Looking at the institutionalization of PTD from the perspective of development NGOs and farming communities presents new and diverse issues and challenges. If in research institutes the incorporation of PTD processes would focus on institutional change, in civil society, it revolves around empowerment and building competencies so that groups can set their own agenda. Highlighted in this setting are the role of community structures and such issues as equity, gender and governance. In this context, stakeholders may be drawn by the swirl of PTD processes as they evolve in the course of program implementation. As the projects mature, so too must the roles of all partners adjust to keep apace.

**Issues in engagement with civil society**

A whole series of issues, not as important in other settings, come to the forefront in civil society settings. Here PTD principles of participation and transparency are tested against the realities of the farmers’ poverty and the power not only of politicians but also of donor agencies and markets.

In view of the imbalance in power and the push to achieve project objectives, community level organizations are important in PTD processes. Farmers use these local institutions to negotiate with formal systems where individual influence is usually not enough. On the other hand, external agencies need such institutions to ensure greater effectiveness and continuity beyond project timeframes. But what should be done when these organizations are weak or nonexistent? In the Sudan, existing community structures were utilized wherever they were present; where there were Village Development
Councils, the official structures for rural improvement, these were revived or constituted. Nevertheless, caution is indicated and stakeholder analysis called for, to ensure that these new entities are appropriate and sustainable.

The length of NGO engagement with farmers groups is a crucial issue in PTD. Some NGOs that conceive themselves purely as catalytic agents and thus move out too soon can leave behind collapsing farmers’ organizations. Immediately the question of training becomes relevant particularly as the project matures and roles evolve. New capacities and core competencies will need to be identified so that relevant training programs could be developed. Doubts were expressed as to whether farmers and other non-researchers should undertake higher levels of training.

Other issues revolve around who invests in PTD, who decides the criteria and application of funds, and who are accountable for results. Among the challenges is striking a balance between implementing a national PTD strategy and improving fund access by decentralizing resources to where they are needed in the field.

Meanwhile, donors may bypass ongoing processes by disregarding local initiatives in pursuit of different agenda. This can result in competition among farmers’ groups that under other circumstances would have cooperated in stakeholder platforms. It is also difficult to avoid pushy program officers

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<td>Should new community structures be developed or will existing ones do?</td>
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<td>What mechanisms are needed so that farmers’ priority needs are addressed? How do we prevent researchers from dominating the process? What will glue the partners together?</td>
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<td>What are the basic competencies among farmers and farmers' organizations so that they can sustain PTD? Who can provide training?</td>
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<td>How can donors become more accountable to communities? What is the donor's responsibility in getting groups to cooperate?</td>
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<td>Who pays for PTD? Who decides on the use of funds and the criteria for allocation? How can decisions regarding funds be decentralized? How can funds be mobilized internally?</td>
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<td>When does the intervening agency exit? If roles evolve in partnerships, does the agency need to exit? If the agency exits, who owns the project then?</td>
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<td>Can politicians really be partners? How can government bureaucracies enable or stall institutionalization?</td>
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from donor agencies who distract program staff and leaders of local organizations. Mechanisms are needed to ensure donor agency accountability in the partnerships.

Farmers bear costs in the form of opportunity losses when they are taken away from their farms. Burdened as they are with trying to make ends meet, subsistence farmers do not have to shoulder the costs of PTD work. Support will thus have to be generated. With external sources drying up or being directed to new priorities, there is greater pressure to mobilize sources of local finance. Local and national governments will need to be influenced to support these activities.

Clearly, engagement with local political structures and politicians is fraught with dangers too. Already listed among the obstacles that cannot be avoided is the red tape in registering community-based organizations. Troubles can erupt as resources for doing PTD are allocated through political processes. Often PTD advocates are obliged to work through highly politicized local administrations or not be allowed to work at all. Easily this association could color—if not misdirect—PTD work, causing project stakeholders to be alienated from the communities they seek to serve. With power such as this in their hands, local politicians can quash PTD projects or hijack civil society efforts to gain political mileage.

As a highly empowering method, PTD is essentially a political process, or at least one that will eventually have repercussions on local politics. Development workers have avoided politicians, apprehensive that development goals may be compromised as politicians carry out their own agenda. The challenge may be to find ways of involving politicians in development by using PTD methods and by institutionalizing PTD in the politicians' own spheres. This way there is the possibility PTD may become a non-partisan school for local politicians.

**Empowerment – the central concern**

Caught in the clutches of poverty, inequity and political opportunism, farmer organizations are usually handicapped in negotiations. In PTD platforms, they face more articulate, more powerful and better-resourced entities such as research institutions, NGOs and other civil society actors. Bureaucrats, politicians and donors may make or break the institutionalization process.
Similarly, government centralization or decentralization could boost or retard organization.

Maintaining a platform based on mutual respect and accountability is difficult in unequal arrangements. In this case, the feasibility of a PTD project depends largely on how farmers are catalyzed and empowered by the vision and the workings of their organizations. These organizations serve as the mediums through which outside groups could relate to pursue PTD and build consensus around what resources to commit.

To function fully in the PTD process, people's organizations must have the technical and political capacity to set their own agenda and identify the expertise and resources needed to support local innovation. They need to ensure that priorities are based on community concerns and not outsider interests.

Farmer-to-farmer extension was a key element in the approach to sustainable development in the Mahaweli settlements in Sri Lanka. Forms of sharing to facilitate the exchange of ideas and experiences among farmers include the following:

- **Group discussions**: When farmers got to know each other through continuous sharing and cooperation, they tended to share their ideas more openly and unreservedly.
- **Inter-group events**: Group anniversaries, end-of-season evaluation sessions are opportunities for farmers groups to get together with other groups and newcomers.

### Lessons

- PTD is essentially political
- Community structures are important. Enhance them where they exist. But ensure that old or new, these are feasible.
- Build on the strength of like-minded people in the organization instead of expecting the whole organization to change.
- Extensionists can be bridges between researchers and farmers by helping identify priorities in the field.
- PTD can address gender issues.
- PTD methods evolve as programs are implemented.
- Linkages must be sought out during the institutionalization.
- Market forces can drive PTD.
- Visits to resource farmers: Undertaken usually before planning for the season or before embarking on new ventures, these visits helped orient farmers regarding a specialized activity.
- Cross visits: These visits take place throughout the agricultural season and help farmers acquaint themselves with a broad spectrum of experiments that widen their horizons.
- Farmer presentation: Using visuals, farmers display their successes to larger audiences in seminars and workshops.

Cases illustrate how the new tasks and opportunities offered by PTD invigorate existing or moribund organizations and at the same time underscoring the need and the feasibility of community organizations to assume roles in PTD institutionalization. As in the Sudan, PTD processes showed Brazilian farmers that their community organizations could be meaningful in their lives. Because of their partnership with an NGO seeking to enhance agricultural innovation, farmer organizations were linked with extension, agricultural research, local government and, in some cases, state and federal agencies. This interaction in turn revealed the need for substantial changes in the way the different governmental organizations act and in the policies they implement. Although there is a long way to go, farmers and project associates in the area have taken the first steps towards lobbying of public policies for sustainable family farming.

**BRAZIL: THE ROLE OF FARMERS’ ORGANIZATIONS IN INNOVATION MANAGEMENT**

Innovations are common conversation subjects in the many structures and organizations of farming communities, whether they are traditional and informal (mutirão or mutual-help groups, groups of neighbors, family relationship networks) or formal (associations, cooperatives, unions). Even if reciprocity relationships are less frequent than in the past, the greater part of the education of young farmers still happens through kin or proximity structures (Abramovay 1999). The whole set of these relationships constitutes a form of local social capital (Putnam 1993).

Is it more interesting to build innovating capacities in existing organizations or is it better to stimulate the emergence of specific structures (interest groups, experimental committees, etc)? Our experience points to the initial option as working with existing structures (sindicatos and community associations), mainly in support roles.
But does the actual experimentation call for institutionalization? Increased ‘structuring’ of the PTD process is needed through such mechanisms as regular annual meetings of experimenting farmers in a given region. Too much structuring will certainly be counterproductive. Where lies the point of equilibrium? Would it be better to wait and see what develops, while farmers continue experimenting and participating in different capacity building initiatives? Experience seems to show that local conditions are crucial in shaping the answer to these questions.

Projeto Paraíba shows the intense involvement of the sindicatos and community associations in processes linked to agricultural innovation. Much has changed in the institutional picture among project partners since 1993. For example, Solânea and Remígio Sindicatos started partnership in the search for alternatives to old-age pensions, which took up most of sindicato leaders’ time all over the country. Today these unions still work on pensions, but they have also learnt that it is not only possible, but also in their own interest, to work on subjects such as water harvesting, animal husbandry, seed banks, etc. Although this sort of ‘reconversion’ is not entirely consolidated, progress is visible. The evolution of community associations goes in the same direction. The results obtained, as well as the energy that is being invested by these farmers’ organizations, show that they can have a decisive role in these processes, even if traditionally they were not involved in this issue. The interest shown by farmers and their families in the entire process suggests that the ‘reconversion’ of these organizations could be invigorating.

Source: Eric Sabourin, Pablo R. Sidersky and Luciano Marcal da Silveira; Farmer Experimentation in Northeast Brazil: The Story of a Partnership between Smallholders’ Organizations and an NGO Seeking to Enhance Agricultural Innovation in the Agreste Area of Paraíba State.

Negotiating power is inherent in institutionalization. In PTD, it is palpable in the ease or the difficulty in shaping pro-farmer policies in research organizations, in the maneuvers of politicians as they provide benefits that would enlarge their bailiwicks, and in the efforts of farmers and their organizations to access resources for production. In view of conflicting interests, PTD advocates stress the importance of organizing farmers so that they become visible, so that their voices are heard, and so that investments are made in their quests for sustainability.
**Gender and PTD**

PTD research can also uncover important gaps in service delivery to groups that otherwise would not have been served. In many places, farmers are generally thought of as being male, research findings pointed to the growing number of females engaged in agriculture and thus triggered adjustments to direct extension work towards their needs. The success in women’s self-help groups has led to complacency among men in the village. Although women’s status has risen, so have their responsibilities and worries. Many NGOs work with women but they are not gender conscious either. As a result they contribute, sometimes unwittingly to women’s physical and mental burdens.

Some NGOs have adopted the family approach to ensure that continuity in PTD. In a case in India, women participated in a season-long training program on integrated pest management for their cotton crop. In the course of the training process, they became confident that they could manage growing cotton without having to use pesticides. At a critical stage, however, the men decided to intervene and pressed their wives to apply pesticides. This was done at the wrong time and led to a reduction in the yield. Today both men and women attend training programs together. They find that gender specialists may have to be called in to consider other solutions.

**SEEING THE WOMEN THROUGH PTD CONTEXT:**
There is a growing trend of the feminization of agriculture in the developing world in the last thirty years. According to a trend analysis in the period 1950 to 1990 carried out by FAO for the 1996 World Food Summit, women now exceed men as a proportion of the economically active population in agriculture in Africa and Asia. Women’s participation in agriculture is increasing rapidly all over the world. They produce more than 50% of all the food that is grown worldwide. The statistics compiled by the FAO from across the globe resoundingly contradict the stereotype of the farmer as a man.

This is especially the case in China, which is experiencing a major economic and social transition. Under the transition, male migration from agriculture is resulting to the feminization of agriculture. Women constitute approximately 80 percent of the agricultural work force and perform more than 80 percent of the routine farm labour, with high variation from place to place (Gao, 1995, Song, 1998, UNDP, 1999).
Studies show that poorer areas have a larger proportion of women in agriculture and that the lower levels household incomes are those from female-headed households. Although women comprise more than 85 per cent of the agricultural labour force in the selected villages in the project area in SW China. Public research and extension systems in China have been "designed for men" and are predominantly male-staffed. To them, ‘farmers are farmers’, and gender analysis is irrelevant. On the other hand, there is the difficulty that, when village men return from the town on leave from their work, it is they who attend the extension meetings and training sessions, even though they are no longer active farmers.

- Research findings demonstrate that neglect of gender issues in formal agricultural research and technology development keeps agricultural output and welfare below their potential levels. It is crucial to involve women farmers into PTD process, and understand their needs, interests and expertise in agricultural innovation. There is an urgent need to pay attention to gender aspects of institutionalization of PTD.

Yiching Song

To organize or not¹

Debates have arisen over whether it is advisable to organize where there are no viable farmers groups. The Sudanese experience in introducing the donkey-drawn plow illustrates that community organizations formed as a natural growth from an informal group could be more successful than those that started formally. The experience required relaxed timeframes that did not force the pace of group formation and association to fit an external project framework.²

¹ (Y. D. Naidu, Chris Opondo, Julian Gonsalves, Sophie Bodegon, Kennedy Igbokwe, Ejigu)
W. SUDAN: LESSONS IN INTRODUCING THE DONKEY-DRAWN PLOW

- Technology development is a long process that starts with needs identification and ends with a sustainable process working effectively through normal market channels. In this case, the process took around 12 years.

- The farmers’ and blacksmiths’ CBOs proved to be essential elements in pushing the PTD process forward. Without their efforts, the Plow would never have been developed.

- CBOs formed as a result of natural growth from an informal body are more successful than those started formally. This requires relaxed timeframes without forcing the pace of group formation to fit an external project framework. Project strategies should consider this element.

- Manufacturers in general and the blacksmiths in particular demonstrate their own creativity in developing the technology further. Some of them have already fabricated a slightly larger-scale Plow version to be drawn by camels.

- The project would have had even greater impact in institutionalizing the PTD approach had this concern been built into the project design from the beginning, e.g. by involving government services and universities much earlier. As it is, the greatest impact has been in strengthening capacities for PTD in local-level institutions.


In the absence of strong or viable local farmer organizations, however, it would be wrong to impose farmer organizations and committees too early, just because one wants to institutionalize and scale up the PTD process. One might learn from the cooperative movements in Asia where form and structure was emphasized over process. The results: thousands of local institutions mushroomed but collapsed. Similarly in East Africa, communities were pressured to establish groups - many of which were not sustained. In many newly settled areas marked by a great diversity of ethnic origins, group formation turned out to be a complex task often resulting in immediate collapse.
So what does one do in situations where a network of farmer organizations does not already exist or where there has been a history of failures of local organizations? The advice is "never organize farmers unless they themselves have experienced the disadvantage of not being organized and ask for help . . ." (Koo Para Tivo). It would be better to first consider enhancing the social capital of communities. Study the people and community to determine the existing social characteristics and dynamics as well as their problems.

Where there are no strong farmers organizations it would be wise not to impose the need for such local structures but instead emphasize the need to mainstream PTD at the support institution and individual farmer levels. Here are some ideas to consider:

- Often it might be good to ask ourselves why we require groups. We should ask ourselves if the formation of groups could not wait a while. We can start by working with interested individuals. Interest groups might subsequently evolve.
- Study local channels of communication. Use them to promote ideas. Awareness and improved understanding is the crucial first step.
- In almost all rural societies there are already existent groups. These might be clan-based groups, or based on social strata in the community. These could be women’s groups or groups of the landless. Start by working with these existing groups even if there are some limitations from the fact that they are not representative of all sections of the community.
- Emphasize qualitative scaling up of the PTD process within the various support institutions (local NGOs, research and extension institutions). By engaging large numbers of organizations at different levels in the PTD process, the approach will be mainstreamed and the inter-phase/contact with farmers in various locations would have been improved greatly.
- In the development and dissemination of successful innovations emphasize farmer-to-farmer processes so that these practices are "institutionalized" initially at the individual farmer level. The focus on farmer-to-farmer approaches would foster wider dissemination to the rest of the farming community. When capacities (to innovate and solve problems that arise) have been strengthened at the farmer level, one might assume the process would have been mainstreamed and sustained at individual farmer level.
- Farmers may eventually feel that they need an organization. Initially farmers could be organized as working groups or task forces or other similar informal structures. Out of these will arise the more formal farmer organizations.
In the above scenario, one has assumed that strong farmer organizations were not already existent when PTD was introduced. In this situation the initial focus is on support institutions and individual farmers. Farmer organizations evolve from this farmer-to-farmer movement and as these are nurtured, the role of the support institutions is slowly reduced. The linking role of NGOs or local universities might be featured in nurturing this process. It is therefore not advisable to emphasize form and structure over process in situations where viable farmer organizations did not already exist. A strong social capital can be in place even without the existence of formal groups! Build on this and let groups and structures evolve.

Farmers in Costa Rica’s CRAEZN, a regional commission on farmer experimentation, became more involved in political decisions by demanding from the public sector accountability for farmers welfare and development. As farmers continued to promote alternative activities and honed their analytical capacity the government started to modify policies on how it would work with farmers. Basic concepts that emerged from the experience include the recognition of the capacities of farmers, interaction between theory and practice, improved attitudes towards dialogue and change. CRAEZN itself was organized upon the realization that existing research systems did not consider the needs of farmers and consumers.

Most farmers, however, are not organized and if they are, these organizations are likely to need training and organizational strength so they may identify

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**FARMER EXPERIMENTERS IN HONDURAS: Developing technology on their own**

PTD became widely used in Honduras starting with the World Neighbors-managed Guinope Integrated Development Program in January of 1981. Although many of these programs, ended in the late 1980s or early 1990s, these made Honduras one of the richest nations in terms of its per capita concentration of farmer experimenters (FE). Today hundreds of small-scale villager farmers in Honduras continue to experiment and develop new technologies without outside support for as long as 12 years since the outside agency terminated its work in the area. Experience shows that through a system of farmer experimenters, PTD can be sustained even without external agencies.

Source: Bunch, Roland and Canas, Mateo; Farmer Experimenters: The Technology They Develop On Their Own
their needs, as well as set their own agenda, strategy and indicators of success. PTD processes help bring stakeholders together for stakeholder analysis, roles and task identification. Common platforms, mutual respect and accountability results must be shared.

From the failed efforts at institutionalizing PTD, a number of problems can be identified. This requires designing from the start and with the farmers an exit strategy and agreements about subsequent project ownership. Agencies that intend to become part of the emerging institutional system also require a clear strategy.

Market forces can sometimes sustain or kill PTD. The Sudan case involving the development of a plow showed how market demands expanded work towards the training of blacksmiths in plow fabrication. The impact of markets also depends on the nature of the group. For example, subsistence farmers do not need to engage the market. It is important is for planners to draw out assumptions of the market and check whether they must be considered in the project.