



Tropentag 2006
University of Bonn, October 11-13, 2006
Conference on Prosperity and Poverty in a Globalized World -
Challenges for Agricultural Research

Enhancing Agricultural Productivity in Sub-Saharan Africa through IAR4D and Competitive Grants Processes: Experiences and Lessons.

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Abstract

Revitalizing agricultural research in Africa will require addressing issues like demand-led approaches, accountability, and building of critical mass, avoidance of duplication, sustainable financing and capacity strengthening. The emergence of Integrated Agricultural Research for Development (IAR4D) as a basis for conducting research has presented an opportunity to address sub-Saharan Africa's persistent problems in new ways. IAR4D involves an innovative set of principles, an integrated research agenda, and a recognized need for greater organizational capacities and flexibility among research partners. Research is not merely intended to develop and escort new technologies to farmers but also empower farmers to better understand and respond to changing circumstances as they emerge. Competitive funding has been widely adopted as one mechanism of encouraging institutional innovation and change necessary for implementing research using the IAR4D paradigm. Research funding is moving away from open-ended institutional support towards a performance-based system where the research aims, and plans for research implementation, are developed and decided in the context of agreed priorities and value-based criteria. This situation has warranted assertive action for promoting complementary mechanisms of financing agricultural research that attracts financial resources through evidence of capability to deliver against set targets to a standard that meets the expectations of all stakeholders. Agricultural research systems must communicate better with other parties in the agricultural sector, critically question their own goals and strategies and develop the capability to showcase the contribution they make to rural development more evidently. The emerging evidence is that with careful planning and conscious commitment, competitive funding can be meaningfully harnessed to change the manner in which agricultural research is conducted and lead the transformation process necessary to turn Africa around.

Introduction

Sub-Saharan Africa is the only region in the world where livelihoods and food security continue to deteriorate and the number of Africans living in poverty has increased in the last decade. There are predictions of impending starvation and social decay being compounded by failures of agricultural markets, inappropriate policies and natural resources degradation. Technology development and deployment to kick-start the agricultural-development engine require the pursuit of scientific truism in a manner that gives it a human face, partnership and leadership based on comparative advantage and enabling socioeconomic, institutional and political conditions. Revitalizing agricultural research (Monty, 2004) requires re-orientation towards demand-led

approaches, accountability, establishing and maintaining a critical mass of physical and human research infrastructure, avoidance of duplication, sustainable financing and general capacity strengthening. This paper presents some of experiences and lessons from efforts to establish successful sub-regional and regional research for development programs in sub-Saharan Africa (SSA) through FARA¹ and the three Sub-Regional Organizations (SROs) - ASARECA², CORAF/WECARD³ and SADC-FANR⁴. It focuses on IAR4D and competitive grant systems (CGS) as vehicles for changing the manner in which agricultural research is conducted.

Innovation platforms for IAR4D

The research and development agendas being pursued by research and development organisations operating in SSA seek to overcome food insecurity, reverse natural resource depletion and foster rural enterprise development. They seek to add value to and enhance the impact of ongoing agricultural research for development by transforming the way that sectors and institutions at all levels approach agricultural research. IAR4D involves an innovative set of principles, an integrated research agenda, and a recognized need for greater organizational capacities and flexibility among research partners. It is a multi-stakeholder participatory approach to rural innovation that is based on collective action, integrative learning and institutional change. It integrates markets, policies, sustainable natural resources management and intensification of agricultural smallholder systems. IAR4D is especially appropriate in dealing with multiple objectives like increasing productivity, risk aversion and climate variability.

While designing research for development interventions (FARA, 2006), farm enterprises and commodity production are viewed as interacting with natural resource management, markets and policies. Research is not merely intended to develop and escort new technologies to farmers but also empower farmers to better understand and respond to changing circumstances as they emerge. The research process is based upon key entry points for change and engages different disciplines and stakeholders within iterative problem-solving. Emphasis is placed on wider integration across sectors and levels and the recognition of the need for inter-institutional collaboration and collective action of a broad range of stakeholder institutions in a level playing field or innovation platform (Figure 1).

In the innovation platform model, diverse stakeholders from both the supply and demand sides of value chains are connected to jointly conduct research activities. Partnership and collaboration are no longer approached in a top-down manner through assigned tasks but rather forged along recognizing the importance of participation and interaction balanced with individual needs, goals, competencies and capacities. Linkages across the value chain must be analyzed to determine whether “demands” are being articulated effectively, suppliers are responding adequately, and the two sides can “meet” under the rubric of appropriate institutional arrangements. Projects being supported seek to deliver productivity enhancing technologies, processes and approaches, as well as marketing strategies, enhanced approaches to food and nutritional security and income generation, watershed management approaches and better evidence-based enabling policies and institutional arrangements. Research targets viable production-to-consumption value chains or enterprises that offer opportunities for rural communities to intensify, diversify, add value or benefit from employment and small-business creation opportunities. Selection criteria optimise the balancing of potential benefits and risks in a manner that allows participants to make informed choices and interact with other value chain actors on an equitable basis.

1 FARA: Forum for Agricultural Research in Africa

2 ASARECA: Association for Strengthening Agricultural research in Eastern and Central Africa

3 CORAF/WECARD: Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/ West and Central African Council for Agricultural Research and Development.

4 SADC-FANR: Southern African development Community – Food, Agriculture and Natural Resources.

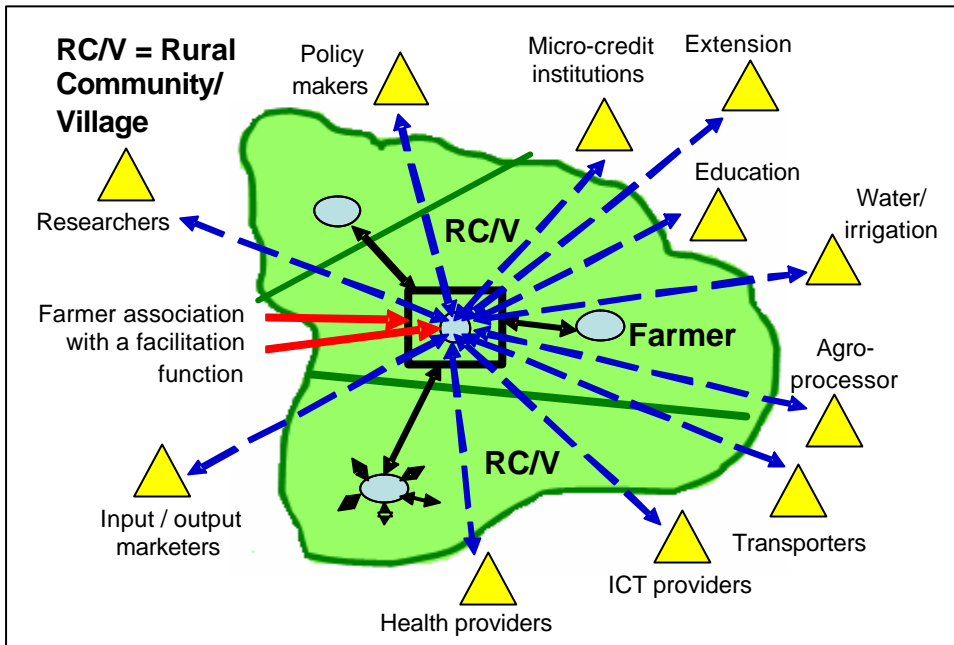


Figure 1. A schematic representation of an innovation platform in the context of a IAR4D projects. The diagram illustrates: (i) agricultural services organised around farmers' associations, (ii) geographic location, (iii) integration of actors around innovation-promoting agricultural services, (iv) institutional mechanisms, and (v) value chain establishment.

Use of competitive funding to manage and organise service delivery

Competitive funding has been adopted as one mechanism of encouraging institutional innovation and change necessary for IAR4D. The funding mechanism is based on an institutional framework that separates the functions of allocating funds from the function of carrying out research. The key objectives include (i) improving relevance, efficiency, effectiveness and quality of research, (ii) creating greater ownership, partnership, subsidiarity and transparency, and (iii) promoting cross-institutional or cross-national collaboration and involvement of a plurality of research service providers.

Structurally, CGS programs are governed through a two-level institutional framework. High profile and pluralistic oversight bodies provide advocacy, strategic guidance and take decisions, including approvals and allocation of resources, in accordance with agreed priorities and procedures. Multi-disciplinary inter-institutional groups of scientists review proposals on the basis of a set of agreed criteria and procedures, recommend those that should be supported and also contribute to the assessment of the progress and performance of commissioned projects. Appointment to these bodies is based on acceptability to those that a member will be representing, willingness and availability, broad-based experience and knowledge, reputation for performance and integrity. Strong and independent governance, precise guidelines, consistent rules and the transparency in the selection of projects are necessary conditions for maintaining credibility amongst stakeholders. Table 1 summarizes some of the major challenges and associated generic strategies being applied by FARA and the SROs.

Conclusion

Orientation towards IAR4D and service delivery through competitive grants has provided a sound basis for positive change in the way that national institutions conduct research. Greater integration of research among the participating countries, development of collegiate rather than contractual or collaborative partnerships and deliberate effort to develop capacity for participatory technology development by potential project applicants is becoming evident. However, factors like shortage of researchers and teams in some thematic areas, high fragmentation of research initiatives, high isolation of research teams, low mobility of researchers, low emphasis on cooperation by some institutions still constrain true cooperation among research teams and institutions.

Table 1: Objectives and issues associated with strengthening IAR4D approaches through CGS in SSA.

<i>Underlying issues</i>	<i>Common strategies</i>
Challenge 1: Suitability of CGS (stage of development & economic status, relevance of supported programs)	
<ul style="list-style-type: none"> CGS not the only and necessarily appropriate funding mechanism in all situations stage of development of the research system (numbers and capacities) and economic environment developing a relevant and balanced research program balancing innovative and traditional approaches - risky projects and unknown providers balancing public and private objectives - protecting proprietary knowledge and technologies to attract the participation of the private sector, while ensuring that public funds are used for social objectives; equity concerns: participation in provision or sharing of benefits sustainability of funding and institutions, conflict with other development objectives, capacity 	<ul style="list-style-type: none"> link with other funding sources in complementary funding system. direct funding for selected projects and programs appropriate mix (and roles) of institutional and competitive funding provision for follow up projects to enable scaling-up or further development of promising technologies. ensure efficient use of resources while allowing equitable opportunities address priorities that reflect agreed policies and strategies, and demands from beneficiaries flexibility: responding rapidly to new needs and opportunities understanding of stakeholder communication, knowledge management and information sharing preferences and needs
Challenge 2: Procedures (processes, guidelines, formats) for positive impact	
<ul style="list-style-type: none"> cost effectiveness of procedures: balance overhead (e.g. cost of investment in preparing proposals) against the need to ensure accountability and transparency (details, flexibility) apportioning costs and investments detail of guidelines with respect to the process 	<ul style="list-style-type: none"> flexible, clear guidelines that ensure pro-active development and transparent review of proposals - review and revise continuously bring out contentious issues upfront (eligibility, funding levels and likely number of projects to support) proactive development of proposals through the development of networks and providing training for weaker institutions, including collaborative multi-institutional activities. use of a pre-proposal stage that allows the program to work with authors of selected pre-proposals to develop solid proposals that are relevant to the program.
Challenge 3: Policy and administration	
<ul style="list-style-type: none"> balancing local ownership with independence from interference - distinction between the functions of policy, proposal evaluation, secretariat and administration, and research execution. ensuring objective review to proposals. cost of establishment – investment upfront to fit institutional environment 	<ul style="list-style-type: none"> strong and independent governance is essential. piloting and scaling up as experience is gained and internalized - track progress. rigorous, independent, and transparent review process. clear criteria and procedures for selecting members of governing boards and review panels.
Challenge 4: Capacity to participate	
<ul style="list-style-type: none"> CGS don't create but thrive on existing capacity, provide operational funding only and reduced priority for investment in research infrastructure and human capital competency and performance of stakeholders. public and private sector diverse capacities and perceptions of each other - building trust., stress on weaker institutions 	<ul style="list-style-type: none"> capacity development and training for NARS and traditionally non-research institutions. ceilings on awards to individual organizations to avoid dominance. using experiences from CGS to upgrade quality of core/ring-fenced funding
Challenge 5: Partnerships	
<ul style="list-style-type: none"> co-operation, competition, coopetition - personal to institutional domination, restricted information networks, exclusion of weaker institutions by default 	<ul style="list-style-type: none"> pluralism, diversity, conditionalities and "level playing field" for all service providers participation based on contribution and not merely share of budget local ownership - identify and involve the various components of the stakeholder constituency early in the planning stage, and ensure that collaboration is mutually beneficial, flexibility of teams to procure/involve additional expertise

References

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