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Promoting Local Innovation: Enhancing IK Dynamics and Links with Scientific Knowledge

Local innovation refers to the dynamics of IK – the knowledge that grows within a social group, incorporating learning from own experience over generations but also knowledge gained from other sources and fully internalised within local ways of thinking and doing. Local innovation is the process through which individuals or groups discover or develop new and better ways of managing resources – building on and expanding the boundaries of their IK.

Local innovation through informal experimentation has always been happening, but only recently has increased attention been given to identifying and documenting the innovations and the innovation processes. But documenting local innovation is not enough. In rural development, the challenge is to move beyond the existing innovations farmers¹ have developed, using their IK and creativity, and to develop these ideas further in joint experimentation, integrating relevant information and ideas from elsewhere.

¹ “Farmers” is used here as a collective term to refer to all people who produce and/or harvest from plants, animals and aquatic organisms. It includes peasant / family farmers, pastoralists, forest dwellers and artisanal fisherfolk, among others.

Why is it important to recognise local innovation?

In the past, rural development efforts usually focused on technical interventions relying on the use of external inputs.

These efforts generally failed to improve the farming and livelihood systems of the poor. Most of the introduced technologies were inappropriate for rainfed farming under marginal conditions such as dry or mountainous areas. In such settings, the key ingredients for sustainable resource management are not external inputs but rather the farmers’ knowledge and management capacities and their skilful manipulation of the locally available resources. Most rural development efforts have failed to mobilise and enhance these “internal inputs”. The dominant approach to research and extension still follows the pattern of “transfer-of-technology”, based on the assumption that knowledge is created by scientists, to be packaged and spread by extension and to be adopted by farmers. This approach denies and often suppresses local initiatives.

Some alternative approaches to agri-

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cultural research and development (R&D) have been capitalising on the knowledge, creativity and management capacities of local people, and linking IK and external knowledge in joint exploration and experimentation (e.g. Gupta 2000, Reij and Waters-Bayer 2001). They commence by identifying what farmers are already doing in their own development and experimentation efforts, and promote action learning by farmers and supporting agencies to develop the local innovations and complementary techniques further.

Identifying local innovations is a first step toward changing the way development workers regard farmers and interact with them. They start to see farmers as partners with something to offer, not just to receive. A positive approach that starts from (but is not confined to) local ideas, that focuses on local people's strengths and explores the particular opportunities open to them, rather than dwelling on their weaknesses and problems, is key to stimulating local innovation processes.

The purpose of identifying local innovation is not primarily to disseminate them in a transfer-of-technology mode of extension – picking out what seem to be the “best”, most widely applicable technologies. Such an approach is not suited for the highly diverse environments in which many smallholder farmers live. A local innovation is developed to fit a particular biophysical and socio-economic setting and usually cannot be transferred “as is” to other settings. However, the documentation and sharing of local innovations can provide ideas and inspiration for others to try out and adapt new ideas to their own setting.

Entry points to Participatory Innovation Development

Local innovations offer entry points for linking IK and scientific knowledge in community-led Participatory Innovation Development (PID). This is a more comprehensive term than Participatory Technology Development (PTD), an approach that NGOs have long promoted. Basically, the activities involved in PTD are:

- getting started (getting to know each other);
- joint analysis of the situation – problems and opportunities;
- looking for ways to try to improve the local situation;
- trying them out in community-led participatory experimentation;
- jointly analysing and sharing the results; and

- strengthening the process, often through improving local organisation and linkages with other actors in R&D, so that the PTD process will continue.

As innovation in agriculture and NRM goes far beyond “hard” technologies to “soft” innovations such as new ways of gaining access to or regulating use of natural resources or new ways of farmer organisation (e.g. for marketing), the term Participatory Innovation Development (PID) is increasingly being used instead of PTD to embrace this broader understanding of the approach.

The local-innovation approach to PID starts with looking at what farmers are already trying, in their own efforts to solve problems or grasp opportunities they have already identified. The joint situation analysis by community members and outsiders is based on these concrete examples. Local innovations become foci for community groups to examine opportunities, to plan joint experiments to explore the ideas further and to evaluate the results together. This process, around concrete joint activities, helps to strengthen community organisation for development.

For researchers, as for development agents, learning to recognise local innovation and informal experimentation by farmers is an important step towards engaging in truly participatory R&D. It starts off the collaboration on a completely different footing than approaches that start with introducing external technologies for farmers to test. From the outset, value is given to local people's knowledge and creativity. Farmers are recognised as partners in R&D.

As useful as PID may be in agricultural research, it is primarily an approach to development. Most of the PID that is happening today is being done by farmers and development agents without involvement of formal researchers. This should be encouraged, as it will not be possible for formal researchers to work together with the millions of farmers in remote, marginal and highly diverse areas throughout the world. In such areas, local experimentation is necessary to see if new ideas – whether from other farmers or from formal research – can fit the local setting. Moreover, since conditions are constantly changing, all farming communities need to be able to adjust to these changes. Therefore, farmer innovation must be a never-ending process. PID strengthens this process.

The Role of NGOs in promoting PID

Many development-support NGOs have, for a long time, recognised the potential of building on IK and local innovation, combining this with relevant external knowledge, so that farmers can improve their livelihoods in a sustainable way. They realise that, to be able to link IK and scientific knowledge systems, the farmers and NGOs engaged in PID in the field need to work more closely together with government agencies of agricultural research, extension and education.

Development-support NGOs are in a good position to bring together different stakeholder groups in PID. They have normally established good working relationships with individuals and groups of farmers, and are actively strengthening farmer organisations. It is not always so easy to establish good relations with government organisations, which often regard NGOs with some reserve. On the other hand, because of dwindling funds and growing pressures toward decentralisation and local governance, many agricultural R&D institutions are now seeking partnership with NGOs in order to be able to carry out their work.

The NGOs that are practising and advocating PID have grasped this opportunity to step into the national and international arenas of agricultural R&D and to try to facilitate the building of balanced partnerships of farmers, development agents, scientists, educators and other actors in R&D – starting with recognition of the knowledge and creativity of farmers. These NGOs are encouraging processes of site-specific development in which farmers take the lead. While building up the capacities of weaker stakeholder groups – especially women and poorer farmers – and gradually empowering them to become equal partners with formal researchers and development agents, the NGOs keep watch that the R&D activities focus on the concerns of the weaker groups. The examples of PID on the ground also provide the basis for policy dialogue aimed at creating more space within institutions and government policies for this approach.

Many NGOs now give high priority to forging closer links with government agencies so as to stimulate the changes in attitude and behaviour needed to promote local innovation, to capitalise on potential synergies and to scale up participatory approaches to R&D. This marks a fundamental shift in the work of many development-support NGOs. In the past, they tended to operate parallel to

and separate from government agencies. Now, they have recognised the need to bring about institutional and policy change so that PID is integrated into the regular work of government agencies. Some of these NGOs therefore took the initiative to establish PROLINNOVA, a global platform to promote local innovation in ecologically-oriented agriculture and natural resource management (NRM).

The PROLINNOVA initiative

Four years ago, when NGOs from the North and South were preparing for the Global Forum on Agricultural Research in Dresden, Germany, they developed the idea of PROLINNOVA to forge multi-stakeholder partnerships in agroecological R&D. Since then, the initiative has grown in a decentralised way. NGOs in Ethiopia, Ghana and Uganda (Agri-Service Ethiopia, Ecumenical Association for Sustainable Agriculture and Rural Development, and Environmental Alert, respectively) have facilitated the building of R&D partnerships around promoting local innovation in each of these countries. Support for their work was provided by the International Fund for Agricultural Development (IFAD), which is supporting a similar process in Niger.

In each country, local NGOs have brought together governmental and non-governmental agencies involved in agricultural and NRM research, development and education. Multi-stakeholder steering groups collected local experiences in recognising farmer innovation and informal experimentation and in doing PID. The groups convened workshops to analyse in-country experience and developed national action plans to improve and scale up participatory approaches to farmer-led R&D. NGOs in several other countries – Cambodia, Nepal, South Africa, Sudan and Tanzania – have recently developed proposals to facilitate participatory design of PROLINNOVA programmes in a similar way. Together, they succeeded in gaining support from the Netherlands Directorate General for International Cooperation (DGIS) to realise their plans. The country plans differ, depending on the self-identified strengths and weaknesses in engaging the dynamics of IK in PID and in scaling up the approach. However, they have some elements in common:

- making an inventory of initiatives in promoting local innovation and of the organisations involved;
- building capacity to identify and document local innovations and innovation processes and to engage in PID;
- implementing PID on the ground;

- participatory monitoring and evaluation of joint activities, outcomes and impacts;
- facilitating multi-stakeholder platforms for learning through joint analysis of on-the-ground experiences; and
- raising awareness and engaging in policy dialogue to create favourable environments for this approach.

In collaboration with existing electronic networks and databases serving groups with similar interests, including the World Bank's "IK for Development" Programme, PROLINNOVA is building platforms for discussion of concepts and experiences in promoting local innovation. To overcome the digital divide, printed brochures, posters, books and circulars are being disseminated, and links with other media, such as radio, are being made. An exciting new prospect being explored is the use of participatory video to give local innovators an opportunity to document their innovations from their own perspective, to share their ideas with other communities and to influence policymakers.

The country-level programmes function autonomously but seek inspiration and strength from each other. They are supported by an international team composed of four organisations: the International Institute for Rural Reconstruction, ETC Ecoculture, the Centre for International Cooperation (Free University of Amsterdam) and the Swiss Centre for Agricultural Extension (LBL). Their roles include international coordination, capacity building, methodological support, advocacy, web-based knowledge management, documentation, editing and publishing and encouraging mutual learning through analysis of experiences. PROLINNOVA remains open to grow beyond the nine countries currently involved – to reinforce other, similar initiatives to promote local innovation and integrate this approach into agricultural and natural resources management research, extension and education.

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