PTD banks on a new set of personal and organizational competencies and attitudes to create the space for it to thrive. The first challenge is the lack of awareness not only of its existence but also of its effectiveness in empowering farmers to improve their incomes, ensure sustainability in agriculture, and protect biodiversity through the management of natural resources. Clearing the way would entail sustained training, lobby work and advocacy within research institutions, academe, local and national governments, and farming communities reflecting the hallmarks of PTD’s principle of continuous learning.

Training, Competencies And Learning Systems

What core competencies are needed to institutionalize PTD? Some of the cases discuss what capacities are essential. Some people tend to write job qualifications for exceptional people, most specify the need for continuous training. What is important is that partners define these expectations, otherwise institutionalization cannot proceed if the players are confused.

Essential in the PTD curriculum are basic principles including mutual recognition and respect of different actors, as well as the need to share joint expertise. Values associated with PTD and institutionalization (e.g., accountability, ownership, negotiation, leadership, recognizing the need for information for farmers to make decisions) need to be given space. New

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1 Report Theme Group 3: G.D. Pereira, Marise Espineli, Ueli Scheuermeier
skills in ongoing activities such as networking and "linkworking" will have to be learned. Participants highlighted the following as the skills needed to push the institutionalization of PTD:

- **Advocacy**: aims at helping partners lobby for national and local government laws and policies to support PTD and its institutionalization. PTD champions will need to be trained in the workings of the legislative process, as well as, in public relations and media liaison to build favorable public opinion. Exposures for lawmakers and journalists may be arranged to make PTD real to them.

- **Learning among partners**: aims at boosting skills in communication and presentation. Documentation of examples and impacts would greatly help in the management of learning.

- **Motivating platforms to stick together**: aims at keeping individuals on board by helping them focus on PTD objectives and processes, managing task forces, and dealing with fund sources.

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Group discussion output on Training, Learning System, Competencies.
Training for PTD also requires different levels to prepare partners for PTD research and joint effort. For instance, in Sri Lanka’s Mahaweli extension system, training and backstopping or coaching were essential in farm planning, farmer experimentation and farmer-to-farmer extension. In the first three years, three subject areas were dominant: participatory rural appraisal, farm planning, PTD, community mobilization and organizational development. The initial programs focused on developing the attitudes and skills for facilitators. Continuing PRA and PTD was important to develop extensionists’ capacity to interact with farmers. As field staff began to work closer with farmers, they were given workshops in community mobilization and organizational development. The staff in the large hierarchy of the extension office was categorized and trained according to the roles they were to play.

The stimulation of cognitive, behavioral/attitudinal and emotional levels simultaneously is needed to build the capacity of individual personalities to act differently, as the Zimbabwe case shows.

COGNITIVE LEVEL: the major thrust is to open up from rigid and structural thinking to lateral thinking in terms of processes and systems perspectives. This shift can be facilitated by critical self-analysis that challenges one’s own mindset, exposure to divergent and alternative concepts and paradigms. Creativity and mental flexibility need to be enhanced through experimentation with new ideas and action learning in social interaction. Without focusing on creativity, people always fall back into their old patterns of problem solving, thereby creating “more of the same” situations although the problems have new dimensions. The development of and the orientation towards a vision, development of guiding principles for interventions, conceptual and operational frameworks (e.g., matrix consisting of process steps, objectives of these steps, key issues to deal with, possible methodology and potential partners) can overcome the initial “fear of the unknown” by providing the cognitive understanding, security and confidence to engage in new ways of doing business.

BEHAVIORAL/ATTITUDINAL LEVEL: prevailing values and social norms and expected behavior need to be critically reviewed. For example, formal education is often valued more than experiential non-formal knowledge, which puts farmers with their local knowledge and the
extension agents’ “common sense” in a diminutive position. Overvaluing the external exotic inputs over the local intrinsic knowledge of communities often undermines the esteem and confidence that drives development. This denial of one’s own roots and knowledge creates enormous insecurity and inhibits open dialogue. To facilitate change, social norms, values, attitudes and behavior need to be made visible to the extension agents in order to discover them in their self-analysis. In this analysis, people need to be confronted with the consequences of the status quo so that decisions on alternatives can be considered.

EMOTIONAL LEVEL, confidence, self-esteem, "groundedness" and cultural identify are factors which are needed when managing complex social processes in communities, which by their fluid nature entail continuous uncertainty about what to do next. A sound degree of common sense, empathy, self-awareness and self-regulation, in other words, "emotional intelligence" (Goleman 1998) and personality, helps to "read the process" and thus reduce the uncertainty. While phases of insecurity are a necessity to break old patterns in any change process, it is important to start a learning situation with small steps in which success is likely. This procedure allows the relatively fast increase in confidence levels and other factors that can gradually develop along with it.


Training resources for the required competencies may be collected in one base, e.g., a university, a big NGO, or another government institution. This resource base however must have a track record and a long timeframe, with a focus on agriculture development. Together with PTD partners, it will have to thresh out ways to manage funds and prevent competition, while remaining accountable to farmers and end users.

Training and coaching of staff in new ways of working will be needed. Good experiences have been gained in sequential PTD training: several sessions, interspersed with PTD-related assignments in the field or in the organization, and each session building on the learning from the previous one and the work experience in between. Reflection on experiences between workshops has been seen to be an important approach in learning. An internal team for institutionalizing PTD 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 to appreciate their knowledge and ability to innovate. This is best achieved through direct interaction with farmers who are active in innovating and experimenting; these farmers and groups must first be identified.

**Continuous learning**

Workshop participants recognized that the process of training and learning PTD is slow and cannot be hurried. What is sought are changes in people's attitudes including shifts from project to program orientation and the narrow view that PTD covers hardware instead of the skills and knowledge. Learning phases have to be discerned, not as linear but as iterative processes. In Vietnam, for example, there has been a conscious move away from prescriptive instruction to more responsive bottom-up and needs based training. Once extensionists embrace the idea of capacity building, they can advocate it to their superiors and this way contribute to institutional change.

It has been noted that farmers may also overlook such problems as droughts, thus requiring extensionists and other external agents to look into gaps or other areas for follow through.

> It is very likely that some categories of technology (e.g., water harvesting) were never experimented with because farmers either never thought any solutions were within their grasp, or simply that working with such technologies had never occurred to them. Thus, agricultural programs should, before they terminate their work in the area, discuss with farmers what sorts of possible future technologies they might experiment with.

*Roland Bunch and Mateo Canas. Farmer Experimenters: The Technology they Develop on their Own.*

Is there such a thing as over-training and over-institutionalization in PTD? There probably is misuse of training and a tendency towards bureaucratization, workshop participants agreed, stressing that it was important to identify competencies needed for institutionalization so that training could properly be provided. Coordination between training institutes and development organizations was also stressed. Successful cases in Ethiopia point to very little formal training beyond the series of workshops where terms of reference and the next steps are worked out.
At this point, value was given to documentation showing negative experiences, the struggles and failures. We could learn more from the failure stories than from success stories.

Some structure, however, is needed in training. Topics would include:

- The main principles of PTD;
- The main steps/components of PTD, each with a clear description of the output expected to reach objectives, and the methods to achieve these; and
- Clear and simple case studies that show how PTD works in the field.

As far as collaborative and coordinating platforms for PTD is concerned, the cases emphasized the development of common understanding among partners regarding the importance, main mechanisms and roles of each partner. This would deter people from holding wrong expectations of each other and of the process.

**Universities can nurture the process**

Institutions of higher learning (e.g., universities) can be in a good position to help institutionalize PTD if they can nurture that continuous learning process. This means confronting the tendencies of academics to look down on indigenous knowledge, the farmers who develop it in agriculture, as well as the elimination of attitudes of superiority over extension workers. Change could be triggered if farmers are brought into classes to show that they can answer technical questions confidently.

PTD can be promoted by developing the university curriculum. (Vietnam is preparing a working paper on this.) The key element in the PTD curriculum, as it is in Ethiopia, is exposure to actual PTD work at the village level. Entry points may be identified within existing subjects as part of a move to reorient agricultural studies towards more process oriented values and principles as against the stress on technology. Stakeholders will need to agree on a cycle of curriculum development where clear responsibility/commitment among partners are defined and reports sent regularly to policy or decision makers. Stakeholders include students, government agencies, NGOs, private companies, particularly those with whom graduates will be working. It was suggested that a faculty committee for curriculum development be created. Prospective donors should be tapped for funds towards the new curriculum.
Other recommendations:
- workshops and newsletters may be organized to discuss, give feedback and draw commitments,
- Field-based learning or practical experiences would be designed to run parallel to the PTD process,
- monitoring system to gather feedback from alumni could be developed.
- encourage PTD teaching staff to communicate/interact globally,
- set good examples of how to encourage/convince others regarding PTD.

IMPLICATIONS OF PTD FOR A SOCIAL FORESTRY EXTENSION CURRICULUM

A university level "Agriculture and Forestry Extension" curriculum has been developed in the Participatory Curriculum Development (PCD) process implemented by SFSP and its seven working partners, along with curricula of other subjects relating to social forestry. Up to now, the first draft of the workbook, the result of a long collaborative effort, has been distributed for revision and feedback. The workbook was designed with ambitious aims of providing a comprehensive set of knowledge and skills for future extension workers. However, with the field-based learning experience from the PTD process, some of the reflection and its implications can help to reflect on the structure and content of the curriculum.

Instead of over-emphasizing the "teaching" role of extension, PTD should be considered the main component of the subject. Firstly, as discussed above, to cope with the situation of forest dweller communities, which are complex, diversified and risk-prone, the extension system should be more responsive than directive. Secondly, in using PTD as the main approach, future extension workers will be trained to develop their attitudes to become learners rather than 'teachers'. There is clearly a need to rethink the target groups the future social forestry extension workers will work with. In addition, combining Agriculture and Forestry Extension, as indicated in the name of the subject, can lead to the simplification of the approaches. An alternative for the revision is to create ways to de-emphasize some extension approaches in order to provide more space for PTD.

Influencing Policy Makers

Before universities and research organizations start to adopt PTD-oriented training or consider institutionalizing it, decision-makers must adopt it as policy. At this point, PTD takes on a political dimension. The power game at the highest level in an organization involves the formulation of research policy. Ways must be found to gain support from policymakers and high-level management for the institutionalization of PTD. Allies within the organization need to be identified and their support enlisted. At the same time, it is important to listen to the concerns of those within the organization who do not favor PTD approaches, and to seek ways to respond to their concerns, perhaps by adjusting the approach to institutionalizing PTD.

A two-level approach to influencing policymakers is suggested by the cases as working from both the "top" and the "bottom". Working from the "top" could include the following:

- Inviting a key decision-maker to "chair" the coordinating body (within an organization or a platform of several organizations) to institutionalize PTD
- Creating an awareness of specific field experiences and results, e.g. by organizing "exposure" field visits for policymakers, where they can see and listen
- Feeding field experiences into the regular planning and review meetings and into strategic events concerned with agricultural development
- Including policymakers in international workshops or conferences on PTD, and inviting them to make opening statement or keynote addresses and helping them to prepare for these
- Preparing and distributing policy briefs on the concepts and practices of PTD
- Strategic distribution of "easy to read" newsletters and books on PTD
- Identifying existing policy, e.g. to achieve household food security, and demonstrating how PTD can contribute to achieving these policy aims.

Working from the "bottom" could include intensive interaction with field-level staff and local administrations to create examples of PTD, inviting reflection on these experiences and thus building up pressure for change from below.

Individuals and groups with field experience in PTD need to build partnerships and networks to influence policymakers. After policy has been
changed, at least on paper, there will still be a need for a "watchdog" function to monitor the progress of implementing the policy.

Efforts must be made to convince policymakers of the need for farmers' participation in setting research priorities. In some areas where farmers are not yet organized, this role could initially be played temporarily by development NGOs, but a focus of the latter’s work should be on strengthening the organization of farmers so that they can express their own views. If farmers are given a stronger voice in decision-making about research, this will create more pressure for change within the formal institutions. At local administration level, local ordinances related to financial, technical and fiscal matters could be passed in support of PTD. Within the formal institutions, the introduction of participatory mechanisms for staff supervision could create an environment that favors PTD approaches.

Four related dimensions of organizations must be considered in the creation of an internal environment conducive to PTD. These are internal sharing and learning, rewards system, organizational culture, and partnership. Below are some proposed mechanisms for each. Some may apply to any agricultural development organization, others are specific to research institutes.

### The matter of meetings

- Meetings must be planned well. They should not be too frequent as time is a scarce resource.
- Meeting agenda need to go beyond the discussion of technology results and output to include PTD processes and ultimate impact (e.g., use and spread of research results)
- In one of above meetings, there needs to be a discussion on more fundamental question of what the development vision of the organization is. For research organizations, it includes such questions as what people understand as "good" science. This to break through the narrow and elitists views of certain groups of researchers: What are the criteria for "good science"? What has relevance to do with it? What about impact, the use of results by partners, including farmers?
- Allocate adequate time and budget to cover unanticipated transaction cost.

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3 Theme Group Report on Internal Structures: Ursula Hollenweger, Ashraf Naseh, Laurens van Veldhuizen; with some contributions from the Matrix group
Some practical ways of communicating the evidence of PTD's potentials involve documenting the successful cases, not only the end results but the whole process. Numerous stories from the field show how local capacity has been built and mutual trust deepened in partnership. Farmers should be included in the documentation process. Reports could then be packaged according to the particular needs, motivations and characteristics of the audience. Thus different methods and forms will go to policy makers, researchers, extensionists and farmers. Appropriate forms such as press releases and fact sheets may be sent to other professionals such as journalists and lawyers who could help lobby for better laws and push for action.

For marginal farmers to succeed at PTD, advocacy and lobby work is necessary to strengthen the farmers' voice to gain support from policy makers and high-level management for research decision-making and use of funds

**Reward systems**

Recognition and rewards to PTD practitioners and programs is a key element in creating an environment conducive to PTD. The following could be done:

- Creation of an annual award for outstanding work for one or a few staff to include a FPR dimension. Very effective if the announcement of this is done in a public meeting by senior management.

- Organizing competitions such as in Ethiopia where researchers and extensions/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 (both staff and farmer).

- Providing for opportunities to combine continuation of discipline based research with involvement in FRP (internal matrix structure)

- The per diem system is both an encouragement to go to the field and a bottleneck that prevents staff to go to the field if not available.

- In most organizations there is a distinct committee that decides on allocation of funds for proposals/projects and/or career advancement of staff. Targeting committee members for exposure to FPR may lead to inclusion of FPR relevant criteria in the decision making of the committees.

- FPR advocates should made more known to 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 a new role and acceptance from the side of farmers.

- In most organizations, a distinct committee decides on the allocation of funds for proposals, projects, or the career advancement of staff. Targeting committee members for exposure to PTD, such as is done in Thailand, may lead to the inclusion of PTD relevant criteria in the decision making of the committees.

- PTD advocates should make more known to their colleagues journals where PTD work can be published, particularly maybe if there are among these double refereed journals. For many researchers and extension workers, the positive interaction with farmers is a reward in itself.

- Experience shows that for many researchers and extension workers in PTD, the positive interaction with farmers is a reward in itself. Extension workers, in particular, suddenly find a new role and acceptance among farmers.

**Organizational culture**

Situations need to be created for researchers, extensionists and farmers to cultivate the new rules of the game upon which PTD depends. Ways of doing this include:

- encouraging staff members to identify local innovation and informal experimentation. This can be followed by internal staff seminars to discuss and analyze: What does this mean for the way we work? This approach has been applied quite successfully in the Indigenous Soil and Water Conservation (ISWC) program, especially in Ethiopia and Tanzania.

- exposing staff at various levels in the organization to farmer realities and farmer creativity through field days, study programs, farmer innovation markets (see ISWC-Cameroon case study), traveling seminars and involvement in RRA/PRA exercises.

- deliberate planning to create opportunities for cooperation between different disciplines or departments within the organization, as well as with other organizations. Funding for this cooperation must be secured. This may involve donor funds but, ideally - especially in the long run - should involve internal reallocation and sharing of costs.
CHANGING THE CULTURE AMONG RESEARCH TEAMS

Monitoring outcomes, particularly the changes of behavior that lead to beneficial change and impact, contribute towards creating a "learning and change" culture among research teams involved in pilot studies. Already monitoring and evaluation (which seeks to determine whether an activity was completed or not) and logframes (which provide logical relationships between goals, purpose, and outputs) have found their way to these organizations.

Nevertheless, researchers and their organizations need a longer view geared to increasing impact and thus must take stock of the approaches they use. Ashley and Hussein (2000) contend that to improve the impact of development projects, assessments look at long-term intended and unintended consequences of the activities across a variety of livelihood concerns.

Source: Opondo C., Sanginga P., and Stroud, A.; Monitoring the Outcomes of Participatory Research in Natural Resources Management: Experiences of the African Highlands Initiative