptake forum to stimulate communicative learning between its seed sub-projects.

Participation of the poor during needs assessment, technology validation and dissemination

Poor households with 3-8 months' food security from own rice production, with some flexibility depending on region, actor and technology

Partnerships for better access to the poor and synergy of skills

Gender issues addressed in all project phases

Demand-led research based on stakeholder analysis (PETRRA, 2004)

Box 1.2
PETRRA's
Values

In 2002, they launched another initiative to stimulate sub-projects to interact more and with other rice-related projects in their region, leading to the formation of two focal area forums in the Northwest and Northeast. In these, several national research institutes, DAE, non-governmental organisations (NGOs), and representatives of the private-sector and farmer communities started making joint decisions to improve sourcing, packaging and delivering of information, seed and services to the poor. The prominent involvement of grassroots organisations ensures feedback from the poor to the researchers and the agricultural inputs industry. The forums were endorsed by the state minister for agriculture, and consensus was reached among members on cost-sharing after the life of PETRRA.

In early 2004, PETRRA worked with more than 12,000 farmers, of whom 40 percent were women, in more than 500 villages across 37 districts in Bangladesh (Magor and Salahuddin, 2004). During the project, the Bangladesh Agricultural University signed a ten-year memorandum of understanding with a major NGO to conduct action research with resource-poor farmers. Learning from PETRRA will also be carried forward in a new EC-funded project from 2004 to 2008.

PATHWAYS OUT OF POVERTY

Rural Bangladesh is differentiated and dynamic, both in terms of economy and farming, across all her ecosystems. Wealthier households are generally moving out of agriculture, creating space for poorer households to rent land (Orr and Adolph, 2004). Agriculture is, therefore, most important for households with less land.

Livelihood strategies are complex and there is no one pathway out of poverty. Often, farm households first try to establish their food security, which usually involves renting-in more land and investing in new rice technology (Orr and Adolph, 2004). Rice is Bangladesh's most important crop, grown over almost 75% of the cultivated land area. Improved rice technologies help families feed themselves. Evidence from PETRRA showed that significant impacts on livelihoods can be made in a very short time by introducing new, pro-poor rice technologies. This is because:

- Returns from land are higher than for micro-enterprise or wage labour, especially where rice can be grown in two seasons.
- The payback period is short, because a cropping season lasts only three months.
- Costs are low because technologies exploit under-utilised resources such as water, fallow land and household labour.

A study of interventions for healthy rice seed further confirmed the importance of simple technology in improving the livelihoods of poor households, particularly with regard to better entitlement and greater freedom of choice (Bayes, 2004).

The technologies developed, validated and fine-tuned under PETRRA were pro-poor and aimed at increasing productivity and profitability of rice farming. Those covered in the book include high-yielding varieties (HYV), health of farm-saved seed, disease management, seed drying and storage, and integrated crop and soil management. But also more complex challenges are addressed such as the pioneering of integrated rice-duck husbandry, developing an aromatic rice value chain, and a pro-poor market for mobile pumps. For each of these technologies, appropriate support mechanisms are needed to reach large numbers of farmers quickly.

During the first two decades of the Green Revolution in the 1970s and 1980s, the increase in yield came mostly from gradual replacement of low-yielding, traditional varieties with high-yielding, modern ones. But due to a lack of appropriate delivery mechanisms farmers have been slow in replacing these early modern varieties. In 2000, for example, only 12% of the Bangladeshi farmers had received information on the more recent modern varieties from public-sector extension officials. Farmers gathered little information from input providers or NGOs. Over the past 15 years, diffusion of modern varieties has mainly taken place through informal farmer-to-farmer exchange (Hossain et al., 2003). As poorer households are more active users of modern rice technology (Siddiqui et al., 1990), they will benefit most from new extension methods that specifically target this group.

PETRRRA was committed to improving the well-being of 'resource-poor' farm households, including women, by identifying, developing and validating improved technology and service delivery methods. Close interaction with rural communities was a must. The definition of PETRRRA's target group emerged from the stakeholder analyses: 'Households with three to eight months net food security from own rice production and where more than half of the household income is derived from own farm production' (Orr, 2002). Any definition, however, only served as a working guideline. Households with only one to two months rice food security, and who had their major income from non-agricultural activities, also participated. Villagers have a very clear picture of the economic position of their own households. Well-being analysis or self classification by households was introduced to identify poor households.

About one-half (49.8%) of the population in Bangladesh is still living below the poverty line, the great majority of them in rural areas, and with a preponderance of women (Duncan et al., 2002). The official national literacy rate is 50% for men and 41% for women (BBS, 2004), with averages being far lower for the poorest people. These figures reflect global trends in gender and poverty (see Box 1.3). Among the poor households in Bangladesh, women are getting increasingly involved in agriculture as their male partners often temporarily migrate for wage labour or to non-farm activities. With this in mind, reaching large numbers of farmers, particularly women, became a key criterion for PETRRRA.

An estimated 1.3 billion people in the world, of which 70% are women, fall below the international poverty line of US\$ 1 per day (DFID, 2000). In most societies, women are more disadvantaged than men due to gender inequalities in employment, education, literacy, technical knowledge and access to land. In fact, two thirds of the world's 876 million illiterates are women, and the number is not expected to decrease significantly in the next twenty years (UN, 2000).

Box 1.3
Gender and
Poverty

Poverty is more complex than a lack of income, it also involves a lack of assets, skills and opportunities, along with greater vulnerability and insecurity. For the targeted households, women's agricultural knowledge is becoming more important to help the family make wise decisions in farming. Orr and Adolph (2004) showed that a shared vision by the husband and wife was at the heart of successful graduation out of poverty.

This book unveils the challenges and potential of working with poor farmers, men and women, not merely as producers, but also as customers, sellers, marketing agents and agricultural extensionists. The case studies reveal processes and show that working holistically with the poor, as partners, is the only way to build pathways out of poverty.

CHANGING DIRECTIONS

Diversification of service providers and innovations in extension are needed, not only in Bangladesh but across the world (Chowdhury and Gilbert, 1996; Rivera and Zijp, 2002). Continued economic liberalisation is likely to result in a growing number and greater diversity in service providers. While public sector funding is decreasing and recent discussions focus on cost-recovery and public-private partnerships (Rivera and Zijp, 2002; Anderson and Feder, 2003; Ramírez and Quarry, 2004), there is still a keen need to develop locally-adapted extension and farmer education methods that address the poor, especially women (Berdegué and Escobar, 2001; Jiggins et al., 1997; Kanji, 2003).

Since the 1980s, farmer-centred education approaches such as farmer field schools (FFS) have blown a fresh breeze over the extension landscape, highlighting the need to train farmers in their own fields through experiential learning rather than through prescriptive skills development (Röling and Wagemakers, 1998). But to reach the millions of farmers, more innovations are needed.

With this book, we present some broad principles for a new road map by illustrating the innovative complementarities that can be built between farmer education, farmer organisational development, extension and communication, and pro-poor business development.

STRUCTURE OF THE BOOK

Innovations in Rural Extension presents the evolution of methods, outlines them in contextual detail, and presents the reader with the keys to success and some of the difficulties he or she may encounter while implementing them. The book has six parts, of which this short introduction is Part I. The next four parts are each introduced by an overview chapter, followed by a number of empirical cases. The last part summarises findings and offers some fresh perspectives.

Thelma Paris and colleagues from PETRRA launch Part II on gender in agricultural extension. Poor women are eager to learn about all aspects in agriculture, not just on the roles they traditionally fulfil, and have proven to be innovators and committed extension agents. Cases are presented on women-led group extension, the family approach whereby husbands and wives receive training together, and the production of videos whereby women's knowledge and skills are presented alongside scientific information. The latter project won a prestigious international award for effective communication.

Part III on learning with rural communities is introduced by Jeffery Bentley and Paul Van Mele. They discuss the specific role farmer-to-farmer extension has in learning about local knowledge and developing mass media communication messages. A first case 'Watch and Learn' shows that a video, made by a multidisciplinary team and

involving peers, has a higher impact on rural women's seed health practices compared with farmer-to-farmer extension. The next case 'Village Soil Fertility Maps' gives impressive evidence of how within a short time and with limited financial resources, soil fertility management was improved in more than 200 villages by combining principles of soil fertility mapping, participatory research and farmer-to-farmer extension. The last two cases in this part build on old forms of reaching rural audiences, namely going to local markets or other public places and using folk songs. They have been revived into new agricultural extension methods called Going Public and picture songs, the latter bringing entertainment-education to rural women.

Part IV on enterprise webs is introduced by Noel Magor, who stresses that complex linkages are essential for poor farmers to adopt certain technologies. It places extension in a broader context and looks at rural development from a business perspective. Tools such as enterprise webs can help organisations to analyse the weakest links of an enterprise and to make decisions about where vertical integration would be better than strategic partnerships or vice versa. Cases are presented on establishing integrated rice-duck farming, pro-poor markets for mobile pumps and a value chain for aromatic rice.

In Part V, Solveig Danielsen, M. K. Bashar and Mark Holderness investigate the emergence of pro-poor rice seed systems in Bangladesh. The first two cases illustrate significant changes in mindset among senior scientists of the Bangladesh Rice Research Institute in validating technologies with NGOs and poor farmers, and in channelling multiple partnerships into a rice seed network. The last three cases shed light on the experiences from the three diverse NGOs in training farmers as seed producers and involving them in extension and marketing efforts.

Part VI puts all experiences in a broader context, draws on transaction cost theory, and targets donors, policy makers and academics. The bulk of the book, however, merges quantitative impact assessments with more qualitative process analysis, and is written in a simple style to offer 'relaxed reading' for development workers, service providers and university students. We want others to enjoy reading what we have enjoyed doing.

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