Dossier "Rural innovation policies"

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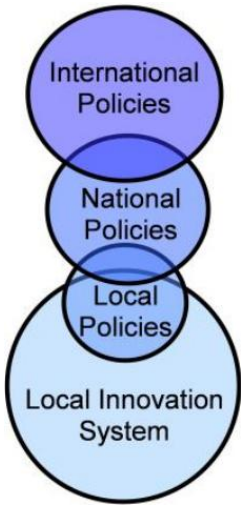

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Scope

Shaping the enabling environment for agricultural innovation systems

Improving agricultural productivity, profitability and sustainability requires innovation. For many years, support for innovation tended to focus mainly on strengthening agricultural research. Innovation, however, is the result of interaction among stakeholders rather than a result of research. It is therefore important to involve farmers' organizations, the private sector, and even policy-makers, as full-fledged partners for enhancing rural innovation.

This dossier focuses on the role of policies and policy-makers in stimulating agricultural innovation. The different steps in rural innovation policy development are discussed to give the reader a clear view of how the enabling environment for innovation can be shaped by public policy-making.

In-depth

Policies and policy-makers play a role in shaping the enabling environment for rural innovation systems

There is a shift in thinking about the design of interventions for rural poverty reduction. From a fairly narrow project-based thinking there is more and more attention for an innovation system perspective. More attention is paid to the interactions and inter-linkages between actors and institutions, and the quality and relevance of agricultural service providers.

This shift in thinking has resulted in the insight that rural development cannot be easily planned or made, but that it can be supported through stimulating innovation. And innovation can again be promoted through creating the conditions under which innovation is more likely to take place. This is where policy-making can play an important role, by facilitating the process of innovation by assuring the conditions are right for innovation to occur, or in other words by providing the enabling environment for innovation in the agricultural sector (Hall et al., 2006).

It are, however, not the policies as such, in terms of the written rules and regulations, laws and by-laws that define the enabling environment for innovation, but rather the interaction between the policies and the actors. To positively influence the enabling environment for innovation, policies must interact positively with the habits and practices of the actors whose behaviour they are designed to influence or support (Mytelka, 2000). As such, policy-making requires a large extent of stakeholder endorsement and buy-in before it can be effective. In the first place to decide on policy objectives, secondly to effectively target policies, and thirdly to assure the design of policy instruments that would actually support the policy targets.

Innovation systems can be considered at different scales, from national systems of innovation to sub-national systems of innovation, commodity specific innovation systems and local innovation systems. From the point of view of policies for improving the enabling environment for innovation, the issue of scale is relevant. Policy objectives require to be explicit regarding the delimitations of the system they intend to influence. Thus, specifically developed policies are impossible to copy or generalize outside the context in which they were designed, due to their soft, tacit and intangible character. Thus, locally targeted policy-making will require a level of decentralization of political decision-making that allows for specificity of rules, regulations and by-laws.

The realization that innovation can only be facilitated when considering the different aspects of the whole innovation system, including the marketing and knowledge and information system, leads to a different way of looking at the policy-making process. Rather than being separated from the marketing and knowledge and information system, policy-making has to be considered part of the process. Policies

are no longer disconnected and just contextual parameters but policy development has become part of the innovation system.

In this dossier, the different steps in rural innovation policy development are discussed to give the reader a clear view of how the enabling environment for innovation can be shaped by public policy-making.

In the policy-making process, different steps can be identified:

- Policy analysis
- Policy advice
- Policy making
- Policy implementation

It is important to realize that policy-making is not an orderly and logical process (Young, 2008). The different steps or components of policy-making do not necessarily occur chronologically, but sometimes simultaneously or in reverse order.

1. Policy analysis

To address the enabling environment for innovation through policy improvement, the wider set of policies impacting on the system needs to be considered. This requires a thorough understanding of the existing policies and their influence of the innovation system, or, in other words, their interaction with institutions and actors. As such, innovation policy analysis should specifically not be understood as the summing up of rural innovation related regulations, or quoting of policy documents. It should rather describe the effects of the current policies on the enabling environment for rural innovation. Several types of policies can have an influence on innovation system performance (adapted from CTA/MERIT/KIT, 2005):

policies that affect the inputs and outputs of the sector e.g. the incentives to producers, processors and exporters of agricultural products

policies that affect the nature of competition in the domestic, regional and international markets

policies that affect the agricultural knowledge and information system e.g. the formal education system, the formal agricultural research and extension system, informal information exchange systems and their interactions

policies that regulate and impact on the participation of agricultural sector stakeholders in decision-making

2. Policy advice

As Young (2008) states, policy processes are ‘fantastically complicated’, and hardly ever logical or linear. Court and Young (2004) distinguish four broad groups of factors influencing policies that can help in maximizing impact of researchers on policies (Figure 1):

- External influences

- Political context
- Evidence
- Links

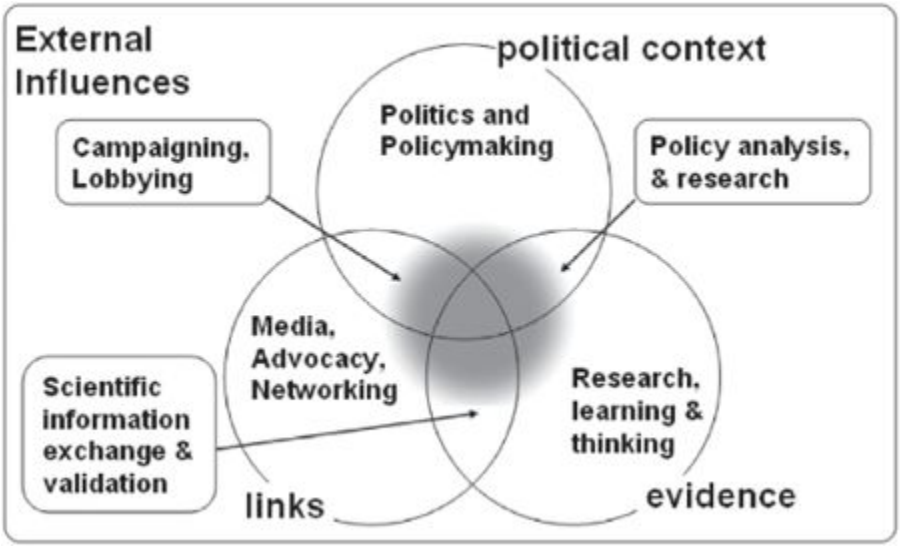

Figure 1. Analytical framework for influencing policy-making (Source: Young, 2008)

External influences are largely beyond the control of national or local actors.

The political context determines to a large extent whether policy- makers are sensitive to evidence and how evidence can reach them. Knowledge of the political context and entry-points for evidence and dialogue is essential.

Influencing policy through research requires good quality data as well as credibility of the institution presenting the data. Furthermore, it is critical for uptake of new ideas in policies that it has been proven that they provide a solution to a real problem. In presenting evidence, communication skills are highly important, and a diversity of communication methods combined has a better chance of success than relying on a single communication method or pathway.

The fourth part of the framework are links. Through links with media and intermediary organizations and networks advocating for policy change, policy-makers can be pressured from a different angle to change policies in a certain direction.

3. Policy making

Through policy advice, policy-makers may become aware of the needs for policy change and get a grasp of the desired direction of change, but for effective policy-making more is required. Policy-makers should become important actors in innovation systems and not remain inactive observers on the side. This requires a level of immergence in the subject to allow them to play their role in the innovation system adequately. In a practical sense, this means that policy-makers need to get involved actively in multi-stakeholder exchange and activities that take place to facilitate and realize innovation. Through the immergence of policy-makers in the subject, evidence-based policy-making becomes experiential

policy-making. Policy-makers learn, through interaction and engagement with other system actors, how policies are influencing the system and what changes would be required.

Figure 2 visualizes the challenge of making specific and relevant policies through experience-based policy-making. It requires intensive and deliberate interaction between innovation system stakeholders, specifically including local policy-makers, and policy-makers at the higher national and international level.

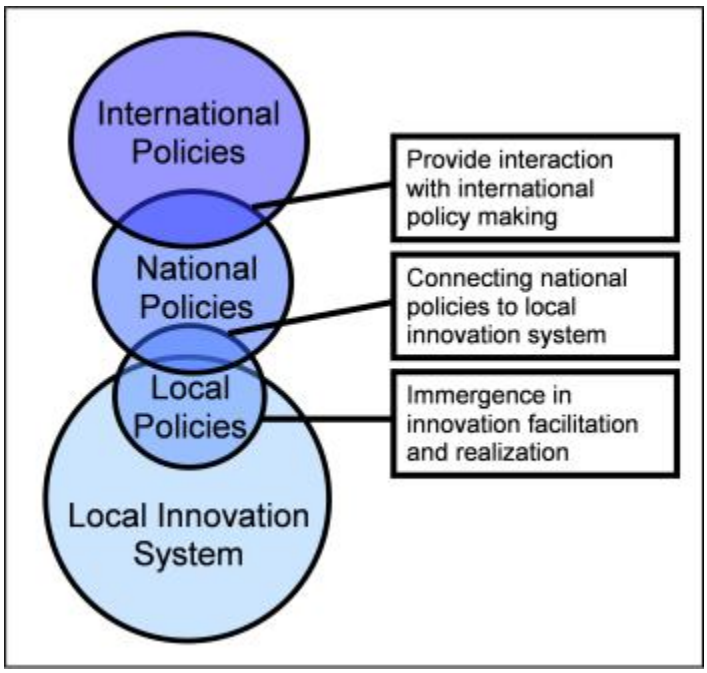

Figure 2. Experience-based policy-making in rural innovation

Leksmono et al. (2006) give a good example of embedding policy-makers in the process of innovation. Through involvement of representatives of the Ministry of Livestock in the development of the informal smallholder dairy sector, they created ownership of the project against which there was considerable resistance in the Ministry. This helped overcoming the divide between those advocating for strong regulation and those advocating for a dairy policy in which the informal dairy sector was recognized as a legitimate.

For policies to have a targeted local (or as others would say, regional) or poverty specific impact on innovation, they require to be tailor made through an interactive process between the stakeholders, including the policy-makers. This stresses the need for immergence of policy-makers in the innovation facilitation and realization process.

4. Policy implementation

Often, for policy-makers the job ends when the policy is written down and made official. This is, however, only a starting point for change, and not the end.

Through an inclusive policy-making process also the implementation of policies becomes more likely. As different stakeholders have invested in policy change, and are standing to benefit, there is on the one

hand pressure for enforcement of policies, and on the other hand it is more likely that stakeholders abide by the implemented rules and regulations. As a result of the partial ownership and responsibility for the process of policy development, chances are better that stakeholders understand the need for rules and regulations, and a fair level of abidance and self-control may be expected. This is in contrast with a not uncommon situation where new regulations are a misguided reaction to an articulated need for change, not necessarily supported or even understood by stakeholders. The latter at best results in policies that are irrelevant and ignored, at the worst in policies that are enforced against the wish of stakeholders, which are smothering opportunities for innovation and development.

Policies are just part of the puzzle

The enabling environment for innovation is not made by the right policies alone, although it can be facilitated by favourable policies. There are many other factors that play a role in assuring an enabling environment for agricultural innovation. These elements are more related to other main components of the innovation system that also require to function well, the marketing system and the knowledge and information system. Only if the three elements of policies, knowledge and information and marketing are optimized, including having actors in these systems with adequate capacities, the environment for innovation can be considered optimal.

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KIT's involvement

KIT works from an innovation system perspective, which integrates knowledge and information services, market services and policies

The Royal Tropical Institute (KIT) aims to improve the livelihoods of vulnerable producers in developing countries, focusing on stimulating pro-poor growth in rural areas through action research, policy development and training.

The overall objective of KIT's Knowledge for Rural Innovation Programme is to improve rural people's livelihoods by enhancing multi-stakeholder processes for innovation through institutional development and capacity strengthening of the stakeholders involved.

KIT develops methods and tools, adapted to the African context in particular, that increase the effectiveness of all parties - agricultural service providers, farmer organizations, local governments and the private sector - to take part in the innovation process.
For many years, support for innovation tended to focus mainly on strengthening agricultural research. Innovation, however, is the result of interaction among stakeholders rather than a result of research. It is therefore important to involve farmers' organizations, the private sector, and even policy-makers, as full-fledged partners for enhancing rural innovation.

Specific objectives of the Knowledge for Rural Innovation Programme include:

- Knowledge is generated on the conditions in Sub-Saharan Africa in which stakeholder configurations are effective drivers of rural innovation, become socially inclusive, and add economic value as well as improve sustainable rural livelihoods of the poorest people;
- The capacities of the different stakeholders – particularly of producer organizations and service providers – are strengthened to fully seize new opportunities for rural innovation; and,
- The institutional dynamics are facilitated for stakeholder configurations and interactions to enhance rural innovation.

The Programme conducts research, and provides facilitation, action-research, training and advisory services. The research activities are aimed at developing evidence-based tools and methods that can be used to strengthen interaction amongst stakeholders.

Resources

The following list of free, electronic resources provides rapid access to key references on the main topics of the dossier:

Audio-visual materials

- Organizing research to impact on policy or practice (Interview with John Young, ODI)
- Building agricultural innovation capacity in developing countries: requirements and lessons (Presentation by Andy Hall, LINK/UNU-MERIT)

Documents

- Advancing agriculture in developing countries through knowledge and innovation - Synopsis of an international conference
  Asenso-Okyere, Kwadwo; Kristin Davis, and Dejene Aredo (2008)
  This synopsis deals with: the role of knowledge and innovation in reducing poverty; the roles of other actors; and, whether new and appropriate technologies and policies are available for reducing rural poverty.
- Agricultural innovation systems: from diagnostics toward operational practices
  Rajalahti, Riikka; Janssen, Willem; and Pehu, Eija (2008)
  This paper summarizes the findings of a 2007 workshop in which about 80 experts took stock of

recent experiences with innovation systems in agriculture and reconsidered strategies for their future development.

- Building public-private partnerships for agricultural innovation
  Hartwich, Frank; et al. (2008)
  This analysis of 125 public-private partnerships (PPPs) for agricultural research in 12 Latin American countries shows that PPPs have a 5-stage life-cycle and have advantages over other institutional arrangements.
- How innovative is your agriculture? Using innovation indicators and benchmarks to strengthen national agricultural innovation systems
  Spielman, David J.; and Birner, Regina (2008)
  This paper develops a conceptual framework that ties the innovation systems framework to the agricultural sector and reviews how the framework has been used to develop innovation indicators in other fields.
- Linking evidence and user-voice for pro-poor policy change: lessons from Uganda and Kenya
  Hooton, Nicholas A. (2008)
  The Process and Partnership for Pro-Poor Policy Change (PPPPPC) project sought to understand and draw lessons from examples of evidence-based policy change, in response to the need to better understand the processes and mechanisms that lead to pro-poor decisions at policy level.
- Linking international agricultural research knowledge with action for sustainable poverty alleviation: what works?
  Kristjanson, Patti; et al. (2008)
  The authors examine which institutional arrangements and procedures are most likely to support efforts to harness science and technology in support of sustainable poverty reduction.
- Political science? Strengthening science-policy dialogue in developing countries
  Jones, Nicola; Harry Jones; and Cora Walsh (2008)
  This study provides a multi-layered analysis of the science–policy interface in developing countries. It draws on work carried out by the Overseas Development Institute (ODI) Research and Policy in Development (RAPID) programme and a number of partners.
- How national public policies encourage or impede agribusiness innovation: studies of six African countries - Research proposal
  World bank (2007)
  A comparative assessment of 6 African nations will be carried out to assess whether public policies enable agricultural innovation and to determine which technical, financial and marketing services support it.
- Innovation systems governance in Bolivia: lessons for agricultural innovation policies
  Hartwich, Frank; Alexaki, Anastasia; and Baptista, René (2007)
  Governance principles such as participation, transparency, responsiveness, accountability, consensus orientation, coherence, and strategic vision in the Bolivian Agricultural Technology System (SIBTA) were compared with those in five other developing countries.
- Enhancing agricultural innovation: how to go beyond the strengthening of research systems
  World bank (2006)
  An assessment of the usefulness of the innovation systems concept in guiding investments to support the development of agricultural technology. Includes an operational agricultural innovation systems concept for developing countries.
- Informal traders lock horns with the formal milk industry: the role of research in pro-poor dairy policy shift in Kenya
  Leksmono, Cokro; et al (2006)
  An analysis of policy changes during the Smallholder Dairy Project (1997-2005) in Kenya that intended to include both the formal and informal systems supplying milk to Nairobi.

- Journeying from research to innovation: lessons from the Department For International Development's Crop Post-Harvest Research Programme 'Partnerships for innovation' - final report
  Barnett, Andrew (2006)
  The Crop Post-Harvest Programme has generated a number of lessons on how to achieve innovation and what pitfalls to avoid. The approach appears to be relevant to a wide range of problems.
- New insights into promoting rural innovation: learning from civil society organisations about the effective use of innovation in development
  Hall, Andy (2006)
  Hypothesizes that unfettered by the norms of science and related institutions, civil society found new ways to innovate, representing a rich source of lessons in promoting innovation for development.
- Agricultural science and technology policy for growth and poverty reduction
  Omamo, Steven Were; and Naseem, Anwar (2005)
  Achieving growth and poverty reduction in developing countries requires greater compatibility among policy environments, institutional arrangements, and micro conditions and behaviour in agricultural research and development.
- Analyzing the agricultural science, technology and innovation (ASTI) systems in ACP countries - Methodological framework
  CTA; UNU-INTECH; and KIT (2005)
  This research project aims to build capacity to better understand the strengths and weaknesses of the local science, technology and innovation system in the agricultural sector of countries in the ACP region (Africa, Caribbean, Pacific).
- Building science, technology and innovation policies
  Ahrens, Joachim (2005)
  A discussion of: the role of policy in developing science, technology and innovation policies in developing countries; the principles for designing such policies; and, the need for developing efficient governance.
- How can research-based development interventions be more effective at influencing policy and practice? (2005) Alex Duncan & Andrew Barnett
  Duncan, Alex; and Barnett, Andrew
  This paper discusses ways in which those who are involved in Making Markets Work (MMW) programmes can be effective in influencing policy and practice. It suggests adopting an innovation system approach.
- Innovating in coalition: scientists, industry and farmers marketing sorghum in Andhra Pradesh (ca. 2005) Emma Crewe / CRISP
- Innovation systems: implications for agricultural policy and practice (2005) Andy Hall, Lynn Mytelka & Banji Oyeyinka / ILAC
- Learning alliances: an approach for building multi-stakeholder innovation systems (2005) Mark Lundy, Maria Veronica Gottret & Jacqueline Ashby (CIAT) / ILAC
- Partnerships for building science and technology capacity in Africa (2005) Banji Oyelaran-Oyeyinka / UNU-INTECH
- The 'system of innovation' approach, and its relevance to developing countries (2005) SciDev.Net
- Designing a policy-relevant innovation survey for NEPAD - a study prepared by UNU-INTECH (2004) Lynn K. Mytelka, et al