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Funding agricultural research to connect local communities to global markets: Experiences from Benin (West Africa)

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Abstract

Poverty alleviation and the reduction of the gap between rich and poor countries in the context of globalization remain one of the important challenges for African research. Especially, agricultural research has a major role to play because of the socio-economical importance of agriculture in many developing countries. It became vital to establish institutional arrangements and to set up operational approaches and strategies that would help taking advantages from this major reality. This paper describes and analyzes the funding strategies of agricultural research for easing the transition of local communities to the globalization on the national scale in Benin. For this purpose, semi-structured interviews were carried out with leaders of the public research organization, development projects, farmer organizations and NGOs. The key requirements for connecting local communities to a globalized world are (i) the development of commodity networks at different levels, (ii) the improvement of innovations for agricultural production and processing and (iii) the access to the international market. The strategies developed for this purpose are (1) the organization of research around the main commodities, (2) the involvement of local communities in identifying research priorities, (3) the establishment of competitive grants system for improving the effectiveness and the efficiency of agricultural research and (4) the involvement of other stakeholders in agricultural research. The main issues to address for improving the effectiveness of agricultural research in connecting local communities to a globalized world are the investment in strategic research to build or improve the values chains, the sustainability of the funding system and the assessment criteria.

Keywords: Agricultural research, Benin, Globalization, Local communities

1. Introduction

Agricultural sector remains important for any poverty reduction strategy in many developing countries. In context of globalization, African agriculture has to become more competitive without making vulnerable the natural resource basis or creating social disruption. This is an important challenge for African agricultural research to find more efficient ways of organizing and managing his work. The globalization causes threats and opportunities for farmers. On the one hand, local consumers may switch to imported products if these are cheaper or of better quality. On the other hand, it may enable farmers to produce for export markets (van den Ban 2005). It became vital to establish institutional arrangements and to set up operational approaches and strategies that would help taking advantages from this major reality (Hobbs 1998, Ahrens 2005). This may not be successful without improving the efficacy and efficiency of agricultural research management. The way agricultural research is funded impacts on the performance of the service (van den Ban 2000). This paper analyzes how the funding strategies of agricultural

research and how it could ease the transition of local communities to the globalization on the national scale in Benin. For this purpose, semi-structured interviews were carried out with leaders of the public research organization, development projects, farmer organizations and NGOs.

2. Results and analyses

2.1. Brief background on Benin National Agricultural Research System

The National Agricultural Research Institute of Benin (INRAB) was created in 1992 to replace the former Agricultural Research Direction. The institute became in 1996 a public organization endowed with strategic orientations and financial autonomy. The mandate of the institute covers not only the agricultural research but also the policy-making. The current research action plan aims at improving the working framework of the National Agricultural Research system (NARS) by generating technologies, knowledge and information on the agricultural sector, so as to ensure its contribution to the poverty reduction and the development of a market-oriented research. As such, the agricultural research is in the vanguard of connecting small farmers to the globalization. To achieve this goal, some requirements are to be taken into consideration.

2.2. Requirements for connecting local communities to globalized world

The section explores the major requirements for connecting local communities to globalized world. The key issues are the development of commodity networks, the improvement of innovations for agricultural production and processing, the capture of national market and the access to international market.

Commodity networks development

Commodity networks development is the key to build the chains of values. Commodity networks need to be systematically organized in order to identify constraints and to solve them by providing farmers with relevant technologies, markets, inputs and credits. The example of cotton network - production, ginning, commercialization and input provision – is well illustrative. Cotton became the cornerstone of the agriculture and the main income source of numerous farmers in north, many farmer organizations and the State. Currently, despite several difficulties (Burmam 2005) that the cotton network encounters, it contributes to finance the agricultural extension and research substantially. Learning from its relative success, promoting new commodities networks with the plan of diversification of income sources becomes a challenge. Input provision, access to international market and access to relevant technology are the connecting point to the globalized world. Research services have to structure so as to meet resulting expectations and to accompany the process.

Improving innovations for agricultural production and processing

Improving innovations for agricultural production and processing is the second requirement if one has to help farmers take advantage from the globalization. New technologies and innovations have to support the commodity network development by making it possible for local entrepreneurs low cost and high quality production and processing. Connection to international information and knowledge systems and systematic valorization of any innovative possibilities with regard to agricultural production and processing are some challenges to take up. Such a process goes through intensive research partnerships between the NARS and regional and international research organizations. Moreover, national scientific and technical research standards must be improved. Agricultural research is the cornerstone of this process.

Capture of national market and access to international market

The openness of international market to developing countries has been largely heckled the last couple of years. This issue has to be necessary and objectively addressed in favor of these countries if their agricultural economy has to be prevented from paralysis due to inequitable competition (ODI 2004). At the same time, low cost and high quality production and processing

are required from countries such as Benin not only to get involved into the international market but also to set out to capture national market. Indeed, the national market is flooded of imported foods and other agricultural products. Access to market is one of the most important challenges.

2.3. Strategies for connecting local communities to globalized world

Since 2001, the National Agricultural Research Management project (AGRAN) supported by the German Technical Cooperation (GTZ) provides support to organize the National Agricultural Research System (NARS). This section analyzes how the research system is oriented towards taking up the challenges above. The highlights are opening agricultural research to the stakeholders, the organization of research around the main commodity, the involvement of local communities in identifying research priorities and the set up of competitive grants for improving effectiveness and efficiency of research.

Opening agricultural research to other stakeholders and partnerships

Since 1994, efforts have been done to involve all the stakeholders at different levels. A functioning National Agricultural Research System (NARS) has been set up and includes researchers from INRAB, universities, NGOs, extension services, privates, etc. Therefore, the system was useful in stimulating new partnerships between research institutions, professional organizations and other development partners and in following-up and assessing in research proposal implementation. INRAB strives to develop partnerships with national and international organizations. For instance, INRAB is an active member of the Forum for Agricultural Research in Africa (FARA). At a national level, INRAB keeps up partnerships with development projects and the Cotton Inter-professional Association (AIC) which fund many research programs. The involvement of many stakeholders in agricultural research makes it possible to provide farmers with diversified services with various approaches.

Organizing research around the main commodities

Agricultural research is organized around the main commodity to support the commodity networks. These commodities have been identified together with farmers in each region of the country. This strategy makes it possible to better work out key research issues with regard to a given commodity. It appears to be relevant in the context of commodity network development.

Involving local communities in identifying research priorities

The annual cycle of agricultural research management involves the research products users. Systematic diagnostics are carried with farmers in various regions to identify urgent needs. Call for research proposals takes outcomes of diagnostics into consideration and orient researchers towards relevant concerns. Therefore, only research activities relevant from the view of farmers are expected to be financed. A better decentralization and regionalization of the research activities is planned for a permanent and effective communication with the clients.

Competitive grants for improving effectiveness and efficiency of research

The research activities are run according to an annual cycle of agricultural research management (Arodokoun et al. 2004). Its components are (i) meetings of Regional or Sector Research and Development Committees (CRRD or CSRD) which gathers researchers and research results users for exchanges and new constraints/priorities setting, (ii) call for research proposals for competitive funds and meetings of proposals approval committee including members from different institutions and disciplines, and research products users, (iii) research proposal implementation, follow-up and assessment on the fields, (iv) results restitution or feedback and assessment at village level, (v) scientific workshops, which offer frameworks to the researchers of the NARS to exchange and to improve methodology and to prepare the CRRD or CSRD. The annual cycle of agricultural research management appears to be relevant for financing farmer needs-oriented research activities and managing the scientific quality of research.

2.4. Key points to be addressed for improving the funding strategy

Need for investment in strategic research to improve the values chains

Up to now, thematic areas covered by research activities are limited to developing new technologies and socio-economic research. Emphasis is put on adaptive research for meeting farmers' urgent needs. Strategic and prospective research has to be carried out for orientation purpose. Moreover, research on institutional arrangements for technology development and diffusion, input and credit provision, commercialization with regard to the main commodities is required to valorize outcomes of agricultural research.

Necessity for adjusting assessment criteria

Some efforts are being doing to assess and to improve the practice of research activities on the field. Some assessment teams are in charge of visiting and following-up the implementation of research proposals in order to ensure its quality. In the same way, it may be useful to set up a consistent assessment procedures of the whole institutional system. Therefore, institutional research may be taken into account to make the system more dynamic and sustainable.

Necessity for a sustainable funding and cost reducing

A diagnosis survey carried out in 2004 (INRAB/MAEP 2004), showed that (i) the funds for research and dialogue forums are until now financed by external backers level with 80%, (ii) the share of national budget allocated to the research is insufficient. Furthermore (iii) the institute lacks either material resources or human capital in many fields like biotechnology, mechanization, water management, etc. For instance, INRAB has only 21 researchers who hold a doctorate and 25 with MSc respectively. Therefore, sustainable funding is required. To reduce operating cost, two years research proposal must be funded. A national fund for agricultural research must be progressively created. Districts' leaders and farmer organizations may be involved in financing of research activities and assessment and technologies adoption.

3. Conclusion

Opening agricultural research to the stakeholders, involving local communities in identifying research priorities, organizing research around the main commodities and competitive grants strategy are then strategies that have been set up to develop commodity networks, to improve innovations for agricultural production and processing, to capture national market and to access to international market. Taking up these challenges could contribute significantly to connect Benin local communities to the globalized world. However, the investment in strategic research to improve the chains of values, the adjustment of assessment criteria and the sustainability of funding are key issues to address, if one has to improve the performance of the system.

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