Wheelbarrows full of frogs

Social learning in rural resource management

Cees Leeuwis and Rhiannon Pyburn (eds.)

International Research and Reflections

Institutionalising Farmer Participatory Research

Lessons from a comparative study

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Abstract
This chapter draws on international experiences with institutionalising Farmer Participatory Research in agricultural research organisations. It integrates the lessons that were inventorised during a one-week workshop in the Philippines where 19 organisations from Asia, Africa and Central America reported on their experiences with institutionalisation. It is argued that institutional change has implications for the mission, structure and human resource base of an organisation, and that in each of these domains administrative, political and socio-cultural aspects play a role. In connection with these, several strategies are suggested to stimulate support for Farmer Participatory Research at various hierarchical levels. It is concluded that institutionalisation itself is a complex social learning process towards changing the accountability orientations of researchers, research organisations and funding agencies.

1 Introduction

In the last decade, a growing number of organisations have approached agricultural research and extension in ways that involve farmers as full and equal partners in all stages of the development process and that focus on strengthening the capacities of farmers and rural communities to experiment and innovate (see also Part 2 of this book). It has been increasingly recognised that these interactive approaches, often referred to by the umbrella term Participatory Technology Development (Van Veldhuizen et al, 1997), are necessary in order to improve agriculture and natural resource management, especially in the less well endowed rural areas (Röling, 1996). Recently, some promising efforts have been made to institutionalise PTD within large organisations of agricultural research, extension and education/training - both governmental and non-governmental. This paper compares and analyses some of these experiences in institutionalising PTD, particularly looking at research organisations where PTD is often known as Farmer Participatory Research (FPR). It is based on a study initiated by the International Institute for Rural Reconstruction (IIRR) in the Philippines and ETC Ecoculture in the Netherlands in which 19 organisations active in the field of FPR and PTD took part (box 1).

Box 1: The 19 case studies of Advancing PTD

African Highlands Initiative, Uganda / AME: Agriculture Man Ecology, India / Agricultural Research Centre -Infruitec-Nietvoorbeij, South Africa / AS-PTA: Brazil / CCAB, China / CEOSS, Egypt / CIAT-Tanzania, CIP-UPWARD, Philippines / COSECHA: Honduras / Farmers' Research Project, FARM-Africa, Ethiopia / ICRAF/Landcare, Philippines / Indigenous Soil and Water Conservation Project, Cameroon / ITDG Animal Traction Project, Sudan / KSAP, Kyrgyz Swiss Agricultural Project, Kyrgystan / Lempira Sur - FAO, Honduras / Promoting Multifunctional Household Environments Project, Sri Lanka / PRIAG, Costa Rica / Sustainable Agriculture Development Project, Thailand / Social Forestry Support Programme (SFSP), Vietnam.

The cases were critically reviewed during a one week workshop in September 2001 which formulated the central lessons presented in this paper. A full study and workshop report will be published early 2002. The valuable contributions of the participants to the workshop are kindly acknowledged.

The concept of Farmer Participatory Research originally referred to efforts of scientists to involve farmers in (part of) their research activities. It now includes approaches that: give a more central role to farmers and their service organisations in defining research agendas and planning and implementing the actual research; and, aim at increasing local research and development capacities. The experiences with these latter approaches have been included in the Advancing PTD study and are the central focus of this paper.

2 Institutionalisation: basic premises

A first review of the cases prepared for this study confirms that Farmer Participatory Research can be an effective way of doing applied research. New technologies emerge or existing ones are adapted to local conditions. The uptake of relevant technologies starts accelerating. Effective partnerships between researchers, extension workers from government as well as NGOs and farmers are established. That in itself is good news. The analysis subsequently focused on the question already formulated by the first advocates of FPR/PTD when its framework was developed, i.e. how to sustain the PTD/FPR processes beyond short, often project based, interventions. Is 'institutionalisation of the approach' part of the answer to this question?
For the sake of the study, institutionalisation of FPR was understood as *making FPR part and parcel of (part of) the regular programmes and activities of research institutes.* The addition of the notion of 'part of' is significant as study participants realised that FPR is not the only activity that a good research institute will involve itself in. Conventional, on-station research will continue to be required. But hopefully inspired by and linked to an active FPR programme to ensure relevance and applicability of the

on-station work. Putting FPR in this perspective in itself may help to overcome the resistance of a large group of researchers to the approach. While the focus of this paper is on research institutes, parallel institutionalisation processes are taking place, or need to take place, in extension services, NGOs and even farmer organisations.

Early during the study, the danger of over-institutionalising FPR was noted. If FPR is made compulsory for everybody, if this is backed up with a long list of formal rules, regulations and formats, bureaucracy will have prevailed and the spirit of FPR may disappear. Effective FPR needs understanding and motivation rather commands and needs to balance rules with freedom for creativity and room for manoeuvre. This implies finding a balance between standardisation of steps, methods and techniques versus responsiveness of researchers to local and time specific opportunities and needs. Instead of recommending a standard FPR package for institutionalisation, the workshop formulated a set of basic elements in FPR which need to be part of (the training of) each FPR programme:

- The main principles such as: farmer needs based, relevance of local knowledge and local innovative capacities and complementarity of knowledge from science, collaboration on the basis of equal partnerships.
- The main clusters of activities ('steps') with the output expected to be achieved by each. Usually the FPR/PTD framework includes 6 such clusters (getting started, understanding problems and opportunities, looking for things to try, farmer-led experimentation, sharing results, and sustaining the process)
- Collection of methods from which to choose in each situation and guidelines on how to use them
- Clear and simple case studies which show how FPR works in the field
- General FPR implementation guidelines

Based on this, staff can be encouraged to plan their own field work (i.e. participatory planning within the organisation), probably weekly or monthly, to be supported and monitored by those responsible.

The concept of institutionalisation is closely linked to, yet distinctly different from that of scaling out or scaling up, subjects of recent studies (IIRR, 2000; Gundel et al, 2001). The latter two refer to the wider notion of reaching more people more quickly, either through widening the geographic area and/or number of cases in which the approach is applied or through moving upwards to involve various levels in an organisation. Scaling up is a necessary step towards institutionalisation, but a project can manage to reach into several levels of an institution, yet still not ensure that work at these various levels continues after a project has ended, i.e. that FPR becomes part and parcel of the regular programmes and activities.

Institutionalisation refers to a process of change. The case studies reveal that the following four larger sets or groups of activities are often central to this process of change:

- *Advocacy and campaigning*: In formal or informal ways, relevant people are informed of the importance and effectiveness of FPR, their motivation for change identified and mobilised.

- *Capacity building*: Staff at various levels are trained, provided with followup support and coaching.
- *Pilot field activitie*: FPR is initiated and done at a smaller scale to develop locally applicable methods and tools, create evidence of its effectiveness, and provide a learning ground for all involved.
- *The internal institutional change per se*: Managers and staff review internal mechanisms and structures in view of the need for FPR and plan, implement, monitor and evaluate necessary changes.

Institutional change processes can be complex events. Particularly in the case of research institutes which try to incorporate FPR into their regular operations. FPR is not just one of many different methods, it implies a fundamentally different way of working with farmers and other end users and internally with colleagues, superiors and employees.
Tichy (1982), followed by authors such as Groverman and Gurung (2001) show that in complex institutional change processes, one has to look at the mission/mandate of the institute, the structure and human resources. Moreover, they indicate that institutional change does not only have a technical-administrative dimension (the 'nuts and bolts') but also includes political (power and decision making) and socio-cultural aspects (norms and values). The complexity of institutional change can thus be summarised as in table 1.

	Mission/mandate	*Structure*	*Human resources*
Administrative: the tangible 'nuts and bolts'	*Operations:* planning and implementing action plans, monitoring and evaluation, budgeting	*Tasks and responsibilities*: levels, positions and tasks; procedures and instructions information and coordination systems	*Expertise*: quantity and quality of staff; recruitment and job descriptions; facilities and infrastructure; training and coaching
Political: the power game	*Policy making*: developing policies and strategies; influence from inside and outside; role of management	*Decision making*: formal and informal mechanisms; supervision and control; conflict management	*Room for manoeuvre*: space for innovation; rewards and incentives; career possibilities; working styles
Socio-cultural: identity and behaviour	*Organisational culture*: symbols, traditions, norms and values underlying organisational and staff behaviour; social and ethical standards	*Cooperation and learning*: norms and values underlying arrangements for teamwork, mutual support, networking, reflection, learning from experience etc.	*Attitudes*: dedication to the organisation; commitment to work objectives and to partners/clients; stereotyping; willingness to change

Table 1: Areas of attention in institutional change, sorted by key organisational components (mission, structure and human resources) and aspects (administrative, political and socio-cultural).

3 The research organisation: a hard nut to crack?

Why is it so difficult for research organisations to accept and incorporate FPR? Or is it? The prevalent hierarchical management structure is part of the problem although this may be less so in the case of the International Research Institutes (ARIs) as compared to National Research Institutes (NARIs). There is often a culture of individualism and specialisation in which researchers develop very specific, narrow areas of interest. This makes it difficult to pay attention to the wider development perspective of their research and also to interact with researchers of other disciplines. Through their training and peer interaction, researchers come to look at their knowledge as superior relative to the knowledge of farmers and others. As funding is often assured (or at least used to be) through regular government channels, and the influence of other actors in research organisations is otherwise limited, research does not develop notions of accountability other than to immediate bosses and sources of funding.
At a more fundamental level, much of this is caused or reinforced by the prevailing view on what 'good' science is all about. Replicability of the research, the use of a limited range of statistical approaches, the acceptance of results by peers through e.g. specialised journals, are more important notions than evidence of a need for the research, its direct, practical relevance and the spread and use of research results. Staff reward and incentive mechanisms further encourage researchers in this direction.

But there are also positive developments and opportunities for change with research organisations. In many countries, individual research centres are given increased freedom in planning and implementing research. At the same time, the centres are challenged to raise research funds from sources other than the regular government budget, making them potentially more open to the needs and interests of other actors. Compared to large government extension agencies, research institutes already have internal organisational flexibility. They certainly avail themselves of a potential of relatively well-educated staff capable of developing and implementing FPR, if given the opportunity. To meet the challenge of building research organisations capable of doing FPR, the opportunities provided by such positive developments should not be overlooked.

4 A research organisation capable of doing FPR (among other things)

Below we summarise some of the key lessons that derive from the workshop, grouped according to the aspects identified in table 1. In addition, we discuss the importance of partnerships as a vehicle for institutionalising Farmer Participatory Research.

The nuts and bolts of the organisation

First of all, a research organisation needs to define its role or 'niche' in FPR, include the FPR approach in research planning where applicable, and allocate resources

accordingly. More specifically, research planning and budgeting, monitoring and evaluation should allow real involvement of farmers and others in the planning, thus increasing the accountability of research towards other stakeholders. Some research institutes have initiated multi-stakeholder committees to this end (Ampofo, personal communication). Planning should also make resources/funds available to build and participate in partnerships and for experimentation by farmers. Locating the responsibilities for such funds as closely as possible with the people directly involved, including farmers and the multi-actor partnerships often needed for doing FPR, is another key strategy to make FPR work. Planning and budgeting needs to foresee a certain 'free' rein for part of researchers' time and part of the budget (innovation funds). In reality, overall funding for agricultural research is declining in quite a few countries and, if available, depends very much on external donors with regularly changing agendas. Obviously this is not a situation conducive for the institutionalisation of FPR, which has a longer time horizon.

FPR-related process issues should be included in the organisation's monitoring and evaluation (M&E) formats. This implies that M&E not only gives information about the technical parameters of the experiments, but also on issues such as the awareness of farmers needs and potentials among researchers, the capacity of farmers and extension partners to continue experimenting on their own, and the extent of the spread of technologies under study. Social scientists have much to contribute to these M&E issues.
At a meta level, M&E of the changes occurring at the researchers level, the way they approach collaboration with farmers and their interest in real farmer concerns, give an indication of the extent to which FPR has been institutionalised. Opondo et al (2001), describe an attempt to develop and use such an M&E system, referred to as Outcome Monitoring. Outcome monitoring helps to put the issue of the spread of FPR within the research organisation on the agenda and creates additional momentum in the process of institutionalisation.

In terms of the internal organisation, it seems counterproductive to create a special 'FPR Unit' which is meant to take care of FPR while the rest of the organisation continues working as before. However, there will probably be a need for an 'FPR taskforce' or 'FPR team' that plans and coordinates the process of change, creates opportunities for training and learning, and facilitates links both within the organisation and with other organisations concerned with FPR. Initially, this team may itself be actively involved in FPR activities in the field so that the institutional learning can be based on these experiences. An FPR/PTD facilitating and learning unit playing the role of catalyst is also often necessary and can be created in collaboration with other organisations such as in the Vietnam case study. Facilitation of networking and learning in a region or even in a country may then be included in its mandate. These units will probably only survive after donor funding ends, if they are set up as closely as possible to existing coordination mechanisms and local funding sources.

The cases show that a great variety of internal mechanisms can be used, adapted or newly developed to encourage FPR and its institutionalisation. These include:

- Annual research review and planning meetings to include attention specifically to the research process and farmer participation. Attendance at these meetings by all relevant 'layers' in the organisation and by farmers and other stakeholders.
- Internal staff peer seminars to include attention to research processes, farmer participation and partnership development.
- Actively seeking other experiences in FPR and making these known within the organisation through publications, informal discussion, seminars, feedback to colleagues after visits to these organisations, etc.
- Seizing opportunities to invite people from other institutions to share and learn about each other's experiences in trying (to institutionalise) FPR.
- A simple mechanism to encourage staff to come up with new ideas, even if not fully developed, 'think the unthinkable' i.e. a place where these ideas can be collected and reviewed through regular meetings (every 6 months).

Training and coaching staff in new ways of working will be needed almost without exception. This starts with a review of the roles and responsibilities of researchers in FPR as compared to their partners, leading to good insight on the required knowledge and skills profile. Researchers have an important role to play through their analytical skills, to differentiate cause and effect, the ability to design experiments that lead to clear results, the knowledge or link to knowledge on fundamental processes underlying the experiments as observed by farmers, and the skills to write and report results systematically. At a more general level, researchers need to be able to engage in dialogues, listen rather than lecture, cooperate rather than order, but need not become the key facilitators of FPR meetings and other activities.
Good experiences with respect to training and coaching have been gained in sequential FPR training: several sessions interspersed with FPR-related assignments in the field or in the organisation, each session building on the learning of the previous one and the work experience in between. An internal FPR team can play an important role in guiding and advising staff members between the formal training sessions. The training should be designed to create the will and ability of staff members to listen to farmers and appreciate their knowledge and ability to innovate. This is best achieved through direct interaction with farmers who are active in innovating and experimenting.

The power game, decision making and room for manoeuvre

The power game at higher levels turns research policy formulation issues and influence around, both from within the organisation and from outside. Ways must be found to gain support from policy makers and high level management for FPR. Allies within the organisation need to be identified and their support needs to be tapped. At the same time, it is important to listen to the concerns of those people within the organisation who are not in favour of FPR approaches, and to seek ways of alleviating their concerns, perhaps through adjustments in the approach foreseen. A key power issue is obviously control of funds. Mechanisms need to be created to allow farmer organisations and other end users of research results, to exercise influence on the pol-

icy of research and development institutes, and one way will be through farmer involvement in decisions on the use of research funds.

From the perspective of a change manager with a wish and/or mandate to strengthen FPR, a two-level approach is emerging from the cases. The first is concerned with gaining support from higher level managers or policy makers, while the second involves strengthening FPR at intermediate and lower hierarchical levels.
Working 'upwards' could include activities as in box 2. In implementing these, FPR advocates do well to 'tone-down' their wording and focus on the concerns and language effective at the various levels.

Box 2: Putting FPR on the agenda of managers and policy makers

- Inviting a key decision maker to 'chair' the coordinating body (within an organisation or a platform of several organisations) to institutionalise and do FPR
- Creating an awareness of specific field experiences and results, e.g. by organising 'exposure' field visits for policy makers, where they can see and listen
- Feeding field experiences into the regular planning and review meetings and into strategic events concerned with agricultural development. A precondition to this is the adequate documentation and evaluation of these experiences.
- Including policy makers in international workshops or conferences on FPR, and inviting them to make opening statements or keynote addresses and helping them to prepare for these
- Preparing and distributing policy briefs on the concepts and practices of FPR
- Strategic distribution of 'easy to read' newsletters and books on FPR with successful case stories
- Identifying existing policy, e.g. to achieve household food security, and demonstrating how FPR can contribute to achieving these policy aims.

Individual researchers or research groups with field experience in FPR do well to build partnerships and networks to influence policy makers in their institutes and beyond. After policies have been changed, there will still be a need for a 'watchdog' function to monitor the progress of implementation. Efforts to create and maintain institutional support at higher levels can often also benefit from building up pressure for change from below, for example, by inducing intensive interaction with interested research staff to create examples of FPR and inviting reflection on these experiences. Thus, working 'upwards' often needs to be combined with and/or preceded by efforts to gain wider internal organisational support for FPR.

At the organisational level itself, research management should consciously search for opportunities to practise participatory planning, implementation and, monitoring and evaluation. In other words, listen to the experiences obtained at field level, review with relevant staff the lessons learnt and base future planning for the organisation, at least partly, on these.

The room for manoeuvre for individual researchers to engage in FPR, is further determined to a considerable extent by the recognition and rewards they get for their FPR work. These could be turned positively towards FPR in a number of ways (see box 3):

Box 3: FPR supportive reward and incentive measures at the organisational level

- Creation of an annual award for outstanding work for one or a few staff to include an FPR dimension. Very effective if the announcement of this is done in a public meeting by senior management.
- Organising competitions such as in Ethiopia where researchers and extension/NGO staff are challenged to document farmer innovations (Kibwana et al, 2000). This created interest and active involvement in FPR. The most interesting innovation was rewarded (to both staff and farmer).
- Providing for opportunities to combine continuation of discipline based research with involvement in FPR (internal matrix structure)
- The per diem system is both an encouragement to go to the field and a bottleneck that prevents staff from going to the field, if unavailable.
- In most organisations there is a distinct committee that decides on allocation of funds for proposals/projects and/or on career advancement of staff. Targeting committee members for exposure to FPR may lead to inclusion of FPR relevant criteria in committee decision making.
- FPR advocates should be made more known in their colleagues' journals where FPR work can be published. During the workshop, a list prepared by UPWARD/CIP was circulated and improved.
- Finally, experiences seem to show that for many, once involved in FPR, the positive interaction with and response from farmers is a reward in itself. Particularly extension workers suddenly find new roles and acceptance from farmers.

Researchers may also be concerned that collaboration with other researchers in FPR and the regular sharing of progress and findings with peers and partners, might endanger their sole right to publish final results. Will comments of peers directly lead to co-authorship? There seems no other way than to take these concerns seriously, put them on the table and address them in each specific situation.

Norms, values and attitudes

The cases for the present study paid very little attention to issues pertaining to the socio-cultural aspect of institutional change (see table 1). Confronted with this during the workshop, most authors strongly confirmed the importance of norms and values within the organisation and, particularly, the attitudes of individual researchers. Norms and values related to the mission and mandate of a research organisation may refer to: concerns for poverty reduction and the elimination of hunger, research rele-

vance particularly for the poor, and the impact of technical innovation on the environment and social coherence as opposed to the norm that science is good if it generates technologies that work (amongst others). Attitudes supportive to an effective FPR internal structure may include the conviction that problem solving, in agriculture as well as within the organisation itself, requires contributions from all involved, that no one knows everything and no one knows nothing, and that listening and probing are as important a skill as lecturing. The workshop indicated that quite a few of the measures mentioned under previous sections may contribute to changes in norms and values in these directions. Facilitators of FPR institutionalisation efforts would do well to link up with experiences of sociocultural changes in organisations in other sectors.

The issue of attitudinal change among individual researchers features more strongly in the case studies than change at the level of norms and values. Respect for the value of knowledge and farmer and extension agent experiences, combined with a more modest view on the value of one's own experience, is a crucial element in attitudinal change. Situations need to be created to cultivate mutual respect. Encouraging researchers to identify local innovation and informal experimentation is one way to foster such mutual respect. This can be followed by internal staff seminars discussing and analysing the significance of local innovation for the way they work. This approach has been applied quite successfully in the Indigenous Soil and Water Conservation (ISWC) programme, especially in Ethiopia and Tanzania (Kibwana et al, 2000). Staff at various levels in the organisation can be exposed to farmer realities and farmer creativity through field days, study programmes, farmer innovation markets (see ISWC Cameroon case study), travelling seminars and involvement in RRA/PRA exercises. Training programmes for FPR do well to take attitudinal aspects seriously and include in their designs any combination of the activities above. Designing selected training sessions following a Freirian approach to learning (cf. Hope and Simmel, 1984) helps to confront participants with their basic assumptions, problematises them, and thus creates critical awareness as a basis for personal attitudinal change (examples of this approach for PTD training see Chirunga and Van Veldhuizen, 1997).

FPR partnerships

While it is technically possible for research programmes to embark on FPR programmes on their own, almost all Advancing PTD cases underline the importance and great benefits to be obtained if FPR/PTD is undertaken in the context of strong partnerships. This includes partnerships with other research units or organisations, but more importantly those with extension, farmer organisations, and the private sector. Embarking on partnerships will enable researchers to focus on what they are good at (i.e., analytical skills, experimental design, knowledge or link to knowledge on fundamental processes, writing and reporting), while relying on others for farmer mobilisation or organisation, networking and facilitation of evaluation and learning events, and the organisation of input supply and marketing, for example. Effective partnerships are usually characterised by the elements of box 4:

Box 4: Characteristics of effective FPR partnerships

Partners:

- Share a common interest
- Agree on a common agenda
- Take time to clarify these early in the process
- Develop a joint understanding of FPR and their respective roles
- Mutually respect these roles
- Plan together
- Organise for an opportunity to meet regularly
- Mobilise and manage resources in a transparent way

Researchers face specific challenges in joining such partnerships. Research objectives need to be formulated relatively widely if a convergence of objectives with other actors is to be achieved. They need to have flexibility in order to reach agreement with other organisations. An NGO is unlikely to be enthusiastic for a research partnership if the researcher wishes to work on a single aspect of one disease in one particular crop. Unless it happens to be a key threat to farmers in the area.
Flexibility in the research offer can be expressed by including a certain amount of unallocated research support funds in programme proposals so that other researchers can be drawn into the FPR process if critical issues arise beyond the competence of the lead researcher(s). Research organisations need to provide enough time, staff skills and open mechanisms (short workshops?) for in-depth negotiation with potential partners, if only to overcome some of the historical feelings of mistrust that may be evident from NGOs and government extension agencies. Research proposals may have to include to this end, a start-up phase and sets of activities. Finally, researchers and their institutes may have to do more public relations to make their research capacities, and particularly their readiness to work in an FPR collaborative mode, widely known to possible partners, so that ultimately these partners will start approaching research for support and partnership.

The longer term sustainability of collaborative research partnerships remains an area of concern. In certain situations partnerships may end when a specific research objective has been reached. However, the need for local innovation to continue over longer periods of time and for research and extension to systematically support local innovation, calls for structures where farmers concerns and research and extension offers in FPR meet regularly. Partnerships can be sustainable if funds are mobilised from 'regular', non-project sources, and from contributions from all stakeholders. The Advancing PTD cases indicate that the decentralisation of government structures in countries such as the Philippines and Uganda which bring responsibilities and resources to the local level, may provide opportunities for local governments to become key sponsors for local innovation and FPR partnerships.

5 Conclusion

Incorporation of PTD in research institutes is possible but is in itself a multi-faceted social learning process (see Röling, this volume) that starts often with changes at personal levels. A sufficiently long time frame and adequate flexibility in the process are crucial preconditions. In whatever form and way it is done, PTD ultimately will imply that accountability of researchers and their institutes is not only internally oriented to the main funders, but expands to include farmers, other end users, partners in PTD and civil society at large.

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