

Notes on Local Innovation and Participatory Innovation Development

PROLINNOVA

Introduction

These notes attempt to shed light on key concepts used within the PROLINNOVA network. Continuous reflection is needed on these, as new people with new insights join the network and as experience with implementation in both old and new Country Programmes allows new lessons to be drawn. New perspectives and concepts are also continuously generated in the wider world of agricultural research and development (ARD) around us, stimulating us to re-think and define more clearly what we mean.

The latest rounds of reflection on local innovation and Participatory Innovation Development (PID) took place during the International Partners Workshop (IPW) in Ghana in April 2008, and during a retreat of Netherlands-based members of the PROLINNOVA International Support Team (IST) in June 2008. These notes summarise these discussions, and expand on concepts discussed already in *Recognising Local Innovation* (Wettasinha *et al* 2008). The aim here is not to proclaim universal truths, but to search for a level of common understanding that is essential for good implementation of PROLINNOVA-related activities on the ground and for good functioning of the network at national and international level. We should be able to agree on some key principles, though network members may not agree on all details. For example, each Country Programme (CP) has generated its own definition of “local innovation”, based on in-country experiences and current levels of understanding, and these definitions are evolving at different rates. Differences in perspective and new perspectives continue to give rise to debate. This is constructive, as it stimulates further thinking about how to enhance innovation in ways that benefit resource-poor farmers. (Remember: in PROLINNOVA, we use the word “farmers” as a collective term that includes small-scale crop farmers, pastoralists, forest users, artisanal fisherfolk and other users of natural resources.)

Notes on local innovation

Local innovation (without an “s”) is the process by which people develop new and better ways of doing things – using their own resources *and on their own initiative*. In so doing, they may be exploring new possibilities simply out of curiosity, or may be responding and adapting to changes in the condition of natural resources, availability of assets, markets and other socio-economic and institutional contexts brought about by higher-level policies, disasters, climate change and other external influences. Local innovation often occurs in the face of new challenges or opportunities.

The outcomes of these processes are local innovations (with an “s”) that have been developed and are understood and owned by local people. These innovations may be developed by individuals or groups or even entire communities. They may be new farming techniques but also new ways of organising farming or other resource-management activities. In other words, they may be technical and socio-institutional innovations, including policy change at local level, e.g. bylaws for using natural resources. A successful process of local innovation leads to local innovations that improve the lives of many people in the area and/or of particularly disadvantaged people such as the poor and marginalised – a segment of the local population that, in many societies, includes women.

Local innovation = process of developing new and better ways of doing things

Local innovations = the new ways of doing things (in terms of technology or socio-economic organisation or institutional configuration) that result from the innovation process

The process of local innovation often involves informal experimentation by the resource users. This has always been taking place all over the world since time immemorial, but is often ignored in research and development interventions. The PROLINNOVA network, among other like-minded initiatives, is now giving increased attention to identifying and documenting the local innovation processes and the innovations that result from them. We do this to increase awareness of the relevance of local innovativeness for meeting the needs of farming families and communities and to encourage development agents and scientists to interact and support this local innovativeness.

Identifying local innovations offers development agents and scientists – as well as farmers – an entry point for identifying questions of mutual interest which they can explore jointly, so as to improve agriculture and NRM by resource-limited farmers in an effective and sustainable way.

The core message in PROLINNOVA:

Local people are innovative on their own initiative. They adapt and improve their practices, when necessary or opportune from their perspective. Research and development (R&D) programmes will be more effective if they take this innovation capacity seriously, link up with local innovators, and seek ways to integrate formal R&D work with these local initiatives.

Some issues for debate:

Here, on the basis of discussions thus far within the PROLINNOVA network, some answers are suggested but – remember – these are not absolute truths! Would you answer these questions differently? If so, let us all know, so as to challenge thinking and improve action in PROLINNOVA.

Can traditional practices be regarded as local innovations?

No. Traditional practices are handed over from generation to generation and do not reflect an effort to find new and better ways of doing things. Local innovation does take place, however, when farmers adapt traditional practices, e.g. replace a component or ingredient that has become scarce or unavailable. And it can also involve reviving and further developing traditional practices when an external input is no longer available, such as when fertiliser becomes too expensive and crop farmers revive the practice of inviting livestock-keepers to keep animals overnight on cropland to manure it before sowing, but the farmers start to pay the livestock-keepers in cash for this. It may be useful to document traditional practices and to raise wider awareness about their possible relevance for today's and tomorrow's situation, but this could not be regarded as documenting "innovations". By definition, *innovations* are new whereas, by definition, *traditional practices* are old (although, when they were developed long ago, they were innovations at that time). *Indigenous practices* embrace both local innovations and traditional practices. But it is often not clear-cut whether something is an innovation. The boundaries may be blurred. The discussions and debates whether something is indeed an innovation help sharpen the focus of our search for local creativity.

How does a local innovation differ from an invention?

A *local innovation* is new in that specific locality. It may already be practised elsewhere, but it is new in local terms. A farmer who has developed an innovation has not simply copied it from someone or somewhere else; s/he has come up with it on her/his own initiative. Not only individuals but also local groups may come up with better ways of doing things. These local innovators are most commonly building on the body of indigenous knowledge in that locality. They may have been stimulated to try to do something differently out of their own curiosity and creativity or because their imagination was triggered by something heard or observed. An example would be the farmer who saw drainage pipes being laid in a nearby town and thought he could use this principle to drain his waterlogged land (Hailu Araya *et al* 2008). Elsewhere in the world, farmers may have long practised land drainage but, because no one in this farmer's locality had tried to use

underground drainage to make land arable in the wet season and no-one told or taught him to do it, it is a local innovation.

An *invention*, on the other hand, is a technique/technology that is new in absolute terms, i.e. it had never been “discovered” or developed anywhere else before.

How new does an innovation have to be?

PROLINNOVA network members who are trying to identify local innovations have developed different guidelines for what is considered “new”. Some say that something is “new” if it was developed within the past 20–25 years (i.e. within one generation); others might say it is “new” if it was developed within the working lifetime of the farmer (which could be in the last 60–70 years).

Notes on Participatory Innovation Development (PID)

Participatory Innovation Development (PID) is an expansion of the Participatory Technology Development (PTD) approach. At the heart of PID is joint experimentation, in which farmers together with support agents investigate possible ways to improve the livelihoods of local people.

In PROLINNOVA, we started using the term “PID” rather than “PTD” mostly to emphasise that the participatory research and development activities deal not only with technologies but also with organisational innovation and change, including socio-cultural change such as in the roles of men and women. The term “PID” embraces this broader understanding of participatory research and development.

The approach of identifying local innovations is one entry point to PID: we start by looking at what farmers are already trying to do to solve problems or grasp opportunities they perceive. Looking at these concrete local examples can lead into a situation analysis with farmer innovators and community members, as a starting point for planning joint research and development activities. The local community and the scientists and/or development workers assess together the current and likely future impacts of an innovation, in order to judge whether it will indeed be beneficial for a large number of families in the area, particularly for the poorer or otherwise less advantaged ones, and will not lead to negative environmental or social consequences.

PID is an approach to research, extension and – above all – development. Often, it is undertaken by farmers together with development agents, without the involvement of formal researchers. It is not possible for formal research to work together with the millions of smallholder farmers in remote, marginal and highly diverse areas throughout the world. In such areas, where “blanket” solutions are rarely applicable, local experimentation is needed to find a variety of new ways that work and to adapt new ideas to specific local conditions. PID is meant to support and strengthen this local experimentation process, and – in most cases – the farmers’ main partners in PID will be development agents in governmental and non-governmental organisations.

Some network members argue that it would be better to refer simply to “Participatory Innovation” (PI), which puts emphasis on the process of innovating together, rather than referring to PID, which puts emphasis on developing innovations. Perhaps, over time, we will start to refer to PI instead of PID. This would be an example of how concepts evolve within our network. To maintain the focus on development, it could be called “Development through Participatory Innovation” (DPI).

Some issues for debate:

Here again, on the basis of discussions thus far within the PROLINNOVA network, some answers are suggested but – remember – these are not absolute truths! Would you answer these questions differently? If so, let us all know, so as to challenge thinking and improve action in PROLINNOVA.

We often refer to “farmer-led” or even “community-led” activities (innovation, experimentation, documentation etc). Are we seeking 1) equal partnership of multiple stakeholders, or 2) “farmer-led” activities with the support of other stakeholders?

Some stakeholders in the PROLINNOVA network seek to promote local innovation in order to strengthen the role of farmers in ARD partnerships, so that these partnerships become more balanced (closer to equal) in comparison with ARD partnerships led by outsiders such as researchers and/or development workers. Some argue for using the term “farmer-centred” and others for using the term “farmer-led”. The term “farmer-centred” puts farmers at the focus of efforts being made by people from outside to support the farmers (as we can assume that the farmers themselves are putting themselves at the centre of their own struggles to make a livelihood). The term “farmer-led” emphasises that the initiative comes from the farmers, that they define the innovation agenda. External research and development workers participate in the agenda set by the farmers. They work with and support the work of innovative farmers in a group or community context. This is one extreme of participatory research and development. At the other end of the continuum are the farmers who participate in the agenda set by formal research. In the PROLINNOVA network, we welcome all activities that bring participatory research and development further along the continuum toward farmer-led ARD.

Is the term “farmer-led” misleading, because “outsiders” always take the initiative in approaching farmers to promote local innovation?

Currently, research and development workers, including those in development projects, are most commonly the ones who approach farmers to offer collaboration or services, rather than farmers approaching them to seek collaboration or services. However, even where the external agencies take the initiative to approach farmers, it is possible to open up key roles for farmers in planning and implementing the joint activities. The PROLINNOVA approach is meant to open the eyes of ARD actors to the fact that farmers are indeed taking initiative in their own local research and development activities. Gradually, farmers, farmer groups or farmer organisations are starting to take their own initiative also in seeking outside partners to collaborate with them. The mechanism of the Local Innovation Support Fund (LISF)¹ being piloted by some PROLINNOVA Country Programmes is one way to enable them to do this. It gives local people power through their decision-making over the use of research funds and is thus a mechanism for changing the conventional hierarchy in “participatory” R&D.

Should PID always start and work only with existing local innovations?

The words “Innovation Development” in PID do not imply that PID is confined to working with local innovations. Any joint experimentation anchored in community-level assessment and decision-making can be PID. Looking for local innovations is often a good starting point for PID, especially because it helps change the attitudes and behaviour of all involved. When formally educated professionals discover farmer innovation, they begin to see farmers in a different light: not just as people who should receive and adopt technologies but rather as people with something valuable to offer that complements scientific knowledge. At the same time, the farmers gain in self-esteem. They start to see themselves as people rich in knowledge, ideas and ingenuity in surviving under difficult conditions – as people to be admired. The recognition that outside professionals give to local innovation generates pride in local knowledge and creativity. The farmers are more likely to regard their admirers as potential partners in development. Thus, recognising local innovation changes the partners’ images of each other and of themselves. It creates enthusiasm for generating new knowledge together.

However, identifying local innovation is not the only possible way to start PID. Another way would be, for example, facilitating a group of farmers from one place to visit farmers in another place or a research station, and then encouraging the farmers to identify what they would like to explore in joint experimentation. With this approach, however, the attitudinal change within the actors may not be so great or so fast. Giving recognition to local innovation starts off collaboration on a completely different footing than approaches that start with suggesting technologies from outside for farmers to try out. However, the interaction of farmers and other partners in joint experimentation initially on

¹ A Local Innovation Support Fund (LISF) makes experimentation and learning resources accessible to small-scale farmers and other land-users, and is managed by local people to support local innovation processes that emanate from the creative thinking and practices of farmers (see <http://www.prolinnova.net/pilotinglisf.php>).

local ideas is likely to increase farmers' interest in trying out also ideas introduced by the other partners.

Does PID focusing on farmer innovators and their innovations lead to isolated activities with a few farmers, without major impact on the wider community?

Outstanding individual innovators and their innovations can be so fascinating that they attract most of the attention of ARD actors coming from outside the farming community. The challenge is to work with these innovative individuals in such a way as to create entry points for a PID process that includes other community members and addresses issues important to many families in the area. Local innovations can be made a focus of discussion by farmer groups or entire communities and can be jointly assessed according to the extent that these innovations help solve priority problems within the community or within a group of disadvantaged people in the community.

Can farmers do PID on their own?

No. Farmers who do research and development on their own, i.e. not together with others, are doing "farmer experimentation" or "local experimentation". This activity becomes PID only when also other actors, such as people from research and/or development agencies (governmental or non-governmental), farmer organisations or the private sector (e.g. local artisans and traders) collaborate with the farmers in joint experimentation.

Does the PROLINNOVA network primarily aim to mainstream PID? Is not this focus too narrow?

If the term "PID" is used to refer only to joint experimentation, then aiming to mainstream this may be too narrow a focus. Identifying local innovation and engaging in joint experimentation is a path towards more balanced partnerships between the various actors in ARD. PROLINNOVA and other like-minded initiatives are seeking widespread acceptance of farmer-led participatory innovation as one important pillar in ARD.

PROLINNOVA's vision:

A world in which men and women farmers play decisive roles in agricultural research and development for sustainable livelihoods.

Promoting local innovation

The word "promoting" refers to "moving forward and upward", "advancing", "furthering". It does not refer to advertising or selling as in PR. The word "promoting" includes the concept of providing assistance and contributing to the progress of something.

In practice, there are many different ways in which research and development staff can link up with and promote local innovation. Their institutional position (researcher, research manager, extension worker, extension manager, university lecturer, etc) and the parameters of their programmes will influence what is realistically possible. Here are some ways in which they can do it:

- **All research and development actors:** Be aware of the existence of local innovation efforts and their possible relevance for your work. In interactions with farmers, realise that they may know more than often assumed and can be your partners in finding solutions to local problems.
- **Field extension/development staff:** Keep your eyes open for local innovators and their innovations and find ways to include them in your regular extension activities. For example, ask innovative farmers to serve as resource persons in a training course, include them in regular extension sessions, facilitate field-days held on their farms or organise visits of groups from other villages to farmer innovators. Encourage the formation of small common-interest groups around local innovators and innovation for joint planning and implementation of further development activities, along the lines of *Working with farmer innovators* (Critchley 2007).

- **Field-level extension/development staff:** Plan local-level activities by starting with finding out from local farmers what questions they are interested in exploring, who in the locality has already tried to explore these questions and what others in the locality think of the results, including what deeper-going questions the farmers have about these innovations. Then plan a joint experimentation process to work on these specific issues.
- **Subject-matter extension specialists and/or formal researchers:** Work together with farmer innovators and other farmers in joint experimentation. If farmers feel this is necessary, help them to set up experiments to gain a better understanding of how the local innovations work. You can also stimulate them to develop new ideas jointly and see how they work compared with other practices; or to investigate possible improvements to introduced practices. Help the farmers analyse and document the results of such experimentation. Field-level extension staff can, on their own, work together with farmers in simple joint experimentation but, where the issues studied are more complex – involving perhaps aspects that are not so readily visible – it is good if scientists can join in the experimentation at least at key points in time, e.g. during planning what to observe and record, and during interpretation of results.
- **Formal researchers:** Undertake, where possible, on-station and/or laboratory research on local innovations, linked to joint experimentation with farmers in their locality so that your results can be applied directly. Writing up and formally publishing the process and results on on-station research linked with such research with farmers can help increase the awareness and acceptance of local innovation processes and their relevance for sustainable development.
- **Extension or research coordinators / managers:** Design and implement with your staff activities to study, understand and document local innovations and to help make promising ones more widely known.
- **Everyone:** Note that “verification” of local innovations can often be done without a process of systematic formal research. The effectiveness of local innovations can be confirmed also through systematic peer review or farmer-group discussions and analysis of local experimentation by a large number of farmers interested in a particular innovation.

All these activities help build local capacities in undertaking research and development. Farmer innovators involved in various field-days and in visits to and from farmers and other professionals develop self-confidence and presentation skills and can then play a stronger role at community level. This is especially the case when recognition is given to women innovators. The involvement of farmers in joint experimentation with research and/or extension workers helps farmers to gain skills in systematic comparison and to understand the principles behind the local innovations and also boosts their confidence to interact with scientists. Relationships that are built up during joint experimentation give local people easier access to research and development agencies to address subsequent matters. The interaction of scientists and technical experts with research-minded farmers builds their capacities to engage in dialogue with other stakeholders in ARD, so that the farmers are in a better position to play decisive roles, not only at the local level but also in exerting influence on the research and development agenda at higher levels.

Conclusion

This concept note is not the last word! All these issues are open for debate. Please make additions, changes, comments etc via the wiki on the PROLINNOVA website (www.prolinnova.net).

References

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