

Pro-Poor Innovation Systems

Background paper



Julio A. Berdegúe
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FOREWORD

Innovation is the theme of the 2006 Governing Council, in recognition of the importance of innovation to the successful achievement of the Millennium Development Goals and poverty eradication. With the resources from the United Kingdom's Department for International Development (DFID), implementation of the IFAD Initiative for Mainstreaming of Innovation started in February 2005. IFAD's Action Plan for Development Effectiveness also focuses on innovation.

IFAD has a key role to play in supporting efforts by developing countries to reduce poverty and promote sustainable livelihoods. The achievement of these goals requires not only doing more and improving existing programs, but also doing things differently. Innovation plays a key role in this.

IFAD commissioned two rural development experts to write background papers exploring new challenges and opportunities as well as identifying innovative rural development practices, interventions, institutions, partnerships and processes to address these new challenges.

Dr. Julio Berdegú's paper draws upon his extensive experience and research in rural development and his knowledge of the changing environment. He has also drawn on the experiences and views of leading world experts. In his paper, he explores what new innovation systems mean for rural development and suggests some issues for IFAD's consideration.

We trust that this paper together with Dr. Nigel Poole's paper and the accompanying Issues Paper, will provide the basis for a fruitful and thoughtful discussion on innovation challenges for rural development and the kind of challenge this poses for IFAD.

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The opinions expressed in this paper are those of the author and do not necessarily reflect official views or policies of the International Fund for Agricultural Development, except as explicitly stated.

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ACRONYMS

Conic	Indigenous and Peasant National Coordination, Guatemala
CSO	Civil society organization
Deniva	Development Network of Indigenous Voluntary Associations, Uganda
GDP	Gross Domestic Product
ICT	Information and communication technology
IFAD	International Fund for Agricultural Development
NAFSO	National Fisheries Solidarity, Sri Lanka
OECD	Organization for Economic Co-operation and Development
PEAP	Poverty Eradication Plan of Uganda
PRSP	Poverty Reduction Strategy Paper
Rimisp	Latin American Center for Rural Development
UCIRI	Union of Indigenous Communities of the Isthmus Region, Oaxaca, Mexico
ULA	Uganda Land Alliance
UNIWELO	United Welfare Organisation, Sri Lanka
VECO	VECO-Uganda

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I also want to thank the staff of IFAD that provided me with very useful information about past and ongoing innovative projects and activities supported by the Fund: Mr. Abdelhamid Abdouli, Mr. Lorenzo Coppola, Mr. Edward Heinemann, Ms. Anita Kelles-Viitanen, Ms. Lenyara Khayasedinova, Ms. Mylene Kherallah, and Ms. Fumiko Nakai. The responsibility for the interpretation and use in this document of the information kindly provided by them, rests with me.

Julio A. Berdegué

1. INTRODUCTION

For better and for worse, the effects of the major transformations that have taken place in the world since the 1980s, have now reached even remote rural villages in the poorest countries. The rural poor are citizens of this emerging new world, and no matter how marginalized and excluded they very often are, they cannot rest assured that they can go on -without consequences- with their old ways of life and with their time-tested livelihood strategies, even if they wanted too.

Because of the changes surrounding and affecting them, the rural areas of the developing world nowadays resemble a gigantic laboratory, with new initiatives taking place everywhere and across a range of issues and objectives. While the rural poor are sometimes at the center of these transformations, very often they are marginalized from the main lines of innovation, or, worse, adversely affected by them.

Also, the innovations of the poor are often driven by "push" factors, that is, by responses to negative incentives such as depleted soil fertility, difficulty of inability to out-compete agricultural imports (often subsidized), HIV/AIDS, drought, overpopulation in relation to the endowment of natural resources, or lack of political power. In these cases, the objective many times is not so much as to how to grow and expand the capabilities and opportunities of the rural poor, but rather how to suffer the least damage.

In contrast, the rural social strata with greater access to all types of assets, have a greater chance to innovate in response to "pull" factors, that is, the new opportunities brought about by the changing local, national and international context, such as, for example, new markets for high value crops, new options for non-farm rural enterprises, stronger links between primary production and industry and services, better roads and modern ICTs, new bio-technologies, and so on.

The opportunities and conditions for innovation are as unequally distributed, and as stacked against the rural poor, as are many of the assets and resources. This is a serious challenge for an organization like IFAD whose mission is to enable the poor to overcome their poverty, which of course requires enabling the poor to

participate in those lines of innovation that have the potential to change, for the better, the conditions in which they live.

The purpose of this paper is to map some elements that can contribute to an IFAD strategy to stimulate and support pro-poor innovations. It is an initial or exploratory document that hopefully will add to an ongoing and necessary debate, and is not intended as a final position paper.

The document is organized as follows. Section 2 presents an outline of the innovation systems framework, adapted to the present discussion on rural development work such as that promoted by IFAD, in contrast to its more frequent use in the context of debates on science and technology. Section 3 discusses some important trends and changes in rural innovation systems, from the perspective of rural poverty reduction and rural development. Section 4 highlights some opportunities for pro-poor innovation, according to a framework that takes into consideration the heterogeneity of rural poverty. Section 5 concludes by asking a number of questions, with the expectation that they may contribute to a debate on what it is that IFAD can do to be more effective in promoting pro-poor rural innovation systems.

2. NEW FRAMEWORK OF INNOVATION SYSTEMS

Definitions and conceptual frameworks

In the neoclassical economics tradition, innovation is understood to be induced by the relative scarcity (hence, price) of factors (Hayami and Ruttan, 1971; Rogers, 1995). It follows that there is a lineal, input/output relationship between agricultural research, development of technology and its dissemination, and at the end, adoption by farmers leading to economic and social effects and impacts (Hall et al., 2001a).

This paradigm of lineal technology diffusion, has been criticized for its failure to understand the source, nature, and dynamics of most innovations processes, in particular in the context of developing countries (Röling, 1992; Röling and Engel, 1992; Engel, 1997), as well as for failing to pay sufficient attention to the distributional or equity issues related to innovation (Hall et al., 2001a).

The concept of *innovation systems* (Clark, 1990, 1995, 2001; Edquist, 1997, 2001; Ekboir and Parellada, 2002; Hall et al., 1997, 1998, 2001a, 2002; Hall and Clark, 1995; OECD, 1997; Spielman, 2005) provides an alternative framework to look at innovation processes from a systemic perspective.

The innovation systems framework “opens the ‘black box’ of innovation” (Spielman, 2005, p. 7) to analyze the roles of different innovation agents, the types and quality of the interactions between them, and the formal and informal institutions that structure the innovation processes.

In this innovation systems framework, an *innovation* has been defined in different ways, each of which highlights specific aspects of interest to our discussion:

- Any new knowledge introduced into and utilized in an economic or social process (Spielman, 2005)
- As a process in which knowledge is accumulated and applied by heterogeneous agents through complex interactions conditioned by social and economic institutions (Spielman, 2005)
- The process of generating new knowledge and applying it productively (Hall et al., 2002)
- The ability to use knowledge creatively in response to market opportunities or other social needs (Ekboir and Parellada, 2002)
- A social process [of knowledge creation and exchange] shaped by the institutional structures in which it is embedded (Oyelaran-Oyeyinka, 2005)

Whatever the definition, it is agreed that important elements in an innovation process are: putting knowledge into use; whether it is new, or accumulated, or simply used in a creative manner; the presence of diverse agents and complex interactions between them; and lastly the role of institutions.

Innovations are social constructs, and as such, they reflect and result from the interplay of different actors, often with conflicting interests and objectives, and certainly with different degrees of economic, social and political power. The innovations and innovation processes of greater interest to the poor, are very often neglected, left unsupported or even undermined and repressed, when they

are seen as affecting the *status quo* of power relationships at the local, national, or global levels.

Innovation systems and networks

An *innovation system* is comprised of the agents involved in the innovation process, their actions and interactions, and the formal and informal rules that regulate this system (Ekboir and Parellada, 2002, p. 138).

Explicit in the innovation system concept, is the notion that innovations are the product of networks of social and economic agents who interact with each other and, as a consequence of this interaction, create new ways to deal with social or economic processes. As Hall et al. (2001a) argue, this concept highlights the critical importance for innovation of idiosyncratic, inter-personal and inter-organizational relationships and partnerships. 'Social capital', that is, the ability to form relationships of cooperation, is a key ingredient of effective innovation systems.

Innovation agents are individuals or organizations, in the public or the private domain¹ who have the ability to cause change.

Agents interact with each other knowingly or unknowingly, directly or indirectly, through formal or informal networks. A group of poor tomato producers in Nicaragua trying to come up with Integrated Pest Management solutions to the white fly pest in their new tomato variety, may or may not know that the innovation they are trying to produce will be made possible thanks to the interaction of decisions made by (a) the Board of Directors of the large transnational food retail corporation Ahold, sitting in The Netherlands, concerned about Corporate Social Responsibility issues, (b) the fruit and vegetable product manager of a supermarket chain in the capital city that wants to improve shelf-life of tomatoes and has imposed a new variety more susceptible to white fly, (c) the

¹ In this document, the private domain unless otherwise specified includes the private commercial or business sector (from small entrepreneurs to multinational corporations), community-based organizations such as farmers' associations, and 'third sector' organizations such as private development agencies and NGOs. The public domain includes governments and government-based organizations at the local, provincial, national and international level.

traditional middle men and traders who are providing credit to some farmers because they are very interested in solutions that will reduce the risk of crop failure, (d) the local agricultural input suppliers who are providing information about their different pesticides, (e) a local NGO closely linked to a major US University that provides technical assistance and subsidized equipment to Nicaraguan farmers under a contract with USAID... What may at first glance appear as an interesting and localized experience of farmer experimentation, is only the tip of the iceberg of an innovation system linking a diversity of public and private agents in three continents.

In effective innovation networks, different partners need to bring resources and capabilities that are valuable to the rest and that contribute to the common goal (Hall, 2004); that is why closed networks of "poor people with poor people" are often not particularly effective in producing useful and sustainable innovations. The necessary efforts to strengthen 'bonding social capital' need to be complemented with policies and actions to build the more difficult to achieve 'bridging social capital', linking the poor to other social and economic agents whose capabilities and perspectives are necessary for many substantive innovation processes to take place, and whose particular interests and perspectives need to be considered, confronted and negotiated with those of the poor².

While multi-stakeholder platforms or networks are important, the quality of the agents' interactions, and, in particular, of the social learning processes that occur during the innovation process, are of the essence (Woodhill, 2005). The learning process is the substance and what should attract our main interest and attention, while the multi-stakeholder platforms are a means to an end. Social learning processes are necessary for deeply rooted institutions and institutional failures – a main cause of poverty- to be changed (Woodhill, 2005).

Because innovation processes entail social learning, they may not be stable over time (Spielman, 2005) and can bring out unexpected surprises. This is something essential to be understood by development agencies such as IFAD that wish to

² Narayan (1999) makes the distinction between these two different purposes of social capital. In the context of our discussion, "bonding social capital" strengthens and reproduces existing institutions which are important to innovation and, in particular, to the opportunities for the poor to participate in innovation processes. "Bridging social capital" is essential for the poor to have access to wider social networks and, thus, to the innovation processes taking place in that broader context.

promote innovation processes: the routes, twists, surprises and outcomes of innovation cannot be predicted or mapped in advanced. Thus, one needs to be extremely careful in the use of tools such as logical frameworks and in performance monitoring systems, which can often reduce the flexibility and creativity that rural development projects require to be effective supporters of innovation processes. Innovation processes are supported best when projects are managed adaptively.

Innovation systems and institutions

The third element of the innovation systems framework is institutions. *Institutions* are the formal and informal rules (laws and regulations, norms, values, and morals), that shape human behavior, and the mechanisms (including certain organizations) for their enforcement.

Institutions matter in determining the speed, magnitude and quality of innovation processes. Given the same set of agents with a particular set of objectives, changes in the institutions themselves and, in particular, in the sets of incentives, result in different decisions and different outcomes of the innovation process (Spielman, 2005).

The nature of innovation and in particular the opportunities faced by the poor, are fundamentally influenced by the interactions of formal and informal political, social and cultural institutions with economic institutions. This follows from the now widespread recognition that the same formal institutions generate different outcomes in different contexts, and that comparable positive outcomes may be achieved with different institutional arrangements (Rodrik et al., 2002).

The fact that institutions are so important to innovation processes, places a challenge to rural development agencies such as, as the institutional framework often needs substantial changes for certain pro-poor innovations to take off: laws and regulations regarding intellectual property rights may have an anti-poor bias; secure access to assets such as land or credit may be difficult or impossible for the poor; due to social norms, poor women may be prevented from taking on certain roles required for innovation; social stratification may block the formation of social networks needed for innovation; manipulation of product markets may destroy the economic incentive to innovate; bribery and political repression may increase the

risks and costs of innovation to such a degree as to make it unfeasible. These are difficult terrains for most development agencies and development projects.

The roles of institutions in innovations include “managing uncertainty, providing information, managing conflicts and promoting trust among groups” (Oyelaran-Oyeyinka, 2005, p. 9). Innovation involves risk and uncertainty, and institutions such as those that regulate the behavior of agents and facilitate the enforcement of obligations, are key to manage risk and uncertainty. Innovation is spurred when the agents involved in it have reasonable assurances that they will be able to benefit from their efforts, and that *free riding* and other forms of opportunistic behavior will be contained; institutions provide that needed assurance. Innovation requires cooperation, and cooperation is rooted in institutions that help build trust.

From our particular interest in pro-poor innovation processes, institutions play an additional critical role: they determine the extent to which the poor will be able to participate in the process of innovation and to share in its potential benefits. That is, the distributional effects of innovation processes, are also mediated by institutions such as those related to social class, gender, age, ethnicity, or political power.

Gender dimension

The issue of the gender dimension of the institutions that regulate innovation processes, is very important, including to agencies such as IFAD (Kakoko Sebareka, 2005). It is safe to say that unless the gender dimension is addressed explicitly, most innovation processes will not be gender neutral and that, in fact, they often will discriminate against the opportunities for women to participate in, and benefit from innovation processes (Crowden, 2003).

The opportunities to participate in inter-agent communication, an element at the heart of innovation and innovation networks, are also gendered, as they entail perceptions of social risk in male-dominated environments (Crowden, 2003).

Innovation processes involve decisions which bring to bear social notions of what is or what is not fair, what is or is not desirable, or what is or is not successful. The direction of innovation processes, and even the decision to initiate them or not, are

influenced by questions such as those. The point to be made is that there are gender differences in these notions and values.

Kirkup and Keller (1992), quoted by Crowden (2003, p. 9), highlight the gender problematic in relation to technological innovation processes: "Whether a particular technology is done primarily by men or women almost always depends upon where the technology fits into pre-existing cultural notions of what is appropriate to each gender. Women can be and are excluded from certain technologies for a variety of reasons and rationalizations: they are thought to 'lack' such characteristics as bodily strength or intellectual capacity; certain activities are seen as threatening a woman's 'natural' role; women have less access to education, tend to be less experienced and less assertive to gain experience and training; education and training may be unfriendly."

At the level of rural households and communities which may be engaged in innovation processes such as those that are supported by many IFAD projects, there is an abundance of studies that conclusively show that gender is a major determinant of intra-household and intra-community resource allocation and bargaining power during the distribution of outcomes. It is not only that women in those households and communities may end up being excluded from participating in the process or in the sharing of its benefits, but that the very nature of the innovation process will be in part determined by this gendered allocation and distributional decisions (Quisumbing and Maluccio, 2000).

Institutional failures

It is now conventional wisdom that *institutional failures* (such as coordination failures, failures of enforcement of rights under contracts, ill-defined property rights, social norms that discriminate against particular segments of the population such as women or people of a given social cast or class in their access to productive resources, and so on) often hit the poor disproportionately .

What is not always well understood, is that these are often *institutional failures by design*, that is, formal and informal 'rules of the game' which are actively protected, strengthened and reproduced by those who gain from the *status quo*, even if the overall result is suboptimal from the point of view of the common or public interest. Poverty is largely a consequence of this institutional failure by

design; very often, what will be required are not just incremental amendments to the existing institutional *status quo*, but deeper institutional transformations which truly expand the opportunities and capabilities of the poor. These transformations that challenge the *status quo* in ways which are substantial enough to make a difference to the rural poor, are by necessity political (Woodhill, 2005).

Institutions include social norms of behavior, habits, routines, values, aspirations, as well as laws and regulations, all of which are social constructs rooted in the history and culture of a given society. Because of this, there is a significant element of path dependency that structures the nature of innovation systems, the roles of agents, and the interactions between them. A main implication of this is that pro-poor innovation strategies and policies cannot be of the 'one-size-fits-all' type, but rather need to be customized to the particular conditions of different societal settings³.

Knowledge as a pro-poor system process

A pro-poor innovation system could then be defined as a multi-stakeholder social learning process, that generates and puts to use new knowledge and which expands the capabilities and opportunities of the poor.

It is important to highlight several elements in the above definition. First, the greater emphasis on the *process* than in the product (knowledge). If one emphasizes the output (new knowledge) as the principal causal factor of the expanded capabilities and opportunities of the poor, it could be argued that it is not always necessary for the poor to be directly engaged in the innovation process for it to be judged as being pro-poor, if the distributional outcomes are socially inclusive.

While in many instances this may well be the case⁴, from the perspective of most of the work supported by agencies such as IFAD, it is the social process of learning, discovery and utilization that is mainly responsible for the effective and sustainable (i.e., beyond the project) expansion of the capabilities and

³ It should be noted that this conclusion applies not only to "top down" designs, but also to the politically correct prescriptions which are close to the heart of many development agencies.

⁴ Think for example of the tremendous pro-poor effects of the polio vaccine.

opportunities of the poor. Engel (1997) has proposed that it is cognition, the process of knowing, rather than knowledge *per se* that is truly important.

Since knowledge in this definition is seen as resulting from a social process, it follows that it is not value-neutral. Indeed, knowledge has been defined as consisting of “information augmented by intentionality”⁵. Knowledge can be “new” because it contains new information, or because a new intentionality or ‘sense making’ is applied to old information. Despite the common and appealing usage of the word innovation to refer to breakthroughs at the frontier of science or technology, the fact remains that most innovations are continuous, iterative, and gradual processes of incremental problem solving (Hall, 2004). The information contained in knowledge defines the limits of what *can* happen, but it is the intentionality or sense making that will determine what *will* happen; box 1 presents an example.

Box 1. Knowledge – information augmented by intentionality

In Bangladesh during the second half of the 1980’s, liberalization of the import of small diesel engines, as part of agricultural policy reforms intended to boost irrigated rice production, simultaneously but quite unexpectedly launched a veritable revolution in two major rural non-farm activities. After the cropping season, millers harnessed the new diesel engines to power 30,000 seasonal hammer mills, transforming the structure of rice milling and dramatically increasing competition in rice markets. Later, during the rainy season, metal smiths and boat makers adapted the engines to power thousands of river boats, converting these classic dhows from cheap-but-slow to cheap-but-rapid inland water transport.

Source: Haggblade (2005).

It is also important to indicate that the concept of knowledge is used in this definition in the very broadest possible sense, to include, for example knowledge embodied in goods, services or technologies (Spielman, 2005, p. 13); new

⁵ <http://en.wikipedia.org/wiki/Knowledge>

understandings and perspectives of social, economic or biophysical processes; policy, institutional and organizational innovations; tacit or explicit knowledge; and so on.

3. DRIVERS OF CHANGE IN RURAL INNOVATION SYSTEMS

Trends and drivers of change

Major technological, political, economic and institutional trends are changing the nature of the development agenda and having a profound impact of the way we think about and act upon rural poverty and rural development. All of these drivers of change, and their implications for the work of agencies such as IFAD, have been discussed at length and we do not need to spend much time reiterating well known arguments and ideas. It is sufficient, for illustration purposes, to say that we are thinking about drivers of change such as: new Information and Communication Technologies (Kelles-Viitanen, 2003; Bonilla and Cliche, 2004; Greenberg, 2005); biotechnology (Graff et al., 2005; de Janvry et al., 1999); agricultural research and development systems (Byerlee and Echeverria, 2002; Berdegué and Escobar, 2002), globalization of agribusiness supply chains (Reardon and Timmer, 2005); the rapid growth of Foreign Direct Investment (Mirza, 2002; Thomsen, 2005); international trade (Bannister and Thugge, 2001; OXFAM, 2002; Schejtman, 2003); or the expansion of the rural non-farm economy (Haggblade, 2005).

These drivers of change are not only technological or economic. The expansion of the values and institutions of democracy (Herrera et al., 2005; Rana, undated; Sen, 2001; Hickey, S. and Moore, K. 2001; Bracking, 2003; Hickey and Bracking, 2005); human rights (Poge, 2005); and honesty in government and in public affairs (Chetwynd et al., 2003, Grey and Kaufmann, 1998), is now being matched by a growing interest in strategic and political accountability (Guijt, 2005), which is providing new and incisive answers to the questions of "accountable to whom and for what?" Basically, citizens demanding of institutions that they be accountable to them, is driving a trend that questions the legitimacy of corrupt official institutions. It also asks new and hard questions about the behavior of the corporate sector and its consequences for development and poor people. In addition it demands from NGOs which claim to act on behalf of the poor that they provide proof of their compliance to the highest work-standards (Guijt, 2005).

These drivers of ongoing global transformations are having a profound impact on pro-poor innovation systems. These changes impact rural innovation systems in several ways:

1. By promoting the emergence of new agents, and/or changes in the relative roles and power of existing agents.
2. By promoting certain forms of interactions among agents and the relative demise of others.
3. Through the introduction or emergence of new institutions, that is, new rules of the game.

The most important transformation in the set of agents of rural innovation systems in the past 10-15 years or so, is the growing role of the private sector and the relative decline of that of the public sector. It can be argued that it is the private sector that defines or determines the key issues in the rural innovation agenda, either through its actions or its omissions⁶. More and more, the public sector and, in particular, the traditional "rural public sector" organizations (such as ministries of agriculture, agricultural research and extension services, and agricultural development banks) have less influence in determining or even influencing trends in rural innovation.

Private sector

Within the large and very diverse private sector, four types of agents merit special attention because of their growing influence over rural innovation systems in the developing world: food retailers, international migrants, non-farm rural entrepreneurs, and, 'civil society' (third sector) organizations. They increasingly control, respectively, food systems, financial flows to rural areas, rural employment, and political representation of rural people.

a) food markets

As national and international food markets shift from broad and atomistic "commodity" markets to specialized and more concentrated "product" markets,

⁶ Many parts of Sub-Saharan Africa, as well as the more marginalized areas of Asia and Latin America, stagnate due in part to the lack of presence of the new private sector agents that will be described below. In these regions, the public sector no longer has the capacity –if it ever did– to stimulate innovation processes, and key private sector agents are not interested.

large transnational corporations in the food processing and, in particular, in the modern food retail industry, exert a particularly powerful role (Reardon and Timmer, forthcoming). In Latin America the supermarket sector today controls about 40% to 50% of the total food market; in China, 10% (growing at over 20% per year); in South Africa 30%; in Indonesia, 50%. The rate of expansion is such that in many developing regions the supermarket sector in 10 or 15 years has achieved a rate of market share similar to that gained in the USA or Western Europe over a period of five decades (Reardon et al., 2003). This industry in turn is dominated by a handful of huge transnational corporations with a global or regional reach, such as Wal-Mart (USA), Carrefour (France), Ahold (The Netherlands), or Shoprite (South Africa). These newly dominant agents exert a profound influence over the innovation systems in the developing world, both through the imposition of institutional change (private quality standards and contractual and quasi-contractual conditions) and of organizational change (e.g., centralization of supply systems). The growth of these new dominant agents of food supply chains has been at the expense of other private and semi-public players, in particular small, informal middle men, wholesalers, small shops and traditional wholesale and retail markets, of which tens of thousands have disappeared in just a few years. Small and in particular under-capitalized small farms are by and large excluded from participating in the supply chains of these new dominant food markets.

In the face of these changes in national and international markets, farmers' organizations have an increasingly important but difficult role to play. As opposed to what may have been effective in the past when the representational role of farmers' organization was often the leading priority, nowadays the effective coordination of collective action in the economic (i.e., market) domain is what makes or breaks a farmers' organization. Yet, because of the critical importance of institutions in innovation processes, farmers' organizations cannot abdicate their representational and more political role. This is a very difficult balance to achieve, and, unfortunately, success is elusive and failure is the most common outcome when it comes to ensuring the sustainability of farmers' organizations (i.e., beyond the life of a project) (Berdegú, 2001).

b) remittances

Another phenomenon of growing importance to rural innovation systems, is international migration from developing countries. Collectively, they are, by far, the most important financial agent serving today the rural areas of the world. According to a recent World Bank news bulletin, "workers' remittances have doubled in the last decade, reaching \$216 billion in 2004, of which \$151 billion went to developing countries. Actual remittance flows, including those through informal channels, are believed to be even larger. Remittance flows now exceed total development aid [less than USD 70 billion in 2003] and represent the largest source of foreign exchange for some countries"⁷.

In the case of Mexico, Massey and Parrada (1998) studied close to 6,000 households in 30 villages, and found that the new skills and savings brought back from the USA by the returning migrants, helped capitalized one fifth of the enterprises and firms existing in those communities. A more in depth study in three Mexican villages by Durrand et al. (1996) found that the multiplier effects of the investments of returning migrants, represented between 51% and 93% of total local income.

Authors like Vargas-Lundius (2004) and Bauer et al. (2000) emphasize that the influence of migration on rural communities should not be reduced to the effects of these financial flows. In particular, some studies have been conducted looking at an issue that is of direct interest to the performance and transformation of pro-poor innovation systems in developing countries: the reverse flows of new skills, attitudes, and knowledge, along migration networks. In rural China, Ma (2002, p. 1764) has concluded that "the fundamental issue is that skills and abilities of rural people can be improved through migration and then modified for rural business formation through support from local social networks" which supplement the migrants' new skills and savings, with access mainly to additional capital and to information.

c) nonfarm sector

A third type of agent with growing influence over rural innovation systems, are non-farm rural entrepreneurs, who control the fastest growing sources of rural employment and income in all developing regions of the world. Based on a review

⁷ www.worldbank.org/wbsite/external/news

of a large number of national and sub-national studies, Reardon et al. (1998) estimate that nonfarm activities account for 36% of total rural income in West Africa, 45% in East and Southern Africa, 35% in East Asia, 29% in South Asia, and 40% in Latin America.

In rural China, employment in the nonfarm sector grew from 7% in 1978 to 29% in 1997. In 1997, 36% of rural income came from nonfarm sources, although agricultural income accounted for up to 90% of total income in the less developed areas of the country. In 1997 rural nonfarm enterprises accounted for more than 25% of the national GDP, up from nearly zero in 1978. Without this growth of the rural nonfarm economy, China's GDP growth rate would have been lower by 2.4 % per year (Fan et al., 2000).

Poverty reduction in Ghana has been linked to increases in the informal, nonfarm sector in the rural areas. The informal nonfarm sector has absorbed the labor that left the farming sector; this change in the structure of employment can be explained by the rising income of the nonfarm informal sector. In fact, being part of the food crop or the export-farming sectors, will have a significant negative effect on expenditure levels per person in that country.(Canagarajah et al., 1998).

In Egypt, Adams (1999) has shown that nonfarm income is of great importance to the poor, representing almost 60% of their total per capita income. The same study concludes that nonfarm income represents the most important inequality-decreasing source of income, while agricultural income has the opposite effect on income inequality. The inequality-increasing effect of agricultural income is explained by the uneven distribution of land. Lack of land "pushes" the rural poor into the nonfarm sector in this country.

In Vietnam, those households who left agriculture for other occupations experienced a growth in consumption that was 10 percentage points higher than that of those who remained in agriculture (Glewwe et al., 2000).

In Latin America, close to 40% of total rural income comes from nonfarm rural employment, and the share is often higher for the poorest households, for women in the rural labor force, and for the poorest regions (Reardon et al., 2001). The rural poor tend to depend more on non-farm rural employment and income, even if they can only access low quality, low wage non-farm jobs.

d) civil society

A fourth type of agent is the so-called 'third sector' or what are increasingly being referred to as 'civil society organizations'⁸. This comprises⁹ a set of organizations that are distinct from state and conventional market institutions¹⁰, formed for the purposes of advancing common interests and facilitating collective action. These organizations constitute an arena for public deliberation and the exercise of 'active citizenship' in the pursuit of a common interest. Pro-poor CSOs share a political agenda that is service-oriented, rights-driven and marginalized-focused. Such organizations can range from local football teams, ethical-trade oriented producer groups, international NGOs, to global advocacy alliances against trade in small arms.

CSOs are increasingly active throughout the different scales and different arenas of engagement (Gaventa 2003). Some CSOs focus efforts on ensuring legitimacy and transparency in formal arenas, such as parliament, while others create their own spaces from which lobby work is undertaken and in which they can further their aims. Often emerging from more local orientations, the past 10 to 15 years have seen increasing activity by CSOs to engage in national level policy discussions and global alliances, as issues have shifted and capacities have grown. A much-quoted example is that of the strong involvement of Ugandan CSOs in the Poverty Eradication Action Plan, the country's PRSP process, which would not have been possible 20 years ago. Broadly speaking, CSOs can be seen as fulfilling six roles that enhance the participation of marginalized people as active citizens in their society in general and in innovation systems in particular.

First, CSOs play an important role in citizenship strengthening. This comprises activities such as civic education about basic rights and engaging citizens in critical reflection and capacity building about political processes, but also ensuring basic conditions such as birth registration that gives people formal access to their rights. These activities lead to well-informed people who can understand their rights and

⁸ This section on CSOs has been taken *verbatim* from a short note by Ms. Irene Guijt (Learning by Design, The Netherlands), and is based on Guijt (2005) and Gaventa (2003).

⁹ See Edwards. 2004.

¹⁰ These separation lines are fuzzy, for example, in that individuals with allegiance to CSOs may also occupy elected places in formal arenas, and producer groups may be working both within the economic system but aiming to change the rules of the game to favor the poor.

are able to constructively and effectively engage in claim making, collective action, governance and political processes. Examples include: FIDA (Uganda) working on awareness raising among women of their rights to land tenure; PREDO (Sri Lanka) that has facilitated the registration of people and helped plantation workers obtain identity cards and birth certificates; and Conic (Guatemala) that is promoting land rights and labor rights of rural, indigenous, male and female, workers by providing training and legal aid.

A second role of CSOs is facilitating citizens to participate in local development and service delivery initiatives. In order for pro-poor local service delivery to become a reality, CSOs are building capacity of local people to take on new roles and responsibilities in contexts of decentralization, establishing citizen-driven planning and management structures, and working to make service deliverers more responsive to people's needs. An example of this comes from VECO (Uganda) that is facilitating partnerships for agricultural development between community-based organizations, sub-county officials and councilors and district level CSOs. All the work on participatory resource management, local development committees and so forth that emerged in the 1990s falls within this role.

Third, and increasingly considered the true remit of CSOs, is work on advocacy and structural change. CSOs facilitate citizens to undertake their own advocacy work and also undertake lobby work for certain groups. Related activities could include research and consultation on 'forgotten' issues and with ignored groups, creating mechanisms for citizens to participate in public forums, putting issues on formal agendas, mobilizing support for campaigns, and so forth. Examples of work on this includes: Deniva (Uganda) undertaking analysis, advocacy and campaigns on agriculture and trade issues but also working on analysis and advocacy of legal and policy environment for NGOs; ULA (Uganda) which informs policy makers of pro-poor improvements in the land law and policies; research impact of land policies and laws on the poor, vulnerable and marginalized; NAFSO's (Sri Lanka) success in national and international lobbying for a sustainable fisheries sector and UNIWELO (Sri Lanka) that obtained official recognition of women in the Joint Plantation Development Committees which were earlier exclusively for males.

A fourth domain in which CSOs are increasingly active is that of enhancing citizen and CSO participation in economic life. This work focuses on market engagement by poor, vulnerable people (and organizations working on their behalf) on their

terms and for their economic needs, and aiming to make the concept of pro-poor economic growth a reality. Many examples can be found along two main categories: organizing for economic justice such as holding the business sector to account, and the insertion of a pro-poor perspective and presence in existing economic institutions (Karanja et al., 2005). Examples of the latter include: making small-scale farming more profitable via cooperative value-adding and marketing; lobby work to ensure recognition of certain livelihoods in national policies (such as the Karamojong pastoralists within the PEAP, Uganda); linking smallholders with the business sector for better marketing; and capacity-building of partners on marketing and market linkages.

As engagement with the business sector is often a new endeavor for CSOs, considerable deliberation is required to ensure appropriate strategies for engagement. In many contexts, there is a need to overcome the considerable suspicion that exists between the business sector and CSOs, and to ensure that relationships are forged in ways that do not detract from the interests of the poor and vulnerable. Central in this is mastery of a new vision and set of competencies by CSOs to access what are often closed spaces of decision-making.

A fifth role for CSOs lies in cultivating values of trust, dignity, culture and identity that create the bedrock for mutually respectful social relationships; and engendering trust in others based on positive experiences, which is essential for joint action in other domains. CSOs activities in these areas include informal support groups for indigenous peoples, minorities, cultural expressions, and working on vibrant community centers.

Underpinning these roles is an assumption, often incorrect, that CSOs are accountable, transparent and representative of their constituents' needs. There is often much room for improvement in this area, which would require CSOs to actively seek their constituents' involvement in organizational governance, programming, monitoring, and accountability. This is the sixth role of CSOs.

Four trends in interaction

In addition to the growing influence of these new private sector agents, innovation systems are also being affected by new types of interactions brought about by these players, as well as by new formal and informal institutions that structure

them. While there are a large number of significant particularities, there are four trends that should be emphasized because of their growing importance: the global nature of many interactions, the role of locally-grounded identities, longer-term interactions leading to reciprocal evolutionary change of actors, and the growing asymmetry of power.

Box 2 – New characteristics of interactions

In Oaxaca, Mexico, the Union of Indigenous Communities of the Isthmus Region (UCIRI, www.uciri.org), established in 1982, now has over 5,000 families from 53 communities belonging to five different ethnic groups. For over 100 years, these indigenous communities grew coffee, and for 100 years they faced difficulties selling it to the middle men who would ride up the hills in their mules to buy the harvest at a low price. In the 1960s, loggers came to take away high quality wood, again paying a low price for it; but they left roads behind. With the roads came the representatives of the official Mexican Coffee Institute, and the first coffee collection centers were opened. Credit from the public agricultural development bank was also offered, and the better prices were used to pay the interest rates. Little by little the communities gained experience in weighing, testing and marketing their coffee, and by 1983 they were shipping it to Mexico City, and that same year they obtained their legal status. In the mid-1980s they established contact with solidarity groups from The Netherlands and Germany, who had an emerging movement called "The Alternative Market". The harvest of 1986/87 was their first export directly to Simon Levelt in The Netherlands and GEPA in Germany. Along the way, UCIRI and their counterparts in Europe developed Max Havelaar, and in 1988 the first pack of Max Havelaar-coffee was sold in the Netherlands, made of beans from the Oaxaca mountains. Today, UCIRI coffee beans have crossed the oceans to arrive in Germany, Holland, Switzerland, Sweden, Italy, France, Austria, Japan, Canada and the USA, and Max Havelaar sells different agricultural products in 16 countries from dozens of organizations such as UCIRI. In this example one can see three of the four trends discussed in the text: that interactions among agents are increasingly global; poor rural people can be more successful in global interactions if they are empowered by a strong identity rooted in their local context and history, and that long term relations result in reciprocal changes affecting different actors in the innovation system.

Source: www.uciri.org and www.maxhavelaar.nl

a) globalisation

First of all, interactions involving these agents are becoming more and more global in nature, that is, they link agents across national boundaries; even their local or national expressions respond in large part to global trends, criteria and decision-making processes. Box 2 provides an example of how a very localized innovation system in a remote, mountainous area in Southern Mexico, is deeply embedded into a larger global innovation system. Key institutions are those that aid in linking agents and coordinating their action across boundaries, hence the growing importance of broadly shared norms, values and standards.

b) glocalisation

Second and in a certain sense paradoxically given the trend just discussed in the previous paragraph, more and more rural agents tend to want to ground their participation in trans-boundary innovation systems, on a clear definition of their own identity, often strongly local. The term "glocal" has been coined to describe this condition in which agents act in global terms but firmly rooted in local identities. This is true if one thinks of institutions such as geographic indicators or different forms of third-party certification to distinguish products according to a well defined identity. This also applies to poor people in Latin America that for decades and even centuries used to describe themselves with the common term 'peasant', and who now proclaim their identity as belonging to the indigenous group Ch'ol, Huasteco, Lacandón, Purépecha or Tzotzil. In the political sphere, it is reflected in the growing strength of local governments. The implication is that to promote pro-poor innovation processes, one needs to pay considerable attention to support the strengthening and expression of the identities with which the poor will represent themselves in the innovation systems, that is, paying attention not only to structures and organizations but also to what could be called 'personalities'.

c) new rules for competition

Third, interacting agents tend to favor forms of relationship that lead to reciprocal evolutionary change. The issues involved are increasingly complex, conditions change rapidly and uncertainty is high. In this context, co-evolution is a preferred option as the cost of trial-and-error partnerships becomes higher. In market interactions, this is linked to the notion of systemic competitiveness¹¹ (Schejtman

¹¹ In short, it is not individual firms or organizations that compete in a market, but broader systems of which individual organizations or firms are members.

and Berdegúe, 2004; Berdegúe and Escobar, 1996), and in the social process it is related to the performance of collective action and governance systems. Formal and informal rules that promote trust and cooperation, delimitation of contributions and rewards, timely information on compliance of obligations, enforcement of agreements, recognition and protection of the rights of each party are becoming ever more valuable. This trend poses an important challenge to many of the conventional guidelines of development agencies: for example, the conventional understanding of the (input-focused) concept of 'targeting' is not quite appropriate to deal with a trend that requires a more encompassing view of who are the actors of pro-poor innovations.

d) asymmetry of power

Last, but certainly not least, a very important trend present in the new interactions that are driving many rural innovation processes, is the growing asymmetry of power. There is growing inequality in the distribution of income within countries, as in Latin America and the Caribbean where the richest one-tenth of the population earns 48 percent of total income, while the poorest tenth earns only 1.6 percent (de Ferrantis, et al., 2003). The income gap between poor and rich countries has also increased (Ben-David et al., 1999). The rules of international trade are rigged in favor of the rich (OXFAM, 2003). The dominance of multinational food processing and retail corporations, has generally resulted in the exclusion of hundreds of thousands of small farmers from the more dynamic and lucrative markets; in Kenya, the share of smallholder production in horticultural exports declined from 45% in 1990, to 27% in 2002, due to traceability concerns and new product development (van der Meer, 2004). Private firms spend USD 10,8 billion per year in research, of which 7% was spent in the developing world (Pray, 2002), and total public spending in agricultural research in Asia, Africa and Latin America is probably about a third of the amount spent globally by the private sector.

So, when dealing with the interactions that are at the core of innovation systems, in particular if seen from the perspective of poverty reduction, one needs to look into the issues of power at least in five dimensions (Woodhill, 2005): institutional transformation or amelioration of the *status quo*; the role not only of the public sector. but also of the corporate sector and of civil society (Guijt, 2005); scale (interconnectedness of local, national and international, and the asymmetries of such links); the links between policy and politics in the processes of innovation;

and, finally, the question of accountability, in particular in the sense of strategic and political accountability (Guijt, 2005).

4. THE HETEROGENOUS RURAL POOR AND INNOVATION SYSTEMS

Heterogeneity of rural poverty

A final issue that needs to be addressed is that of the heterogeneity of rural poverty. If innovation systems are about agents and about institutions that are socially constructed, it then follows that any strategy to facilitate and support pro-poor innovation processes needs to be able to accommodate differentiated policies.

A framework adapted from Berdegúe and Escobar (2002) is useful to help us deal with this issue. The types of innovation processes in which the rural poor will be able to become engaged, and the roles that they can play in them, will be determined by: (a) the asset position of the poor, and, (b) the nature of the institutional system *specific* to the innovation process of concern, in particular how 'inclusive' or 'enabling' of the poor it is.

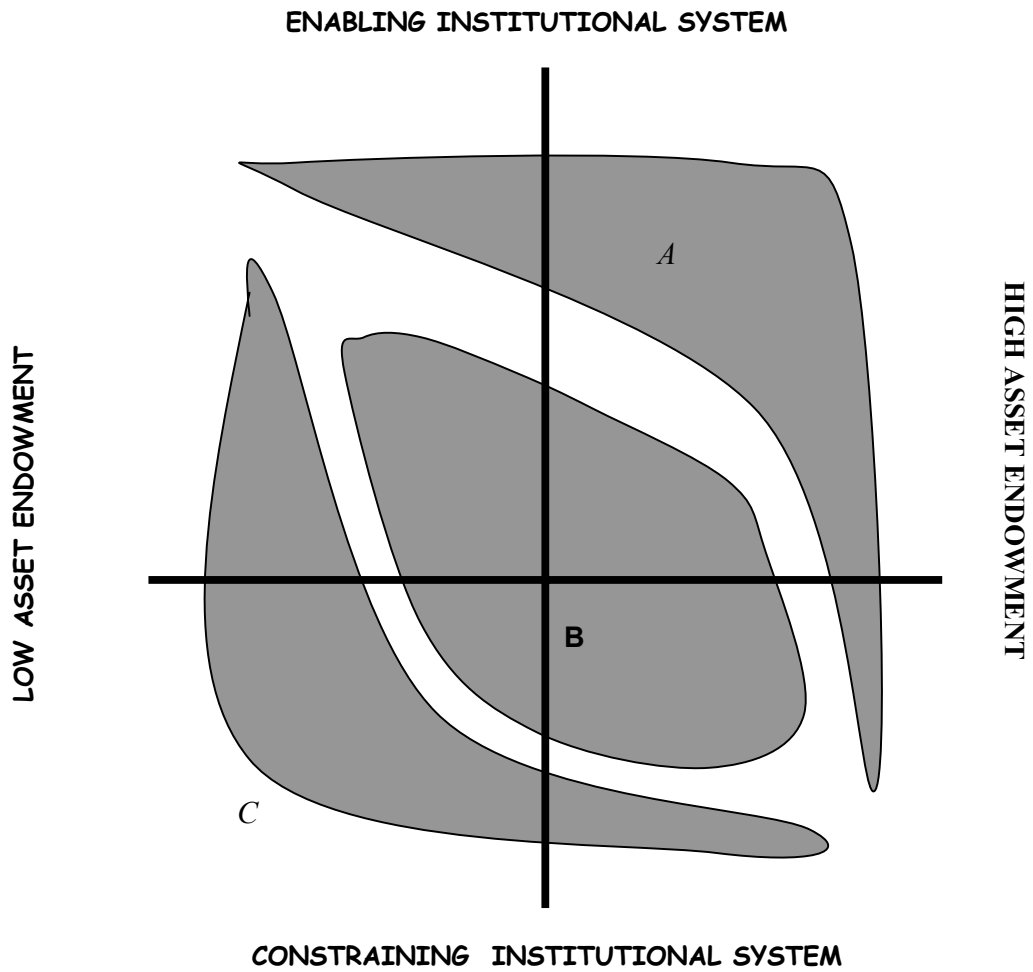


Fig. 1. Differential strategies for facilitating and supporting pro-poor innovation systems
(Source: Berdegú and Escobar, 2002)

Three broad situations can then be conceptualized (Figure 1), each of them requiring a differentiated strategy for stimulating and supporting pro-poor innovation systems.

a) Market driven situations

Type-A situations are largely characterized by being market-driven. Innovation is spurred by favorable contexts and asset positions. Rural-based activities, including agriculture, tend to be profitable and competitive. Innovation networks develop primarily due to the action of market forces, and specifically because of the profit opportunities found by commercial farmers and private firms and entrepreneurs in the services and agroindustrial sectors. The profit motive is the engine that drives the linkages and interactions between these actors. Small farmers and other rural small and medium entrepreneurs have the skills, education, networks, organizations, political power and capital required to mobilize and influence both public and private organizations when and where necessary.

Few of the farmers operating in these conditions will be poor to begin with. On the other hand, it is under these conditions that other, indirect effects on poverty can be maximized: thousands of jobs in agriculture for unskilled workers who have few opportunities in other segments of the labor market. Under type-A conditions, there tend to be input/output linkages between the farm and the nonfarm sections of the rural economy, opening substantial and higher self- and wage- income employment opportunities for many, in particular for rural women (Berdegúe et al., 2001).

Pro-poor interventions that are relevant and necessary in these type-A scenarios can fall under four general categories:

- *Wage labor*: Training of salaried workers and protection of their labor rights, aspects which are particularly important in the case of female wage-laborers.
- *Small enterprises*: Provision of high-quality technical and financial services to agricultural and non-agricultural small enterprises to assist them to perform and develop in these more competitive environments
- *Environmental and health impacts*: Monitoring environmental and health (rural dwellers, farm workers, consumers) impacts of economic activities which often tend to be intensive in the use of natural resources and of industrial inputs.

- *Market development*: Protecting the rural economies and firms operating in these contexts from unfair trade competition (domestic and abroad), as well as promoting private-public cooperation for improving and opening new national and international markets.

The direct and indirect effects on key dimensions of rural poverty (such as employment and income) of innovation in type-A conditions, should not be underestimated, as they have repeatedly been shown to be not only significant but also indispensable to meet national and international poverty-reduction goals (for a recent example of such analyses, see de Ferranti et al., 2005). To realize these opportunities, however, development agencies have to think in terms of rural societies, rural poor, and rural livelihood strategies. If development agencies who want to reduce poverty do not think rural but instead think *agricultural*, then it is likely that they will find that type-A situations are neither interesting nor relevant to their mission.

b) Situations with lack of capacity to fully respond to favorable context

Zone B in figure 1 depicts a situation in which small farmers and small rural entrepreneurs are predominant, who may have the incentives to embark in market-oriented innovation processes, but lack the capacity to fully respond to that favorable context, either because their assets are limited, the productivity of such assets is low, or because the transaction costs they face are too high. It is likely that this group of small family farms and small entrepreneurs represent the best opportunity (in economic, social and also political terms) for linking rural innovation and poverty reduction policies in developing countries.

Many of the farmers and small entrepreneurs in type-B situations are poor, and this opens up space for direct effects on their household income. Also, research on the nonfarm rural economy shows that it is in these types of situations that farm/nonfarm linkages develop best and have the largest effects on the welfare of rural communities. Finally, small farmers in type-B situations produce a large share of the world's food products, as in the notable case of rice in Asia or vegetables for the domestic market in much of Latin America, or milk in Africa.

The key strategies to promote and support pro-poor innovation processes under type-B conditions, fall under three broad categories:

- Enhancing the asset position of small farmers and small rural entrepreneurs, as well as their productivity. This includes all forms of capital (physical, financial, human, social and natural), but the promotion of effective and sustainable organizations for collective action in the economic, social and political spheres, should also be given the highest priority.
- Confronting the institutional and market failures that hamper the productivity and innovation potentials of family farms and small rural firms. This includes improving land and financial markets, modernizing and generally improving traditional product markets, in ways which make them more accessible to the poor. For example, an IFAD project in Syria is strengthening village-level traditional, autonomous, financial institutions (*sandug*) as an alternative both to the formal but less effective and “top-heavy” Cooperative Agricultural Banks, as well as to the local money lenders considered abusive by many villagers (IFAD, 2004a). At other times, special market conditions are created to ‘bypass’ the prevailing market and institutional constraints, as is the case, for example, of the Fair Trade movement.
- Improving the provision of public goods, of which physical infrastructure should have a very high priority. Better rural roads and improved communications through ICT development, are critical to reducing the transaction costs that are among the most powerful disincentives to participation by the poor in innovation processes; as transaction costs are fixed, they hit the poor hardest (Kjölleström, 2005). ICT-based collective price and market information systems, can often partially substitute for under-developed roads (Kjölleström, 2005). Haggblade reports “ vegetable farmers, cassava brokers, maize traders and farmers all significantly improve market coordination and farm profitability through the use of cell phones... because communication is a service that even the poor are willing to pay for, the private sector is happy to finance the necessary investments to launch the networks” (Haggblade, 2005a, p. 1). In addition, the development of this infrastructure is often a necessary condition for the poor to even have the option to materially engage in direct interactions and communication with other agents whose participation is required for innovation to take place.

A most interesting example of innovation driven or supported by investments in ICT, is IFAD’s First Mile Project (IFAD, undated),

implemented in Tanzania with the support of Switzerland. The project is associated to a larger initiative, the Agricultural Marketing Systems Development Programme. The term "first mile" was chosen to symbolize the bridging of the connectivity gap that separates a village with no electricity and no telephone lines from the nearest computer connected to the Internet; it thus goes from the village to the starting point of connectivity, and not the other way around as is often done. The key aspect of the project is that it works simultaneously on communications *and* market, so that the potential to generate income becomes the driving force, within a learning systems framework. When the project started, farmers, processors and traders were brought together to discuss their marketing challenges; despite their interdependence, they appreciated that none really understood the problems faced by the others. Trust-building hence became necessary for mobile phones, email and Internet to be able to be used productively. ICT-based learning platforms have also been developed, to allow "local learners" to pool their knowledge, share information, ideas and innovations. Yet, when it comes to sharing information at the local level, the First Mile project continues to rely on a time-proven technology: billboards, with price and market information regularly updated by group members using their mobile phones.

The IFAD Smallholder Dairy Commercialisation Programme in Kenya (IFAD, 2005a) is illustrative of how innovation systems can be promoted in type-B scenarios, combining four instruments: development of social capital at the level of producers, processors and traders; stimulating technical change at the farm level; strengthening a value chain linking using a multi-stakeholder approach that involves not only producers, processors and consumers, but also providers of financial services and of market information, as well as agents responsible for the development or improvement of physical infrastructure; and, finally, policy development with the explicit goal of putting in place the necessary institutions such as quality standards that generate the required incentives for the remaining components to really take off.

In the Balkans (Macedonia, Bosnia and Herzegovina, and Albania), IFAD with the support of the Government of Italy, is supporting the development of "Facility for Farmers' Access to Markets" (IFAD, 2004b, 2005b). In each country, the programme brings together a diversity of stakeholders with a common interest in a

specific product, and works with them to develop a supply chain. In contrast with other development projects that have similar objectives, this one does not define the supply chain primarily on the basis of the product, but rather emphasizes the agents that are engaged. Thus, for the same product there may be several supply chains, because the concrete agents differ. Another important element of this programme, is the figure of teams of facilitators of stakeholder interactions, called 'integrators'; they work at two junctions: traders and processors interacting with downstream markets, and traders and processors interacting upstream with farmers. The programme also aims at clarifying and making explicit key institutions such as grades and standards and transaction conditions and obligations, thus creating a conducive institutional framework in which the agents can operate and make their decisions with minimum transaction costs. Finally, the programme makes use of different mechanisms such as international exchange activities, to promote learning and not only delivery of technical assistance and information.

c) situations with lack of assets in unfavorable environments

Type-C situations in figure 1 represent conditions in which rural households lack most types of assets apart from unskilled labor, and, sometimes, a very small amount of land (e.g., less than 1 ha), and, at the same time, operate in unfavorable environments. In short, the potential for innovations that can result in substantial and sustainable reduction of poverty levels, is very limited. Of course, there are innumerable innovation processes taking place in areas characterized by these conditions; otherwise, it would be impossible to explain how these communities have survived, often for centuries, against such odds. The point is that often the innovations that take place in type-C situations, are aimed at stabilizing survival strategies, managing risk and reducing vulnerability, that is, with the very important goal of not dropping further into conditions of even more deprivation. While supporting these risk- and vulnerability-reducing innovations, it is also important to exploit endogenous opportunities for growth.

The strategies to promote and support pro-poor innovation processes under type-C conditions, must be even more broad-based than in the previous cases. Given the very limited endowment of agricultural assets, even significant long term increments in agricultural productivity will usually have a very small impact on total household income.

Paradoxically, some of the new innovative options that are starting to open up and be tested, rely on linking these very isolated and marginalized communities with far away markets, consumers and citizens. Three examples come to mind:

- Tapping into markets for environmental services. Payment for ecosystem or environmental services is one such opportunity, considering that these are services which the poor may be producing in disproportionate amounts; however, realizing this opportunity is not simple and requires substantial technical expertise and, in particular, developing effective institutions that can establish ownership for the service, provide reliable information on the value of the services, link demand and supply, and deliver payment to the poor rural communities (Vosti, 2005).
- Linking rural communities in developing countries 'Transnational communities', that is, networks linking rural communities in developing countries with areas (cities, neighborhoods) in industrialized countries with high concentration of migrants from the same rural communities. Vargas-Lundius (2004) provides a number of examples of successful and often rather large policies and programs that mobilize 'collective remittances' organized by Hometown Associations, in support of development objectives. These transnational communities in other cases are the main driver for the development of ethnic food markets.
- Tapping into specialty markets for identity-based goods and services. These include such options as ethnic and ecological tourism, organic products, products that embody the idea of a fair relationship between producers and consumers (Fair Trade), products and services that send a message of alternative and diversified lifestyles in opposition to hegemonic and homogenized cultures (Slow Food), services that symbolize respect for labor and human rights (ethical trade), and so on. The emergence of these opportunities is driven first of all, by the new demands and preferences of affluent consumers. On the other hand, the expansion and mainstreaming of these options has been made possible by the development of institutions, organizations, and technologies that allow the producer to transfer a particular identity onto a product or a service, and the consumer to recognize such an identity in the marketplace.

A very good example of an IFAD effort aiming at exploiting identity-based goods and services in marginal areas where agriculture is not an effective option for

substantially reducing poverty, is the PhytoTrade Africa programme (IFAD, 2005c). PhytoTrade Africa is a natural product trade association representing a variety of stakeholders (farmers, processors, traders, development agencies, researchers) interested in income-generation from the sustainable use of mainly wild plants. PhytoTrade Africa is active in seven countries in Southern Africa. The market PhytoTrade Africa aims at, is the USD 50 billion per year industries of such products as herbal remedies, dietary supplements, personal care products, or nutraceuticals. The association awards R&D grants to its members and to external expert organizations, to develop innovations at different levels of the value chain. It has also been active regionally and internationally in advancing and advocating an Intellectual Property framework to protect the rights of rural communities on the natural products and plants from which they are produced. PhytoTrade Africa has established partnerships with European firms in the cosmetics industry, which have allowed it to deliver products to over 40 countries.

Often, the institutional failures in type-C situations, have their origin in social violence, extreme social conflict, and civil war. Rebuilding institutions of social cohesion and governance at the village and local levels, in order to restore basic recognition and respect for the rights and obligations of citizens, and also to support the first steps of new democratic institutions such as local governments, may seem like a long term investment but these are undoubtedly the foundations necessary for any possible kind of innovation system. The IFAD programme in Burundi on "Transitional Programme of Post-Conflict Reconstruction" (IFAD, 2004c) is an excellent example of this type of innovation-enabling strategies, where priority is given to strengthening the very basic social fabric and institutional framework, which are *sine qua non* prerequisites for other societal goals down the road.

5. QUESTIONS MORE THAN RECOMMENDATIONS

What can an organization like IFAD do to stimulate and support the types of pro-poor innovation processes that have been discussed in the previous pages?

First, IFAD needs to define a strategy for such purpose. As the recent Independent External Evaluation recommended, IFAD " should become a more systematic

promoter of innovation " (IFAD, 2005d). How to respond to this recommendation?

IFAD has an important instrument in the form of the Initiative for Mainstreaming Innovation (IMI). Innovation as defined by IFAD is the process that leads to "the development of improved and cost-effective ways to address problems and opportunities faced by the rural poor through the projects and programs it supports." (IFAD, 2004d, p.2). IMI should contribute to an innovation strategy whereby IFAD will increasingly promote innovation *in* rural areas.

Such a strategy would need to address new challenges with a conceptual framework, such as the innovation systems concept used in this document, and a "theory of action" to guide IFAD in this field.¹²

A strategy would also need to establish the "value added" of IFAD as a promoter of pro-poor innovation in rural areas, considering the size of the organization and of its operations, as well as its position in the concert of bilateral and multi-lateral development agencies. Should and could IFAD, for example, define its particular role as a promoter of experimentation, that is, an agency which actively strives to design and implement development projects that are clearly 'outside the box' of conventional thinking and conventional practice, taking risks that others will not or cannot take?

IFAD may also want to consider a major capacity-building effort at all levels, from staff, to project personnel, to leaders and members of rural organizations, so as to improve their understanding of innovation systems, as well as to develop the skills necessary to facilitate innovation processes.

In addition, IFAD could review its strategic alliances for innovation, in each region. IFAD has a very large number of partners in each country and each region where it operates, but it is not immediately clear with which of those is the Fund wanting or willing to build long term partnerships and networks to enhance its capacity to promote and support innovation in key topics of high priority to particular countries or regions.

¹² In December 2005, the Executive Board, approved an Action Plan for improving IFAD's effectiveness. Such a plan (in particular, Annex 3, on knowledge management and innovation) may be thought of as a start for developing an IFAD 'theory of action' for promoting pro-poor innovation.

Another consideration is that to become a world leader in promoting innovation, any organization, including IFAD, needs to narrow its choices and focus on a manageable set of topics. No organization can be a world leader of pro-poor innovation in all the issues that are of importance to the rural poor all over the world. Where are the thematic comparative advantages of IFAD? What are the needs that no one else is addressing well, or at the necessary scale, from the perspective of the rural poor and where significant opportunities exist for innovating?

Finally, to do any and all of the above, any organization, IFAD included, would need to have an effective learning and knowledge management system in place. IFAD has in recent years developed several elements and instruments that could be of use, such as the system of regional networks that now covers four regions of the world, and, more recently, the Rural Poverty Portal (www.ruralpovertyportal.org). How to assemble these instruments into a functional learning and knowledge management system, is a question that still needs addressing.

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