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Putting heads together

Agricultural innovation platforms in practice

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Foreword

To reduce African food insecurity and poverty agricultural growth is essential. Analysing on-going experiences that support (participatory) innovation in agriculture provides an important contribution towards improving agricultural development and food security in Africa. Moving beyond the usual triad of farmers, extension and research institutes long involved in agricultural development programmes, innovation platforms reach out to a wider group of stakeholders. The model for generating change embraced by innovation platforms is also intrinsically different from the Transfer of Technology model which has been the predominant approach used by practitioners of agricultural research and development around the world.

By joining forces in innovation platforms, stakeholders can generate innovation by combining their indigenous knowledge, business interests and organisational skills. The surge of interest in the use of innovation platforms in the agricultural sector followed its introduction about seven years ago by, among others, the Forum for Agricultural Research in Africa (FARA) as a mechanism to help implement the Integrated Agricultural Research for Development approach. Since then, many platforms have been established in Africa by FARA and others. Some interesting examples are described and analysed in detail in this book.

This “first generation” of innovation platforms has drawn most of its inspiration and experiences from knowledge and know-how accumulated from extension and outreach programmes such as Farming Systems Research and other participatory techniques introduced by civil society organisations and research & development institutes. These platforms were established in an effort to bridge the gaps between different stakeholders in the agricultural sector; by joining forces, they are better able to face challenges and to make better use of emerging opportunities for farmers, private and public institutes alike.

Now that some experience has been built up, it is important to sit back and study innovation platforms to gain a good understanding of what has worked where, and why. With this book, the Royal Tropical Institute (KIT) has carried out this complex task by involving practitioners and writers in its well-tested “writeshop” process.

The authors document a diversity of approaches for and results from the development of innovation processes (endorsing the definition proposed by FARA) through a review of twelve agricultural platforms in sub-Saharan Africa. These cases are far from exhaustive but nevertheless bring up a wealth of experiences. As mentioned in the book’s introductory chapter, the authors and contributors of this book do not pretend, in any way, to present a model or template for the perfect innovation platform. To the contrary – they do not believe this is possible. As such, the objective of this document is not to judge or evaluate the actions and performances of those involved in the implementation of plat-

forms, but to serve as a basis for discussion and learning about this significant and useful development in agriculture.

There appear to be three main factors that frequently lead to the disintegration of established innovation platforms: lack of funding, irreconcilable conflicts between partners, and unfavourable changes in the institutional and political context. For example, several successful innovation platforms were disbanded because the structures of participating stakeholder organisations collapsed, or because of major external shocks destabilising the production chains. Likewise, the lack of sustainable funding for the innovation platforms, coupled with the inability of players to build platforms that are resilient and relatively independent of external funding, have been major factors behind recurrent failure or collapse.

Experience shows that public funding for development programmes is never sustainable and the case of innovation platforms is no exception to this rule. This book opens a discussion on funding for innovation platforms, which will certainly generate further discussion and publications.

All practitioners along the value chain and other stakeholders engaged in agriculture – whether on the research or development side of the continuum– will find this book useful. Development partners who finance projects will also find this document important for orienting their contributions to agricultural research and development. We are all left hoping that this is just the beginning of the discussion on this subject...

Monty Jones

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Producers in developing countries need to respond to rapidly changing environments. These changes are the result of policy, climate change, the market and many other –often unpredictable– elements and events. This book is based on the premise that innovation is needed in order to address such challenges. Innovation, in its turn, is the result of interactions amongst different actors who have a common interest in finding solutions to address the challenges. We argue that the bottleneck in African agriculture is not solely due to a lack of technological fixes for farmers. It is also intimately related to the conditions under which those technologies are developed and used to benefit farmers; that is, the bottleneck is also of an organisational and institutional nature.

Innovation platforms deliberately enhance interactions amongst stakeholders to change the way their organisations function and collaborate with others.

The Royal Tropical Institute (KIT) has worked on agricultural development for several decades, bringing together experiences of different organisations in enabling innovation. KIT's role is to draw lessons from experiences in the field and to share these lessons with others. The process that led to this book well illustrates this role, which saw practitioners putting their heads together in a “writeshop” to come up with an analysis of documented experiences of innovation platforms in Africa.

As such, the book is a collective effort. Without the active participation of practitioners from the field, there would be no book. In particular, we are grateful to the case authors and experts who discussed and jointly analysed their experiences at the writeshop in Wageningen. They have literally jointly written this book. We thank them for their time, energy and interest - as well as for the financial and in-kind contributions from their respective organisations. (See p. 186 for a complete list of contributors.) We would also like to thank Willem Heemskerk in particular for his inputs in planning and facilitating the writeshop.

We are also thankful to Mundie Salm, the editor who did much more than “simply” language editing. She has greatly supported authors in putting their ideas and insights clearly on paper, making this book not only more readable, but ultimately also more useful. We are equally grateful to Dr Andy Hall, an internationally renowned senior researcher in the field of Innovation Systems; and Dr Monty Jones, the Executive Director of the Forum for Agricultural Research in Africa (FARA) for reviewing an earlier version of this publication, and for helping us to sharpen our ideas with their thoughtful insights and constructive comments.

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Part I

Analysis



1 Agricultural innovation platforms

Innovation platforms link different stakeholders to achieve a joint objective. A lot has been written on the theory of innovation platforms and how it may introduce new ideas and bring about positive change in rural people's livelihoods. In this book we present real-life examples of innovation platforms established through different organisations and with a different design. Based on a comparative analysis undertaken by people working in the field, we derive lessons for design, brokering and a sustainable impact. We trust and truly hope that this publication will fill a gap and inform practitioners and other people involved in enabling innovation.

1.1 The need for this book

While much has been written on the theory of agricultural innovation systems (Hall *et al.*, 2006; Hirvonen, 2009; Leeuwis, 1999; Leeuwis and van der Ban, 2004) and the need for stakeholder collaboration (Critchley *et al.*, 2006; Engel and Salomon, 1997; Röling and Wagemakers, 1998), less is known about how innovation platforms operate in practice and what they (can or cannot) achieve. Little is known as well about the conditions under which innovation platforms trigger change. Few have written about this topic in understandable language and even less of the literature aims at practitioners who are actually engaged with innovation platforms and faced with the day-to-day problems¹. Learning how to build links and to encourage interaction between farmers, public research, advisory services, development organisations and the private sector is still a key challenge for operationalising the innovation systems concept (Sanginga *et al.*, 2009). This book is meant for development professionals and practitioners. Practitioners, in this case, are those involved in brokering, most often researchers. This publication is written from the perspective of practitioners *for* practitioners. It provides new information on the performance of innovation platforms in developing countries, offers options to policy makers, and gives inspiration to all actors involved in one way or another in stimulating innovation in the agricultural sector.

This publication intends to fill this knowledge gap by drawing lessons from a number of practical experiences with innovation platforms in different sub-Saharan African countries. The authors and contributors of this book do not pretend, in anyway, to present a model or template of the perfect platform. On the contrary, the authors do not believe that such a thing exists. Similarly, the objective of case documentation is not to judge or evaluate the actions and performance of those involved in their implementation. The objective is to learn and to make these lessons available to others.

¹ Another publication that has documented on evidence-based and practice-derived lessons about innovation dynamics is: Pyburn, R. and Woodhill, J. (eds) (Forthcoming). Dynamics of Rural Innovation – a primer for emerging professionals. KIT Publishers, Amsterdam.

The title of our book demonstrates that different people contributed to it by putting our heads together during a “writeshop”, where we could exchange our experiences with innovation platforms. At the same time, the title underlines the importance of bringing different people together in an innovation platform, to exchange and join in concerted action.

In this book, we use the term “innovation” when we refer to anything new that has been successfully introduced into an economic or social process. In other words, an innovation is not just about trying something (locally) new, but about successfully putting it into practice in a specific environment (Spielman *et al.*, 2009)². Innovation is triggered by (a combination of) factors that vary from the needs of farmers, processing and marketing agents to solve a particular problem; to simple curiosity, lessons learned from past failures and successes, research investments, political will, competition, market demands, and/or sudden changes in the context (e.g. war, drought, unpredictable changes in weather patterns, etc.).

In this book, we do not look at the situations in which farmers have themselves been able to respond to opportunities (for a comprehensive overview of cases, see Reij and Waters-Bayer, 2001). We also do not explore situations in which a simple technology is the solution - if such situations in fact exist at all. But we do investigate situations in which institutional constraints have hindered farmers from taking advantage of opportunities. And we argue that this is most often the case (see also Hounkonou, in prep.). It is in these contexts that innovation platforms have been established. But innovation platforms as such have been called different names in different places: for example, “Concentration and Innovation Groups”, “Innovation Networks” or “Clusters”. For all of them, the common denominators are that they are flexible by nature, address complex situations and have more or less a dynamic membership.

This book brings together twelve case studies from sub-Saharan Africa to gain a better understanding of the conditions under which innovation platforms do (or do not) work. We start this first chapter by briefly revisiting what theory tells us. Even while the focus of this book is based on stories from the field, it is important to hold a mirror up to the theory and to learn from other experiences that have been documented as well. We follow this with an overview of the cases that are documented in Part 2 of this book. Next, we introduce the cross-cutting issues, which were discussed at length during the writeshop from which this book originates. A “writeshop” is a participatory process that brings experts, practitioners and editors together to analyse a certain topic and write it down (see also Section 1.5). We will explain the innovative process for writing this book and we end the chapter with a description of its structure.

² A Glossary with definitions for some of the terms used in this publication is found at the end of the book.

1.2 What theory tells us

This book is about practical experiences working with innovation platforms. It derives lessons *from practitioners for practitioners*. Much that is written on this topic provides a theoretical perspective on innovation platforms, so in this introduction we will revise the theory of both the history of innovation systems thinking, and the theoretical background of innovation platforms.

1.2.1 The history of innovation systems

Agricultural research has not been very successful in improving resource-poor farmers' livelihoods (Stoop, 2002; Bie, 2001; Mutimba, 1997; Pretty, 1995; Chambers and Jiggins, 1987). Approaches for agricultural research for development have changed over time, according to their understanding of how innovation comes about, and who plays a role in this process.

Linear approach

The linear approach to agricultural research and development (Chambers and Jiggins, 1987; Prasad Pan and Hambly-Odame, 2010) was in vogue during the 1960s and 1970s and remains present in a large number of programmes and institutes. This approach looks at knowledge development/production and application as separate activities, carried out respectively by researchers and farmers. Researchers are in charge of producing knowledge, extension agents are expected to transfer the knowledge to farmers, who are expected to adopt it.

Holistic approach

Throughout the decades that followed, several authors, scholars and practitioners (for an overview see Röling, 2009) pointed to the fact that many actors play an active role in innovation, and that innovation processes are in fact dynamic. This resulted in more holistic approaches taking precedence, such as Farming Systems Research (Benoit-Cattin, Dixon *et al.*, 2001; Collinson, 2000). The recognition that farmers are able to actively adapt and come up with new ideas and solutions to local problems (Reijntjes *et al.*, 1992) became of particular importance, triggering a shift of responsibility and say from researchers to farmers, through more participatory methods (Chambers, 1990, 1997; Nederlof, 2006).

At the same time, it became clear that technologies were not the main bottleneck for improving rural farmers' livelihoods, but institutional constraints hampered farmers and other intended beneficiaries from putting the technologies to use and improving their livelihoods (Hounkonnou *et al.*, submitted). By *institutions*, we refer here to rules and regulations, norms and behaviours (North, 2005; Uphoff, 1993).

Innovation System approach

In the 1990s and 2000s, the Innovation System approach gained strength. This brought on a switch of focus, from "technology" to "innovation". Technology, on the one hand, emphasises new "hardware" (seeds, ploughs, water management techniques, etc.) (KIT and CFC, 2011; Leeuwis and Van den Ban, 2004). Innovation, on the other hand, includes technology but also has organisational and institutional elements. Organisational elements refer to new ways of organising groups, production and/or consumption, whereas institutional

ones reflect new or revised institutional set-ups, partnerships and policies. Thus an innovation encompasses these three elements: technical, organisational and institutional.³

A system is defined as “relationships and linkages among elements within an arbitrary boundary” (Röling, 2009). Which elements (actors) are important depend on the theme or focus of the issue in question. In the agricultural sector, the Innovation System approach brought the understanding that innovation emerges from the interaction of multiple stakeholders; i.e., researchers, advisory service-providers, non-governmental organisations, farmers’ organisations and private sector actors (Waters-Bayer *et al.*, 2009; Hall *et al.* 2006; Röling and Wagemakers, 1989). RAAKS and AKIS⁴ were the pioneers for this way of thinking (Engel and Salomon, 1997).

Hall *et al.* (2006: page 16) provide a clear idea of what exactly is meant by innovation systems: *“An innovation system can be defined as a network of organisations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organisation into economic use, together with the institutions and policies that affect their behaviour and performance. The innovation systems concept embraces not only the science suppliers but the totality and interaction of actors involved in innovation. It extends beyond the creation of knowledge to encompass the factors affecting demand for and use of knowledge in novel and useful ways”*. Box 1 brings a number of principles related to the Agricultural Innovation Systems concept.

The Agricultural Innovation Systems framework maintains that improved interaction helps to forge stronger linkages between stakeholders which will result in better information exchange, and more ideas and opportunities. To enhance such interaction amongst different parties, a number of recent initiatives has worked with the concepts (and practice) of innovation platforms (in addition to the cases in this book, see for example Critchley *et al.*, 2006; Devaux *et al.*, 2007 and Pérez *et al.*, 2010). A common assumption behind the platforms is that actors need an initial push or opportunity to break barriers against joint discussion, action, sharing and learning. Platforms can provide the space for such joint work and interaction.

1.2.2 Agricultural innovation platforms: principles, challenges and dynamics

Innovation systems are not always self-organising. Often there is the need for intervention: innovation platforms are tools that help stakeholders to interact in a concerted manner. In the literature, the concept of innovation platform refers to a set of stakeholders bound together by their individual interests in a shared issue, challenge or opportunity, intending to improve livelihoods, enterprises and/or other interests. It is made up of various actors who co-operate, communicate and share tasks to carry out activities needed for innovation to take place (FARA, 2007).

³ Other authors refer to hardware (technical), software (skills and knowledge) and “orgware” (organisational and institutional set-up) (KIT and CFC, 2011; Leeuwis and Van den Ban, 2004)

⁴ RAAKS stands for Rapid Appraisal of Agricultural Knowledge Systems and is a methodology for participatory action research. AKIS stands for Agricultural Knowledge and Information Systems.

Box 1 Main principles of the agricultural innovation system concept (adapted from Hall et al., 2006; and Otim-Nape, 2010)

- 1 *Focus on innovation rather than production.* Innovation is understood to be the application of knowledge (of all types) to achieve desired social or economic outcomes.
- 2 *Interaction and learning.* Innovation is an interactive process through which knowledge acquisition (from different sources) and learning take place. Patterns of interaction between different knowledge sources form a central component of an organisation's or sector's capacity to innovate.
- 3 *Linkages for accessing knowledge and learning.* The relationships that sustain the acquisition of knowledge and permit interactive learning are critical and can take many forms. They can be partnerships, commercial transactions (a contract or licence), networks or platforms.
- 4 *There are new actors and new roles in the innovation process.* The concept recognises that: (1) there is an important role for a broad spectrum of actors outside government; (2) the actors' relative importance changes during the innovation process; (3) as circumstances change and actors learn, roles can evolve; and (4) actors can play multiple roles.
- 5 *Attitudes, practices and interaction of behavioural patterns determine the propensity to innovate.* The common attitudes, routines, practices, rules or laws that regulate the interactions between individuals and groups largely determine the propensity of actors and organisations to innovate.
- 6 *Policies are important in innovation.* Policy support for innovation is the outcome of a set of policies that work together. In evaluating the effectiveness of policies on enabling innovation one must be sensitive to a wide range of policies and seek ways to coordinate them.
- 7 *The demand side must be included in the innovation process.* The innovation systems concept recognises the importance of including stakeholders and developing behavioural patterns that make organisations and policies sensitive to stakeholder agenda or demands.
- 8 *Changing to cope with change.* The classic response of more successful innovation systems, when faced with external shocks, is to reconfigure linkages or networks of partners.
- 9 *Building on "sticky" information.* Innovation can be based on different kinds of knowledge possessed by different actors: local, context-specific (farmers or local entrepreneurs) and generic knowledge (researcher, etc). Information is sticky when it is local and specific to the owner and not easily available to others.

The literature does not always agree on the specific characteristics of an innovation platform, especially when comparing the concept to other, similar concepts, such as innovation networks⁵. In the process of writing this book, authors and experts (see list of contributors on p. 186) jointly defined these terms, so as to remain coherent throughout the publication. During the writeshop, the contributors to this book defined innovation platforms broadly as "mechanisms to operationalise the Agricultural Innovation Systems approach", which should follow the main principles outlined in Box 1 above.

This definition concurs with that of FARA (2007), and refers to a set of stakeholders that are brought together by their interest in shared issues. It provides a physical or virtual forum for exploring opportunities to address those common issues, and investigating and implementing joint solutions. Stakeholders have a shared objective in coming together, which needs to be clear to all participants, and translates into a commitment to co-operate. This objective has to be tangible, realistic and achievable.

⁵ In some cases, the expression "innovation cluster" is also used. A cluster is here considered as an innovation platform with clearly defined geographic and thematic boundaries.

Participants of the writeshop also jointly defined the priorities and focus of a platform, drawing on their experiences. They all observed that a platform is run in a participatory and transparent manner. As such, innovation platforms can be instrumental in empowering their members to clearly express (and try to attain) their ideas and interests. An innovation platform has boundaries which can be thematic, geographic, sectoral or value chain-related. It can be either formal or informal in character, though it always has a number of clear ground rules. These rules define, for example, how decisions are made, how conflicts are dealt with and how new organisations can enter the platform. The existence of ground rules does not mean that the platform is static. On the contrary, a platform is dynamic, with organisations joining and leaving and roles of actors changing over time. The focus of the platform itself may change over time, which may well lead to changes in platform membership.

The differences between an innovation platform and an innovation network were widely debated at the writeshop. There was however no common viewpoint on a number of issues. For example, some saw innovation networks as a set of interactions which do not count on a “central” space of negotiation or interaction – in contrast to a more “centralised” discussion arena present in the platforms. Others did not see this distinction fitting their reality.

This publication respects the opinion of the separate case authors, and does not aim to reach an overarching conclusion. Much of the discussion is, in any case, more of an academic character and therefore less useful to the practitioners to whom this book is targeted. Even more importantly, despite the fact that the writeshop participants did not fully agree on how to differentiate between a platform and a network, they did agree on the main characteristics of an innovation platform and the common principles that guide them. These points will be discussed throughout the book.

As the cases in this book demonstrate, innovation platforms can be formed at different levels (local, national) and in different sectors (dairy, horticulture, etc.), and as such will have different objectives. They are often set up as a result of common problems found in a specific sector or sub-sector for which solutions depend on more than one actor. Actors may have different interests yet share a common objective and depend on one another. Innovation platforms are therefore tailor-made to respond to the challenges and opportunities encountered.

At the local level, innovation platforms tend to focus on improving practices through joint experimentation and linking of farmers to markets and other stakeholders. At the national or international level, innovation platforms tend to have a policy development orientation, often on the basis of findings from activities taking place at the local level.

1.3 The innovation platform cases

The twelve case studies are found in the second part of this book. In order to provide a general overview to the reader, Table 1 presents a number of points that characterise the

cases. A brief description of each case can be found in the next section of this chapter. As it can be seen, the cases come from nine countries in Africa: Benin, Ghana, Kenya, Malawi, Nigeria, Rwanda, Tanzania, Uganda and Zambia. One case is regional, covering East and Central Africa. The cases are also very different in other ways: from the thematic focus to the main approach taken and to the results obtained. They have other similarities as well, in the way they were initiated or are organised, and in the challenges they face, for example. In this book, we acknowledge these differences and try to learn from them, as well as from what they hold in common.

The cases usually fall under a larger-scale programme that followed a specific “theoretical framework”, intrinsically linked to the objectives of its hosting organisation and donor. This leads to differences in the way innovation platforms are set up, run and monitored, as we will further discuss in other chapters of this book. The different programmes are outlined below.

Research Into Use (RIU)

The Research Into Use (RIU) programme provided technical and financial support to four of the twelve cases described in this book (see Table 1). RIU is a DFID-supported research programme focusing on “the relationship between agricultural research and innovation - working towards identifying better processes to get research into use” (www.research-into-use.com). In an attempt to address the identified weaknesses of conventional approaches in agricultural research and extension systems, RIU supported the establishment of innovation platforms, based on an Innovation Systems perspective. In one of these RIU-led cases, the poultry Tanzania case, the authors argue that meetings amongst stakeholders did not bring the expected results. They therefore preferred the term innovation “network” over innovation “platforms” – which they heavily associated with meetings.

International Centre for Soil Fertility and Agricultural Development (IFDC)

Another case from this book (soybean cluster in Ghana) derives from work done by the International Centre for Soil Fertility and Agricultural Development (which uses its original acronym, IFDC) under the “From Thousands to Millions” Project. This programme aims to improve farmers’ access to profitable markets through the formation of agribusiness clusters, consisting of at least farmers, traders and processors, input dealers, brokers and business development services providers. The approach is based on three pillars: 1) Agribusiness clusters (consisting of the actors involved in a particular commodity within a well-defined region); 2) Value-chain development; and 3) Advocacy and lobbying (www.ifdc.org). We consider agribusiness clusters to be innovation platforms. The case of the maize platform in Nigeria discussed below is a joint research programme between IFDC, CORAF and FARA.

Forum for Agricultural Research in Africa (FARA)

Two cases were derived from the Forum for Agricultural Research in Africa (FARA)-led Sub-Saharan Challenge program (SSA CP), implemented in partnership with the Consultative Group on International Agricultural Research (CGIAR): that of the maize platform in Nigeria implemented by IFDC and the vegetable platform in Malawi. The Challenge Programme builds on the concept of Integrated Agricultural Research for Development

(IAR4D). The intention is that the IAR4D concept supports the development of different approaches to research, so as to overcome some limitations of the conventional Research and Development approaches to satisfactorily address complex agricultural problems. It uses a systems perspective as its organising principle. Its main characteristics are partnership development, interactions, knowledge and information exchange to foster sustainable agricultural development.

Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)

The only case in this book that encompasses experiences at the regional level, written by staff from the Association for Strengthening Agricultural Research in Eastern and Central Africa (or ASARECA), also follows the IAR4D concept. The ASARECA case is different from the other cases because rather than focusing on a specific platform, it describes ASARECA's Competitive Grant System and some overall experiences of the innovation platforms formed as a result of this initiative. In this case, the innovation platforms were supposed to address two main concerns: involvement of farmers and their organisations and the recognition of the private sector as the main driver of the innovation process.

Convergence of Sciences: Strengthening agricultural innovation systems in Benin, Ghana and Mali (CoS-SIS)

In the case of the oil palm platform in Ghana, the trigger was an inter-university collaborative research programme, the Convergence of Sciences: Strengthening agricultural innovation systems in Benin, Ghana and Mali (CoS-SIS) programme. This involves a partnership between universities in Ghana, Mali, Benin and The Netherlands, the Royal Tropical Institute (KIT) and another Dutch NGO, Agriterra. The purpose of the CoS-SIS programme is to carry out inter-disciplinary action-research with a view to elaborate, apply and assess a development approach to sustainable rural poverty alleviation and food security, based on innovation systems thinking (www.cos-sis.org).

Promotion of Private Sector Development in Agriculture Programme (PSDA)

The case of the mango value chain in Kenya was part of a larger programme implemented by the Ministry of Agriculture in partnership with the German Development Agency (GIZ). Its Promotion of Private Sector Development in Agriculture Programme aims to facilitate the coming together of value-chain actors and to identify opportunities to improve the efficiency of a specific value chain. This is a distinctive case because the platform, in practice, did not function. The reasons behind this provide interesting learning material.

Other platforms

The national platform in Benin as well as the oilseed platform in Uganda provide the only cases that are not directly linked to a specific project. They are unique in the sense that they focus on policy change at an institutional and (national) organisational level.

1.3.1 Types of platforms

To be able to better derive lessons relevant to practitioners from the twelve cases in this book, we have organised the cases according to two main criteria described below.

The first criterion refers to the immediate objectives of the programme under which the platform operated. The four platforms which are part of the RIU programme (poultry network in Tanzania, cowpea-soybean platform in Nigeria, maize platform in Rwanda, conservation agriculture platform in Zambia), and the case of the oil palm platform in Ghana (part of the research programme CoS-SIS) were set up as a learning ground. Though their ultimate goal was to improve the livelihoods of farmers and other local actors, the platforms were set-up to provide lessons on how innovation occurs and whether such innovation platforms could work in the first place. The programme staff have spent a considerable amount of time and resources to learn from what did or did not work in practice, and have (or are in the process of doing so) documented this thoroughly. The other seven platforms aimed at achieving local economic development and the platforms were seen as tools to achieve these aims. For these, learning from the methodology or process was a second priority, if at all.

The second criterion refers to the role of research within the platforms. This is directly related to whether those providing financial resources to the platforms were research-oriented organisations or other development actors. Donors which were research-oriented include RIU, CoS-SIS, FARA, ASARECA and Bioversity; research played a (more) prominent role in the platforms supported by these donors.

The result of re-organising the cases can be seen in Figure 1. This results in three main types of platforms:

LEARNING & RESEARCH-ORIENTED: includes the platforms for which the foremost aim was learning on how innovation emerges and is sustained, and in which research organisations played a prominent role.

DEVELOPMENT & RESEARCH-ORIENTED: relates to the platforms primarily aimed at local economic development, where research has played a prominent role.

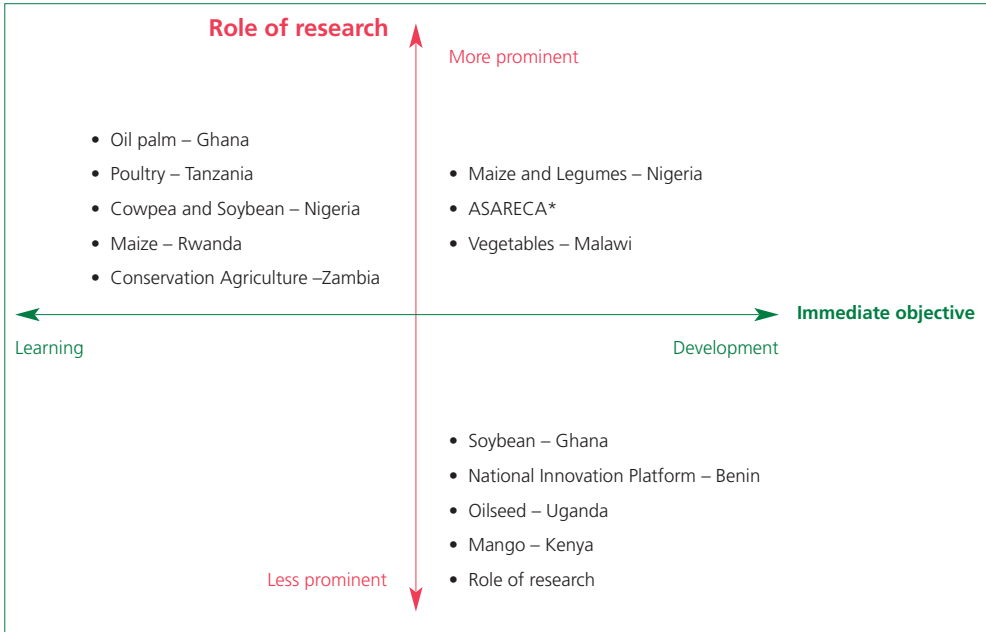
DEVELOPMENT & NON-RESEARCH ORIENTED: includes the platforms aiming to achieve local economic development, but in which research did not play a prominent role.

This way of characterising the cases will be used throughout the book as a way of helping us to understand how these initial choices can influence the way the platforms operate and the kind of results they are (better) equipped to reach.

If we organise these characteristics into four quadrants, it brings to light an important limitation of this book: there are no platforms in the 4th quadrant; i.e., that of Learning & Non-research oriented⁶. This – and other limitations – will be addressed later on.

⁶ A few examples of platforms that could fit into this category are those supported by the AgriProFocus (www.agriprofocus.nl) and Prolinnova networks (www.prolinnova.net).

Figure 1 Characterisation of innovation platforms according to the role of research (and the nature of the donor) and immediate aims (N.B. the cases are not in any specific order).



* describes a number of platforms, which may vary in terms of position in the matrix.

1.4 Brief description of cases

This section provides a brief description of each case in this book. Table 1 gives an overview of the case studies that are described in this book. For more details on each case, please refer to Part II of this publication.

1.4.1 Learning & Research-oriented cases

Oil palm platform – Ghana

The oil palm innovation platform in Ghana was set up to improve the quality of palm oil and as a result access markets. An initial exploratory study pointed out that small farmer could not access remunerative markets due to the low quality of their palm oil. The platform includes actors in the palm oil value chain, from smallholder farmers and processors to the Ghana Standards Board and its Environmental Protection Agency. The platform is organised according to two levels: at the local level, experimentation takes place with small-scale processors, to improve their practices and to gather evidence and information to feed into the higher-level platform, which carries out lobbying for policy changes at the national level and to influence the behaviour of oil palm producers and processors.

Table 1 Overview of the cases studies

Topic	Country	Objective of innovation platform	Level of operation	Larger programme under which it was set up	Externally funded by
Learning & Research-oriented					
Oil palm	Ghana	To improve processing and opportunities of small-scale palm oil processors and smallholder farmers	National and Local	Convergence of Sciences : Strengthening agricultural Innovation Systems in Benin, Ghana and Mali' (CoS-SIS)	Cos- SIS
Poultry	Tanzania	To develop commercial indigenous poultry enterprises	National, District and Local	Research Into Use (RIU)	RIU
Cowpea and soybean	Nigeria	To develop the cowpea and soybean value chains	National, State, ⁷ and Local	RIU	RIU
Maize	Rwanda	To improve production and processing of maize, cassava, potato, fruits and vegetables in districts where IP operates	National and district	RIU	RIU
Conservation agriculture	Zambia	To increase the adoption of conservation agricultural practices by farmers	National, District and Local	RIU	RIU
Development & Research-oriented					
Maize and legumes	Nigeria	To improve the maize – legume production systems of smallholder farmers	Local	FARA – Sub-Saharan Africa Challenge Programme (SSA CP)	FARA
Research & development	East and Central Africa	To improve the innovation system through strengthening of different stakeholder groups but specifically farmers' organisations, private sector and research	International	ASARECA Competitive Grant System	ASARECA
Vegetables	Malawi	To develop, disseminate and stimulate uptake of science-based practices in the vegetable value chain	National, District, Local	FARA – SSA CP	FARA
Development & Non-research oriented					
Soybean	Ghana	To develop soybean value chain	Local	From Thousands to Millions (1000s+)	IFDC
Agriculture	Benin	To promote multi-stakeholder approach and inter-organisational innovation processes in the agricultural sector	National	Not part of a larger programme	ICRA/IFDC
Oilseed	Uganda	To promote, guide and support organised, sustainable and effective Multi-Stakeholder Platforms (MSPs) that are instrumental to the development of the Ugandan vegetable oil sub-sector	National, building on existing local	Not part of a larger programme	UOSPA
Mango	Kenya	To develop the mango value chain	National	Promotion of Private Sector Development in Agriculture Programme (PSDA)	GIZ

⁷ Nigeria comprises of 36 states, hence state level here refers to the central governance administration that is lower than national and higher than the local level.

Poultry network – Tanzania

In Tanzania, the Research Into Use (RIU) programme has selected indigenous chicken as its main focus because it requires minimum resources for investment, is kept by both men and women of all ages, is less dependent on agricultural seasons and provides quick returns throughout the year. A private advisory services company – MUVK Development Solutions Ltd – was hired by the RIU programme to co-ordinate the initiative. Though the intention was to establish an innovation platform, initial difficulties in getting partners to work together led MUVK to change its strategy. Instead, it moved towards acting as a broker of bilateral contacts and interaction in what they found to be a more flexible set-up, referred to by the authors as an “innovation network”. Recently, a new business initiative – KukuDeal – was introduced by the RIU programme to take on a central role in stimulating and co-ordinating business and market linkages between stakeholders in the system during and after their exit. The initiative is designed to address production barriers (timeliness, quality and quantity) among smallholder farmers through a poultry contract-farming model.

Cowpea and soybean platform – Nigeria

The cowpea and soybean innovation platform was one of three platforms created and supported by the Research Into Use programme in Nigeria. The immediate objective of the platform is to address selected practical problems in both supply and demand issues relating to soybean and cowpea value chains, in order to improve productivity and efficiency of linked activities. The platform is co-ordinated by an executive committee, composed of women farmers. The case study found that as a group, platform members had a stronger convening power, enabling them to meet with banks, policy makers and other stakeholders who were previously not accessible to the platform members. Importantly, the degree to which the leadership of partner groups – especially associations and umbrella groups – was internally cohesive, democratic, accountable and transparent helped or hindered the effort of the members to innovate.

Maize platform – Rwanda

The maize innovation platform initiated in 2008 under the Research Into Use programme in Rwanda aims to address the most critical factors that constrained local maize farmers in their production efforts. Besides farmers, the platform is comprised of local leaders, researchers, extension workers, NGOs and traders. The platform is co-ordinated by a committee which consists of representatives of each of the platform member stakeholder groups. The case study notes that platform members worked closely together to develop and disseminate new maize varieties and crop management techniques. In addition, it supported farmers in the establishment of a business association.

Conservation agriculture platform - Zambia

In 2009, the Research Into Use programme established the conservation agriculture innovation platform in Monze district, Zambia. In line with current agricultural policies and development efforts in Zambia, the platform was established to promote conservation agricultural practices among smallholder farmers. Conservation agriculture, or conservation farming, is distinguished by three main principles that aim for a more sustainable use of natural resources. Prior to the platform’s establishment, various activities had been un-

dertaken in Monze to promote conservation agriculture. However, very few farmers had seriously adopted its practices in their work. Difficulties in reaching the farmers effectively were mainly ascribed to the lack of collaboration among local stakeholders, including private input dealers. The platform brought together local stakeholders so as to combine efforts and foster better collaboration in promoting conservation agriculture. This case study highlights the communication and exchange of information that was necessary between the levels at which the platform operated: local, district and national.

1.4.2 Development & Research-oriented cases:

Maize and legume platform – Nigeria

This innovation platform was designed to improve the maize-legume production systems (and therefore farmers' livelihoods) in the Ikara local government area of the Northern Guinea Savanna of Nigeria. Established in 2008, the platform brings together farmers (and their organisations), researchers, organisations supporting capacity-building activities, national extension services, private sector (input dealers, agro-industries, marketing associations) and the local government council of Ikara. Together, they prioritise and set up training programmes, joint experiments and support farmers' organisation. To allow direct negotiation between farmers and private companies (seed and fertiliser providers, for example), the platform triggered the development of an apex farmers' organisation. Innovation platform facilitators have helped farmers organise bulk purchases and participation in marketing negotiations, in the hope that these provide clear examples of the benefits of working together.

Research and development – ASARECA

The Association for Strengthening Agricultural Research in Eastern and Central Africa (or ASARECA) promotes collaboration in national agricultural research systems by creating opportunities for organisations to participate in research platforms. Therefore, the organisation launched its Competitive Grant System in 2004. The Competitive Grant System provides grants to projects which foster the formation of multi-stakeholder partnerships across different levels (local, national and international). All partnerships typically involve the private sector (seed companies, processors, local radio), farmers' associations and groups, public extension, NGOs, research (national agricultural research institutes, CGIAR research centres and universities), schools and health organisations.

Vegetable platform - Malawi

The vegetable innovation platform was established in 2006 in the Thyolo District, Malawi under the Sub-Saharan African Challenge Programme. The platform was set up in order to support farmers to overcome difficulties in marketing their vegetable products. More specifically, the platform aimed to improve the income of farmers and the nutrition of poor consumers through improved vegetable production and marketing. The platform comprises all stakeholders that are linked to vegetable production in the district. These include: producers, input suppliers, advisors, extension workers, NGOs, buyers (companies) and researchers. The platform is facilitated by the Vegetable Task Force which consisted of three major national institutes. To achieve its objectives, platform members together worked on the

execution of marketing and consumer surveys, they supported the formation of vegetable marketing groups and encouraged the development of new varieties and knowledge on vegetable varieties and agricultural techniques.

1.4.3 Development & Non-research oriented cases:

Soybean cluster – Ghana

In 2006, a soybean cluster was set up as part of the 1000s+ project. The cluster consists of the stakeholders who are active in the local soybean value chain in the Wenchi-Techiman area in the Brong Ahafo region of Ghana. The cluster is formed with the intention to develop the local soybean value chain, while explicitly involving smallholder farmers. Due to the focus on smallholder farmers, support in the formation of farmers' groups was an important element. This was done with the intention of actively involving them in the development of soybean varieties and technologies, as well as making use of marketing opportunities. The cluster furthermore developed into an important forum for stakeholders active in the soybean sector to meet and negotiate trade and marketing opportunities.

National platform – Benin

The National Innovation platform for the Agricultural Sector in Benin (PNISA-Bénin) aims to promote multi-stakeholder innovation processes in order to remove the obstacles that hamper synergy, efficiency and sustainability in the agricultural sector. The national platform is governed by a board and an executive body. For the platform to be able to book any success in lobbying of the government's policy making and implementation organisations, it needed to formalise its status through official registration procedures. This entailed a long negotiation process that required both formal and informal means to finally be registered. Having achieved this at the time of the case writing, the platform now hopes to be fully recognised as a serious actor in agricultural development programmes in Benin.

Oilseed platform – Uganda

Initiated in 2005, the Ugandan Oilseed Sub-sector Platform is a loose network of individual member organisations brought together based on the shared interest of making a competitive vegetable oil sub-sector. The platform was initiated by the Uganda Oilseed Producers and Processors Association. The platform addressed a number of conflicting issues in the sector, such as access to open-pollinated varieties and the use of hybrid seed. By bringing together opponents and supporters of these kinds of issues, the platform played a major role in solving conflicts and building trust amongst the stakeholders in the vegetable oil value chain. This case study describes the search of the platform's true role within the oilseed sub-sector in Uganda.

Mango value chain – Kenya

The production of mango has increased substantially in recent years in Kenya and the fruit has a high marketing potential. However, domestic fresh fruit production is inadequate to meet the demand of both domestic and export markets. This is mostly ascribed to the fact that the majority of smallholder farmers is unable to deliver the quantity and quality demanded from processing companies (both local and international). Farmers face

difficulties due to a lack of organisation, mistrust of other actors in the value chain, lack of access to the right varieties and so on. This case study describes an unsuccessful attempt to organise the different actors involved in the mango value chain in Kenya to form a “Mango Value Chain Development Working Committee”. This experience contributes some useful lessons about the challenge of establishing platforms based on value chains in difficult contexts.

1.5 Lessons from the cases

In order to learn from the cases in this book, we have defined three main areas for discussion. These are analysed separately in different chapters, as indicated below. The thematic areas are:

Designing an innovation platform: How does one start a platform? How does a platform operate and what does this mean for its functioning and performance? These questions come up in Chapter 2 where we also analyse the history (who initiated it and how), level of operation (local, national, etc.) and the formalisation of the platforms; as well as lessons regarding the selection of partners, representativeness of those involved and platform governance systems.

Brokering: This refers to an actor that has the central role of bringing the right people together, at the right time, linking different organisations when the need arises, analysing the progress and taking actions accordingly. Klerkx and Gildemacher (2011) refer to the need for an “innovation broker”: a person or organisation that purposefully catalyses innovation through bringing together actors and facilitating their interaction, from a relatively impartial third party position. In Chapter 3, we will draw lessons on the nature of the background of the broker and how this has an impact on the platform’s achievements and institutional changes. We will also look at the functions brokers perform and the skills he or she needs to be able to perform their tasks successfully.

Impact and sustainability: To what extent do innovation platforms contribute to making a difference in people’s lives? Chapter 4 brings a discussion about whether platforms can effectively meet the objectives that brought the platform members together in the first place. In addition, we discuss the sustainability of platforms beyond the time during which it receives direct funding. And finally we look at the (related) challenge of getting the platforms’ principles institutionalised into the organisations involved.

1.6 Limitations of this book

This book does not, by any means, pretend to present the “whole story” of innovation platforms. We accept the limitations that come with case selection and the selection of the main foci of analysis, while at the same time hoping that this publication brings lessons which can inform and support stakeholders involved in one way or another in enabling innovation.

We acknowledge that the cases in this book mostly present only one side of the story. Out of twelve cases, ten are part of larger programmes. In some ways, these platforms were projects within programmes. This presents both a limitation and an opportunity. The limitation derives from the fact that, as projects, the cases were heavily supported by outside organisations and donors, and, in some cases, led from above rather than from the people on the ground. These donors have their own agenda (even if a flexible and open one), requirements and resources that – sooner or later – dry up. These characteristics leave clear imprints in the platforms, in the challenges they face and the outcomes they achieve. As such, these stories present a very different picture from those of platforms that have grown organically. The opportunity deriving from our choice to select mainly cases that are part of larger programmes is that it helps to inform other programmes thereby triggering change within the donor community and regional research platforms.

Another limitation of this study is the fact that nine out of the twelve cases focus on commodities or agricultural sectors, which have a different dynamic than those focusing on, for example, broader themes such as “conservation agriculture”. This means that they are not always easily comparable.

We also acknowledge that there is no “best practice” when talking about innovation platforms. What works in one environment may well not work elsewhere. What works with one crop, may not work with another, and so on. In the same way, there is not only one way to set up a platform, run, or monitor it. We do not pretend to have discovered the path towards a perfect innovation platform either – because we strongly believe there isn’t one.

There is also much to be learned on several issues that are not addressed in-depth in this book. One of particular importance is power relations between platform members and how powerful actors can have more influence on how the platform works and functions. For example, this refers to the relative position of women and men, young and old, but also power differences between large private companies and farmers. In this book, all cases were documented from the point of view of the platform co-ordinator, champion and/or broker. Documenting the cases from the perspective of other actors would likely present a very different story.

Other issues that are not addressed in-depth include: the governance of platforms, even though we briefly discuss this issue in the second chapter; how exactly platforms engage policy makers and bring about policy change; the (potential) outcomes of institutionalisation of the platform principles; and whether the costs implicated in setting up and running a platform can be carried by local organisations.

1.7 The process of writing the book

In 2010, KIT started preparing to document experiences of innovation platforms. We identified potential case studies and approached the protagonists (see Box 2 for criteria used to select cases). We made a provisional outline with a list of issues the different authors could

report upon. At the end of 2010 and early 2011, different authors started documenting their experiences and in July 2011, all case study authors gathered for a writeshop in Wageningen, The Netherlands. The writeshop was meant to improve the case studies, and to make a joint analysis of the experiences. A “writeshop” is a participatory and highly intensive process which involves bringing together authors, experts on the subject matter and editors, to be able to produce a publication in a relatively short time. Writeshops are particularly useful for helping practitioners document their experiences and for making field-based evidence more widely available (Gonsalves and Armonia, 2010). For our writeshop, the case writers met with some invited experts to discuss the experiences in terms of the three cross-cutting issues identified (see section 1.5); they then formed clusters to discuss each of the themes in turn, exchanging experiences and drawing conclusions together. After the writeshop the editors re-worked the different contributions. The draft was then peer-reviewed by two other experts on innovation platforms.

Box 2 Criteria for case selection

- Cases from both West and East Africa;
- Authors’ willingness to contribute and support from their organisations (i.e., time made available for attending the workshop and for writing);
- Platforms involve private sector, farmers (organisations) and other actors;
- Platforms count on active facilitators;
- Experiences cover different levels of platform (local, regional- nested, national); and
- Experiences cover different agricultural sectors.

1.8 Structure of the book

As mentioned before, this book is divided into two main parts. Part I is composed of this introduction, three analytical chapters (2, 3 and 4) and a concluding chapter. Chapter 2 brings lessons learned and analysis on innovation platform’s design. Chapter 3 deals with issues around brokering. In Chapter 4, we discuss sustainability and potential for institutionalising the concept and practice of innovation platforms. The concluding chapter consists of a comprehensive list of lessons learned, and reflects on the contribution this book makes.

The second part of this book provides a description of the twelve case studies. All cases basically follow the same outline: 1. An introduction on the context of the innovation platform, including the setting or programme in which it emerged, and the boundaries of the platform; 2. The *modus operandi* of the platform is discussed, including the members and their roles and a look at the facilitation of the platform; 3. Activities undertaken by the platform; 4. Achievements to date looking at different levels; 5. Challenges, both internal to the functioning of the platform and external to achieving their joint objective; 6. Future plans, including the extent to which the principles behind the innovation platform are integrated into (or institutionalised) in the way of working of other organisations or members; and 7. The lessons learned, with a focus on facilitation, design and sustainability.

The book ends with a Glossary of terms used, as well as a section describing all the (first) authors of the cases and other contributors to this publication.

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2 Designing innovation platforms

B. Wennink and W. Ochola

To enhance interaction amongst stakeholders and trigger innovation, a number of programmes or organisations have deliberately put innovation platforms in place. These projects or organisations have planned – designed – the platform and followed a number of steps to initiate it. In this chapter, we explore what designers of the different cases considered when doing just that, and how each new initiative needs to adapt and to consider its options according to its objectives and context.

2.1 Introduction

“Design” in its purest meaning, refers to a drawing or plan made prior to the construction of an object. A pertinent question that may be asked, when referring to innovation platforms, is simply: Can we design? The literature on design provides us with food for thought. While some believe there are clear steps towards designing a platform, others think that the process is too dynamic to be planned or foreseen (Ralph, 2010).

The participants of the writeshop agreed that the design process is dynamic, and underlined that, no matter how much we plan ahead, we are always confronted with unexpected challenges and opportunities that will invariably lead to changes in the way a platform works. Because most of the cases described in this book were part of larger programmes, most did follow a pre-conceived plan or path.

Nevertheless, rather than “suggesting” a common path towards setting up and running a platform, we will in this chapter draw lessons from the cases on different issues that need to be considered when designing a platform. Writeshop participants believe that a good design can go a long way towards contributing to a well-functioning platform.

Before initiating multi-stakeholder platforms, it is important to analyse the context, and to try to understand how local institutions (policies, rules, regulations) and organisations work. This includes trying to get an idea of stakeholders’ hidden and open agendas, (institutional and individual) power relations and openness to collaborate; and the extent of organisational and individual technical and managerial capacities. Building platforms requires learning from previous good and bad experiences in the area or with the same focus.

How easily the different players can agree on objectives and potential activities of an innovation platform are also a key consideration. Conflicts between members on issues such as share in the expected generated added value, access to resources, or effective control of the process, may well limit participation in the platform activities. This points to the need to understand the degree of trust between potential partners when initiating a platform.

Particularly important to building trust between platform members is to ensure that a platform is well governed. Governance here refers to management processes, decision-making rights and responsibilities, as well as accountability mechanisms. Governance therefore reflects how much different groups of people (e.g. minorities, women and other excluded groups) are able to participate in making decisions (after Hemmati, 2002).

Is there an executive member or group within the larger platform that is responsible for day-to-day decision making? Is day-to-day management in the hands of a “co-ordinator”? How is a co-ordinator elected or nominated? Who needs to be consulted and who consults them – where and how? These are some of the many questions related to the day-to-day governance of a platform. The answers to these questions better define the roles that individuals or organisations play within such platforms, and the extent to which platforms are governed in a transparent and participatory manner. Governance relates directly to the management of the platform, and how much the relationships between platform members are formalised.

Although they are all very different, the platforms described in this book were faced by similar dilemmas, followed somewhat similar processes and encountered similar challenges along the way. These experiences⁸ and how they relate to design are discussed in the rest of this chapter. We will refer to the three types of innovation platforms defined in the first chapter. If you need to, refer to Table 1 on p. 21 to refresh your memory on them.

2.2 Initiating a platform

The way a platform is initiated has important implications for who takes the lead, who gets involved and what main objectives it tries to meet. But how exactly can you initiate a platform? To answer this question, we need to take a closer look at the cases.

For the “learning & research-oriented” platforms, thorough studies were undertaken before the platforms were initiated. For the Research Into Use cases, country assessments were made by teams of consultants. These country assessment teams came up with a number of suggestions for the platform structure and strategies. This team consulted key potential partners. Next, studies were undertaken to make decisions on the location, the themes and commodities selected. Also the Convergence of Sciences programme undertook lengthy and thorough exploratory and diagnostic scoping studies before the platforms were initiated.

The “development & research-oriented” platforms often started with proposals from the organisations involved, and as such were based on inside information from the research organisations. In the case of ASARECA, proposals were judged on a number of criteria, and FARA based its decisions on the knowledge of local researchers on the local situation.

⁸ Cases in this book provide unfortunately little detail on internal accountability and decision-making processes.



Testing introduction of faster drying technology for sheanut production

Place: Dioïla, Mali. Photo: Floris van der Pol

In both the “learning & research-oriented” and “development & research-oriented” types, researchers played a dominant role, albeit differently. In the platforms that aimed at learning, researchers played a much more active role, including a part in the studies before the platforms were established.

The four “development & non-research oriented” platforms were initiated differently, as they came to be through meetings with stakeholders involved. For example, for the soybean platform in Ghana, the external donor IFDC had a clear agenda of setting up an innovation platform as part of its programme. IFDC’s first step was to approach a potential partner from amongst the actors operating on the ground to play the role of broker. This partner (MUCG)⁹ in turn conducted a baseline survey to identify actors active in the soybean supply chain. An inception workshop was organised for selected soybean supply-chain actors to explain the Value Chain approach and to discuss potential collaboration. Together, they discussed bottlenecks and priorities to improve the soybean supply chain. As a result, we can see that the private sector (i.e. traders and input suppliers) got a more prominent role in the platform.

⁹ Faculty of Agriculture of the Methodist University College, Ghana

Within this last type of platform, two cases can be found in which the platforms are not part of a larger programme: the national innovation platform in Benin and the oilseed platform in Uganda. These two platforms followed a very different process in coming into existence. Namely, the idea of an innovation platform came from the ones facing the problem directly, and not from an outside programme or donor. The Ugandan oilseed case, for example, started from an already existing association (which actually functioned similarly to a national-level platform); however, because this association focused on specific issues, there was still a need to go through initial rounds of identification of actors, development of shared outlook and agenda and joint priority setting. These rounds were conducted together with the Dutch SNV. In Benin, talks about the need to set up a platform started at a high-level meeting at the University of Abomey-Calavi, attended by researchers, civil society organisations and high-level ministry staff. The initial idea led to a second meeting, in which a committee was established to explore the feasibility and potential structure of such a platform.

Most of the platforms followed a number of steps to be initiated. The steps they hold in common are: 1. Scoping, to figure out where a platform fits; 2. Making an analysis of stakeholders and of promising entry points; and 3. Planning. A number of issues related to each of these steps is explained below.

Scoping was most important for the “learning & research-oriented” platforms, as they were the result of thorough studies that took a long time. “Scoping” refers to the initial effort to narrow down the platform’s topic, and to better understand it, along with the context where the platform is to be inserted. In the case of the oil palm platform in Ghana, a high-level committee was requested to propose topics from the perspective of priorities in the national innovation system. This was followed by different exploratory and diagnostic studies. In some of the “development & non-research oriented” platforms, the main topic to be dealt with had been chosen before the start-up (e.g. the mango platform in Kenya, the oilseed platform in Uganda), sometimes simply because the organisation which takes the lead is from a specific sector.

Analysis concerns both the initial stakeholder-mapping and selection and the identification of promising action entry-points in a specific value chain or thematic area. Platforms of all types carried out some kind of an analysis. Studies and consultation are common methods used, and contribute to defining the needs and problems and opportunities of specific platform topics, as well as the initial orientation and boundaries of the platform-to-be. A comprehensive joint analysis –often done in a workshop setting- by invited platform members of the initial problems and opportunities allows for the different stakeholders’ interests and needs to be put on the table. “What do they need and what do they want?” Through such analysis, participants define which concrete issues they would like to deal with. Such analyses ensure that the different actors are part and parcel of the decision-making process within the platform and, eventually, lead to a jointly defined agenda. The “learning & research-oriented” platform types again require more time and effort for the preliminary studies and consultations, whilst the development-oriented types often carry out an analysis during the first stakeholder meeting.

Planning also often takes place through (a series of) meetings and workshops. This process entails a further narrowing down of the main points raised from the joint analysis and a defining of a clear strategy for action: i.e., who must do what and when. The resulting joint action plan and agreed division of tasks may change again later on.

Joint analyses and planning highlight the diverging interests of stakeholders. In general, economic interests are the strongest drive to both national and local actors, although social and political interests may also be important factors. In the case of the maize-legume platform in Nigeria, for example, farmers saw their participation in the platform as a good starting point for strengthening their own organisation. The platform ultimately supported the development of a farmers' apex organisation. In the case of the oil palm platform in Ghana, members saw participation as a springboard for being able to better communicate to district-level authorities. In fact, in this case, two women processors – whose capacities and self-confidence were enhanced through their participation in the platforms' decision-making body – were recently elected to the District Assembly.

Though it may be tempting to exclude certain stakeholders to make the whole exercise easier, doing this can cause problems in the long run, such as increased competition.

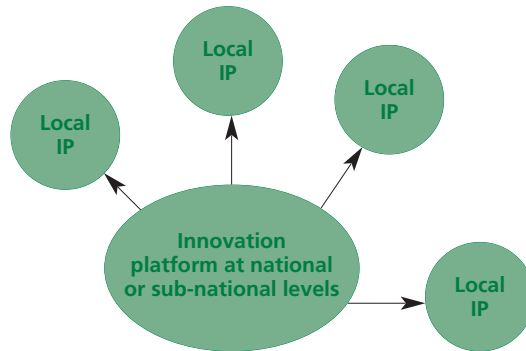
At a later stage, some members may take responsibility for carrying out an activity for some time, reporting about it to the group afterwards. Sometimes these are called sub-groups or sub-platforms. They work on specific issues which are not directly of interest to all participants. For example, in the poultry network in Tanzania, sub-groups carry out separate activities such as research on breeding types, improving hatchery services and availability of appropriate medicines. Such sub-platforms may also operate at different levels, as discussed below.

It becomes clear from the above that there are different ways to start up a platform, with more or less attention for scoping, analysis and planning. It stresses again that there is no single path to innovation platforms; nor, it must be noted, are innovation platforms always the shortest and most effective path towards innovation, as shown by the mango value chain in Kenya and the poultry network in Tanzania. The former failed to get a platform running due to a combination of factors, ranging from the failure of key stakeholder groups to nominate legitimate representatives, to an agenda that was too broad and therefore difficult to turn into practical activities. The latter dropped the idea of setting up a platform as central space for negotiation, choosing instead to have a broker linking different stakeholders directly to each other. This was done in the Tanzanian case because the interest of platform members in coming together dwindled over time; they felt that practical problems were best solved by only bringing together the few stakeholders specifically interested in a particular subject, rather than involving the whole group.

2.3 Levels of operation

According to the case writers, the platforms often need to operate at different levels to meet their objectives (see Figure 2 below). At the local level (district, community), platforms often look for practical solutions to a local problem or opportunity, by linking local actors. At higher levels (provincial, national, international), platforms often target policy change, informing policy makers – which in turn will have an influence on local-level activities. Table 2 brings a summary of the levels of operation of the cases described in this book, along with the mechanisms in place to connect them.

Figure 2 A central innovation platform as co-ordinator and orchestrator of several local platforms.



As the authors of the case on the oilseed platform in Uganda state, there are clear advantages in building a national-level platform with good links to (sometimes already-existing) platforms at the local level. In this and other cases, the local-level platforms allowed for consultation with local-level players about specific policies or rules. In addition, evidence and experiences generated at the local level can be brought up to the national level, and provide important material for lobbying and policy advocacy, as illustrated by the cases on the oil palm platform in Ghana, the conservation agriculture platform in Zambia, the poultry network in Tanzania and the vegetable platform in Malawi.

For information, material, lessons learned and knowledge to circulate from one level to the other (or sometimes between even more levels, as in the case of the conservation agriculture platform in Zambia), there is a clear need for a good communication system to be in place. In several cases, representatives of the local-level platforms sit at a higher-level platform, and *vice versa*. This is the case in Zambia and also with the vegetable platform in Malawi. In others (the poultry network in Tanzania, for example), the platform broker is responsible for connecting these levels.

In two cases (the national platform Benin and the mango value chain in Kenya), national-level platforms were not linked to local platforms, groups or activities. Both cases mention that this was a great problem for the platform. Without tangible local activities with clear outputs to build on and gain from, platform members lost their interest and commitment. In Chapter 3, the important role of “champions” in linking different levels is discussed.

The “learning & research-oriented” types of platforms all have multiple levels, whereas the “development & research-oriented” and “development & non-research oriented” types often have one level as a starting point, sometimes linked to other levels. This may relate to the process, in the “learning & research-oriented” type in which a thorough scoping may have revealed the potential linkages at an early stage. Also, researchers may deliberately want to learn from experiences of the different levels.

2.4 Platform members, roles and responsibilities

The platforms generally involve five stakeholder groups: 1) Smallholder farmers; 2) Input dealers, Agro-food processors and Traders; 3) Private and public providers of technical (research and extension) and managerial (business development) services; 4) Financial services (banks and microfinance institutions); and (5) Regulatory bodies (which define standards and rules). The government can be part of groups 3, 4 and 5 above. NGOs are normally part of group 3, filling in gaps left by poor public-service provision. In all cases, smallholder farmers, input dealers and service providers were involved. Financial organisations were involved in four cases and regulatory bodies only in two (the Mango value chain in Kenya and the oil palm platform in Ghana).

Actors will be invited over time, and some of the actors who initially participate will leave. Membership of an innovation platform is therefore dynamic. When the platform better defines its objectives and scope of work, its members may well realise that they miss the presence of important organisations or individuals. As the focus of the platform changes over time, its composition may also change to adapt to the new focus. In the case of the palm oil platform in Ghana, for example, some actors along the value chain were strategically included or excluded at different stages of the platform, depending on the issues being dealt with at that specific moment in time.

The roles of participating individuals and organisations may also change, not only as a result of a change in the platform’s objectives or strategies, but also as a result of internal reflection and learning. The organisation or individuals that initiated the platform are its first brokers and champions (see Chapter 3 for a more detailed analysis of these roles). But as time goes by, and the platform’s functioning demands different skills, others may be well placed to take up the challenge of brokering, facilitating, co-ordinating or representing the platform. Understandably, certain roles are attached to individuals or organisations for formal reasons. Think, for example, of a platform that starts up as a project and then signs a contract with a certain organisation to co-ordinate it, as in the cases of the poultry network in Tanzania and the maize platform in Rwanda. How the different roles will be played in practice, however, may remain flexible. In the case of the cowpea-soybean platform in Nigeria, for example, although the RIU country staff took the lead in starting up the platform and initially co-ordinating it, leadership was later taken up by an executive committee, composed solely of (women) farmers.

Table 2 Levels of operation and mechanisms for linkages and exchanges between levels, in the twelve case studies

Case	Levels of operation	Mechanisms for linkages between levels
Learning & Research-oriented		
Oil palm Ghana	National and local	At local level the focus is on experimentation, at the national level, on concerted action for institutional change. Different levels are facilitated by different individuals. Lessons from the local level are used as evidence at the national level.
Poultry Tanzania	National, district and local	At national level, the network deals with policy issues, at district and local level with linking farmers to input suppliers and markets. A broker is responsible for linking the different levels, normally by bringing information from one to the other.
Cowpea and soybean Nigeria	National, state	Though an executive committee exists at national level, the innovation platform activities are carried out at State level. RIU plays a role in linking the state-level activities to the overall programme platform.
Maize Rwanda	National and district	National coalition set up at national level, most of the activities take place at district level.
Conservation agriculture Zambia	National, district, local. Three levels: the learning sites, the district innovation platform and the NIC	The Monze innovation platform is the relevant link between the local level and the national level.
Development & Research-oriented		
Maize and legumes Nigeria	Local	The level of operation is the Local Government to show evidence that the innovation platform approach "works".
ASARECA	International – supporting several programmes with different levels of operation	Local-level pilot experiences and lessons are brought together at national levels, later at the level of sub-regional programmes.
Vegetables Malawi	District, local	At the village level, implementation of activities takes place. District-level bodies define activities to be taking place at the village level.
Development & Non-research oriented		
Soybean Ghana	Local cluster with a national team co-ordinating different clusters	Linkages with other clusters are made through the national team and IFDC 1000+ programme.
National platform Benin	National	Linkage is made with ground-level activities through involvement in projects.
Oilseed Uganda	National, using other existing regional platforms	Existing regional platforms are used for consultation and implementation of region-specific activities. Information is fed to the national platform.
Mango Kenya	National	National-level body has no effective links to other (local) level platforms and farmers' groups.

The role of the government in an innovation platform is a point of attention. Contributors to this book believe that government actors are best treated like any other platform member, instead of taking up a co-ordinating role. This is to avoid political interests speaking louder than the interests of other stakeholders.

Farmers are often less organised than other groups. In order to make sure that this very heterogeneous group is well represented, their inclusion needs particular attention.

2.5 Formal, informal... or something in between?

“Formal”¹⁰ in the case of innovation platforms can mean many different things. Formal can refer to the registration of the platform as an association or any other form of organisation by the government authorities. It may refer to the existence of a set of ground rules setting the principles of the platform functioning and governance system. Or, it may simply refer to the existence of a structure (a co-ordinating body, a committee) which co-ordinates the platform.

Exactly because “formal” or “informal” may have different connotations in different context, instead of simply labeling a platform formal or informal, we try to discuss here the different degrees of formality of the platforms presented by the cases, and the implications these may have to the platform’s functioning and efficiency.

The degree of formality differs for the “learning & research-oriented”, “development & research-oriented” and “development & non-research” types. It seems that the degree of formality of a platform is an adaptation to the context in which it operates rather than related to the aims or role of research in it. At first sight, it seems that national-level platforms tend to be more formal than local-level ones. At close analysis, though, this does not seem to hold. See, for example, the case of the conservation agriculture platform in Zambia: as the district-level platform has become part of the local administrative structure, it has gained a formal status. The key then seems to be in the degree of closeness to government activities (lobbying or actual implementation), at whatever level the platform operates, and the demands made by donors – who need a clear spokesperson who is also responsible for financial resource use and accountability.

For the national innovation platform in Benin to be able to lobby in government organisations, the platform needed to have a formal status, gained only through official registration and approved by-laws. In this case, the process of formalisation was arduous, lengthy and energy consuming.

Something similar happened in the case of the maize platform in Rwanda. There, the platform developed memorandums of understanding (or MoUs) for platform members and local organisations, as binding mechanisms. The purpose was as much to gain legitimacy in the governments’ eyes as to clarify the roles and responsibilities of the partners and ensure their commitment.

¹⁰ Formal is defined, by the Oxford on-line dictionary as “having a conventionally recognised form, structure, or set of rules”, see <http://oxford-dictionaries.com/definition/formal>.

At the other end of the spectrum, the poultry network in Tanzania is in fact an “informal” set of connections brokered by an organisation. But even here, stakeholders are brought together once in a while for a general meeting of KukuDeal, the new private business initiative introduced by the RIU programme to take over the central role of co-ordinating and linking up of stakeholders.

Nevertheless, formal and informal elements are both present in every platform case described in this book. All platforms, for example, have a set of ground rules. These, again, can be either formalised through signed MoUs or simply decided upon in a meeting with all present. Most of the time, informality is marked by the fact that meetings are called upon as they are needed, and decision making takes place not only in formal meetings, but in bilateral discussions.

There is general consensus among the contributors to this book that ground rules are important, and need to be spelled out (in whatever form). In the same way, it is believed that a clear definition of roles and responsibilities of individuals and organisations is important – and may imply some degree of formalisation.

Finally, the existence of a co-ordination body (board, committee, or whatever other name it is given) which is accountable towards platform members (and donors, if they are externally funded) may make the platform more transparent and trustworthy. Formalisation, in that sense, may improve consistency in the innovation process and ensure the tapping of lessons to gain competitive advantages for a sub-sector or commodity. Nevertheless, “over-formalisation” can hamper the process through bureaucratic and hierarchical procedures, and as became clear from the mango value-chain case, the existence of a committee does not by itself guarantee effective governance or co-ordination.

Importantly, formalisation cannot come at the cost of flexibility. Flexibility is needed to allow actors to change roles throughout the process, for example, or to build bridges with organisations, networks and initiatives at different levels. This allows for innovative evolution and cross-pollination of innovative ideas and processes beyond strict designs. In this way, a platform may better respond to dynamic changes in the agricultural sector.

The degree of formalisation of a platform is linked to the management models under which it chooses to operate, as discussed in the section below.

2.6 Ensuring availability of resources (human and financial)

The learning – research-oriented platforms had foreseen reimbursing participation in workshops and meetings. Both the Research into Use and Convergence of Sciences programmes made resources available for this purpose. The budget for activities was also available in all cases. As discussed above, this is evidently not enough for members to keep an interest in attending the platform.

For the development research-oriented and development non-research oriented cases, fewer provisions were made for reimbursing participants' costs for attending meetings, albeit some did make resources available. Yet, platform members were expected more often to also provide their own inputs and at least partly pay for their own expenses.

A key requirement in terms of investment in innovation platforms, according to the case writers, is that all of its members need to be interested for a platform to work. Otherwise, members simply do not show up at meetings and do not implement the activities of which they are in charge. The best trigger for participation is (self-) interest and a clear understanding of benefits – economic and social (training, better position from which to change policies, etc.).

Triggering this interest with direct –individual– financial incentives (sitting allowances and direct payments for participation) needs to be discouraged. Individual financial incentives may, in the short term, lead to individual interest but it does not necessarily lead to a stronger interest from the organisation to which the individual belongs. Such interest at the organisational level is important in the long run, as individuals come and go, often needing to be replaced. If the organisation as such backs up the platform, replacing an individual becomes an easier task. Reimbursements for costs made to attend the meeting (such as transport and lunches) are considered very differently.

An innovation platform requires funds for running specific joint activities (such as workshops), as well as resources for optimising the overall functioning of the innovation platform as a whole (brokers, for example – see Chapter 3). The cases in this book show that in most cases, funds for brokering innovation platforms came from the public sector, most notably from international public donors. Although most platforms consider innovation brokering a development-oriented activity requiring public funding, they often use private sector expertise (e.g. consultants, as in the case of the poultry network in Tanzania).

2.7 Keep it running...

Once a platform has been initiated and operates at the appropriate level to its objectives, how do we keep it running? Most of the cases in this book are presently facing this challenge. We elaborate here on a number of issues that, according to the contributors to this book, are essential for the day-to-day smooth operation of the platform¹¹.

In many platforms, attendance and commitment of platform members is a major challenge. Particularly, “learning & research-oriented” and “development & research-oriented” platform types seemed to struggle with this. Firstly, this stresses the importance of getting the right individuals from the key organisations to participate. The “right” individuals are those preferably neither sitting too low in the organisational hierarchical structure (and therefore having little clout), nor too high (being more entangled with management

¹¹ Issues related to the long-term sustainability of the platform are dealt with in Chapter 4.

than with content issues). Individuals should be able to make decisions, yet still have the time and interest to attend meetings and actively join the platform¹². The oil palm platform in Ghana was particularly struggling with this and even lost one of its members.

Secondly, when dealing with heterogeneous groups which are neither an “organisation” nor organised, finding a legitimate representative to participate is a task in itself. The case of the national platform in Benin well illustrates the in-fighting that can be caused by the need for representation in a committee, for example. The case of the mango value chain in Kenya mentions the importance of members being legitimate representatives of their groups – be they farmers, processors or traders.

Organisational commitment is, in the long run, what platform brokers are seeking. Several cases dwell on the dilemma of how to build the capacity of organisations – rather than individuals (see for example, the cases of the maize platform in Nigeria and of ASARECA). To do so, the combination of getting individuals to participate in the practical activities of the platform at the local level, and of high-level officials at higher-level platforms may be a (more) effective strategy.

Several other case authors stated the need to work towards better organisation of farmers’ input into the platform, which in many cases needs capacity building by the platform co-ordinator/broker. Farmer participation is often hindered by a lack of organisation, power and/or gender issues that do not allow participating farmers (especially women farmers) to clearly voice their interests or ideas. They may feel they are being used to legitimate the platform’s activities, while not directly benefiting them. Some cases therefore facilitated the organisation of farmers. As mentioned, inclusiveness deserves special attention.

In the case of the maize-legume platform in Nigeria, a management committee was set up to facilitate participation of the different stakeholders. It consists of one representative of farmers, elected by farmers from five pilot villages in which the platform operates, a representative of each of the research organisations involved, extension services, the private sector and the local government council. To allow direct negotiation between farmers and private companies (seed and fertiliser providers, for example), the platform triggered the development of an apex farmers’ organisation.

The effective participation of the private sector also remains in several cases a challenge. Mobilising the private sector requires modifying the language so as to present companies with clear business opportunities and long-term benefits. The case of the maize platform in Rwanda illustrates this well. Platform facilitators thought that acquisition of skills and knowledge would stimulate enough interest from the private sector to participate. This did not prove correct, though. Input dealers, traders and processors only start getting involved when their interests are being addressed and quick results are being obtained. The case

¹² To increase the probability of engagement of an organisation, some brokers opted to start with individuals who are keen, without necessarily going through a more formal nomination process. If an individual engages with the platform, s/he can suggest more formal participation by the organisation. This is not always possible, though, as sometimes you need a formal process to designate an organisation representative.

of the mango value chain in Kenya illustrates how enthusiasm for the involvement by the private sector wanes when expected tangible results are not forthcoming.

Without such institutional development (i.e. organisation of the different sectors), there is a risk that innovation platforms will only remain effective for niche markets and at a very localised level.

One of the main lessons learned through experience and discussion between contributors to this book seems to be that initial success takes a platform a long way. Seeing what a platform can do for an organisation or individual is the best trigger for commitment and participation. Visible and tangible progress will make key actors realise the added value of participating in the platform.

A balance between meetings (deciding what to do), action (implementing activities on the ground) and reflection (learning, discussing what went well and what did not) is essential to being able to keep partners on board, and a partnership moving.

Most platforms discussed are funded by donors and obviously this funding will eventually end. Therefore the challenge is: who will take over the role of brokering or facilitation. The “learning & research-oriented” platform types have been most concerned about this question.

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3 Brokering innovation

W. Heemskerck, L. Klerkx and J. Sitima

This chapter looks at the essential role, identified in many of the cases, of individuals and organisations that function as mediators who ease interaction between parties – the so-called innovation brokers. The different cases illustrate the fundamental importance of brokers, in bringing different worlds of actors together and addressing a shared constraint or opportunity. Brokering is needed for the smooth functioning of the transactions and partnerships which aim to address these constraints. Brokering is a very dynamic role, demanding a variety of skills and knowledge – from communication and conflict management skills to content knowledge about the issues at stake.

3.1 Clarifying concepts

In the case studies in Part 2 of this book, we learn about different innovation platforms and their facilitators, cluster leaders or brokers. Often, the person or organisation that is referred to as a “facilitator” or “cluster leader” is what is called a “broker” in the scientific literature. This may be confusing, and therefore we would like to first clarify our use of these terms in this chapter – and the rest of Part 1 of this book. Here, we use broker for the person or organisation that eases interaction amongst different actors or parties. Brokering involves a number of functions that include facilitation.

Innovation brokers are those who act as a “catalyst of interaction” between two or more parties. Their purposes are to build appropriate linkages and multi-stakeholder interaction (Klerkx *et al.*, 2009). The different cases presented in this bulletin offer a broad set of examples of so-called innovation brokering. Brokering may include: helping to provide information about potential collaborators; making possible a transaction between two or more parties; acting as a mediator, or go-between, for bodies or organisations that are already collaborating; and helping find advice, funding and support for the innovation outcomes of such collaborations (Howells, 2006, p.720). Innovation brokering is meant to contribute to the effectiveness of the platform and to stimulate innovation processes. From an Innovation Systems perspective, a broker can be considered as the one making the links between system ‘elements’ and driving/catalysing greater interaction between them.

All individual and organisation members of an innovation platform play specific roles and fulfil tasks related to them. While some mobilise their peers and create momentum for the platform to be initiated, others chair meetings, support fundraising, or link evidence to policy making. In this chapter, we focus on the functions of brokers. Here, we will mention the functions of specific interest to the cases in this book: facilitation, informing policy, linking, learning, capacity building, providing thematic expertise, co-ordination. These and other functions have been discussed in other publications (Nederlof *et al.*, 2011).

In the next sections, we will further explore the position of the broker and the functions of brokering, at the different levels (national, local, etc.) of a platform. Then we will further discuss the skills and capacities¹³ necessary to an agricultural innovation broker.

3.2 Who are the brokers?

Innovation brokers can be either organisations or individuals specialised in brokering, or whose primary role is not that of a broker, but who have a relatively neutral position in the platform. In the latter case, brokering is an added-on task for a platform member who also “represents” his/her stakeholder group or own interests. A specialised innovation broker is defined by Winch and Courtney (2007, p.751) as: *“an organisation acting as a member of a network of actors [...] that is focused neither on the organisation nor the implementation of innovations, but on enabling other organisations to innovate”*.

In all the cases of “learning & research-oriented” platforms, the brokers were specialised organisations or individuals recruited for that role. For the oil palm platform in Ghana, a post-doc researcher was recruited to play this role. This researcher eventually asked others to take up some of his tasks. For all of the RIU programme cases, an office was established which was in charge of brokering. In the RIU, researchers also had a dominant role as research fellows were recruited to study the platforms as well as specific research questions.

In the “development & research-oriented” cases, organisations that did not have brokering as their primary role were selected. Often this role was played by researchers.

In the “development & non-research oriented” cases, the brokering task was also assigned to member organisations or individuals who added this to their normal tasks. SNV – a Dutch NGO – played such a role in the case of the oilseed platform in Uganda, the Ministry of Agriculture played it in the case of the mango value chain in Kenya, as did the university’s Faculty of Agriculture in the case of the soybean cluster in Ghana.

In general, therefore, researchers and their organisations play an important role in brokering. It is interesting to note that extension and advisory services did not play this role in any of the cases, as we could logically expect brokering to fit well with the main functions of extension (i.e., training, providing information and problem solving). Is it sustainable for researchers to play the broker’s role? Or should advisory and extension services take this role over in the long term?

In the twelve cases in this book, the public sector tends to bear the costs for brokers of larger platforms, whereas local sub-platforms and smaller platforms may be able to bear such costs internally. Funding for brokering can hardly be sustained if it is only derived

¹³ Capacity development for enhanced innovation processes has three elements: 1) capacities of the innovation brokers, as well as, 2) capacity of the actors to be facilitated, and 3) building capacity to take on follow-up activities. In this chapter we focus on the capacities of the innovation broker. A brokering function may include building the capacities of other actors.



Chicualacuala Innovation Platform meeting

Place: Mozambique. Photo: ILRI

from public funds. Ideally, the private sector and farmers' organisations would contribute to the funding of what will generate better business for them. Funding is discussed further in Section 4.4.

3.3 Brokering functions

In Table 3 we summarise the brokering functions. We use the terms as they are used by the contributing authors themselves.

Facilitation: This is here understood as stimulating and assisting the process between stakeholders with the objective of improving the quality of interaction. For example, facilitating meetings between parties, to make sure that members listen to each other and take each other's ideas and concerns into consideration during a discussion. In all of the cases, this was an essential function of the broker.

Linking and strategic networking: In the case of the soybean cluster in Ghana, for example, the platform is linked to resource persons including legal, financial advisors and thematic specialists. Brokering may also involve mobilising resources for activities undertaken by the platform.

Table 3 Brokers and their tasks

Case	Who is the broker?	Level of activity of the broker	Who pays?	Brokers' functions
Learning & Research-oriented				
Oil palm Ghana	Brokering by PhD researcher at local level. Research associate at national level.	Simultaneously local and national/ district	CoS-SIS	Local level: Organising processors, resources for experimentation, monitoring performance, sharing results Higher-level: organising meetings, taking minutes, co-ordinating activities, facilitating interaction, resources, process tracing, documentation. Helping members to reach compromises, reconciling opposing views.
Poultry Tanzania	Muvek solving bottlenecks as they appear.	Simultaneously local, district and national	RIU	Identifying relevant stakeholders, developing linkages, facilitating dialogue, building capacities, training and skills development, lobbying, creating linkages and partnerships.
Cowpea/ Soybean Nigeria	RIU: broker. Local level: executive committee (platform members), led by two co-chairpersons (one for cowpea and the other soybean).	District, national	RIU	Initial capacity building. Creating elected caretaker committee, electing executive board. Executive committee: addressing needs of platform members, pooling of ideas, creating social networks, and providing information.
Maize Rwanda	RIU is the broker.	District, national	RIU	Advocating for change, lobbying decision makers to support their interests, supporting actors to articulate their needs, providing access to financial services, research and extension services, making stakeholders more visible and organised (effective service delivery), improving access to markets, building closer relationships between economic actors, collective marketing, communications
Conservation agriculture Zambia	RIU is the broker. Local government at local level.	Local, district, national	RIU	Co-ordinating, facilitation of knowledge sharing, improving interaction, organising joint activities and learning.
Development & Research-oriented				
Maize Nigeria	Local co-ordination by researcher from the Institute for Agricultural Research (IAR) at Ahmadu Bello University.	Local	IFDC	Action-research in the field, strategic networking, co-ordination of meetings,
ASARECA	Brokering by principal investigator (researcher), public or private (and NGO) extension services, or through embedded services in research organisations.	Sub-regional (international), national and local	ASARECA	Supporting interaction to make innovation platform a learning space. Learning takes place at both levels through experience sharing workshops and exchange visits.
Vegetable Malawi	Vegetable Task Force is External broker.	Local, district, national	Bioversity	Facilitating communication, sharing information and ideas amongst platform members, making a work plan, providing and or facilitating the training and any other capacity-building initiatives, having the responsibility to engage policy makers from different levels.

Case	Who is the broker?	Level of activity of the broker	Who pays?	Brokers' functions
Development & Non-research oriented				
Soybean Ghana	Local faculty of agriculture is referred to as cluster facilitator, or lead facilitator,	Local: Both cluster facilitator and advisor, linking to national	IFDC	Organisation and facilitation of meetings. Cluster advisor: ensuring that the cluster functions; and identification of resource persons, strategic networking with resource persons (legal, financial advisors, thematic specialists).
National platform for innovation in Benin	University of Abomey-Calavi	National	Projects (e.g. ICRA/IFDC)	Conducting needs assessment, sharing information, strategic networking, organising consultation, human resource development, advocacy, lobbying
Oilseed Uganda	SNV	National	UOSPA	Facilitating learning process of the platform, conflict resolution/ mediation, developing common view, network building.
Mango Kenya	MoA-PSDA programme as broker.	National	MoA/GIZ	Initially bringing partners together to create a common vision for the industry.

Technical backstopping: Sometimes technical advice on economic, social or technical issues is needed. A broker can either provide this information him or herself or link the platform to those who can provide that information. Sometimes a university or research institute may undertake a study to generate missing knowledge. In the case of the poultry network in Tanzania, for example, research on the most resistant local breed was conducted. This knowledge was later shared with the members of the platform.

Mediation: Trust and understanding are essential for a platform to function. Sometimes however conflicts arise. Therefore, mediation or other strategies to address conflicts may be needed.

Advocacy: Buy-in and support of those who matter to the platform is essential. This includes informing policy makers and calling for policy change. A number of brokers in the cases, especially those operating at the national level platforms (or their national level bodies) supports platform members in reaching for, and informing, policy and decision makers. In the Tanzanian poultry network, for example, the exemption of tax on hatchery equipment made it possible for hatchery owners to increase the supply of one-day chickens. Without these additional machines, the demand could not be met.

Capacity building: In the majority of cases, building capacity of platform members was necessary. Members were often not yet fully equipped to play their roles. Most often such capacity was not built on thematic areas (see point below), but rather on process-oriented issues, such as multi-stakeholder interaction of multi-disciplinary research. Sometimes, brokers solely link key members to training institutes; others play an active role in "training them on the job". Brokering may also entail helping a specific group to organise. In a number of cases, farmers were organised into associations or apex organisations to allow them to play a more defining role in the platform.

Management: Management is not only a function fulfilled by a broker. Nevertheless, many of the brokers in the cases documented in this book combine the function of manager with that of broker. By management, we mean financial management, reporting and communication with the donor. Integrating the function of management into brokering has potential advantages – such as better understanding of the issues at stake behind the formal interaction between parties, and having an overview of funding issues; but also clear disadvantages, as the broker may sometimes also be looked upon as a donor in disguise. Advantages and disadvantages of combining these two functions have already been discussed elsewhere (Klerkx *et al.*, 2009; Tennyson, 2005).

Documenting learning: An innovation broker also plays a role in stimulating reflection on the experiences of the platform. In some cases, brokering includes documentation of the lessons learned. This function was essential for the “learning & research-oriented” platform types, but much less so for both the “development & research-oriented” and the “development & non-research oriented” types. In the case of the oil palm platform in Ghana, for example, the research associate who acts as the broker, is also responsible for documenting experiences of the platform. The core activity at the local level is experimentation on the quality and quantity of palm oil. The results of these experiments are shared both with the experimentation groups and platform, as well as with a wider community that could benefit from those results. At the higher level of the Concertation and innovation group, the facilitator also documents empirical processes and events that take place, and shares this documentation with the platform and a wider community. In other cases, such as the poultry network in Tanzania, the maize platform in Rwanda, the cowpea-soybean platform in Nigeria and the conservation agriculture platform in Zambia, research fellows were recruited by the programme to report on questions that were defined in advance. These fellows were not platform members, and therefore function as monitors of the platform.

An important function that is not fulfilled by the brokers is “championing”. Because we believe that champions are essential for a platform to function and to ensure that brokers can play their role, we opted to briefly discuss their role and characteristics in this chapter.

Champions: These are typically highly motivated stakeholders within the innovation platform. Champions enthuse peers from their group, promote contacts between the platform members and their respective constituencies, and often set an example. In the poultry network in Tanzania for example, farmer champions played an important role in stimulating other farmers to take up the poultry activities, in organising the poultry producers and in representing the producers at several events. Champions often also take care of day-to-day platform management issues, training and mobilisation when the broker cannot do it. In the case from Benin, the national innovation platform was introduced from the top. The lack of farmer champions here makes it difficult for the platform to get involved in activities that generate tangible outcomes for producers. In this one case of champions being absent, external innovation brokering proved very problematic. In the other cases, champions proved to be essential. For example, in the case of the soybean cluster in Ghana, champions have been vital to driving interactions within the cluster to keep business links active.

Though undoubtedly useful and important, champions do not always have a legitimate brokering position or the ability to enhance overall capacity of the platform for reflection on vision and goals. Here is where an independent – external – broker can play a role in supporting the platform. Brokers are thus complementary to champions because brokers generally have insights about and contacts with a broader network of stakeholders, a better position from which they can deal with conflicts, and specific capacities that enable them to facilitate multi-stakeholder interaction (see next section of this chapter).

3.4 Main lines of support

Innovation brokering comprises a set of functions, which can be considered to fall within three main lines of support: 1) developing a common vision and articulating related demands; 2) scoping, scanning, filtering and strategic networking; and 3) innovation process management.

Developing a common vision: The cases stress the need to clarify from the start which objectives you would like to achieve, and the nature of activities you would like to implement. This in turn requires a clear definition of the roles of the different members at different levels. In an innovation platform, each organisation joins with its own objectives and expectations. With the support of a broker, a common vision among parties can be developed and the platform can start to function as an information market.

Scoping and strategic networking: When a new opportunity or constraint presents itself, the platform may decide to bring in new actors or to build the capacity of the actor members for them to address the issue. As already mentioned in the previous chapter, the platform often consists of a core group and when necessary, other actors are brought in – perhaps only temporarily. Brokers have an important role in making strategic decisions about whom to include and when – this also includes being strategic about when to get the core group together to make these kinds of decisions together. Every time new actors come together, brokers play an important role in briefing potential (new) members of the platform’s objectives and way of working. This briefing needs to be done properly from the start to be sure to get new people on board quickly. Otherwise, it can place an additional burden on the broker later. In the case of the maize-legume platform in Nigeria, for example, fostering linkages between farmers and the private sector emerged as an additional task for the facilitating brokers – exactly because private sector organisations did not fully understand their role in the platform.

Process management: Managing a process includes a number of important activities related to planning and monitoring the performance of the platform. This means that the broker needs to keep an eye on the platform running smoothly. This includes building trust between members and stimulating joint activities. It also includes making sure the right stakeholders are on board at the right moment. Process management is needed to enhance the likelihood of innovation and institutional change occurring.

To better understand the key role of a broker, we will provide an illustration of a situation in which a conflict occurred in a platform. First of all, developing a common vision does not mean that all actors have the same interests. As such, conflicts are often part of an innovation process, not only amongst the actors of the platform, but also between the different levels of platforms and with other actors outside the platform. Some conflicts that relate to differences in points of view and perceptions may in fact benefit the platform and discussions emerging from these differences may lead to the creation of new knowledge and innovation. An example of a conflict that led to a stronger platform can be found in the case of the maize-legume platform in Nigeria, where farmers wanted to grow their own seeds while seed companies wanted to supply them to the farmers. As a result of this conflict, an innovative solution surfaced that benefited both actors: farmers became the outgrowers of cowpea seeds for Premier Seeds Ltd. Other conflicts may be unproductive and can even ruin a platform. In the case of the national platform in Benin, for example, a conflict over a position in its co-ordinating body triggered the departure of a platform member. Conflicts can therefore entail a dilemma: on the one hand, they can potentially trigger an innovation process. On the other hand, they may lead to disruption of the innovation process. As a broker, one can have different strategies to address such a conflict. Brokers can mediate by discussing separately with the parties involved and then bringing them together to discuss this issue face-to-face. They can also put the issue up for discussion at a platform meeting, where other members can contribute suggestions on how to solve the problem. Another strategy innovation brokers can use to get a process moving in the right direction is to delay an activity or meeting until a better moment.

3.5 Linking local to high-level platforms – and vice versa

From the cases, it has emerged that the innovation broker acts at different levels, for the simple reason that the platforms have different functions at different levels. As already discussed in Chapter 2, some platforms are broad national sector or sub-sector co-ordinating bodies, others are linked to a specific technology or crop, and may have a sub-national or local focus.

The *national platform* can be a core group of stakeholders overseeing various local-level platforms and providing guidance and support to the local innovation platforms. In the case of the oilseed platform in Uganda, for example, the national platform was connected with several local platforms that already existed before the national platform was created. Often, the platforms are connected to each other informally or more formally as well as being vertically organised (i.e., a national sector platform which oversees a number of sub-platforms which are linked to the national vision or agenda, while working on specific issues or in specific locations - see Figure 2 in Chapter 2).

This core group can also take the form of a more formal multi-stakeholder task force or co-ordinating committee. As already discussed in Chapter 2, national platforms often also have to be a bit more formal to attract external, public and financial support, and attention from the policy makers. For example, the national platform in Benin is organised as a formal

body with a board and by-laws, in the expectation that this will help in receiving funds or in encouraging projects to work with them. In other cases, the more formal and regular platform meetings were replaced by *ad hoc* gatherings based on needs such as in the case of the poultry network in Tanzania. There, the formalisation of the platform hindered organic growth of activities and as such a much looser, informal and dynamic network was preferred. This shifted the role of the broker from a more structured role towards one of addressing bottlenecks whenever they appeared (for more on formalisation, please refer to Chapter 2).

Platforms are not static, but are dynamic networks that constantly change in response to the uncertainties, challenges and resource needs of an innovation process. In the case of the poultry network in Tanzania, for example, it emerged that problems were better tackled in smaller groups than through a central platform. For example, specific technical problems which are identified through the main innovation platform, but do not require intense involvement of all its member representatives, are tackled in such sub-platforms, some of which may only be temporary. Once the particular issue is resolved, they may dissolve the sub-group.

Some innovation brokers bring key stakeholders together in the main platform, while other innovation brokers are involved in special activities and partnership transactions taking place in sub-platforms derived from this main innovation platform. In many cases, brokers play an important and active role in linking these two levels. The local-level experiences, for example, can be used at a higher level to influence national stakeholders (policy makers, industries that source locally, etc.).

All the “learning & research-oriented” platform types cover multiple levels, as also discussed in Chapter 2. This could well be because there is a need to learn about the linkages and effectiveness of levels at which problems are tackled.

The “development & non-research” platform types, on the other hand, all consist of only one level - either local or national. Both the mango value-chain case in Kenya and the national platform in Benin experienced serious difficulties in achieving results. In the case of Benin, the lack of champions at a local level clearly contributed to this flaw. In more general terms, the cases show us the need for linking up with actors at the local level. This was done well in the case of the oilseed platform in Uganda where the national platform built on existing local initiatives.

3.6 Skills and capacities of innovation brokers

As discussed above, brokers can be either organisations or individuals. The choice for a broker involves different criteria. On the one hand, some degree of “neutrality” is important according to the writeshop participants. Vested interests may lead to a lack of transparency or trust. On the other hand, knowledge of the topic is essential. Though this may come along with past interactions with some of the platform members – which will be seen by some as a sign of partiality – knowledge of the topic dealt with is still important to gain

actors' trust. In any case brokering requires a lot of investments in time (and as such requires a lot of resources).

In the vast majority of the cases, brokers received training from organisations placed outside the platform. This training was mostly geared towards practitioners, short-term and directly related to their realities. In one case, the training preceded the actual establishment of the platform, with ICRA alumni setting it up in Benin. Topics covered during the training included value-chain analysis (by members of the mango value chain in Kenya, ASARECA platforms as well as of the maize platform in Nigeria); conflict management (members of the oilseed platform in Uganda); facilitation of multi-stakeholder processes (by members of soybean cluster in Ghana, the vegetable platform in Malawi, ASARECA platforms, the oil palm platform in Ghana, as well as for all the cases from the Research Into Use programme: i.e., the poultry network in Tanzania, the cowpea-soybean platform in Nigeria, the maize platform of Rwanda and the conservation agriculture platform in Zambia); lobbying (by members of the vegetable platform in Malawi); and finally, action research (members of the Malawi platform and of the maize platform in Nigeria). The brokers therefore received to a varying degree training to help them fulfil the functions of leadership, facilitation of multi-stakeholder processes, trust building, conflict resolution and communication skills. Communication skills included listening skills and tools for building trust, team building, and conflict resolution and mediation.

Being a good broker goes beyond training, however. Attitude is also very important, especially having patience and cultural sensitivity. The case of the maize-legume platform in Nigeria highlights the need for brokers to be both open-minded and good leaders. To be a good leader includes an empathic, learning style of facilitation, and personal capacities to deal with groups and their dynamics. Several other case authors mentioned the importance of a broker's capacity to bring and keep people together. The writeshop participants agreed that a broker has to be open-minded and responsive to all members' needs. In addition, an effective broker is a good team player with an enquiring mind.

The writeshop participants also felt that the broker does not necessarily have to be a content specialist. More important is that he or she understands the context: the culture and norms, as well as the values. Also, brokers should get to know how power relations affect the behaviour of different actors, including the wider implications of issues such as gender and marginalised groups. Training programmes aimed at brokers often leads to their acquiring additional knowledge on innovation systems and theory.¹⁴

3.7 Easier said than done

Although the way the cases are described and discussed here may give the impression that the role of a broker is relatively straightforward, this is in fact rather the opposite. In most

¹⁴ For more details on attitude, knowledge and skills needed by brokers, see Gildemacher and Pyburn's (2008) report on discussions with agricultural innovation coaches.

cases, brokers develop their skills and come to understand the exact tasks and roles needed through time and interaction. Every broker has different personal and organisational capacities and skills, which will define his or her role. Those who are better at facilitating may end up doing more of that and less of co-ordination, for example; while those who are good at lobbying may end up being more focused on the policy makers than on internal platform matters. So a good broker also knows how to delegate. Another desirable ability for brokering is to have convening power – the capacity to bring people together, and with a certain level of neutrality; i.e., in an inclusive without the broker's own interests getting in the way.

Brokering is a time-demanding job, and a costly one. Bringing people together, building trust and working together do not only depend on a broker's patience, they also depend on the availability of resources (including time!) – both coming from within as well as outside the platform.

When brokers are paid by others (e.g. the donor or manager of the platform) to fulfil this task, an additional difficulty comes up in terms of the broker not only being accountable to the platform members, but also to the one paying the salary. A conflict of expectations may mean that a broker follows the donor's expectations – which may influence the direction in which the platform is heading, or put pressure on the members to implement a large number of activities within a short period of time.

In conclusion, the role of broker does not have to be played by the same person or organisation throughout the life of a platform. As mentioned in Chapter 2, the dynamism of platforms may mean that a broker is replaced at a certain point in time. For this to happen smoothly, brokers must be willing to "let go"; and they must realise that it is important to the platform's continuity and sustainability, to have more individuals and organisations be willing to and capable of playing such a role. Hopefully such a change will lower the (financial) costs and ultimately make the platform less dependent on external funding.

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4 Impact and sustainability

P. Gildemacher, L. Oruku and E. Kamau-Mbuthia

Innovation platforms aim to enable collaboration and interaction, in order to trigger new ways of doing things. The impacts and outcomes of these platforms therefore need to be seen as direct or indirect results of better collaboration and interaction. It is however very difficult to measure the impact of innovation platforms because factors in the context influence their achievements, and make it particularly difficult to attribute changes to them. Yet, it is important to be able to show whether and how platforms can contribute to bringing about change (both technical changes and in how organisations work) to improve rural people's livelihoods in a sustainable way. It is equally important to understand the extent to which these changes can (and should) be sustained over time.

4.1 Introduction

In all the twelve cases included in this book, the overall aim of the innovation platforms was to improve the livelihoods of the stakeholders in terms of a specific value chain or a specific area, with particular attention for small-scale farmers' livelihoods.

At the level of the stakeholders, impacts mainly relate to increased revenues for farmer households or other local agricultural players. In some instances, this can be through improving access to international markets such as in the case of the soybean cluster in Ghana. In other situations, such as that of the cowpea-soybean platform in Nigeria, better access to seeds and related inputs as well as improved post-harvest storage methods are expected to increase revenues. In the Zambian case of the conservation agriculture platform, adoption of conservation agriculture practices is expected to contribute to increased revenues. But these are still mostly expectations, rather than proven facts.

In effect, none of the cases could clearly prove the (long-term) impact the innovation platform has had on the intended beneficiaries. Many, though, present interesting and credible information on the direct outcomes of their work, in the form of improved interaction and joint work between organisations, adapted technologies, new ways to commercialise certain products, organisation of farmers, enhanced capacity of key platform members, etc.

The lack of data on impact shows us that the impact from an innovation platform is difficult to measure, as the process of innovation is by its nature unpredictable. In addition, innovation platforms are dynamic, and membership as well as their focus may well change over time. All this makes it very difficult to attribute changes in livelihoods to the innovation platform *per se*.

Still, to be able to initiate and operate any type of innovation platform, investments need to be made in terms of funds, and possibly more importantly, of human resources in the

form of time members spend on the platform activities. Providing regular and independent information to the partners and donors on the outcomes of the innovation platform is an important way of maintaining the trust of partners in the collaboration. Furthermore, to attract external funds, the platform's designers must be able to give plausible indications of how it will lead to benefits that go beyond the platform's direct participants; i.e., ultimately to producers, processors or traders not involved in the platform.

To provide a definition of impact, we like to use the definition of the OECD (Organisation for Economic Co-operation and Development) as follows: *"The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the local social, economic, environmental and other development indicators"* (OECD, 1991). The examination of impact is thus concerned with both intended and unintended results and includes the positive and negative impacts of external factors, such as changes in terms of trade and financial conditions.

In this chapter, we revisit the twelve cases to present examples of different types of outcomes, which directly or indirectly result from the innovation platform. This is not to say that platforms are always effective or even have outcomes, but here we list and analyse their achievements according to the practitioners involved themselves. Next, we discuss sustainability and how an innovation platform is likely to have benefits after the external funder has withdrawn – considering the fact that all cases discussed in this book have received some external funding. "Scaling up" (see Section 4.5) is a strategy towards impact; in some cases, this is understood as doing more of the same (i.e., "scaling out") whilst others see it more as an institutional scaling up (or "institutionalisation") in which an approach becomes an integral part of organisations, for example. This issue will be explored further with the help of the case studies. Last, we discuss why measuring impact and attribution in complex innovation settings is particularly challenging.

4.2 Intended impact pathways

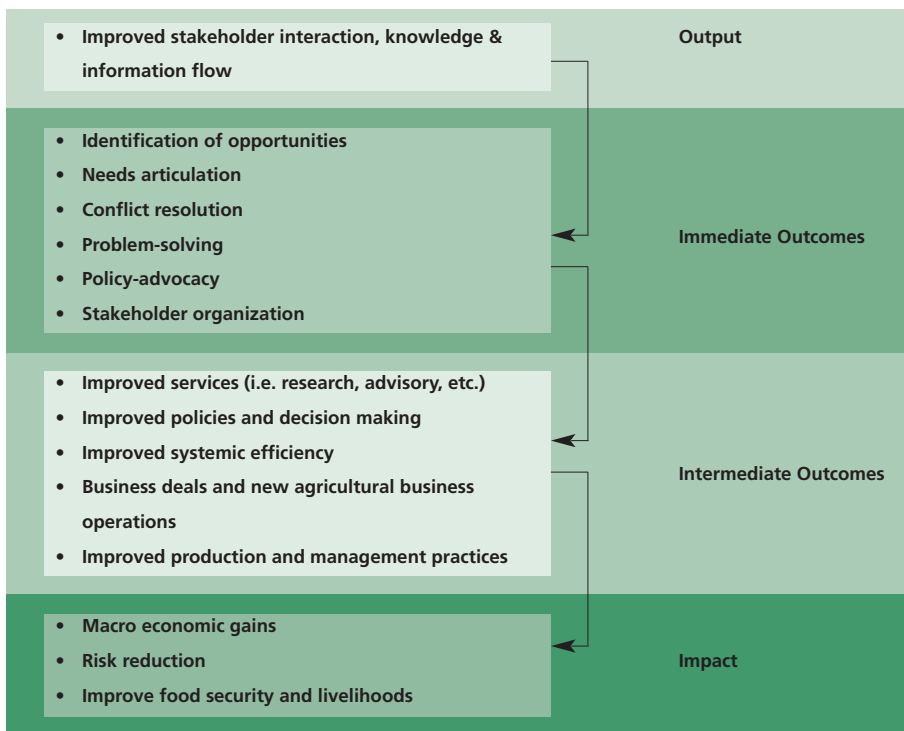
A way to make sense of the different activities and pursued results is to construct the intended "impact pathway" of a development intervention.

Platforms cannot follow (the same) linear steps. The first step already depends on the issue that led to the creation of the platform in the first place – and this will depend on the context. Nevertheless, a "generic" impact pathway may still show how improved interaction (the main activity of any platform) and the related joint action, leads to change. Through the construction of an intended impact pathway, the stakeholders in an innovation platform can improve their understanding of the different dimensions and objectives of the work they are doing together. Typically, an impact pathway for innovation platforms predicts how improved stakeholder interaction, and knowledge and information flows lead to outcomes and then to impact. The *"accumulation of desired end results"* from the platform initiative can then be thought of as the "impact" of the innovation platform.

Such a generic pathway was drawn together with case writers during the writeshop, and can be found in Figure 3. Note that, in this case, outcomes can be divided into “immediate” outcomes (a direct result of increased interaction) and “intermediate” outcomes (as a next step, after the immediate outcomes, on the way to broader impact). It must be noted that some people may argue against using intermediate outcomes as most of the immediate outcomes are in fact outputs or ways of working (methodology).

The figure does not show only one way for achieving outcomes and impacts. Rather, an intermediate outcome can, for example, be reached through the combination of different immediate outcomes. While in the case of the poultry network in Tanzania, for example, new business deals came up as a result of identification of opportunities and direct problem-solving, in the case of the maize-legume platform in Nigeria, stakeholder organisation played a more prominent role when getting new business deals off the ground.

Figure 3 Possible intended impact pathway for innovation platforms



4.3 Outcomes of innovation platforms

Some of the innovation platforms discussed in this book compiled a long list of achievements, while others had shorter lists. This discrepancy will be discussed later in this chapter. A few common types of immediate outcomes were identified by the writeshop participants. Some immediate outcomes booked by platforms already indicate the (partial?) achievement



Groundnuts are an important export product in Malawi. The nuts are produced and unshelled at family level and quantity and quality of the nuts are important for the families' income. Here we see a woman farmer selling her produce to a trader

Place: Malawi. Photo: Floris van der Pol

of intermediate outcomes. Below we provide examples of outcomes that did emerge through the cases.

Identification of new opportunities for change

An immediate outcome following improved interaction between stakeholders through innovation platforms is the identification of opportunities. New opportunities may arise directly, as a result of the exchange between different opinions and experiences. Opportunities may also arise as suggested solutions to difficulties identified in the platform. The maize platform in Rwanda, for example, identified maize storage as a problem for producers, and steel cocoons as a possible opportunity for improvement.

Improved articulation of needs

As a result of better interaction between stakeholders, the producers were able to clearly articulate their needs, but this could also be improved for other stakeholders such as traders, processors and support services. Different stakeholders were able to voice their needs in opportunities for exchange offered by the platform.

The effectiveness of services, such as research and advisory, financial and information services depends on the opportunity for clients of these services to assess and articulate their needs. The case studies provide practical examples of how the clear articulation of needs was improved. For example, in the case of the cowpea-soybean platform in Nigeria, farmers expressed their need for improved seed and traders were able to supply them in a more accessible and relevant way (i.e., in smaller packets). Similarly, in the Malawi case, small input packets were organised for farmers through the vegetable innovation platform. Likewise, in identifying palm oil quality (low free fatty acid) as a constraint for tapping the export market in Ghana, experiments were stimulated and the palm oil platform actors managed to respond effectively.

More business deals

Due to the activities of the different stakeholders in the platform, opportunities for different business deals have arisen. Given that most of the innovation platforms included market intermediaries and traders in their membership, new business opportunities were able to be created and deals sealed. Examples include the poultry network in Tanzania, which linked restaurants and farmers, and where KukuDeal is expected to link poultry keepers and buyers; the case of the vegetable platform in Malawi; and the soybean cluster in Ghana. Innovation platforms may therefore create more effective linkages between producers and input dealers, traders and processors.

Conflict resolution

Innovation platforms can also be instrumental to conflict resolution. Wherever there are stakeholders collaborating, conflict may also occur. It is in the interest of the functioning of value chains that such conflicts are resolved properly. An innovation platform, in which stakeholders work towards a common shared goal, and where trust between stakeholders is being built, forms an arena in which conflicts can be brought into the open, be discussed and resolved. In the oilseed platform case in Uganda, bringing together competing

oilseed breeders and distributors promoting open-pollinated as opposed to hybrid varieties stimulated a great deal of discussion, which in the end resulted in joint action to improve the availability of quality seed. In the case of oil palm in Ghana, the innovation platform contributed to solving conflicts between millers using spent tires as fuel, and as a result eased the suffering of surrounding communities from serious air pollution.

Problem solving

The innovation platform is meant to improve interaction so that joint action can be undertaken to address existing or new sector problems. In the maize platform in Rwanda, maize producers started exploring how to improve their opportunities in setting better maize prices by starting their own maize-trading company. The oil palm platform in Ghana initiated specific research to improve processing practices and to investigate the reasons behind low oil recovery during the rainy season.

Policy advocacy

In many cases, there are efforts to influence policy and decision making at different levels through advocacy based on highlighting lessons learned by the innovation platform members. Innovation platforms assume that policy advocacy can be more efficient when it is driven by a group of stakeholders, rather than only producers or only traders. When relevant national authorities can be involved early on in the establishment of the platforms, this is much easier since this builds commitment, trust and interest. In the poultry network case in Tanzania, the platform successfully lobbied for the removal of taxes on imported breeding equipment. In Nigeria, both the research and taxation policies on imported oils were directly influenced by the cowpea-soybean innovation platform. The oilseed platform in Uganda had as its prime objective to create better leverage with decision makers by bringing the multiple stakeholders in the sector together, and highlighting their issues of interest with a single voice.

Stakeholder organisations

A spin-off outcome of the innovation platforms can be the improved organisation of stakeholder groups (organisation of producers or of traders, for example). The organisation of stakeholders is essential for true representation in platforms. Without such structures, the participants in platforms will remain individuals, rather than representatives of a wider group of peers. The soybean cluster in Ghana stimulated about 1,800 farmers to organise themselves; as a result, from five to 52 groups got involved with the cluster, including women farmers' groups.

Most of the platforms described in the cases in this book are relatively young, and have not gone through a systematic evaluation, making it difficult to list, with certainty, intermediate outcomes achieved. Most results booked at the level of outcomes are so far of an anecdotal nature, and thus drawing overall common trends is not yet possible.

Because there is little information of results reached at the outcome level, we cannot argue that there is a clear difference in outcomes between the three types of platforms as defined earlier in this book. Having said this, it is worth noting that "learning & research-oriented"

platforms report outcomes both at the local farmer level and at the level above it. Both the “development & research-oriented” and “development & non-research oriented” platform types have outcomes at either the farm level or at that above it, but not at both levels simultaneously. The only exception is the oilseed platform case from Uganda, where the national-level platform was linked to existing local initiatives. This may be an indication that for platforms to have an effect felt at the farm level and not only by the farmers directly involved, it is indeed necessary to organise the platform at different levels (i.e. both at local and above local levels).

4.4 Sustainability

“Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn. (...) When evaluating the sustainability of a programme or a project, it is useful to consider the following questions:

- *To what extent did the benefits of a programme or project continue after donor funding ceased?*
- *What were the major factors which influenced the achievement or non-achievement of sustainability of the programme or project?”* (Definition from OECD, 1991)

Arguably, the platform does not need, *per se*, to survive through generations. It can, instead, remain active only while it fulfils a need and responds to an opportunity and either ceases to function, or “transforms itself” into a renewed platform, with a new objective.

What would need to be sustained are the interactions between stakeholders with the objective of stimulating or “catalysing” positive change. As long as the platform continues to contribute to catalysing positive change, its existence is justified. This does not mean that the innovation platform must continue to exist or operate in the same way. The mandate of the platform is dynamic, meaning that its participants as well as its objective and focus develop over time. Innovation platforms may become redundant and hence disappear.

According to the participants of the writeshop, there are a number of reasons why a platform would no longer need to continue to function:

- The platform has achieved what it set out to do and has thus made itself redundant.
- It no longer contributes to catalysing innovation to “pay back” the investment needed to keep it going.
- The participants have obtained what they want from the platform and have no intrinsic motivation left to keep it going.
- Other interaction mechanisms, such as new committees, round tables or working groups are fulfilling the mandate of the platform.

A number of reasons were offered by the writeshop participants to explain why innovation platforms cease to function in reality:

- Lack of an organisation or individual willing to put in the (co-ordination/ brokering) effort required to keep getting people to contribute and change with changing needs.

- A change in material or other (e.g. training) incentives for participants to contribute (a shift in travel reimbursement or per diem payment).
- Lack of active facilitation (or lack of recognition of leadership such as was the case for the mango value chain in Kenya) leading to a loss of confidence in results by participants.
- A shift in balance of power in the platform resulting in a single party high-jacking the agenda.
- Lack of recognition of the importance of the innovation platform.
- Lack of representation of key groups, or perceived legitimacy of representatives by the interest group they are supposed to represent, leading to apathy.
- Lack of sufficient organisation, either at the local level (where activities lead to practical results), or at the national level (to ensure organisational support for activities).
- Innovation platforms do run a risk of turning into a “talkshop” – that is, meeting for the sake of meeting – and stops contributing to growth by catalysing innovation (e.g. in the case of the national platform in Benin).

The issue of material incentives for participation was discussed in Chapter 2, and is often behind the reasons mentioned above causing platforms to cease to exist. This issue affects the sustainability of a platform beyond the intensive involvement of an initial outside supporter of the initiative. Once such support falls away, opportunities for providing direct incentives for participation will almost invariably cease to exist. At the same time, it must be recognised that participants representing organisations, who do not participate for their own direct benefit will require transport and sometimes lodging to participate. These relate to real expenses rather than material incentives though. Ideally, these costs are borne by the organisations they represent rather than an outside entity that has a temporary interest in the platform.

So, how can the resources required for platforms that have a good reason to continue to exist be sustained over time? Several of the cases in this book testify to the fact that public funding for innovation platforms seldom lasts long enough. This is especially the case for the “learning & research-oriented” platform types. The general advice of the authors of these and other cases is to plan for the eventual transfer of costs for activities to the beneficiaries from the very beginning. This means that, ideally, the resources would be put together by those benefiting directly from the platform. In the case of an agricultural sub-sector or chain, funds would ideally be invested by economic chain actors (producers, traders, retailers). There can be different mechanisms for organising this; for example, through membership fees, a levy on the marketed product, or a chain leader (company) bearing the costs. The poultry network case in Tanzania provides an example of an innovative plan to secure the funds for maintaining the brokering and networking function that were initially contributed by project funding. The mechanism that is being put in place is to assure that KukuDeal, a market partner specifically set up for this purpose, will render two types of services for chain actors. It will function as a commercial intermediary for selling mature chicken to the market. From the margin gained on marketing the chicken, KukuDeal will fund its continued investment in brokering and problem solving for the benefit of the entire chain.

Although this may be considered an ideal situation, the question is whether such an option is always at hand. In addition, in the case of a chain actor taking the main responsibility, it can be argued that interaction may become skewed towards the particular interests of that chain actor, rather than continuing to contribute to innovation in a representative way. The platform may develop into one that fulfils routine activities, rather than that keeps seeking new opportunities.

The participants in the writeshop clearly indicated that they see a continuing role for public funding, especially for the initiation and brokering of an innovation platform. Often, stakeholders do not know what they can expect from a platform in terms of benefits and would thus be reluctant to pay for this unclear service. In addition, the platforms have objectives that are often not value-free - but pro-poor, meaning they aim to specifically benefit resource-poor actors, who are the least likely to contribute. As one of the participants put it, inclusiveness has a cost. And this cost has to, at least initially, be supported through public funding (either from the donor community or from a government budget).

4.5 Scaling up

For the platform to remain sustainable over time, actors on the ground need to support it and efforts need to be scaled up. But what exactly does scaling up mean? This is a controversial concept, for which different authors have over time come up with their own definitions. Uvin and Miller (2004) built up their definition from the work of NGOs; and Gündel *et al.* (2001) and Menter *et al.* (2004) have both dealt with (up-scaling) research in natural resources management. The present book focuses, instead, on innovation platforms. As such, it deals with an approach and its principles, as well as the mechanisms involved in building such platforms and keeping them running. In this case, the differences between the definitions of Uvin and Miller and others are, at best, blurred.

We have therefore adapted this terminology to fit with the work of innovation platforms. We start then from the premise that the term “to scale up” is a “catch-all general term” (Menter *et al.*, 2004), under which we include two categories: 1) Scaling out; and 2) Institutionalisation. We do not claim that this distinction is perfect and flawless, but have found it to be workable and helpful in discussing the case studies in this book.

Institutionalisation

Convincing organisations of the need for such platforms – or, in fact, for such approaches – and having it actively supporting them, is here referred to as “institutionalisation”. By institutionalisation we mean incorporating an idea or approach, or its principles, into an organisational culture, policy and activities. The result of such institutionalisation is not only that more platforms are established, but, more importantly, that the principles behind the work of such platforms (and in this case, of agricultural innovation systems) are well understood and acknowledged, and therefore become the accepted pillars for the organisation’s activities. In other words, this means that organisations adopting, participating in, and possibly initiating stakeholder dialogue, through innovation platforms or similar mech-

anisms, become part of their way of working. Policy makers may, for example, change the way agricultural research and development's priorities are set, by using the platforms to do so, or by making such platforms part of their policy on development of value chains in a certain area of the country. Farmers' organisations, on the other hand, may institutionalise the approach by deciding to systematically improve their capacities to work with other organisations and do so more frequently.

Many examples of institutionalisation can be found in the case studies. This seems to have been the most important tool for scaling up the innovation platforms. Particularly the "learning & research-oriented" platform types have well-developed institutionalisation strategies. Some relate to building the skills of the staff, such as in the case of the soybean cluster in Ghana, where university and Ministry of Agriculture staff have also been using their skills in other settings. However, although individuals are trained, this does not always lead to uptake of the platform approach within the organisation, as was discussed in Chapter 2 on Design. It has also proven to be helpful to take the time to reflect on who will take over the different functions of a broker (see Chapter 3 on Brokering) from the start.

Deliberate strategies designed from the initiation of a platform can be found in some cases. For example the oil palm platform in Ghana, saw the formation of a reference group of people higher up in different stakeholder organisations (i.e., ministry, national research and university) who are then in the position to promote the principles further if they see the benefit. In the case of the cowpea-soybean platform in Nigeria, the fact that the broker's office was within the Ministry of Agriculture enhanced exchange and adaptation of approaches for the purposes of the ministry. Direct contact between people in key decision-making positions, including policy makers, is important for enhancing mutual understanding – and for the platform to be taken seriously.

In the case of the poultry network in Tanzania, KukuDeal, was established as an enterprise based on contract farming, in order to take over the role previously played by the donor's broker.

Scaling out

Scaling out refers to the duplication or replication of: a. innovation platforms themselves and; b. results, solutions and findings obtained through joint action by the platforms (i.e., the "immediate outcomes"). In the case of scaling out the platforms themselves, there is a risk that innovation platforms be considered solutions in and of themselves, rather than a mechanism that can be applied to enhance innovation in certain contexts.

There are some clear examples of cases in which out-scaling of the innovation platforms is taking place. One is the case of cowpea-soybean platform in Nigeria, where the Ministry of Agriculture has been involved from the beginning in piloting the platform approach. Because of this experience, the ministry has now made the decision to apply the platform approach throughout the country for to promote the cowpea sector. Unfortunately, however, the ministry does so without properly investigating whether innovation platforms are really what are needed and wanted in other regions and realities. In the case of the poultry network in

Tanzania, the RIU programme decided to replicate the initiative to cover the regions of Singida and Dodoma, but with a few, though important, modifications. Instead of private advisors, the district, ward and village extension officers will take over the role of innovation brokers. In contrast, in the case of the vegetable platform in Malawi, rather than starting new platforms, engaged members want to broaden the mandate of the existing platform to cover other villages within and beyond the district where the platform originally functioned.

In addition, there are some cases of out-scaling of results of the interaction between innovation platforms. In the case of the maize-legume platform in Nigeria, for example, the first five pilot villages proved successful in experimenting with soybean and maize-cowpea production practices (i.e., different crop arrangements, use of *Striga*-tolerant maize varieties, appropriate fertilisation); this led to farmers' organisations, agricultural extension and local governments worked together to disseminate such practices to another 25 villages. In the case of the cowpea-soybean platform in Nigeria, over 600,000 farmers and marketers were introduced to a new storage possibility: airtight containers. In the case of the oil palm platforms in Ghana, there is evidence that farmers are taking their learnings from the experimentation groups further by experimenting on their own and sharing knowledge – for example on the effect of topography on fruit yield and moisture content.

The country context is pivotal to the success of the innovations emerging from a platform. As such, each innovation platform is unique, and will be most effective in its own environment and reality. The principles upon which such platforms are built, however, can be of use in a diverse set of contexts, and these are, in this sense, much more important than the platforms in and of themselves.

4.6 Assessing and measuring outcomes and impact

The strategic question platform members ought to ask is what they should be measuring, or even, if they should attempt to measure “outcomes” and “impact” in the first place. Within the lifespan of an innovation platform, it is more feasible and even desirable to isolate and measure the *outcomes*; the problems of attribution (i.e., proving that the changes that occurred are the result of the intervention of the platform) and even measurement errors are much fewer. Yet, measuring and attributing *impacts* to an innovation platform such as “economic growth” and “livelihood improvements” to a wide spectrum of stakeholders requires much more investment. The question remains whether this is really possible even if it is deemed necessary.

While development practitioners recognise these challenges, an important group, namely the donors and governments (albeit with a few exceptions as shown by some platforms described in this book), demand evidence of development impact in order to justify their original investment (and any additional funding) in the innovation platform concept.

For this reason, it is useful to at the outset have a monitoring and evaluation plan that includes impact assessment. This plan will help outlining additional resources required for generating objective evidence of outcomes and impact.

The monitoring and evaluation plan has to be coherent with the intended “impact pathway” (see Section 4.2). At each of the levels (output, outcome, impact), one can look at whether the platform has been effective (i.e., met its objectives/impact) and efficient (i.e., done this with the given financial resources). At each of these levels, one can also look at questions of sustainability. For example, will the impact in the target population remain? Will the interaction between stakeholders remain in place after the external funding is over? Will activities continue to be implemented, or their outcomes remain in place?

It is important to mention that impact pathways are a rough simplification of reality, and may well change as the platform develops and takes unexpected turns.

In the monitoring and evaluation plan, it is useful to have a combination of outcome and impact indicators that lend themselves to qualitative and quantitative measurement approaches. Accordingly, testimonials from key beneficiaries could be analysed and success stories developed to demonstrate impact. To the greatest extent possible, quantitative measures and approaches that allow for generalisation and validation of results should be used in order to support the success stories.

According to the writeshop participants, the following points can be considered when designing an impact pathway for an innovation platform:

- The desired impacts could be realised long after the innovation platform stops running; the immediate focus should be on measuring immediate and intermediate outcomes.
- Develop and agree with the key stakeholders on the monitoring and evaluation or impact assessment plan at the beginning in order to secure the necessary resources and scope for the impact evaluation. Consider both quantitative and qualitative methods to measure impact.
- Less effort should be put in trying to justify how impossible it is to demonstrate impact. If the key donors of an initiative want impact to be measured, it is more fruitful to get into dialogue with them about the resources required for solid impact measurement, and to discuss the conditions under which it can be assured. This may include the suggestion to involve specialised organisations with their own separate funding, in dependent from the implementation of the platform itself.
- Outcome and impact measurement should not be the primary objective of an investment. While adequate resources are needed to generate objective evidence of impact, sufficient effort must be invested to create the desired impact. Often, efforts to measure impact overshadow the effort to create impact.

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5 Lessons learned and lessons needed

5.1 Agricultural innovation platforms

Innovation platforms address problems and take advantage of opportunities which depend on more than a technical solution. Innovation, or “doing something in a new way” is understood to be a mix of appropriate technical, organisational and institutional (in the sense of formal or informal rules and regulations) elements. A premise of innovation is that new ways of doing things result from interaction.

An innovation platform stimulates interaction and hence innovation in a way that fits the specific needs and realities of local actors. Innovation platforms have come about because people did not believe in a system geared towards a linear model of development, in which technical knowledge is seen as the solution to complex problems. For example, that simply applying new seeds or fertiliser will immediately lead to better livelihoods for farmers. The innovation platform approach recognises that complex problems require solutions that come out of interactions between many actors.

Innovation platforms provide space for negotiation, joint planning, working and learning, within clear boundaries and purposes. Having a common purpose and the fact that, to reach it, stakeholders need to work together, is what bind platforms members in the first place; for example, changing agricultural practices, setting up or improving a value chain, etc. This purpose can evolve over time, based on common agreements. Changes will likely have implications to the platform composition, with members joining and leaving as it evolves.

In this book, we distinguished between different types of platforms, based on: 1) their purpose: learning on enhancing innovation and local development and 2) the role of research. Based on the twelve cases studied, there were found to be three main types: 1) “learning & research-oriented” 2) “development & research-oriented” and 3) “development & non-research oriented”.

In this concluding chapter, we revisit a number of issues brought up in this book. The introduction mentioned a number of limitations of this book. As well, we have explained a number of choices made through the process of writing. Of course, our conclusions and choices have direct implications for the discussions, analyses and conclusions we will reach about innovation platforms. Nevertheless, much can be learned from the experiences studied, and this chapter concludes with a reflection on the contribution this book makes to knowledge on agricultural innovation systems.

5.2 The (im)possibility of design

Innovation platforms are by their nature dynamic, and flexible. Therefore it is not possible to design in detail. Yet, choices on how they are set up and operate determine how they function as a result.

Initial success may well bind members together for longer. By “quickly” seeing what a platform can do for them, members’ commitment and interest are fostered. When initiating and running a platform, building on what is already in place (networks, partnerships, pilots) is advantageous. This is because it both allows the platforms to develop quicker and to build on gains made in the past, and because it ensures respect to previous accomplishments.

Though innovation platforms are dynamic they often do have a number of ground rules. Rules that have proven most useful include: that members may come and go yet that commitment is essential; that exchange and learning remains central; that systems for ensuring transparency and accountability are in place; and that the platform members respect each other and one another’s (at times diverging) opinions and knowledge.

Together, member stakeholders need to decide on the degree of formalisation of a platform. Case writers feel that some formalisation may be beneficial, also depending on the context in which they operate. Nevertheless, experience shows that over-formalisation may do more harm than good. Firstly, because the process of setting very formal links between organisations takes a long time and consumes much energy, leaving some actors feeling that a platform yields more bureaucracy than positive outcomes. A second disadvantage of an overly formalised platform is it may lead to a rigid structure. Flexibility is essential for a platform to remain functional and beneficial and cannot be compromised. It is a key to ensuring the platform is grounded in the field reality, adapts to changing roles, members and internal dynamics; and responds to urgent worries and opportunities.

A critical choice for a platform is getting the “right” stakeholders on board. It does not avoid welcoming the membership of odd bedfellows. Stakeholders who contribute out-of-the-box ideas are often excellent contributors to the process. Differences in interests and opinions, and even conflicts, can be fruitful for the development of new ideas and understanding among stakeholders as long as the overall purpose is shared.

A broad (though not necessarily long) process of consultation to start up a platform helps to identify the stakeholders that need to contribute, to define the levels at which they could be involved and, importantly, to ensure the stakeholders have ownership over the idea. Building a platform together is, in fact, the first joint activity in which the members will be engaged, and a critical one for the effectiveness of the platform-to-be.

Platforms can operate at several levels, with local, provincial and national level “bodies”. This multi-layered structure is of great advantage. Local-level platforms have the potential to provide evidence on how new ideas work on the ground, which can then feed into higher-level policy dialogue. In addition, they can be used to get the opinions of key

stakeholders on a particular issue. Local-level platforms can be better used if they are considered innovation platforms in their own right. As such, they also go through a participatory process of decision making and agenda setting, focusing on their members' immediate interests and concerns.

5.3 Brokering innovation

An agricultural innovation process requires the participation of a number of stakeholders: producers; input dealers, agro-food processors, traders; private and public providers of services; financial services and regulatory bodies. These stakeholders need to agree on clear roles, although these roles may well change over time. Such changes can be very positive, as they provide opportunities for platform members to learn and share from different "perspectives" within the platform.

Because participation in innovation platforms often comes down to one individual "representing" an organisation or group, platform members need to have legitimacy when bringing in the ideas of their organisation (or constituency) to the platform, and the actions, ideas and lessons from the platform back to their organisations. Members have to be leaders and capable of triggering the needed change within their organisations.

If a platform wants to influence policy, it can be instrumental to have policy makers and government bodies involved from the very start. Practice shows that, by working together, platform members are better able to influence the way policy makers look at a particular issue. Running a platform in partnership with governmental staff is part and parcel of an effort to influence policy.

Brokers are key actors in innovation platforms. A balance needs to be struck between the need for the broker to have knowledge on the local context as well as some level of neutrality. Innovation brokers need specific skills. A good broker is capable of bringing different actors together. S/he is impartial and someone members can trust. A broker needs to be able to build on local initiatives, be a good listener, and be open and able to communicate ideas clearly. The broker needs to have access to, and understanding for, members' agendas. Importantly, the broker needs to have convening power, and be able to ensure a continuous interactive process and develop a joint agenda.

A broker is in principle not a co-ordinator. A broker does not give instructions nor does s/he manipulate the process of decision-making. Some of the cases in this book are examples of platforms where the same individual or organisation plays the role of broker and co-ordinator. In this case, impartiality is at stake. Some fear such brokers will end up working for the donors, rather than for the platform, whereas others believe such "brokers *cum* co-ordinators" can in fact provide a good buffer between the two, helping to translate platform members' ideas and activities into "donor language".

It is not only the brokers who need special skills. Several of the cases point out that a great challenge is to get individuals and organisations who are used to working alone to work together (and for) a larger group, with different interests. It is therefore important to build the capacities of different stakeholders. Capacity building often takes shape as a series of training sessions, but can (and does) also include on-the-job coaching or simply “learning by doing” followed by reflection.

Farmers may need special attention from a platform broker – and tailor-made capacity building. It is not only difficult to “represent” farmers, given their heterogeneity; another common situation is that they have – for good reasons – become sceptical about promises of joint work and collaboration. In addition, not all farmers have been organised in associations or apex organisations yet. Case writers suggest that platform brokers and co-ordinators ensure that farmers play important roles in the platform (e.g. monitoring and knowledge management) and in this way feel recognised and at the same time learn from the process.

5.4 Monitoring towards learning

The fact that innovation platforms are dynamic does not only have implications for the (changing) role of those involved. It also has serious implications for the efforts of keeping track of platforms’ achievements.

Chapter 4 described in detail the difficulties faced by those trying to monitor and evaluate an innovation platform’s outcomes and impacts. Although the chapter concludes that not much can be said in terms of impacts already reached by the platforms, it also suggests that setting up a monitoring and evaluation plan with the intention of fostering learning is possible, and necessary.

Donors have strict requirements in terms of monitoring and evaluation systems – and for good reasons. In fact, though the innovation platform is a constantly changing, it always has a clear (and, as stated earlier, hopefully concrete) objective. Monitoring on the basis of such an objective is often possible – though not simple. The complications derive from the fact that platforms change their strategy very often, and rigid monitoring and evaluation plans simply would not be able to trace outcomes to initially planned outputs and activities. The understanding and support of donors is necessary to allow for a flexible monitoring and evaluation plan to be set in place; such a plan will look beyond activities to changes in the way things are done and in people’s behaviour.

To be able to keep track of the functioning of the platform itself – whether it for example brings different stakeholders together to take action or deals well with conflicts and diverging interests – members need to be willing, open and able to learn from how they themselves function, interact and perform. This is, perhaps, one of the most difficult (yet concrete) challenges faced by brokers and (other) members alike.

Innovation processes take time and platforms also need time to show results. The length of the process has consequences for the external resources needed for forming the platform and starting its activities. Donors are often under pressure to show quick results. This may cause tensions.

When we want to scale up innovation platforms, we are not looking for another thousand mango platforms to mushroom all over Kenya, for example. What we are looking for are ways to make the principles behind the platforms (see on Box 1: *Main principles of the agricultural innovation system concept* in Chapter 1) well understood and acknowledged, and for them to become the basis for several policies and initiatives from key agricultural organisations. Throughout this book, we refer to this process as “institutionalisation”.

Institutionalisation of innovation platforms’ approaches is intrinsically different from scaling out the approach. Ownership, commitment and trust, three key elements for a platform’s success, cannot be simply disseminated and multiplied – they need to be nurtured.

The fact that we consider the principles behind a platform more important than the platform itself also explains why we believe that there are good reasons why a platform may (no longer) need to be supported. Platforms only need to be sustained while they fulfil a goal. Otherwise, informal interaction and whatever other initiatives may be better placed to do the job.

5.5 Practical lessons

The experiences from the cases and the interaction between the many people who were part of the process of writing this book, have jointly resulted in a large number of practical lessons and suggestions on how to set up, run and learn from agricultural innovation platforms.

These lessons and suggestions – building on both the cases and the analytical chapters – are summarised in Table 4. This table presents different considerations when wanting to use an innovation platform approach, and then provides food for thought for coming to decisions about how to deal with them. The table and this book do not pretend to be a guidebook, or wants to be one. Rather, they aim to provide insights on what has been learned from experience, that can hopefully be of benefit to new platforms or similar initiatives.

5.6 Contribution of this book

This book has presented twelve cases of innovation platforms in sub-Saharan Africa and, with a large number of contributors, we have discussed and interpreted the stories and the evidence from the cases. We hope that this analysis provides insights, practical “warnings” and suggestions to those involved in or interested in setting up and running innovation platforms.



Testing introduction of improved slicers for the production of dried shallot chips

Place: Dogon area, Mali. Photo: Floris van der Pol

Throughout the book we have tried to distinguish between three main types of platforms: A. “learning & research-oriented” B. “development & research-oriented” and C. “development & non-research oriented”. We have argued that both the purpose of the platform and the role of research and researchers in it have important implications.

The five cases defined as “learning & research-oriented” platforms took more time to get established as more initial scoping studies (on the context or possible opportunities) were undertaken. At the preparatory stage, but also later in the platforms’ lives, researchers played a dominant role. Sometimes the researchers were also brokers. If they were not brokers, researchers were then recruited to study and learn from the platform. Brokers were always specifically recruited for this role, and paid for it. The “learning & research-oriented” platform type cases typically have bodies at different levels (local and national, for example) and have deliberate strategies to institutionalise the principles behind an innovation platform in the organisations involved.

The three cases of the “development & research-oriented” type of platforms often started with proposals from organisations involved in the field. As such, they were more “grounded” (though possibly also better “representative” of the opinion of the proposals’ lead organisation). In these cases, researchers played a dominant role as members of the platform. Brokers were selected from within the members and it was often the researchers who played the brokering role.

Table 4 Do's and don'ts on options for agricultural innovation platforms

Do's	Don'ts
Keep it flexible - a platform may well change over time to be better able to adapt to changing realities (roles, internal dynamics, new concerns and opportunities).	Over-design - a platform is dynamic and will only frustrate attempts of over-planning.
"Warn" donors that flexibility means that, while the overall goal will remain the same, the paths to get there may change along the way.	Promise donors a very strict schedule and detailed activities. It is better to avoid this.
Try to master/understand the context/environment in which the platform is (to be) inserted.	Jump right in without consulting a large number of stakeholders and understanding local realities.
Build on actors with convening power - that are therefore able and willing to attract and keep others interested.	Underestimate the importance of the role of champions and the broker.
If leadership of a platform (by champions, co-ordinators, brokers) is to be credible, it must be recognised by all platform members.	"Facipulate" - facilitation is not manipulation.
Carefully weight pros and cons of formalisation with partners.	Over-formalise - this creates bureaucracy and makes a platform more rigid.
Aim for a transparent and participatory process for setting up the platform.	Pre-define the platform as if it was a project, before it starts. Otherwise it will become just that, a project.
Bring the wider spectrum of stakeholders in if appropriate.	Let a few actors/stakeholders hijack the platform.
Make sure you involve the right stakeholder at the right time.	Fall into the trap of ignoring those who not usually work together, or "odd bedfellows".
Jointly define and agree upon the roles of the different platform members.	Link roles to stakeholders - roles can change over time, and members can rotate in key roles such as co-ordination, facilitation of meetings, etc.
Purposefully incorporate moments and possibilities for farmers to take a leading role in the platform (set up, M&E, knowledge sharing, etc.).	
Consider starting with very tangible - and common to most stakeholders - issues.	Build on direct financial incentives (paying individuals to come to meetings, for example); rather, build on commitment and long-term interest instead.
Try to ensure initial success - inspiration helps ensure commitment.	Over-complicate the platform's agenda.
Support partners to act together!	Get trapped into only organising meetings and workshops.
	Take years (and too many resources) to get going.
Ensure that the platform works in a transparent manner and that a system of accountability is in place (reporting, discussions, board, etc.).	Operate in a project mode where only donors see reports written by a co-ordinator.

Do's	Don'ts
Give attention to the mechanisms for choosing "representatives" of key stakeholder groups (farmers, for example) in the platform.	Take for granted that a membership organisation (of farmers, processors, etc.) truly represents all the members of that stakeholder group.
Proactively try to keep on board minorities and traditionally under-represented groups, such as women.	
Link actions from local to provincial/national level, and <i>vice versa</i> .	Use local platforms as simply implementers of decisions made at higher-level platforms. Instead they can play a role in discussing, analysing and generating evidence.
Think ahead about an exit strategy for donor funding.	Nurture a dependency syndrome on either specific platform members (e.g. broker) or donors.
Think ahead about an exist strategy of the external broker (who can replace him/her and how?).	
Nurture a culture of learning, where feedback and reflection are welcome and embedded in the platform.	Put what went wrong or is difficult to deal with (e.g. conflicts) "under the carpet" – rather, DO bring it into the open and learn from it.
Involve policy makers early on, if what you want is policy dialogue and change.	Let policy makers turn platforms into a political mechanism.
Try to involve policy makers in action on the ground - seeing change is much more powerful than reading about it.	
Think of a communication and dissemination strategy for presenting the achievements of the platform - both to be better able to appeal to policy makers, and to reach more actors.	Put so much emphasis on learning that the platform is deprived from the energy and resources to act.
Consider putting effort into documenting the platform trajectory. You may want to ask researchers to help you with this - if so, try to involve them as early as possible in the process.	
Invest in capacity building on how to work together and interact with other stakeholders.	Think of capacity building only as "training courses". Working together and "learning by doing" are also ways of building capacity.
Invest in capacity building on brokering skills.	
Invest in capacity building on fundraising skills.	
Invest in capacity building (on-the-job) on managing technical issues.	
Ensure good balance of how resources are used (internally, to consultants, training, researchers, etc.).	

The “development & non-research” platform types as represented by four cases, started through meetings with stakeholders involved. As a result, we can see that the private sector played a more prominent role. This provided a possible avenue for funding once the outside support came to an end. The brokering task was typically assigned to stakeholder organisations or individual members of the platforms, who added this to their other tasks and roles. These platforms usually covered only one level – either local or national. This brought difficulties in achieving their objectives.

Although they did not show impact, the platforms studied in the cases have demonstrated some achievements. As such, we conclude that innovation platforms are well-placed to trigger institutional change. This framework has helped to enhance interaction, and to stimulate stakeholders to try out new things together. The innovation platforms initiated concerted actions between the participating members.

As such, the heavy time and resource investments may well be justified. We believe this is the case if the changes are of above-local importance and not only beneficial to those directly involved. Such investments in innovation platforms are justified if the experiences generated by them can be fed into other organisations and programmes and, as such, ultimately improve agricultural services.

Innovation platforms change the way they are to fit the environment and the needs of those who are a part of them. This is, in fact, the beauty of how innovation platforms function in reality. Only through learning, collaboration and joint work – by putting many heads together to reflect and make decisions - can a platform promote innovation and make a change in people’s lives.

Part II

Case studies



I Soybean cluster in Ghana

By V. Clottey¹, F. van der Lee² and J. Nketiah³



“Thanks to the network, I have become more passionate for the farmers. Now I understand their situation better and I have more empathy for them.” (William Bia, regional office of the Ministry of Agriculture, Ghana)

1 Introduction

The soybean cluster operates in the Wenchi-Techiman area in the Brong Ahafo region of Ghana. The region is known for its buoyant agriculture, employing about 75% of its working population.⁴ About 90% of farmers there are smallholders with an average landholding of one to three hectares (Alhassan *et al.*, 2007). Traditional crops are maize, cassava, yam and plantain. Soybean has more recently come up as a promising crop for income generation.

In 2006, the International Centre for Soil Fertility and Agricultural Development (IFDC) initiated the five-year “From thousands to millions project, or in short: 1000s+ project. Its goal was to increase agricultural productivity and economic growth for one million smallholder farm families in Benin, Burkina Faso, Ghana, Mali, Niger, Nigeria and Togo, using the Competitive Agricultural Systems and Enterprises approach. This approach aims to improve farmers’ access to profitable markets, through the establishment of agribusiness innovation platforms, referred to, in the context of the project as “clusters”. The assumption is that *“... co-operation between enterprises within a specific sector or around a particular commodity can improve the overall competitiveness and efficiency of the co-operating enterprises. Clusters and networks then improve access to inputs and services, make negotiation and lobbying more efficient, share investments in the necessary innovations.”* (De Ruijter de Wildt *et al.*, 2006)

In the Wenchi-Techiman area, the project supported the formation of two clusters: for maize and for soybean. This case study looks at the soybean cluster. Soybean cultivation has gradually become more attractive to farmers due to increasing demand for the crop on the local and national markets. It also serves as a welcome rotation and cash crop to smallholders. However, as a fairly new crop, farmers face several difficulties in soybean cultivation, such as finding appropriate varieties, technologies to grow and dry the grains, and good markets. Other actors in the soybean chain face different problems: input suppliers would like to sell seeds and fertilisers for the highest possible price, and processors aspire to buy high-quality produce at a lower transactional cost.

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⁴ www.ghanadistricts.com, accessed January 2011.

In 2006, IFDC and the Faculty of Agriculture of the Methodist University College, Ghana (MUCG) joined forces. The Methodist University College conducted a baseline survey in the region together with the Ministry of Food and Agriculture to identify actors active in the soybean supply chain (among other chains) and to assess production, processing and marketing activities on this crop.

An inception workshop was organised and representatives of all identified stakeholders in the soybean chain were invited: farmers, input dealers, traders, processors, and business development service providers. After joint analysis, they concluded that soybean agribusiness⁵ services, in particular, could be improved through better interaction among the different players. The workshop participants saw the potential of working together in clusters to reach local development and improved livelihoods, by integrating smallholders and local entrepreneurs in the value chain. But this development also called for higher quality soybean production to meet required market demands.

Two developments in Ghana contributed to a supportive environment for the establishment of the cluster. The first is the current national policy on food and agriculture (Food and Agriculture Sector Development Policy, or FASDEP) which promotes the commercialisation and market-driven growth in the agricultural sector (MoFA, 2007). The FASDEP emphasises the Value Chain approach towards agricultural development (Wolter, 2008), acknowledging that business partners in a chain depend on each other. This relates to the second policy change which saw the Value Chain approach replace the Training and Visit extension approach within the Ministry of Agriculture. The former approach expected extension officers to bring new agronomic technologies to farmers. In contrast, the Value Chain approach goes beyond a focus on farm production towards the establishment of functional businesses along agricultural value chains.

2 Modus operandi

This section looks at how the cluster has been functioning, its members and who facilitates interactions between them.

Members

The stakeholders of the soybean cluster are: farmers, input dealers, traders, processors and business development service providers.

Farmers' groups: The soybean producers are mainly smallholders. The two NGOs (see below) have the strongest link with farmers at the grassroots level, and are responsible for their organisational development. They build the capacity of farmers to work in associations and stimulate the farmers' groups to select functional executives to represent them.

⁵ Cluster members prefer the term "agribusiness" to "agricultural production" in order to stress the notion of seeing soybean production as a business.

Input suppliers: These include suppliers dealing with seeds, agrochemicals, farm equipment and tractor services. The input dealers involved in the cluster are regional retailers receiving supplies from import agents (like Chemico Ltd., Dizengoff and Wienco), based in Techiman and Kumasi.

Traders: Soybean traders are located in the producing communities and the market centres. They buy small quantities to sell in urban markets in Wenchi, Techiman and other towns in the region. Buyers are either processing companies or individuals.

Processors: In Ghana, soya is processed into milk, oil, yogurt, *dawadawa* (a traditional condiment), vegetarian kebabs and maize-soya blend (Cheung *et al.*, 2007). There are five processors involved in the soybean cluster, two small-scale (Grace Vegetarian Khebab and VADD) and three large-scale (Ghana Nuts, Golden Web and Yedent). The three larger processors were earlier members of the cluster, the two smaller ones came in later at the initiative of local NGO members. Grace Vegetarian Khebab – a sole proprietorship also trains people in processing soybeans.

Business Development Services: The organisations providing business development services in the soybean cluster are: Methodist University College Ghana; the Ministry of Agriculture; two NGOs (Permaculture Network, Farmers Supportive Services and Community Utilities); and Micro-finance institutes (Nkoranzaman Rural Bank, Wenchi Rural Bank, Baduman Rural Bank and Confidence Credit Union). These organisations provide technology development, research and extension services, association building, as well as financial intermediation.

In terms of **representation** at cluster level, there are no strict quotas on the number of persons to represent each stakeholder group. Input dealers and traders represent themselves since most of them run sole proprietorship. Farmers are supported by the NGOs to organise themselves and elect representatives. The processors and banks send a representative or two each. The business development services send subject matter specialists to represent them depending on issues under discussion.

Facilitation

The Methodist University College plays a central role in the cluster. During initial consultation, a lecturer at the faculty emerged as the lead proponent of the idea in the Wenchi–Techiman area. As part of the support from the 1000s+ project, he was sponsored to undertake a course at the International Centre for development oriented Research in Agriculture (ICRA) on “multi-stakeholder processes for knowledge-based rural innovation”. He acquired the necessary facilitation skills alongside five other trainees from Ghana. Together, these six individuals formed the core of the National Capacity-Strengthening Team⁶ of all the 1000s+ projects in Ghana. As such they played a supportive role to both clusters in the region in their establishment and in capacity building (on technical and process-related issues).

⁶ Members of the National Capacity-Strengthening Team are partners of IFDC working for: the University for Development Studies, The Savanna Agricultural Research Institute, the Opportunities Industrialisation Centres-Tamale, Apex Farmers’ Organisation of Ghana and the Ghana Agricultural Business Information Centre.



An employee of a local soybean processing company at work. The soybean cluster in Ghana has offered a space for soybean farmers and processors to negotiate for trade and service agreements

Place: Ghana. Photo: Femke van der Lee

The Faculty of Agriculture itself was assigned a lead role in a number of activities, ensuring that the facilitator had a solid backing from his own organisation. Activities co-ordinated by the faculty were:

- Introducing technologies including new varieties to farmers and other interested cluster members;
- Monitoring and evaluating project activities;
- Building the capacity of other business development service providers; and
- Organising field days, meetings and workshops in order to bring various stakeholders together to share knowledge, review and plan activities.

An external consultant (“cluster advisor”) is hired directly by IFDC to coach the cluster facilitator. He meets with the facilitator a few times per year, and helps reflect on potential new members and resource persons (for example thematic specialists - marketing, gender, communication business and technical training on legal or financial matters).

Meetings

The cluster started with an inception workshop for selected soybean chain stakeholders, to explain the Value Chain approach and discuss potential collaboration. Together, they made an analysis of the current status of the soybean chain, discussed the bottlenecks and potential ways to collectively tackle them. Several other meetings were organised in the first year, some including fewer stakeholder groups.

At present, there are two yearly statutory meetings where all cluster members make new plans for the coming season and evaluate the activities of the current year. Other meetings are organised when an issue pops up that needs discussion with other cluster members. Aside from their internal meetings, cluster members hold bilateral or tripartite meetings with other relevant actors when necessary.

Incentives

The cluster receives a fixed amount of financial support from IFDC for some of its organisational and capacity-building activities. Cluster members are asked to supplement this amount to cover remaining costs. IFDC does not provide specific remuneration for the facilitator or for any staff of the Methodist University College rendering complementary services. Instead, incentives come in the form of sponsored capacity building on facilitation and multi-stakeholder processes, at both international and local courses. In addition, the Methodist University College and the Ministry of Agriculture both draw inspiration from the cluster activities for their day-to-day work.

Other cluster members do not get paid to be involved either. Members join because they can potentially improve their own business through a well-functioning cluster (i.e. the understanding that the success or failure of others could affect their own work). For example, the processors need a sustained supply of quality produce from farmers, so they negotiated with recognised farmers' groups and have sometimes supported them financially.

Cluster members also see the benefits of participating in capacity-building activities sponsored by the project. In addition, the fact that these members are now more organised allows them to have better access to other development-oriented activities in the area.

3 Cluster activities

Various activities have been taking place on a regular basis, with different cluster members taking the lead in co-ordinating their implementation:

- Development of an annual plan and reports, monitoring & evaluation.
- Meetings took place between producer organisations and input suppliers, processors and traders, to strengthen linkages and create mutual understanding among the players to increase efficiency and smooth flow of products and services along the value chain.
- Nine learning centres were established in the area to demonstrate cultural practices (for example planting/drilling, fertiliser application, harvesting and threshing)

through field days. In addition, learning materials were developed in the form of brochures, posters and short movies on soybean farming practices.

- Consultants hired by the National Capacity-Strengthening Team or staff from the Ministry of Agriculture and IFDC provided training to various cluster members. In the first two years (2006-7) emphasis was mainly placed on the value chain concept and the Competitive Agricultural Systems and Enterprises approach while in the years that followed, focus was put on the sustainability of the cluster. Some topics were aimed at specific groups, including women (see Box 3). In addition, staff members of the research station and the university were trained in facilitation skills to improve their farmer-training sessions. Demonstrations and training were given at the demonstration sites on a regular basis. Follow-up visits to farmers' fields were organised.
- Learning materials (printed and audio-visuals) were developed.
- Negotiations took place on bulk purchasing of inputs and bulk sales of soyabeans, between farmers' groups and input dealers and processors, respectively.

4 Achievements to date

All cluster members acknowledge learning from working together. They have not only learned about technologies, but also how to operate as part of a value chain through sharing of information and complementary efforts. This is shown by the quote this chapter starts with where William Bia, of the Ministry of Agriculture, stated in 2010: *"Thanks to the network, I have become more passionate for the farmers. Now I understand their situation better and I have more empathy for them."*

At the initiation of the cluster, the majority of the farmers did not have access to credit because they could not meet the minimum criteria of the banks. Thanks to cluster meetings, new modalities through which farming credits could easily be accessed by farmer groups have been explored with the rural banks and co-operative credit unions.

The introduction of non-shattering soybean varieties⁷ and improved cultural practices to farmers have led to intensification of soybean production. As Doudu, a farmer at Awisa in the Wenchi area stated: *"I will never farm on large land areas again. Now when I cultivate on four acres I harvest more than when I worked on 11 acres"*. Average yields have increased from 960 kg/ha in 2006 to 2500 kg/ha by 2010. Grain quality has also increased for most raising the purchase price from GHc 0.20 in 2006 to GHc 0.35 per kilogram in 2010.

The cluster started with five farmers' groups and within four years came to involve 52 (including women's groups – see Box 3) with about 1,800 farmer members (IFDC 2010). This growth is due to the crop's increasing popularity and the association-building skills cluster members obtained.

⁷ One of the varieties is called *Jenguma*, meaning "wait for me", because the soybean pods do not shatter when matured and thus can "wait" until the farmer has time to harvest them. Besides this advantage, the intact pods keep rain and dirt out and thus do not rot as easily as previous varieties.

Box 3 Women cultivating soybeans

Soybean, a relatively new crop in the region, turned out to be embraced by women. It has become a welcome nutritious additive to the local diet. Previously, people from the region did not know how to prepare it. Cooking workshops were therefore organised for women in communities growing soybeans. The women then organised themselves into soybean-growing groups because they appreciated the crop for its high yields, even on small plots (women generally work on very small plots of ½–1 acre), and as an excellent rotation crop for improving soil fertility. In 2008, one of the women's groups received an award at the Regional Farmers' Day.

Many farmers who participate have changed their mindset about agriculture. They now think beyond subsistence and see their farms as profit-making ventures. Most farmers now calculate their income and expenditures to inform them on what to do to improve profit. In addition, some of them prepare crop budgets for other crops and have come to realise why it is not lucrative to cultivate some of them. Other farmers now have mutual savings that they can use as collateral for bank loans.

Farmers and input dealers have discussed the use of inputs as well as the possibilities to buy on credit. The Methodist University College and the NGOs support farmers' making bulk purchases while addressing issues of input adulteration.

5 Challenges

A major challenge for the cluster has been the phenomenon of "side selling". This occurs when farmers do not honour a contract or agreement they had with a buyer, and sell their products to a competing buyer (for example, because of a better price). This poses problems, especially when it comes to scaling up activities, because the mutual dependency along the value chain depends on **trust** between the collaborating parties.

Finally, the cluster is faced with four main challenges related to the fact that the project is coming to an end in 2011:

- 1 Cluster members will have to find new funding for their organisational and capacity-building activities. Possible funding sources are governmental institutes or projects and programmes in the region.
- 2 They have to find other incentives to meet regularly. The project activities obliged them to meet at least twice a year to draw action plans and review activities. Will the understanding of the chain concept sufficiently stimulate meetings and collaboration among the chain actors?
- 3 There is – until now – no individual or organisation that has taken up the responsibility, to ensure the continuous facilitation of the cluster activities beyond the project life cycle.
- 4 Training was targeted more at individuals, making it difficult to assure the involvement of their whole organisation in future. The likelihood of business-development service providers continuing to participate in the activities is lower when they are not enshrined in the cluster's strategic plans. Future training of facilitators should include rigorous interventions to integrate such processes into the programmes of the facilitating organisations.

6 Future plans

The 1000s+ project is a five-year project that started in 2006 and will end in 2011. As of 2012, the cluster will no longer receive financial and other support from the project. Nevertheless, the facilitators have the skills and tools to facilitate other multi-stakeholder processes in the area. The exposure of university and ministry staff as well as the NGOs involved to the skills and tools is helping to entrench the knowledge in these organisations. This is already bearing fruit as the four organisations have replicated the idea of cluster formation for cashew in the region.

The market for soybeans and soy products is not yet saturated and there is still room for farmers to increase production to meet the demand, thus creating business avenues for the other cluster actors in the value chain. Each year, strategies to find alternative funders and supporters (to continue working with the same members as well as increasing the coverage of the cluster) were discussed in the cluster action plans. These relate to all the activities reported in this chapter.⁸ The cluster actors operationalised such strategies by linking up with the government export development fund for financial injections, and connecting with value chain projects from GIZ (German Agency for Technical Co-operation) and the American USAID. They also explored possibilities of bulk selling to the World Food Programme.

7 Lessons learned

There are more soybean clusters in other parts of Ghana and in the other six countries in West Africa in which the project operates. Though the internal relationships in these clusters are apparently not as strong as those within the Techiman-Wenchi soybean cluster, there is an opportunity to a network of similar groups. These clusters struggle with the same kinds of problems and can provide useful practical information to each other. One of the major initiatives of IFDC to stimulate exchange and collaboration is found in the network for Agricultural Intensification in sub-Saharan Africa (AISSA). Its website (www.aissa.org) is an important tool through which partners can exchange information and share experiences.

Capacity building on working together as a cluster remains crucial to sustaining the concept in the intervention area. Clusters do well when a knowledge management group (such as a research and educational institute), an extension service provider and/or NGO support them with technological and organisational guidance.

When farmers are organised, other actors are more confident to work with them because they envisage lower transaction costs and improved business security when dealing with a group rather than with individuals.

⁸ As described in the action plans of the soybean and maize cluster of 2007-2009 (IFDC 2007; IFDC, 2008; IFDC, 2009).

Both formal and informal meetings between local actors are vital to sustaining the cluster innovation processes. These meetings serve as platforms to review actions, resolve conflicts and forge or strengthen partnerships. “Champions” (those very enthusiastic about promoting the idea of working together) are vital in driving such interactions within clusters. They keep the business interactions active while the cluster facilitator supports multi-actor consultation processes and mediates conflicts.

Financial intermediation is what will hold cluster actors together for a longer time. This may start with support from development projects, but these are not sustainable in the long run. The most sustainable source of financial intermediation in agribusiness clusters are financial institutions.

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II Improved maize-legume production systems in Nigeria



C. Dangbegnon, B.D. Tarfa, A. Mando, I.Y. Amapu, S.K. Ezui,⁹ B. Ahmed, M.K. Saleh and S.T. Abu¹⁰

Various skills development activities enable researchers and extension agents to internalise a new attitude and mindset to do things differently in research and development activities. Evidence that this has taken place is the act that their participation in the implementation of activities within the innovation platform has increased.

1 Introduction

While maize was a minor crop in the 1970s, it has now become the dominant cereal in the Northern Guinea Savanna of Nigeria. Most farmers in the area have mixed cropping systems; with maize as a basis, in combination with the cultivation of legumes such as cowpea and soybean (Dixon *et al.*, 2001). However, throughout the years, farmers have been faced with a number of challenges.

A major constraint to improving maize-legume production systems is the poor soils, compounded by *Striga* infestations. The use of inorganic fertilisers and improved seeds, did not resolve this problem, but rather led to soil mining. Furthermore, policies which could support the private sector were weak due to changing government intentions on agricultural development strategies. The result was an inconsistent agro-inputs sector policy that makes markets less attractive for smallholder farmers in the Northern Guinea Savanna. Together with the long-term trend of decline in agricultural commodity prices since the 1960s, this has had profound implications for the confidence of farmers in local markets. Hence, the agricultural problems have multiple dimensions: technical, socio-economic, institutional and political.

To effectively address the various issues in order to improve maize-legume production systems and farmers' livelihoods, an innovation platform approach was developed. The innovation platform described here is part of a project which is one out of the nine in the Sub-Saharan African Challenge Program (SSA CP).¹¹ As part of the SSA CP, the design of the innovation platform is based on the Integrated Agricultural Research for Development (IAR4D) approach. The IAR4D approach is based on the belief that many actors who are

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¹¹ The Sub-Saharan African Challenge Programme (SSA CP) is an initiative of the Consultative Group on International Agriculture Research (CGIAR) managed by the Forum for Agricultural Research in Africa (FARA). The aim of the SSA CP is to increase the impact of agricultural research and development to improve rural livelihoods, increase food security, and achieve sustainable natural resource management in sub-Saharan Africa (FARA/SSA CP, 2007).

relevant along a specific commodity value chain or system of production, interact to identify constraints and can jointly develop solutions (FARA/SSA CP, 2007). The principle of the IAR4D approach is to overcome some limitations of the conventional research and development approaches to address complex agricultural problems in Africa in a more satisfactory way. Its main characteristics are: knowledge and information exchange, partnership development and interactions to foster sustainable agricultural development.

The innovation platform described here focuses on smallholder maize-legume production systems in Ikara Local Government Area in the Northern Guinea Savanna of Nigeria. It was officially established in 2008 and is managed by a committee. This management committee was formed to facilitate the participation of different actors in maize-legume improvement activities. It consists of one representative of farmers (elected by farmers from five pilot villages in Ikara), and one representative each of the research organisations, extension organisations, private sector and the Local Government council. The committee is led by the International Centre for Soil Fertility and Agricultural Development (IFDC).

2 Modus operandi

The innovation platform was designed to jointly come up with ways to improve the maize-legume production systems. Platform members developed and agreed on some ground rules regarding the meeting schedule, procedures for the meetings and data generation and management, responsibilities, ways of managing conflicts, and the general attitude. Each of the platform members has been assigned specific roles, and contributes according to mutual agreement.

Members and their roles

An institutional analysis was used to map the relevant stakeholders who could help address the problems related to maize-legume production systems at community level. Based on this, and through networking, potential actors were invited to join the platform.

Table 5 presents a list of five categories of stakeholders and their roles in the maize-legume innovation platform. The range of stakeholders involved is dynamic, admitting new partner organisations as new problems emerged and assigning/switching roles as needed over time.

Facilitation

The innovation platform is locally co-ordinated by a researcher from the Institute for Agricultural Research (IAR) at Ahmadu Bello University. He facilitates reports on the activities of the platform and facilitates meetings of the management committee (please see above). The platform management committee took on conflict management by addressing some clashes of interests among innovation platform members. For example, farmers wanted to produce their own seeds while seed companies wanted to supply seeds to farmers every year. One agreement reached within the innovation platform was to use farmers as out-growers of cowpea seeds for Premier Seeds Limited – which was seen as a “win-win” situation for both parties.

Table 5 Platform members and their roles

Category of stakeholders	Stakeholders	Key roles
<i>Farmers and their organisations</i>	<ul style="list-style-type: none"> Individual and farmer groups in targeting villages; Apex farmers' organisation 	The apex organisation of the maize–legume farmers participate in planning activities, action research activities, farmers' mobilisation for input supply and marketing issues.
<i>Research and capacity building organisations</i>	<ul style="list-style-type: none"> IFDC International Centre for development oriented Research in Agriculture (ICRA) Institute for Agricultural Research of the Ahmadu Bello University (IAR) National Agricultural Extension and Liaison Service Co-operative Extension Centre of the University of Agriculture Makurdi 	<p>IFDC ensures the overall co-ordination of the innovation platform and coaches partners.</p> <p>ICRA trains platform members who implement activities in IAR4D principles.</p> <p>The IAR facilitates the Participatory Learning and Action Research (PLAR)¹² of the innovation platform together with participating farmers in targeted villages.</p> <p>The National Agricultural Extension and Liaison Service trains extension agents for the dissemination of improved maize legume options.</p> <p>The Co-operative Extension Centre contributes through strengthening farmers' groups and gender issues.</p>
<i>Public extension organisations and NGOs</i>	<ul style="list-style-type: none"> Agricultural Development Programme (ADP), the extension organisation working in the area. Farm and Infrastructure Foundation (a NGO) 	<p>ADP extension agents contribute to the dissemination of the improved maize – legumes production options.</p> <p>The Farm and Infrastructure Foundation contributes to policy analysis at the Local Government level.</p>
<i>Private sector (input dealers, agro-industries, marketing associations)</i>	<ul style="list-style-type: none"> Premier seed Ltd & Alheri Seed. Golden fertiliser Ltd & NOTORE Chemical. Jubaili chemical, Dawanau Market Development Association 	<p>Seed companies, fertiliser and pesticide dealers are involved in the innovation platform to supply fertilisers, seeds, and herbicides to farmers.</p> <p>The Dawanau Market Development Association facilitates the participation of farmers in the international grain market in Kano</p>
<i>Policy decision-makers (Local Government council of Ikara)</i>	<ul style="list-style-type: none"> Ikara Local Government representatives; Agricultural Commissioners of Kaduna State Government 	The role of Ikara Local Government and Kaduna State Commissioner in Agriculture is to make investments for the scaling-out of technological options developed and innovative practices

Incentives

All of the members have their own specific incentives and motivations to participate in the platform. For the farmers, the improvement in maize-legume production systems of addressing the problems of soil fertility decline and *Striga* infestation constituted an incentive to participate. Researchers (at the Institute for Agricultural Research and the National Agricultural Extension and Liaison Service) were motivated for a number of reasons. Foremost was the possibility to attend conferences and to publish their work on innovation platforms. In addition, they could learn, acquire new skills and exchange experiences with other platform members, related to their activities on maize-legume improvement. The

¹² PLAR is a process that involves farmers and researchers in joint experimentation and the use of curricula to facilitate mutual learning and better understanding of agronomic results by farmers

innovation platform offered business opportunities to the private sector, which was the main incentive for seed suppliers and other agro-input dealers to participate. Activities like workshops bring farmers and input dealers together, allowing for them to give exhibitions of their products and demonstrations on how to use them.

External support and contributions by platform members

The Sub-Saharan Africa Challenge Program offered external financial and technical support for participatory action-research activities at the platform level. The platform members also contributed in terms of staff time and logistics. For instance, the Institute for Agricultural Research has provided office space for the innovation platform team at the university campus. IFDC bought a second vehicle to meet the high mobility demands of the innovation platform. Platform meetings were held in the Ikara Local Government secretariat where facilities were made available.

3 Activities and achievements

The main activities listed below were implemented by the innovation platform members. This section also includes the changes achieved as a result of the platform-led activities.

Strategic guidance for the overall functioning of the innovation platform: Most of the stakeholders involved in the innovation platform were not familiar with the underlying principles of a Research for Development approach, and new working habits and attitudes (new mindsets) were necessary. ICRA and IFDC stimulated a learning process through a training workshop to ensure better functioning of the platform. This training was of paramount importance because it allowed the platform members to jointly organise learning processes during the implementation of action-research activities in the field. This would also stimulate good interactions among the national research institute and extension organisation members to successfully play their role as facilitators. IFDC with the support of ICRA also trained platform members who implement activities to use IAR4D tools for team building and multi-actor value chain analysis.

Training programmes: These have led to the adoption of common principles and procedures for improving maize-legume production systems and have contributed to strengthening and enhancing interdisciplinary work among the platform members. Training in Nutrient Monitoring for Tropical Farming systems has provided tools for conducting agronomic (nutrient budget) and economic evaluation in maize-legume farming systems. Platform members have also gained skills in participatory rural appraisal tools to conduct diagnoses at community levels, and in the Participatory Learning and Action-Research (PLAR) approach, to facilitate mutual learning with farmers in the field.

Facilitating mutual learning processes among platform members: Researchers and extension workers did not have the same frame-of-reference and cognitive ability to understand issues experienced by farmers and non-traditional research partners (such as the private sector). For this reason, participatory approaches were used by facilitators at the Institute

for Agricultural Research and the Agricultural Development Programme to organise mutual learning processes starting from the diagnosis of problems at the community level to the development of options for improved maize-legume production systems. Curricula for discovery learning were designed and implemented through the PLAR processes. This has led to the use of signs, symbols and conventions developed jointly with farmers as the basis for observation, monitoring and learning.

Participatory experimentation with farmers to increase: their understanding of soil nutrients necessary for maize, soybean and cowpea production while maintaining the quality of their land. Farmers learned how to identify fertiliser types, to set up experiments to enable them to “question their soil”, to evaluate the performance of maize, soybeans and cowpeas in the field, and how to share their results with other platform members. Farmers discovered that nitrogen and phosphorus were the most limiting nutrients for producing maize. They learned that Single Super Phosphate was the best source of phosphorus to increase soybean grain yields. Best technological practices were also developed through participatory research for improving maize-legume production systems; for example, experimenting with different crop arrangements, a *Striga*-tolerant maize variety, a dual-purpose cowpea variety, and appropriate fertilisation of soybean. The innovation platform got support from input dealers and policy makers from the Ikara Local Government and Agricultural Commissioners at Kaduna State in the process.

Inter-organisational co-ordination to support change processes: While policy makers and private sector stakeholders provided opportunities and could also be potential sources of investment to support the activities, they did not at first understand their role in the innovation platform. Fostering strong links between farmers and the private sector (farm input dealers, marketing associations) emerged as a new role for the local facilitator. Another key role for the facilitators was advocacy, by exposing policy makers to the activities and improved results in the maize-legume production systems. Ikara Local Government offered the services of its agricultural extension agents to scale out technologies to 25 villages in the intervention area. Although the Local Government is the key focus for advocacy, the Agricultural Commissioner of Kaduna State Government is also involved.

Triggering the development of an apex farmers’ organisation and stimulating new networks: For example, the platform facilitated direct negotiation between the apex farmers’ organisation and private companies (such as seed companies and fertiliser dealers). This linkage offered the farmers organisation the possibility to have direct access to fertilisers, seeds, and herbicides through bulk purchasing. These developments also led to greater market participation by farmers for their products (maize, soybean and cowpea).

Training of lead farmers in the pilot villages to disseminate new practices: to a ring of five villages surrounding their own: This enabled the scaling-out of the maize-soybean and maize-cowpea production options from five pilot villages to 30 villages. The lead farmers actively engaged with the extension organisation (ADP) and the agricultural extension service of the Local Government.

4 Challenges

Many problems faced by small-scale farmers such as access to fertilisers, credits and markets for their maize, soybean and cowpea products could be effectively solved if they behaved as a group. However, farmers need incentives to keep working as a group to collectively facilitate their accessibility to farm inputs and markets. As mentioned in the previous section, one way to stimulate collaboration between farmers is through bulk purchasing of inputs and participation in marketing negotiations with associations like the Dawanau Market Development Association in Kano.

Another challenge is to realise impacts for all the different platform members. The sustainability of the maize-legume innovation platform depends on the direct or indirect perceptions of all the different categories of stakeholders about their benefits. The innovation platform processes did not target only the impact of farmers involved as had been the case with the Transfer of Technology model. A monitoring system is being implemented to track information about the benefits gained by all platform members to ensure that the innovation platform can be sustained.

5 Future plans

Although some activities have been carried out to link farmers to input companies, particularly fertiliser and seed companies, stronger engagement of other stakeholders such as financial organisations, decision-makers in Ikara Local Government and other strategic stakeholders at the Kaduna State level of the Ministry of Agriculture is still needed. Investment and enabling policies are needed to scale out innovations to more communities, as well as to contribute to farmers' access to reliable market outlets to meet the much higher levels of production of maize, cowpea and soybean (yields have doubled and tripled). Helping farmers to solve this problem is a key to accelerating the dissemination of technologies developed through the platform to more farmers' communities.

To sustain the work of the platform in the future, possibilities for institutionalising the platform need to be studied. Institutionalisation of the innovation platform is not only a question of building capacity and transferring some competencies to platform members; there is also a strong need for behavioural change at different levels towards adopting more participatory approaches. The innovation platform for improved maize-legume production systems has yielded many empirical experiences regarding group processes, negotiation in a multi-actor setting, sharing principles and methods and jointly implementing action-research activities. All these practical experiences were used for integrating the innovation platform processes into (partner-) organisations.

The authors' view about innovation platform institutionalisation is that key stakeholders at the grassroots levels, like national research institutes, national extension services, farmers' organisations, the Local Government council and the private sector must take over the facilitation of the innovation platform while the initial facilitators can provide backstopping



A woman farmer applies fertilizer to maize crops

Place: Central Africa. Photo: Constant Dangbegnon

on a demand basis only. In concrete terms, farmers can use networks which emerge from the innovation platform to solve their problems, and input dealers can increase business deals.

Partner organisations are already using an “innovation platform perspective” in their research and development projects. For example, the Ahmadu Bello University was granted a project on Integrated Soil Fertility Management from the Alliance for a Green Revolution in Africa which led to the adoption of innovation platform principles in the Institute (such as networking and working in partnerships). Lessons learned from the pilot experiences are being documented to help other organisations to replicate this perspective for addressing agricultural development problems.

6 Lessons learned

The innovation platform for improved maize-legume production systems has encouraged interactions among platform members and provided opportunities to share understanding on problems and solutions. Capacity building on IAR4D learning cycles and team building enabled platform members to work as equal partners in the process of catalysing change. However, it was very important to pay attention to feedback from the different platform members to continuously adjust partnerships and activities, and to respond to emerging problems through flexible joint learning processes to accommodate different needs.

A focus on farmers’ constraints (for example soil fertility decline) in setting up experiments, defining priorities, and developing different options for maize-legume cropping appears to work as an incentive for the active participation of individual farmers. Following this participatory research procedure, there is a high probability that innovative practices and technological options developed will be grounded in farmers’ needs to effectively address a critical problem. The participation of farmers in the innovation platform provides different windows of opportunity to them. Concrete examples are bulk purchases of fertiliser, access to good, quality seed and improved social capital (relations between the farmers) to solve other problems beyond the innovation platform activities.

There are multiple roles for the different stakeholders involved in the innovation platform. In case of the facilitation of its meetings and activities, particular attention must be paid to the level at which the platform operates, the objectives and the nature of the activities to be implemented. However, roles of all platform members – at each level of operation – need to be well-defined (see Table 5) to avoid conflicts among partners.

An important issue is the question of leadership and how important it is to invest in training to build capacity in facilitation skills. Experiences from the maize-legume innovation platform reveal how success in implementing activities and the quality of their outcomes largely depended on the quality of leadership in facilitating innovation platform processes. Leaders need an empathetic learning style of facilitation, a capacity to deal with groups, and to be open-minded and knowledgeable about the main focus of the innovation platform.

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III Oil palm in Ghana

S. Adjei-Nsiah¹³, C. Osei-Amponsah and O. Sakyi-Dawson¹⁴



If the platform is to become institutionalised, it requires that research and extension take up a new role as inter-active researchers and facilitators.

1 Introduction

Palm oil obtained from the mesocarp of palm fruits is an important domestic and industrial commodity in Ghana. This country currently produces about two million tonnes of fresh fruit bunches annually, of which about 60% is processed into crude palm oil by small-scale palm fruit processors whose practices often result in the production of poor-quality oil, related to free fatty acid content. A high free fatty acid content incurs high oil losses during refining, and can therefore not be used by the industry. Thus, in spite of the large quantity of crude palm oil produced in Ghana, the country still imports large quantities to meet its fat and oil requirements. At the same time, several small-scale processors find it difficult to market the crude palm oil they produce, especially during the peak fruit production period, from February to May. Furthermore, the absence of policies regulating the activities of small-scale processors often results in environmentally unfriendly and unhealthy practices that also impede their entry into the industrial and export markets. These and other considerations went into the decision to create an oil palm innovation platform in Ghana.

The innovation platform was initiated as part of a larger research programme implemented by the University of Ghana, Legon, called the Convergence of Sciences-Strengthening Innovation Systems (CoS-SIS 2008-2013). This involves collaboration with other universities in Mali and Benin and technical backstopping by Wageningen University in the Netherlands. KIT and Agriterra are Dutch NGO partners of this programme, which seeks to find ways to improve opportunities for smallholder farmers and processors. During the first phase, undertaken between 2002 and 2006, the programme tested the assumption that farming technologies that work effectively under smallholder conditions will improve their livelihoods. The research results suggest that developing these kinds of technologies can only make a marginal impact on smallholder livelihoods since they operate within very limited windows of opportunity. The technologies developed were highly appreciated and continue to be used for years after the programme has ended. However, the researchers came across institutional constraints for smallholders such as insecure access to land, lack of access to remunerative markets and exploitation (cheating by buyers - for example, using doctored scales when purchasing farmers' produce). This and other experiences in-

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formed us of the need for institutional change as a condition for smallholder development. This could be achieved through negotiated agreement on concerted actions among key actors; i.e. through a platform approach.

The CoS-SIS programme in Ghana selected the oil palm as one of the priority domains for research on institutional innovation because of its wide geographical coverage (oil palm can be cultivated in six out of the ten administrative regions) as well as its role in poverty alleviation. An exploratory study (unpublished) carried out in the oil palm sector revealed that although small-scale palm fruit processors have access to the bulk of fresh fruit bunches produced by smallholder farmers, they are not able to access a remunerative market for their oil because of its poor quality. Meanwhile, there is an increasing demand for palm oil both in the domestic and international market, thus opening opportunities for smallholders to improve their incomes. During an initial stakeholders' workshop, processors, mill owners, mill workers, scientists and extension agents from the Ministry of Food and Agriculture (MoFA) prioritised the poor quality of crude palm oil, seasonal high moisture and low oil content of palm fruit mesocarp during the peak rainy season, environmental hazards resulting from poor processing practices, and lack of access to markets as major constraints. It therefore became necessary to create linkages between stakeholders, both at the local level (to encourage some changes in the current processing practices to be able to meet market standards for highly-priced quality oils - for example for vegetable oil and luxury soap); and at a higher district or national level (to work on developing the value chain by promoting standards enforced by by-laws and policies in support of the operations of smallholder processors and farmers).

2 Modus operandi

The objectives of the oil palm innovation platform are to improve the processing capacities of small-scale palm oil processors to be able to produce better quality crude palm oil for the export and industrial markets; as well as improving the opportunities of small-scale processors through institutional change (by-laws and policies). This section provides more information about how this platform functions.

Members

The oil palm platform membership comes from actors in the palm oil value chain. The platform actually consists of two (sub-)platforms: one operating at local and one at a higher level. Each of these has different members:

The *Local level platform* consists of two different groups, each having its own specific function. The first is the **Experimentation group** that carries out participatory experimentation of processing practices (for example, storage period of palm fruits before processing) that will result in the production of good, quality crude palm oil to meet the standard of the export and industrial markets. This group includes smallholder farmers, small-scale processors, mill owners, mill workers with support from agricultural extension agents, and scientists from the Oil Palm Research Institute. The second is the **Stakeholder group** which operates at the dis-

trict level. The Stakeholder group consists of all stakeholders of the small-scale palm oil processing industry in the district. These include scientists from the Oil Palm Research Institute, palm fruit processors other than those involved in the Experiment group, mill owners, mill workers, farmers, extension agents of the Ministry of Agriculture and members of the district assembly.

This platform discusses and makes inputs to the entire project at different stages of the research process. The experiments are set by the stakeholders' group and carried out by the experimentation group. The platform is built on or draws from the innovativeness and entrepreneurial skills of the primary actors which in this case are the farmers and processors. Its effectiveness is enhanced through sustained interaction among the stakeholders through joint learning as a result of experimentation. Each of the stakeholders' (farmers, scientists, millers, processors) perspectives are taken into consideration during design and subsequent implementation of experiments.

The *Higher level platform* is called the **Concertation and innovation group (CIG)** which is a non-permanent platform of stakeholders who are expected to be able to change institutional conditions that determine the opportunities of smallholder palm oil processors. This group has become very effective through continuous interaction, lobbying efforts and respect for the different stakeholder perspectives during platform meetings. Negotiations within the platform are guided by its objectives and decisions are reached through consensus building.

Both of the local level platform groups focus on technological innovations while the higher level CIG is an institutional innovation platform. The experimentation and stakeholders' groups aim to develop the capacity of processors so they can produce better quality crude palm oil within the context of R&D; while the Concertation and innovation group aims to contribute to changing institutional conditions that determine the opportunities of small-scale processors in the context of the innovation system.

Facilitation and other roles of platform members

The Oil Palm innovation platform was initiated by the CoS-SIS research programme which also provides facilitators from its oil palm domain: a research associate for the higher level platform; and a PhD researcher to facilitate the local level platform. The roles of the facilitators are as follows:

At the local level, the facilitator organises the processors for experimentation according to the agenda set by the Stakeholder group. The facilitator also organises the resources needed for the experimentation and monitors the performance of the platform. The results of the experiments are shared by the facilitator with wider-range stakeholders beyond the Experimentation group.

For the higher-level platform, the facilitator (on behalf of the research associate) organises meetings, takes minutes, co-ordinates activities, facilitates interaction among the members of the platform and makes resources available for the operation of the CIG. The facilitator reminds members of their assigned tasks and makes sure that they carry them out on time, keeping the platform on track; and also helps the key actors to reach com-

promise, reconciling opposing views, to come to decisions. In effect, the facilitator is a broker and a gate keeper for the Concertation and innovation group. Another major role played by the facilitator is documentation about empirical processes and events that take place.

The roles of the other platform members are as follows:

Producers: Smallholder farmers supply the small-scale processors with palm fruits which are the raw materials required for the processing of the palm oil. Producers participate in the Experimentation group to determine the effect of harvesting season on oil yield and quality.

Processors and mill owners: The processors in most cases do not own the milling facility but access such services from the owner of the mill for a fee. Both of them are represented at both the higher and lower level platforms.

Public sector advisors and regulatory bodies: These are public sector organisations with expertise in areas of environment, standard setting and export of industrial commodities that provide support services to local industries (Environmental Protection Agency, Export Promotion Council and Ghana Standards Boards). The information they provide relating to small-scale palm oil processing is also used as empirical evidence to lobby for policy change within the sector.

Research and extension agents: Major actors include the Ministry of Agriculture in the Kwaebibrim District which co-ordinates all agriculture-related activities in the district, including extension services. The Ministry of Agriculture plays a major role in facilitating the platform both at the lower and higher levels; the Oil Palm Research Institute sits in the lower-level platform and assists with facilitation, providing laboratory space, an experimental field and materials (fruit).

Equipment suppliers: Ghana Regional Appropriate Technology Industrial Service (GRATIS) designs and manufactures processing equipment for local industries. Its role in the platform is to provide and share information on best practices for small-scale palm oil processing.

Policy makers: Representatives of the District Assembly various policy makers participate in the innovation platform. Their role is to facilitate interaction between the higher-level platform and the executives of the Assembly as well as facilitating the General Assembly.

Representation

Members of the Experimentation group were selected by the district Stakeholder group. Some of the actors along the chain are strategically excluded and included at different levels and stages of the groups, depending on the focus. Primary actors such as smallholder farmers and the small-scale processors are represented at all levels, as is the Ministry of Agriculture.

Membership in the Concertation and innovation group was based on selecting actors who can potentially make interdependent and complementary contributions towards improv-



Palm fruits ready to weighed at the point of sale on the farm". On top of the fruits is a weighing scale hanging on a bar on two bamboo poles. The weighing scale is used for weighing the fruits

Place: Nyameyawkrom, Ghana. Photo: S. Adjei-Nsiah

ing the conditions of smallholders. Selection of the platform members to the CIG was carried out according to the following process:

- Potential platform members were identified through stakeholder analysis by the facilitator and other stakeholders;
- The facilitator of the platform held discussions with some of the identified actors to explore their interest and willingness to participate;
- The initial core group of actors was then selected by the facilitator in consultation with the co-ordinator of the CoS-SIS programme after which they were sent an invitation letter to the first meeting; and
- Additional actors were brought in as and when necessary.

Meetings

Both platforms meet once every three months to discuss results of assigned tasks and experiments, and to decide how to proceed further. The local-level Experimentation group meets more regularly during experimentation, sharing results with the Stakeholder group every three months.

Incentives

Members are provided with transport and lunch during platform meetings. The CoS-SiS programme finances platform activities and the training of the facilitators. The platform agrees on the budget for proposed activities to be carried out every quarter to be submitted to the programme management team through the programme co-ordinator, for approval and release of funds.

3 Activities

At the local-level platform, three experiments are currently on-going at the processing mills. These include: 1) the effect of period of fruit storage before processing, on quality and quantity of palm oil produced; 2) seasonal analysis of oil content of fruits at the selected mills; and 3) seasonal ripeness assessment of fresh fruit bunches delivered to the mill. Scientists, farmers, processors, mill workers and owners have been carrying the joint experiments out, comparing impact on oil yield and quality.

Once the group members were selected, the higher-level platform identified institutional changes needed in the activities of the processors. These included locating mills close to residential areas; discontinuing the use of spent lorry tyres as sources of fuel for processing; and proper disposal of palm oil mill effluent. Those institutions¹⁵ that needed to be changed were then worked on by the group's members. This was done by looking for information on the adverse effects of undesirable processing activities on the environment and health of people, lobbying key policy makers and traditional authorities to grant audience to the CIG, sensitising policy makers on activities of processors that needed to be changed, and lobbying policy makers and traditional authorities to take action.

4 Achievements

The activities of the local and higher-level platforms are expected to result in the generation of knowledge in good processing practices, and enactment of rules and regulations governing processing practices. The immediate outcome of these processes will be the production of better quality oil which will enable processors to access better markets which will ultimately result in improved income and livelihoods for smallholder farmers and processors.

Local level

At the local level, initial results of one of the experiments investigating the effect of the period of fruit storage on oil yields and oil quality suggest that when the fruit are stored beyond one week before processing, the oil quality deteriorates very quickly; while oil yield decreases after storing them beyond two weeks which is a common practice among processors. Processors have now understood that storing fruit for a longer period does not nec-

¹⁵ Institutions here do not refer to organisations but are defined as complexes of norms and behaviour that persist over time, serving collectively valued purposes.

essarily increase palm oil yield as perceived by most small-scale processors, but rather decreases yield and reduces oil quality.

Although, it is too early to draw any conclusions, initial results indicate that stakeholders, especially the processors and farmers, are eager to experiment and learn to improve their capacity. The following quote is a comment made by a farmer during one of the experiments to find out the effect of topography on fruit yield and moisture content of palm fruit; this illustrates how farmers are eager to experiment on their own as a result of the participatory experiments being carried out with them: *"This experiment we did on oil content in relation to slope position is really interesting and thought provoking. My farm has a similar topography as the one you got the fruits from. During my next harvesting period, I will do some quick research to find out the productivity of the farm based on the slope positions (lower, middle and upper). I will do a quick check on the number and sizes of bunches from each slope. This will give me a picture of which position on the slope gives the highest yields, for my own knowledge but which I can also share with other workers at the mill"*.

Knowledge generated from experiments carried out by the Experimentation group is also shared with the Concertation and innovation group which includes other actors along the value chain.

Higher level

At the higher level, the Concertation and innovation group has contributed to three major achievements:

First, two women processors became members of the district assembly (the highest decision-making body of the district) at the beginning of the year. Their membership to participate in the decision-making process of the assembly has been enhanced through their involvement in the platform activities. This has built their capacities and confidence while at the same time enhancing the activities of the group.

Second, the CIG has been able to engage the executive and other members of Kwaebibrim district assembly in discussion on activities in the small-scale processing industry that prevent processors from accessing the export market. Although by-laws have not yet been enacted, the executives of the assembly are fully convinced of the need for them. Consequently, they have requested the group to make another presentation to the general assembly during their first sitting of the year, based on which an informed decision can be made.

Since initiating the platforms, organisations such as the Oil Palm Research Institute and the Ministry of Agriculture now pay more attention to the activities of small-scale processors and oil palm farmers. The research institute has committed both human and material resources to the running of the lower-level platform activities and the ministry has begun organising the small-scale processors into groups in order to streamline the lower-level platform activities into its extension activities.

5 Challenges

The main challenge facing the platform (especially the Concertation and innovation group) is lack of commitment on the part of some members due to lack of financial reward for them. Members are only paid transport, lunch and sometimes accommodation when they attend meetings or carry out platform activities. Most of the representatives have busy work schedules which sometimes conflict with the activities. This situation has even resulted in the loss of members from the platform.

The operation of the platform was also delayed by political and administrative changes at the district assembly which affected the implementation of the platform activities. After the platform had lobbied the executives to grant audience to the Concertation and innovation group, the district's chief executive of the assembly was removed while the district co-ordinating director went into retirement.

One other major challenge is how to continue the role of facilitator and platform activities once the CoS-SIS programme ends and funding stops. If the platform is to become institutionalised, it requires that research and extension take up a new role as interactive researchers and facilitators. Most technical scientists and extensionists however are handicapped in terms of adult learning and facilitation skills (Defoer, 2002).

6 Future plans

The platform plans to mainstream its work into the formal research and extension system. Since the constraints faced by smallholders are multi-faceted, at different scales, and include technical as well as institutional issues, making the platform part of the research and extension system will effectively address these complex issues and find solutions that are well embedded in the needs and circumstances of smallholders. Involvement of local-level agricultural organisations, such as the Oil Palm Research Institute and the Ministry of Agriculture, in the platform activities provides opportunities for it to be streamlined within the activities of these organisations. Nevertheless, as brought up above, funding and facilitation challenges exist.

7 Lessons learned

The Concertation and innovation group currently consists of three women out of eight members. Although two of the women involved in the platform have a low educational background, their continuous interactions with other stakeholders at a higher level have built up their confidence and empowered them to play advocacy roles in their community. As for example was the case in one of the communities where one of the women CIG members lives. A processor set up a mill within the residential area of the community. The activities of the processor generate a lot of smoke which disturbs the residents. The residents of the area complained to the processor about the pollution from his processing

activities but to no avail. The woman platform member, who also lives in the same community, took up the matter and put a lot of pressure on the processor until the company installed chimneys at the mill to direct the smoke up into the atmosphere.

The joint experimentation with the farmers, processors and mill workers has improved their confidence levels and their innovative capacities (remember the farmers' quote in the activities section). However, this activity requires good skills in adult learning and facilitation. Joint learning on platforms is also time-demanding for stakeholders.

Although it is too early to assess the impact of the platform on poverty alleviation, indications are that the choosing to divide tasks between different levels (including joint experimentation) and working towards improving institutional conditions will have a positive impact on the livelihoods of smallholder farmers and processors. Processors are now convinced of the need to process their fruit early to improve the oil quality and reduce oil losses.

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IV The national innovation platform for the agricultural sector in Benin



R.L. Mongbo¹⁶ and L. Glin¹⁷

Until we succeed in involving stakeholders in concrete projects, it may be difficult for some of them to get a sense of the rationale and the challenges involved in the innovation platform process.

1 Introduction

Duplication and redundancy are very common and recurring attributes of the Benin agricultural sector, especially since the centralised management framework of the national extension system broke down from the early 1990s to the early 2000s, to become regional centres. Within this new system, the state-owned regional centres no longer hold a monopoly on rural development programmes, nor do they cover all domains concerned, now being limited to a few agricultural commodities. This has led to the development that, in parallel with the regional extension services, national projects operated by autonomous teams are designed and implemented on various commodities and issues¹⁸, contracting both private and governmental extension services. At the same time, a general policy shift has taken place in most sub-Saharan Africa countries, towards a more market-oriented agricultural policy, with less support to smallholder farmers and more attention to commercial farms.

The problems presented by duplication and redundancy can be illustrated by a quick look at rice production. Rice has taken an increasingly important role in local diets over the past three decades, developing from being a prestigious food occasionally eaten by the elites, to a normal everyday meal for all social categories (Arlinloye, 2006). However, national production has not been able to keep up with the growing demand. Various attempts have been made since the mid-1970s to develop local rice production and reduce the country's dependence on rice imports, but with very little success. Later, in the first decade of 2000, many national stakeholders and organisations,¹⁹ as well as several international donors launched parallel programmes to take advantage of the progress in African rice research, especially the breeding of the Nerica variety. All of these were carried out with very little, if any, consultation or co-ordination, and in general booked poor results. The

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¹⁸ To list just a few of these projects: PILSA (Projet d'Intervention Local pour la Sécurité Alimentaire), PAGER (Programme d'Appui aux Activités Génératrices de Revenu), PADSA (Programme d'Appui au Développement du Secteur Agricole), PGRN (Projet de Gestion des Ressources Naturelles), etc.

¹⁹ Such as the national institute for agricultural research (INRAB) and a state national agency for agricultural development attached to the Ministry of Agriculture (SONAPRA)

same unco-ordinated and unsuccessful trends can be reported in horticultural, pineapple and oil palm production as well as in animal husbandry. In 2005 this situation was discussed at the University of Abomey-Calavi, and the need for further discussions on this issue expressed. The National Innovation Platform for the Agricultural Sector in Benin (PNISA-Bénin)²⁰ was set up as a response to this situation.

The national platform does not focus on a single commodity or value chain, or on a single issue. It rather aims to promote multi-stakeholder innovation processes so as to lift obstacles that hamper synergy, efficiency and sustainability in the agricultural sector. Obstacles are seen to include duplication and redundancy in roles and responsibilities, communication gaps, and distrust in interpersonal, professional and business relationships. The national platform is therefore meant to be a space for individuals and professional organisations, researchers and academics of all disciplines, and industrial and commercial companies - all stakeholders of the agricultural sector, to: commit to the promotion of innovation processes in a holistic manner, combining technical, economic and socio-political dimensions.

2 Modus operandi

To explain how the national innovation platform operates, we look at the processes that took place prior to its initiation, the stakeholders involved and how they are represented in the platform, and external support provided to it.

Historical background

The spark that ignited the discussion about failures in agricultural research, training and extension in Benin was lit during a meeting in 2005 when the director of the International Centre for development oriented Research in Agriculture (ICRA)²¹ conducted a mission to Benin. This high-level discussion was attended by university staff, researchers from the national agricultural research institute, ICRA alumni, some local NGOs, high-ranking officials from the Ministry of Agriculture and the Ministry of Higher Education, as well as representatives of some international research institutes in Benin²². The discussion focused on why so little agricultural innovation has emerged in Benin despite great investment in development-oriented participatory research, training and extension.

It was at this particular meeting that the idea was born to establish a national platform where all energies and initiatives in the agricultural sector could join forces, to explore possibilities to collaborate for a more efficient and better use of resources and energy in Benin's agricultural sector. The discussion concluded with the need to convene another, wider

²⁰ The French acronym, PNISA-Bénin, stands for 'Plateforme Nationale pour l'Innovation dans le Secteur Agricole au Bénin'.

²¹ ICRA is an in-job training centre based in Wageningen (the Netherlands), offering a course on multi-stakeholder development-oriented research to practitioners from all over the world. From the early 1980s, the current director of ICRA, Dr. Jon Daane, worked in Benin for more than ten years and took an active part in launching farming systems research activities in the country. He also played a leading role in university capacity-building projects and got national recognition in Benin through state decoration. His debriefing meeting at the end of a short mission was therefore attended with interest.

²² These were: IITA, IPGRI-Biodiversity, WARDA and IFDC.



Stakeholders discussing water and land management issues on a rice development field

Place: Zou Province, Benin. By Roch Mongbo. Photo: Roch Mongbo

meeting, to also include farmers' organisation representatives and other stakeholders – to engage in a deeper discussion on these issues and critically assess the relevance of a national-level platform.

The second meeting, which included all previous stakeholders led to the decision to set up a committee²³ with representatives from each organisation to explore its feasibility and the potential agenda for such a platform. The committee was mandated to consult with all stakeholders (including farmers' organisations) on this matter and to make a critical appraisal.

The platform could start, thanks to two international projects: the NPT 146 project (training and capacity strengthening of research in major educational organisations funded by NUFFIC, a Dutch foundation for inter-university co-operation funding); and the 1000+ project (an IFDC initiative to stimulate a collective approach to agricultural innovation through a Competitive Agricultural Systems and Enterprises (or CASE approach).

Benin's national innovation platform finally became established during its first general assembly on December 18th, 2008.

²³ The authors of this paper (the first representing the university and the second the NGOs), were appointed to facilitate the process and chairing the committee, with the mandate to liaise with other stakeholders as the National Agricultural Research Institute (INRAB), the National Directorate for Agricultural Training (DICAF), International Centre for Soil Fertility and Agricultural Development (IFDC), the farmers' associations, the NGOs involved in agriculture, etc.

Members

In total, 77 participants representing seven major stakeholder groups attended the general assembly. Each of these groups has a stake in the agricultural sector in Benin: producers, agri-processing industries, academia of agricultural sciences, research institutes, agricultural development NGOs, the Ministry of Agriculture's department of agricultural training, and international organisations. The stakeholder group members are explained further below.

Farmers' groups: Participants included smallholder farmers (men and women) and large-scale farmers, including associations of rice cultivators, horticulturalists, pineapple growers, cotton growers, fishermen and fish processors, pig producers, poultry farmers – all of whom were members of the national platform of farmers.²⁴

Agri-processors: This included food processing industries and agricultural equipment manufacturers of all scales.

Agricultural science academics and researchers: Representatives from the national agricultural research institute,²⁵ university faculties and schools²⁶.

Agricultural development NGOs: This included the national organisation for the promotion of organic agriculture in Benin²⁷ and a network of NGOs supporting sustainable agriculture; both representing national NGOs active in the agricultural sector.

Policy makers: From the Ministry of Agriculture, the ministry in charge of industries and trade, and the ministry in charge of development planning. Within the Ministry of Agriculture, agricultural training and extension services, the national directorate of agriculture and the national directorate for technical assistance to farmers are involved.

International organisations: The International Centre for Soil Fertility and Agricultural Development (IFDC- Africa) and the International Institute of Tropical Agriculture (IITA), IPGRI-Bioversity and Africa Rice have been involved in the discussions since 2005 but have preferred to remain as partners at this particular juncture, rather than being part of the platform.

Representation

In the first general assembly, debates led to the adoption of by-laws, and the following governance structure for the national innovation platform was agreed: Board members were to be elected, with representatives from all public and private sector stakeholders on the one hand, and one appointed executive with no functional link to the State administration. The positions on the board are equitably shared among the major professional groups.

²⁴ The national platform of agricultural producers in Benin is called PNOPPA: Plateforme Nationale des Organisations de Producteurs et Professionnels Agricoles.

²⁵ INRAB: Institut National des Recherches Agricoles du Bénin.

²⁶ Including the Faculty of Agriculture of the Abomey-Calavi University (EPAC/UAC) and the Polytechnic School.

²⁷ OBEPAB: Organisation Béninoise pour la Promotion de l'Agriculture Biologique.

The election of the board was carried out in two stages: First, each category of stakeholders appointed its representatives (five members from the agricultural producers' organisations, three from agri-processors and manufacturers, two members from development NGOs, four from academics and research institutes, two from national technical directorates and one from policy makers). For the second stage, the 17 elected board members sit to elect the board's executive body of seven positions, with the rest being simply members of the board. Appointing board members was not an easy matter. Negotiations became tough when it came to which category of stakeholder would sit on which position and who from each category would win the seat in the end. For example, the representative of COBEMAG (the association for agricultural equipment manufacturers) refused to allow the seat to go to the one from FLUDOR (an association for the food-processing industries). When he reported the final decision to his management a few days later, they decided to withdraw from the board.

External support

In spite of all stakeholders agreeing on the need for a national platform for agricultural innovation, none of the organisations involved managed to allocate any resources to the running of the platform, besides sending representatives. The platform could only start thanks to projects within the Faculty of Agriculture of the Abomey-Calavi University and IFDC. In many cases, these resources could only be used after active lobbying with the Dutch donors of the projects. Apart from this, the national innovation platform has had no further external support. For this reason, there have not been any allowances for attending meetings either. For all activities conducted, members have to meet their own costs.

3 Activities: From setting to action

The national innovation platform in Benin is chiefly concerned with contributing to improving the livelihood of smallholder farmers in the country, with particular attention to vulnerable groups and categories. Focuses include on-farm innovation processes, the development of post-harvest enterprises at regional and national levels, and processes of value generation and distribution along particular commodity value chains in which stakeholders are involved.

The platform facilitates the design and implementation of projects, getting co-operation, co-ordination and synergy among stakeholders involved, and builds its lobbying activities from lessons learned along the way. Thus far, the platform has been involved in one project while three others are in progress.

Specific activities can be categorised as follows:

- Facilitating innovation processes by:
 - Facilitating innovation needs assessments;
 - Analysing and assisting in lifting socio-economic, political and institutional barriers, to actual technical innovation processes;
 - Ensuring that the material and learning outcomes of these processes are shared among all stakeholders.

- Organising partnership and operational synergies by:
 - Facilitating public-private partnerships for agricultural innovation;
 - Encouraging regular consultation of policy makers, training, research and extension organisations, with farmers' organisations, civil society organisations and field staff around any national or regional challenges facing innovation in the agricultural sector; and
 - Broadening the basis of innovation processes with special attention to institutions and social differentiation.
- Watching over human-resource development by:
 - Strengthening individual and corporate stakeholders' capacities to put research and technological findings into innovative practices;
 - Designing relevant indicators for monitoring the performance of innovation systems by policy makers; and
 - Developing learning and sharing of experiences on innovation processes.
- Working towards sustainability of the innovation platform by:
 - Contributing to setting iterative mechanisms for the integration of innovation needs assessment on the agenda of public and private research institutes, as well as for the subsequent adaptation of basic and continuous education programmes; and
 - Lobbying for the development of an environment conducive to innovation in agriculture.

4 Achievements to date

The national platform facilitated capacity strengthening for staff from members' organisations: A team of eight persons selected from various member organisations representing different stakeholder groups (university, research institute, farmers' organisations, NGOs) underwent a five-month ICRA training course in Montpellier (France) in 2006-7. The rice value chain was selected for their field work, a priority selected by the national inter-institutional committee for agricultural innovation. Within the framework of the NPT 146 and 1000+ projects, this team was able to assist in the training of students, lecturers and researchers on integrated water management and innovation processes in rice production.

For its lobbying activities, the national innovation platform has been involved in the design and implementation of four projects. The platform facilitated the design of the projects linking various stakeholders on specific issues at specific locations. See Box 4 for an example of such a project.

At the same time, the national platform also worked on guidelines for the identification of innovation processes that deserve particular attention. The rationale of this working document is twofold. First, it aims to generate a common understanding of what innovation actually is, given that different schools of thought attribute different meanings and conceptualisations to innovation. The second objective is to provide a basis for a policy dialogue within the agricultural development strategy setting. From these guidelines, innovation

Box 4 Adapted rice mechanisation

The rice action-research-for-development project aimed to respond to mechanisation difficulties that arose at the farm and post-harvest levels, following the recent promotion of rice cultivation by the government. All stakeholders involved (members of producers' organisations from three different agro-ecological zones, rice researchers, farming equipment manufacturers, etc.) debated these difficulties and shortcomings. Besides technical weaknesses, the discussions concluded that the mechanisation difficulties were due to a lack of consultation between stakeholders at various levels, as well as the absence of co-ordination. The group agreed on four specific objectives:

- 1) To promote stepwise and appropriate mechanisation of rice cultivation, based on the specific conditions of every agro-ecological zone;
- 2) To contribute to the development of processing technologies able to meet the quality standard expected by local rice consumers;
- 3) To contribute to setting a functional platform on rice production in Benin;
- 4) To contribute to the setting of collaborative and communication mechanisms between stakeholders for documenting and sharing experiences, and for sustainability.

processes within some commodity value chains (milk, poultry, pineapple, cotton and cashew) are being analysed.

5 Challenges

Matching different organisations' agendas and those of their representatives, and fusing their priorities, caused bureaucratic delay in the process; it turned out to be a much more difficult process than anticipated. Though all participants warmly accepted the idea of the platform and the mandate of its preparatory committee, getting the platform onto the agenda of organisations involved proved to require much more work and time than expected. For example, simply getting the involvement of the member organisations formalised entailed a great deal of effort. To start with, the co-ordinator had to present the idea of a potential platform to the head of each of the main organisations involved in the platform, each time supported by the organisation's representative who had taken part in the inception meeting. Also, finding time for committee members to meet was no easy task: individual agendas needed to be matched, and even when meetings had been scheduled well in advance, frequent emergency situations could arise at any time in any of the organisations involved, thereby preventing the member concerned from showing up at the last minute. In short, the work within this committee was not a top priority for the organisations involved. In addition, some representatives changed positions within their organisation and were therefore replaced on the committee, which did not make for easy follow-up.

Although all member organisations recognised the importance of having a platform to bring different stakeholders together, the fact that the national innovation platform is not a top priority for many of the organisations involved means that it is overlooked when meetings, workshops or projects arise, in which it could play a potential role.

Within a short time, it became clear that for the national innovation platform to be eligible for any consistent State organisation lobbying, it should acquire a formal status through official registration procedures. This turned out to be a major challenge, as - it was a real struggle to get the platform officially registered. Due to its multi-stakeholder nature,

bringing together both public and private organisations, it was difficult to find the most suitable institutional framework. Registration therefore entailed a long negotiation process with administrative officers at prefecture level where formal and informal means were necessary to reach a final resolution and formalisation of the platform.

6 Future plans

Now that the national platform has formal status, the challenge remains to increase its room for manoeuvre and to find ways for it to actually function as intended. Further efforts are needed on the side of facilitators before the necessary awareness turn into decisive action from within.

Besides searching for funding for the three projects mentioned above, the national platform is planning to hold an exchange and learning workshop on innovation platform experiences in the country, by the end 2011. Such a workshop could allow for more discussion about the challenges and also raise policy makers' awareness on how innovation platforms for agricultural development could support economic growth and poverty alleviation. Presently, a few donors are at a crossroads regarding their support strategy to Benin's agricultural sector. An agricultural development policy paper has been drafted by the government (PSRSA) together with an investment plan (PNIA) with the support of the Economic Community of West African States (ECOWAS). These documents are being discussed with donors and will hopefully build on the national innovation platform's engagement with its members.

7 Lessons learned

One important lesson gained from the various discussions was that scientific research and technical communication alone cannot make innovation happen. Political decisions are needed - and these cannot be obtained from any spontaneous so-called goodwill from policy makers. They ought to be part of the debate on innovation matters and the necessary political decisions will result from hard negotiations, if not a fight.

What also stands out is the importance of building trust among stakeholders who have different perspectives and even conflicting interests. This process thus requires time and good negotiation and facilitation skills. The national platform was decided to have policy makers and staff from central state offices to share a table with producers, industrialists, traders, researchers and trainers. However, until we succeed in embarking on concrete projects, it may be difficult for some of our stakeholder members to get a sense of the rationale and the challenges involved in the innovation platform process. Though this in itself depends largely on donors' good will, an important asset is the fact that the national innovation platform does not depend on any funding for its actual day-to-day operations. It will therefore be able to keep on searching for support for concrete projects as an action base for lobbying for better synergy in the agricultural sector in Benin.

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V The Ugandan Oilseed Sub-sector Platform²⁸



S. Vellema²⁹, D. Nakimbugwe³⁰ and D. Mwesige³¹

A platform could be a temporary measure, primarily serving a time- and place-specific function for addressing specifically defined problems.

1 Introduction

The Ugandan Oilseed Sub-sector Platform (OSSUP) is a commodity-based multi-stakeholder platform that has a priority of innovation and technological upgrading. The Ugandan Oilseed Sub-sector Platform as a national platform adopted a strong focus on policy and sector-wide co-ordination. It is linked to two regional platforms that were supported and facilitated by the Uganda Oilseed Producers and Processors Association (UOSPA). The platform has an active membership of large- and medium-scale processors, farmers' organisations, financial institutes, government agencies, researchers, development and non-governmental organisations, knowledge institutes and agricultural input providers. Members participate on a voluntary basis, and their contribution depends on the issues addressed during meetings or in a specific period.

Initiated in 2005, the Ugandan Oilseed Sub-sector Platform envisioned a competitive and sustainable vegetable oil sub-sector in Uganda. Different oilseed crops have been introduced at different times into Uganda since 1910: sesame, groundnuts and soybean in the 1910s, cotton in the 1930s, and sunflower around the 1950s. Sunflower is grown purely for its oil content, cotton for lint and oil, soybean and groundnuts mainly as food crops, sesame for export and domestic consumption as a paste. Oilseed production led to the development of seed-processing capacity and oil extraction starting in the 1950s. The economic turmoil and civil unrest in the 1970s-80s brought the sector completely to its knees. Concerted efforts since the late 1990s attempted to revitalise the sub-sector again. These public and private endeavours, in combination with changes in the economic and political conditions, encouraged large numbers of farmers to take up sunflower production. Gradually, processors explored ways to source oilseed locally, rather than importing Asian

²⁸ This case study is a result of the action-research programme Value Chains for Pro-poor Development (<http://www.dgis.wur.nl/UK/VC4PD/>), implemented by Wageningen UR under the Partnership Programme Globalisation and Sustainable Rural Development of the Netherlands' Directorate-General for International Co-operation and Wageningen University and Research Centre, in collaboration with Agriterria and AgriProfocus. Further research and analysis was supported by the Partnerships Resource Centre (<http://www.partnershipsresourcecentre.org/>). Partners in Uganda were the OSSUP (Uganda Oilseed Sub-sector Platform), Makerere University, the Netherlands Development Organisation SNV, and UOSPA (Uganda Oilseed Producers and Processors Association). Research for this paper was assisted by Ray Agong, (UOSPA), Moses Oremo Opio, District Agricultural Office Lira / Van Hall Larenstein University, Robert Nayebare and Ronald Lulijwa, master students Makerere University.

²⁹ Wageningen University and Research Centre (WUR).

³⁰ Makerere University, Uganda.

³¹ Netherlands Development Organisation SNV (until January 2011).

palm oil. However, in 2005, key players in the sub-sector still observed that despite a clear domestic market for edible oil and also for feed cake (a by-product of oilseed processing), the absence of an effective link to agricultural producers constrained the expansion and viability of the sub-sector (Luseesa, 2007).

In 2005 and 2006, the Uganda Oilseed Producers and Processors Association together with a couple of supporting organisations concluded that there was a need to try out another formula for co-ordinated action addressing complex problems, such as market co-ordination, technological upgrading, and the provision of financial services. Setting up the Ugandan Oilseed Sub-sector Platform was motivated by the observation that, in weak markets, small and medium enterprises and producer organisations thrive on skewed information and necessarily concentrate most of their efforts towards short-term gains and immediate problems. Accordingly, their perspective on collective interests tends to be narrow. This kind of a situation easily breeds suspicion and mistrust among the stakeholders, which hampers co-ordinated actions and contributes to sector stagnation. The idea behind the multi-stakeholder processes under the Ugandan Oilseed Sub-sector Platform umbrella was therefore to seek orchestration in solving industry challenges and to engage farmers, intermediaries and food industries in planning and managing production and trade at a level beyond the individual farm (Devaux *et al.*, 2007).

In the initial phase of the platform, discussions among platform members indicated a mismatch between demand and supply. Outside contractual arrangements with larger processing firms, some of which have operated cotton ginneries, most farmers sold their produce immediately after harvesting to brokers at the farm gate, agents of traders in the village, or small-scale millers in the growing area. Consequently, buyers were also uncertain about obtaining enough raw materials for operating at their full installed capacity. In response to these observed problems, the Ugandan Oilseed Sub-sector Platform, as a national platform with a policy focus, began to work on actions that could improve production levels, mainly by making improved planting material available, encouraging co-ordination in supply and demand, and stimulating out-scaling of tools and practices found at different places in the sector.

2 Modus operandi

Initiated in 2005, the Ugandan Oilseed Sub-sector Platform was a loose network of individual member organisations brought together based on the shared interest of making a competitive vegetable oil sub-sector. The platform was importantly initiated by the Uganda Oilseed Producers and Processors Association, which used to play a co-ordinating role within the sector. However, the association was also engaged in the business of multiplication and distribution of open-pollinated sunflower varieties (of which the foundation seed is supplied by the National Agricultural Research Organisation - NARO). Producer organisations linked to the oilseed producers' and processors' association engaged in various bulking and collective marketing initiatives. It represented farmers and farmers' groups as well as small, medium and to some extent larger processors, and organised pre-

season co-ordination workshops to fine-tune planting seed and demand. These activities made it difficult for other actors to approve its role as co-ordinator.

In collaboration with the Dutch Agri-ProFocus network, a new experimental platform was initiated to “weave the web”. When the platform was initiated, the oilseed producers’ and processors’ association labelled it as an institutional experiment. The question was how would the platform, as a new form of collective action in a sub-sector, complement existing approaches to collective action, such as collective marketing via farmers’ organisations and co-operatives for achieving economies of scale, enhancing bargaining power, or managing common pool resources (Devaux *et al.*, 2009, Shepherd, 2007).

Facilitation

Facilitation roles were taken up by a variety of organisations involved in the network. The Netherlands Development Organisation SNV hosted platform meetings and functioned as a secretariat. From 2006 to 2010, the platform was linked to a collaborative research project of Makerere University in Uganda and Wageningen University and Research Centre in the Netherlands. The leading research team co-operated with SNV in facilitating the learning process of the platform and they jointly tried to find a language that gave expression to the functional role of the platform. In 2010, the co-ordination and secretariat function (i.e., organising meetings, sharing information, and pro-actively linking actors) was embedded in the renewed national public support programme for the oilseed and edible oil sector: the Vegetable Oil Development Programme. The sub-sector platform’s visibility and performance in previous years had convinced the national government and the International Fund for Agricultural Development (IFAD) that a platform function was essential for the sector, and decided to include the platform in this support programme. The platform’s capacity to present a strategic agenda with selected priorities as well as a number of joint activities of its members that supported this agenda had indicated that a platform plays a role complementary to, for example, the investments in processing capacity or the setting up of bulking arrangements by associated farmers (Ton *et al.*, 2010).

Facilitation was an important ingredient of the platform. When it started, a polarised situation existed because the oilseed producers’ and processors’ association was linked to open-pollinated varieties as well as the leading processing firm and main distributor of cooking oil in Uganda. In 2006-7, the Mukwano company implemented a contract farming scheme meant to realise a shift from imported palm oil to locally sourced oilseed as the main ingredient for their branded edible oil. Mukwano imported hybrid sunflower seeds for distribution to around 30,000 contracted smallholder farmers, who were also expected to sell their seed to the company. The contract farming scheme and the use of hybrid seed figured prominently in policy debates in the oil seed sub-sector and therefore affected the processes in the platform.

After a period of storming and forming (Ton and Vellema, 2010), the platform succeeded to use its quarterly meetings to develop a shared policy agenda outlook. The facilitator tried to shift attention from a polarising discussion on single solutions - to diagnosis, priority and agenda setting; and targeted advocacy towards public policy, support programmes and services. The decision to organise a strategic policy dialogue in 2009 stimulated the

platform to set priorities and compose messages for different audiences in government and public support programmes. Parallel to this, the continuous dialogue in the platform also enabled joint or bilateral actions among members; these activities took place outside actual platform meetings but were still interpreted by government agencies and financial organisations as an indicator of increased levels of co-ordination in the sector. Likewise, the Uganda Oilseed Producers and Processors Association played a prominent role in consulting stakeholders at regional levels, which mainly facilitated farmers to voice their interests and to respond to the propositions framed by the national platform.

Concrete activities, such as the writing of a petition asking for the release of improved planting material by a governmental authority stimulated joint action by the platform and helped to detect the boundaries of the sphere of influence of a policy-oriented platform. This created space for other stakeholders to act, as a company or organisation, or in bilateral agreements. As part of the process, research gave inputs showing the diversity of practices and arrangements present in the sector, for example in the field of bulking. In a round of reflection interviews, members indicated that over the years, the platform generated a space for growing appreciation of different roles played within the sector and an awareness for the mutual dependency in achieving competitiveness. The language used to express priorities during the strategic policy dialogue was one of the indications. Outside the platform, new linkages between associated farmers and buyers suggested a new level of co-ordination, and the willingness of banks and local government officials to engage with problem solving in the sector was one of the results of this.

3 Activities and objectives

When organising and setting priorities for the strategic policy dialogue in 2009, the platform took an interest in exploring pathways to enhance innovation, up-scale proven and locally invented technologies, and promote a demand-driven research & development programme that links farmers and processors with research and stimulates local innovativeness. As its general task, the Ugandan Oilseed Sub-sector Platform adopted a strategic focus on enabling policy and regulation. This entailed advocacy for coherent sector-specific policy and legislation, stimulating linkages to decentralised government resources and a functional division of labour between stakeholders in public-private partnerships (Bitzer *et al.*, 2011). In this process, the platform discussed technical choices, in particular the choice of seed and processing equipment, and the linkages of producers with input dealers, research, and extension services (in particular the National Agricultural Advisory Services (NAADS)). Firstly, the platform aimed to create the conditions that would ensure farmers' access to improved planting material by:

- Making vegetable oils a priority in public research & development programmes, releasing new, locally bred varieties, and enabling maintenance breeding;
- Enforcing available regulation and certification in seed multiplication and supply to ensure germination; and
- Strengthening linkages to stockist networks and seed multipliers to decentralise and enhance supply capacity.

Secondly, the platform adopted a policy lens in looking at technological upgrading and innovative capacity. Here, it tried to initiate and strengthen institutional arrangements for up-scaling and catalysing tangible technological improvements in the sub-sector by:

- Complementing policy incentives directed at large-scale investments with incentives tailored to (clustered) small-scale enterprises and farmers;
- Using bulking centres and embedded service provision as the entry point for out-scaling technical know-how and providing extension services;
- Up-scaling local innovative capacity in processing and farming; and
- Constructing a research & development market place for stakeholders in the sub-sector.

4 Achievements to date

This section examines the outcomes of the two fields within which the Ugandan Oilseed Sub-sector Platform was active (i.e., the provision of planting material and the building of networks around commodity-focused innovation), that can be attributed to the functioning of the platform.

Improved planting material, selection and conflict resolution

The sub-sector platform was able to overcome major conflicts among its members. At the beginning, the discussion was structured by labelling two opposite value chains by the planting seeds used: a (Uganda Oilseed Producers and Processors Association-supported) Sunfola chain and a (Mukwano-promoted) hybrid chain (Bindraban *et al.*, 2006). The issue of access to seeds (open-pollinated or hybrid) figured frequently in discussions in and outside platform meetings, and also induced controversies in the sub-sector. Use of hybrid seed was also discussed at length at a regional platform meeting in Lira at the time of price hikes. Lira is the centre of the area where much of the milling and production is concentrated. Farmers were strongly represented during the regional platform meeting, and expressed their concerns in relation to their immediate constraints, such as finding trustworthy market outlets and access to planting seed.³² Various allegations came to the fore, targeting the position and strategy of the lead firm Mukwano that had been successful in contracting farmers as suppliers to its processing plant. In such a context, the choice between open-pollinated varieties (distributed by a member-based organisation) and a hybrid variety (distributed by a lead processing firm), easily led to polarisation and stalemates for co-operation. During this episode, chain interventions, such as contract farming and the attached perception of a possible monopoly, became included in the controversy, making the lead firm vulnerable to charges of exploitation of poor farmers (Johnston, 2007).

The labelling of value chains provoked a level of duality in the sub-sector, which was gradually replaced by an acceptance of diversity and a wish to aim for strategic policy that incorporates this diversity. For example, breeders from the national agricultural research institute proposed to work on both hybrid and open-pollinated varieties, because farmers may

³² Source: minutes of the Regional Platform Meeting – Northern Region (Lira, December 4, 2007).

choose differently depending on the specific conditions under which they operate. This indicates that the platform created space to encourage co-existing pathways and to work on public interests and joint actions, rather than provoking a choice between distinct technical recipes.

At national-level discussions in the platforms and a parallel petition discussed in parliament, access to hybrid seed was relabelled as a public good. Interactions in the platform led to the involvement of a member-based association specialised in input distribution, UNADA.³³ This association was willing to work with Mukwano to facilitate a wider distribution of hybrid seeds and entered with Mukwano into a tripartite agreement with a donor organisation (ASPS – Danida) arranging a guarantee fund for the venture. Mukwano agreed to use its position as lead firm to arrange the import of hybrid seed for distribution by UNADA stockists. The quantity of imported hybrid seed was not enough to saturate the national market.

The platform's strategy moved from a focus of sometimes polarising processes of selection of specific technologies, to a focus on enabling conditions for selection and development of new tools, practices, and linkages.

Innovation, out-scaling and network building

During the strategic policy dialogue organised by the Ugandan Oilseed Sub-sector Platform in 2009, innovative capacity appeared to be a difficult issue to address. Consultants asked to identify relevant, existing policy frameworks initially started, to explore and prescribe technical recipes. Only after intense discussion with platform members did it become clear that linking to a diverse policy landscape was closer to how the platform perceived its function. During the policy dialogue itself, a discussion evolved around linking producers in the oilseed sub-sector to the major extension programme in Uganda: NAADS. Discussions in the platform recognised that the need to find balance between specialisation in or concentration on a cash crop (private interest), and food security (public interest). NAADS was recommended to work with clustered farmers and to embed intervention strategies in the practice of bulking in a specific value chain, i.e. oilseed/edible oil. This contrasted with the more *ad hoc* and changing selection of intervention areas practised in NAADS. During the dialogue, the need to intensify linkages between technology users and a research & development programme was listed as a priority. A Research & Development Marketplace was suggested to show farmers and processors what technologies, including varieties, are available so that they are better able to select what they want and to set the research agenda.

An inventory (in 2008) of the technologies offered and services provided in five sunflower-producing districts in Uganda found the following: The provision of seed, either open-pollinated or hybrid varieties, was most important in service provision. Public and private stakeholders with access to seed were predominant sources of technology in the oilseed sub-sector. Next to seed, materials for on-farm drying were provided, either as grants or

³³ UNADA stands for Uganda National Agro-inputs Dealers Association, which brings together all input stockists across the country to co-operate on issues broader than individuals can address e.g. quality compliance and regulation, standards, etc.



A woman sells locally processed oil at the market

Place: Lira, Uganda. Photo: S. Vellema

at subsidised prices. Ram presses for village processing and motorised mills were provided by public support programmes. In the case of ram presses, support agencies encouraged fabrication or repair modification by local artisans. Farmers' groups, for example involved in produce bulking or seed multiplication, or associated farmers, for example grouped around contact farmers or site co-ordinators, were important entry points for service delivery.

In response to the fragmented innovation network in the Ugandan oilseed sub-sector, the platform organised a Research & Development Marketplace at the Department of Food Science and Technology, Makerere University in 2010. This marketplace brought forward examples of technical change, such as processing of 21 varieties of cosmetics from shea butter with an improved shelf life. A rural works vehicle was adapted to poor road

infrastructure and poor access to energy, and worked as a satellite, collecting oilseeds from farmers and taking them to a central collection point near a major road. It also worked as a “downstream vehicle”, taking supplies from the main roads into deeper rural areas. A sesame planter, which eliminated the need for farmers to use the wasteful broadcast system, and instead plant more efficiently in rows, had a simple design that reduced the time needed to plant an acre of land. And, finally, a new practice for drying sunflowers was uncovered, originating from evolving trial-and-error experiments in villages and collaboration with processors.

The Ugandan Oilseed Sub-sector Platform took the initiative to visualise concrete examples of new tools and practices in the sub-sector, which was part of an endeavour to use this exposure for building new linkages, enabling out-scaling of tools and practices. Bulking nodes were proposed as entry points for interventions.

5 Challenges

The platform gradually developed its specific function in the context of a variety of stakeholders, organisations and their behaviours and strategies in the Ugandan oilseed sub-sector. The value of its contribution, described here in terms of conflict resolution, common language and network building, was recognised by its members and also by external agencies, in particular the government and donor agencies. One of the major challenges for the Ugandan Oilseed Sub-sector Platform will be to perform this policy-oriented and enabling function, aiming for a higher level of co-ordinated action, without getting too deeply involved in the actual implementation of interventions. The latter can be done by individual stakeholders or by joint actions. On several occasions the platform has discussed its roadmap, and eventually, the importance of facilitating its members to jointly contribute to performing the platform’s function become evident. The platform has since managed to institutionalise its function in a renewed public support programme.

6 Lessons learned

There is no magic recipe for platform facilitation. The case of the Ugandan Oilseed Sub-sector Platform shows that collective action in the economic realm does not just happen; it needs facilitation tailored to the real dynamics of conflicting interests, commercial time spans, and regional diversity. The analysis points to the dynamics inherent to group formation. A platform will have to go through a trajectory of discussions and turbulence before it discovers its proper function. Starting small task groups on specific issues at an early stage of development generated an atmosphere that helped to overcome contrasting views and interests. Although literature may suggest otherwise, namely that diversity within a group impairs joint action and strategising, the diversity within this platform turned out to be a valuable asset. To be able to represent the diverse perspectives in a fair way depended on good (external) facilitation as well as on finding complementarities and synergies with on-going value chain interventions, such as contract farming or group-based bulking.

The ways in which the platform evolved allowed the stakeholders to discover and explore the platform's function in a landscape of commercial activity, farmers' organisations, and diverse support strategies. Taking more of a policy focus led to an improved functioning and operational value chain. In this case, the facilitation team agreed that it was more important to organise a process of trial-and-error experimentation for proper functioning, rather than to start from an institutional fix, exemplified in an official status and by-laws. The lesson is that a platform needs time to experiment with activities to explore its complementarity to other actions and focus on its "as-they-are-function" in a specific context.

Moreover, a platform could be a temporary measure, primarily serving a time- and place-specific function for addressing defined problems, for example access to planting seed. It may therefore not be necessary to strive towards long-lasting, more permanent organisational structures. One of the pitfalls for facilitators is to introduce rules to speed up the process or, in response to donor requirements, to establish by-laws and logical frameworks, rather than to facilitate the embedded development of rules and ownership (Devaux *et al.*, 2009). The challenge is to find a match between quick wins, showing the relevance of a platform and joint action by, for example, making improved seed varieties accessible, and setting up durable new institutions. For instance building up a research & development process involving the National Agricultural Research Organisation, universities, farmers' organisations and food-processing firms is a delicate task. Working for innovation in a collaborative way will be more widely embraced if its social, cultural, or psychological processes support the changes in a routine manner such that they do not require continued intervention to be sustained (Lawrence *et al.*, 1999).

The interaction between the different levels (regional and national) was crucial for the success of the platform. The connectivity of the Ugandan Oilseed Sub-sector Platform as a national platform, and the regional platforms, facilitated by the Uganda Oilseed Producers and Processors Association, was an important ingredient in the entire set-up. Comparative examples suggest that building on already existing groups or networks benefits collective action in a sub-sector, which, in the case of oilseed, implies farmers' organisations, but also smaller groupings, such as women coming together to save, or church-based groups venturing into processing. This set-up can be instrumental for taking advantage of the political and administrative decentralisation in Uganda by involving local authorities and support agencies (Devaux *et al.*, 2007). Regional platforms are also relevant for territory-based strategies of companies and networks; e.g. Mukwano's contract farming schemes, the networks of agents of traders and processors in rural communities, and the Uganda Oilseed Producers and Processors Association in providing planting materials and extension services.

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VI The poultry sub-sector innovation network in Tanzania



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Keeping indigenous chickens has become a truly viable economic activity. The poultry industry now contributes to boosting household incomes and building business networks that include local and smallholder producers.

1 Introduction

In Tanzania, commercial rural indigenous poultry enterprises have been developed using an innovation network approach. This initiative started in late 2009, as part of the Research Into Use (RIU) Programme funded by DFID, and implemented and managed by MUEK Development Solutions Ltd between July 2008 and June 2011. The RIU programme's objective was to investigate how to improve the local innovation capacity for increased use of research outputs, new knowledge and technologies in order to develop profitable agri-business enterprises. Indigenous chicken was selected as the main commodity because it requires minimum resources for investment, is kept by both men and women of all ages, is less dependent on agricultural seasons and provides quick returns throughout the year.

The programme operated at national level, with linkages and relationships at both regional and local levels. Poultry activities were first introduced in the Coast region.³⁶ After almost a year of operations, the poultry intervention was scaled-out to Dodoma and Singida regions based on lessons and experiences from the Coast region. In Iringa region, the programme facilitated the establishment of an indigenous chicken hatchery to stimulate production of chicks and to independently reach farmers in the Southern Highlands. In the Coast, Singida and Dodoma regions, the programme worked at the district level.

The initial strategy was to enhance demand for and use of research outputs, new knowledge and technologies, by supporting activities focused on improving the functioning of agricultural innovation systems. One aspect of this was to create innovation platforms, defined by the programme as: *a network of stakeholders working together as a group, focusing on specific area(s) of opportunity so as to address major challenges that affect the system*. Under this concept, RIU supported the development and functioning of the Poultry (Entrepreneurship) platform in Coast region.

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When the Research Into Use programme began its activities, stakeholders in the indigenous chicken industry were scattered. Most farmers were in rural areas, while a few hatcheries as well as input producers and suppliers were in urban areas. Extension and advisory systems for poultry were almost non-existent. There were barely any organised transporters, markets or marketing systems. After identifying all relevant stakeholders in the indigenous chicken value and supply chains, they were invited to initiate the platform in a first meeting in mid-2009. However, a few months later, the programme disbanded the innovation platform concept due to difficulties presented by low capacity and non-organisation among stakeholders (see section on challenges below). From then on, the RIU programme focused instead on promoting a wide network and linkages among stakeholders in the industry rather than “creating specific platforms”. Partnerships and linkages among stakeholders were thereafter formed to solve bottlenecks as they were encountered. At the same time, the programme took on more of a role of “innovation broker”, to deal with all challenges at the sub-sector level.

2 Modus operandi

The broker

The Research Into Use programme as managed by MUEK Development Solutions Ltd has played the central role in running the whole commercial indigenous poultry initiative. A team of four staff carried out the following tasks: 1) Identifying relevant stakeholders, developing necessary linkages and facilitating dialogue; 2) Facilitating and building the necessary capacities to provide services (subsidies, capital, direct service provision); 3) Facilitating training and skills development (hiring consultants to conduct training, organising exchange visits, producing reference materials and providing information); and 4) Identifying and dealing with policy and practice issues that are affecting operations in the sub-sector.

In the last year, a new business initiative – KukuDeal – was introduced to take on a central role in stimulating and co-ordinating business and market linkages between stakeholders in the system during and after the RIU programme’s exit. The initiative is designed to address production barriers (timeliness, quality and quantity) among smallholder farmers through a poultry contract-farming model.

The programme initially planned to link farmers to markets in order to directly sell and do business. However, initial findings from observations in the poultry sub-sector led to the decision that rather than linking farmers directly, a company or organisation that could mediate would be necessary. This initiative would have to boost the number of mature chickens that enter the market on a monthly basis. Thus the programme and KukuDeal focused on

³⁶ This regions was chosen on the basis of ten factors: 1) Number of Renewable Natural Resources Research Strategy (RNRRS) outputs considered relevant; 2) Number of poor people; 3) Economic growth potential; 4) Market linkages; 5) Perceived innovativeness of local population; 6) Capacity of the zonal research stations; 7) Accessibility to major markets; 8) Number of development initiatives and intermediaries in a single agro-ecological zone; 9) Accessibility to capital; and 10) Potential local partner to help manage the Fund.

developing a contract-farming model, wherein farmers were mobilised and financially assisted to keep at least between 200-300 chickens. This substantial number of matured chickens was needed in order to develop the foreseen integrated national poultry marketing system. KukuDeal furthermore took a role in identifying, working on and organising operations of wholesalers and traders of local chicken. The contract-farming model was also seen as an avenue for development of the overall sub-sector which is inclusive of more small and medium producers (farmers and hatcheries).

After the RIU programme's exit KukuDeal will continue to co-ordinate linkages and partnerships among stakeholders while taking a lead role in identifying and influencing key policy and practice issues affecting the sub-sector.

Members

The following stakeholders are involved in the poultry sub-sector innovation network; some were part of the initial innovation platform and others joined later on as operations expanded.

Producers: Farmers are key to the network, being the main consumers of information, knowledge and technologies as well as the main producers. Each district and ward has farmer "champions" who are highly motivated and therefore used to help mobilise farmers in their community, and to co-ordinate activities including input distribution and reporting on progress.

Input suppliers: Hatcheries are the main producers of indigenous day-old chicks which are sold to farmers. Hatcheries work with about 25 out-growers responsible for producing and supplying fertilised eggs for hatching. Parent stock farms are the main source of matured indigenous parent and grandparent stock for hatcheries and out-growers.

There are also vaccine and drug distributors and suppliers; feed producers and distributors; and rural agro-shops who are the main sources and distributors of inputs.

Advisory service providers, researchers and trainers: From the government, the Ministry of Livestock Development and Fisheries (MLDF) provides policy and regulatory guidance for the sub-sector while the National Livestock Research Institute (NLRI) supports research and development needs. The Veterinary Investigation Centre (VIC) plays a major role in disease diagnosis, analysis and advising the programme and stakeholders. Local Government Authorities which include extension officers support the co-ordination of activities and advisory services to farmers. In addition, household advisors (graduates from a vocational college, trained in livestock) were contracted to provide training for 30 days on poultry husbandry and management to farmers. Business and Entrepreneurship trainers were also contracted to train farmers after they entered their second or third month of production.

Buyers: Wholesalers buy indigenous chickens in bulk from farmers and keep them in peri-urban areas for selling directly to traders and consumers.



District champion showing her poultry enterprise

Place: Msafiri village, Bungu Ward in Rufiji district, Tanzania. Photo: S. Nederlof

Selection of representatives

A functional analysis was conducted by the Research Into Use programme through a small brainstorming meeting to identify key functions required to meet its programme objective. This was followed by a stakeholder mapping process which identified initial stakeholders in the indigenous chicken industry. These stakeholders were then invited to a first (platform) meeting. As activities progressed, more relevant stakeholders were identified and asked to join the network. Farmer representatives (“champions”) also volunteered their services during the first stakeholder meeting. In a few cases, champions are recommended or selected by their fellow farmers.

Hatcheries have selected their interim leaders through their meetings. They have together formed a formal association for breeders and are now registered as the Tanzania Poultry Breeders Association. It is anticipated that now the association is formally established, hatcheries will have clear structures and guidelines for representation or leadership. Input suppliers and traders such as vaccine, drug and feed suppliers are selected by the RIU programme based on their ability to meet required demands in quality and quantity. New suppliers are however allowed to join at any time and existing suppliers are allowed to leave at any time. The flexible system is based on the needs depending on the situation. Suppliers who do not manage to meet the required quality or quantity are often dropped

by the end users (farmers and hatcheries). Professionals such as veterinarians and household advisors are selected based on qualification and ability to perform the required tasks.

Levels and linkages

The Research Into Use programme operated at both the national and local level. Co-ordination of partnerships, linkages and policy issues were carried out at the national level, while implementation of activities was concentrated at district and local levels. Linkages at the national level include those between the programme; the central government and the local government authorities (i.e. regional authorities, ward and village extension officers). At the local level, there are linkages between the programme and household advisors, champions, input suppliers and agro-shops. There are also stakeholder-to-stakeholder linkages such as those between farmers and household advisors or ward and village extensionists; hatcheries and the Ministry of Livestock Development and Fisheries; as well as between this ministry, veterinary drug suppliers and farmers.

Due to complexities in communications, varying capacities and energies among stakeholders, the programme staff had to continue as the main leader/broker even after linkages between different stakeholders were established. Their role shifted from being a facilitator of the initial innovation platform to brokering innovations in the entire value chain, solving bottlenecks as they emerged. Sub-groups of stakeholders continued to operate through their strong but informal networks that started from the grassroots. Partnerships and linkages were formed between stakeholders on a needs basis. Close monitoring of activities was carried out by the programme to address emerging challenges and learn. An enabling environment was created to allow stakeholders to innovate and the sub-sector to slowly organise itself.

Within the network, stakeholders in each sub-group started to organise themselves to deal with different challenges. For example, in each district, farmers have their networks and hatchery owners have their network. In each of the sub-groups, negotiations and decisions take place among stakeholders. The programme is often involved in local stakeholder meetings or is informed of decisions made by stakeholders through their “champions” or representatives. As operations intensified, the innovation platform concept slowly disintegrated and became irrelevant. For most stakeholders, their major concern was the practicality of accessing inputs and services, and being able to connect and do business. Since operating outside the innovation platform did not pose any threat to accessing the vital services and inputs, stakeholders were satisfied with working through their informal networks.

Incentives

There is a business gain for all stakeholders that are engaged in poultry activities. Farmers keep chickens because they are able to sell within 3-4 months and get a substantial amount of income. Their major incentive so far has been the availability of cheaper inputs (drugs, feeds, vaccines, and chicks) as a loan and a ready wholesale market that is created through KukuDeal. For vulnerable and special groups, KukuDeal offers specific mechanisms (for example, physical or financial assistance) to enable them to start and operate their poultry enterprises. Farmers gain from continuous free training provided through household ad-

visors, local government extensionists, and entrepreneurship and business trainers. Household advisors in their turn were being paid by the Research Into Use programme to provide the services.

Hatcheries, feed, drugs and vaccine suppliers are gaining from an increased number of organised clients (farmers) that are mobilised and co-ordinated through this programme. It has also supported hatcheries by procuring five incubators from China. Other input suppliers are gaining from soft loans provided through the RIU programme.

External support

During its four years of operation in Tanzania, the Research Into Use programme was entirely funded by DFID. The funding supported all activities, from meetings, field activities, farmers' loans and subsidies, supporting development of indigenous chicken hatcheries as well as activities in lobbying and advocacy.

3 Activities

To organise and develop the indigenous poultry sub-sector, the programme has undertaken a wide range of activities. Core activities were: building production capacity of farmers, providing support to local hatcheries and breeder farms, providing support to develop advisory services and input supply, as well as mobilising market investors.

Building the production capacity of smallholder rural farmers was needed to enable them to care for larger poultry flocks (100+) and produce at least three cycles per year. This is achieved by building farmers' skills in poultry husbandry and management through the use of household advisors and the government extension system; business and entrepreneurship training; and introduction to new production techniques and the use of better inputs. The Research Into Use programme supported the development of specialised local hatcheries and breeder farms in order to boost the quality and quantity of production of indigenous day-old chicks. They also facilitated the establishment of necessary support systems and linkages among stakeholders. This was needed in order to sufficiently provide basic poultry services like veterinary drugs; feed and poultry equipment; extension and other business development services; and markets and marketing services. The programme furthermore took the initiative to mobilise investment for market development including value addition.

4 Achievements to date

The indigenous poultry industry has transformed into a viable economic activity that is boosting household incomes and building business networks that include local and smallholder producers. Through its brokering role, the RIU programme has been able to establish necessary infrastructure to stimulate efficient private and public sector engagement in the indigenous chicken industry. This has led to a well-defined market system for inputs and

outputs and has contributed to the development of the poultry sub-sector. The contract farming system created two major advantages for producers and input suppliers in the value chain: getting a guaranteed market for their products and access to relatively large amounts of cash at the time of selling. This financing mechanism temporarily reduced the level of risks for farmers, hatcheries and input suppliers in the value chain.

Hatcheries, drug and feed suppliers have increased and improved their production and supply to respond to these new business opportunities. The number of hatcheries has also increased from just four to about 13 in three regions specializing in production of indigenous day-old chicks. The hatchery owners and chicken breeders have now officially been registered, which enables them to lobby and defend the needs of stakeholders in the poultry value chain. Transactions along the value chain have also been formalised and have increased as a result of increasing rural producers.

Rural farmers are now able to produce up to 200 chickens three times a year, earning an additional annual income of approximately TZS 900,000 (about USD600) just from their chicken enterprises. In addition, the poultry farmers are building their capacity to influence business processes by engaging in partnerships and using their newly acquired negotiation and entrepreneurial skills.

Throughout its operations, the programme invested in improving the use of existing knowledge by establishing relations between different stakeholders, reviving and investing in private household advisors and government extension workers. The increased knowledge and skills of stakeholders played an important role in the innovations at the farmer level. By using improved poultry management systems, farmers have been able to improve the quality of chickens produced and to shorten production time from over 12 months in an extensive system to three to four months in a semi-intensive system.

To further support the development of the poultry sector, the RIU programme lobbied for the National Livestock Research Institute to develop and submit a proposal to the Commission for Science and Technology to carry out a study to characterise indigenous chicken breeds for the first time at a national scale. The outputs of this activity will solve major challenges (lack of characterisation and parent and grandparent stocks) in the indigenous chicken industry. In addition, the programme managed to create awareness within government bodies to start enforcing new regulations for hatcheries and breeder flock to minimise the spread of poultry diseases. Due to the increased number of stakeholders and the introduction of new production scales, it has become necessary for the government to be increasingly involved in regulating the poultry sector. The government is now also in the process of developing poultry feed policies and regulations.

5 Challenges and future plans

A major factor that has allowed the sub-sector to take off on a commercial basis has been that the Research Into Use programme and KukuDeal took the financing (from DFID) as well as operational roles in the value chain. However, as the programme comes to an end,

stakeholders, especially rural farmers, face a major challenge in accessing financial capital for investing in their social enterprises.

As mentioned earlier, KukuDeal is anticipated to take over the role of co-ordinating the indigenous poultry sub-sector upon the RIU programme exit. This company has been designed to address long-term production barriers among smallholder producers (i.e. timeliness, quality and quantity) by following a poultry contract-farming model that works directly with individual farmers. KukuDeal needs to deal with the greater production by developing the national poultry market, first domestic and later export markets. Until the poultry sub-sector has moved beyond its infancy stage, KukuDeal will play the major role of co-ordinating, and establishing linkages and partnerships within the industry as well as linking initiatives to policies and practice issues at the national level.

The government is considering a National Strategic Plan to specifically develop the local chicken sector, which may consider replicating the approach employed by the Research Into Use programme to other areas of the country.

Scaling-up

The nature of the poultry initiative (i.e. supporting individual households to run their chicken enterprises, and involving the local private sector in providing support services) allows it to be easily replicated and scaled-up. From November 2010, the poultry initiative was replicated to Singida and Dodoma regions, with a few modifications in its advisory services - instead of private advisors, the district, ward and village extension officers took over the role of providing advisory services to farmers.

As the initiative expands and more stakeholders join, two main issues emerge. First is the ability to control and regulate stakeholder operations to ensure that quality and quantity requirements are met. Until now, the RIU programme and KukuDeal have been closely monitoring the quality of inputs, outputs and advisory services provided in the three regions. While the government still does not have strong enough regulatory services, the question is how to monitor such issues at a national scale. The second issue is the availability of financial capital to support farmers' initial start-ups which are given in the form of input loans. Each farmer requires a loan of about TZS 500,000 to complete a production round of 200 chickens in four months.

6 Lessons learned

The experience of this case study has brought up some disadvantages to the innovation platform approach. Platforms and platform meetings are too expensive to maintain. Some platform members did not have the time to sit in platform meetings. Also in some cases, not all members of the platform were needed in the debate and in seeking a solution to a particular problem. For example, when there was a shortage of indigenous day-old chicks, it was more practical for the programme's management staff to issue a public call for the supply of chicks from other producers than to have a platform meeting to get recom-

mendations. As operations intensified, most challenges required spontaneous and quick solutions and, in such cases, operating around the platform philosophy was not practical. It was easier and less costly to operate in terms of a wide network of stakeholders rather than to create specific platforms. An innovation platform approach works best when there is high capacity and stakeholders are organised. It is sometimes necessary to wait for certain conditions to be in place before you can attract the interest of certain stakeholders (for example investors) and hence it is important to know and build the minimum conditions needed for certain stakeholders to come on board.

It was essential to have a central broker who can play many roles in facilitating innovation processes, who can uphold a wider sector development vision while also working with various stakeholders to solve challenges blocking the realisation of such a vision. Flexibility in funding and in operations was a catalysing factor that ensured necessary solutions were explored and implemented. Our experience shows that the broker can also take up functions that are not picked up by any other stakeholder in the sector, for example, it can invest to fill in a gap in a chain.

Another success factor in managing local grassroots relationships was having farmers as leaders (“champions”) in co-ordinating and managing their own relationships. Using local female champions at the district, ward and village levels also motivated other women to join the networks and start poultry keeping. The commodity chosen (local poultry) ensured more participation by women since poultry keeping did not require vast resources (for example land) that are mostly owned by men in rural settings.

The constant and direct involvement of the local private sector created a reliable production base and service provision. The “win-win mindset” among local stakeholders (especially local private sector service providers) was encouraged in all processes to help stakeholders understand that by engaging more people they gain more.

In addition to scale, a shift from complete “non-profit” oriented activities to “social business models” (in this case contract farming) is necessary to overcome challenges in innovation systems and create some level of sustainability. These businesses have to be backed up by higher levels of (improved) technologies even in rural areas, in order to support the growth and transformation of agricultural production. Small-scale technologies that are both time- and cost-inefficient (for example, natural breeding, the use of small kerosene incubators, and small processing machines) are locking farmers and other producers in small unproductive cycles with outputs that cannot compete in any markets.

VII Cowpea and soybean in Nigeria

U.P. Ugbe³⁷



Membership in the innovation platform is based on free entry and free exit, and it comprises mainly interested member organisations which are loosely organised and not legally incorporated. The interests of platform stakeholder members were diverse, but coalesced around the overall innovation of cowpea or soybean value chains.

1 Introduction

The cowpea-soybean innovation platform was one of three platforms in Nigeria created and supported by the Research Into Use (RIU) programme funded by the UK's Department for International Development (DFID). Broadly, the Research Into Use programme "aims to accumulate and evaluate evidence to shape and share lessons on how best to enable innovation in the agricultural sector so as to achieve social and economic gains in diverse developing country settings" (www.researchintouse.com). The specific strategies and activities through which Research Into Use tries to achieve this goal vary by sub-sector, and place and conditions in each target country.

The RIU programme started in 2006 with country assessments in selected African countries. In Nigeria, the country assessment team interviewed various farmers' and produce marketers' associations, agro-allied companies, agricultural research agencies and policy makers, and other agriculture stakeholders, before recommending that cowpea and soybean be among the targeted crop sectors for intervention.

Nigeria produces about 3.2 million tonnes of cowpea, which is 58% of the global and 61% of Africa's output. It is also the leading producer of soybean in sub-Saharan Africa – though Africa accounts for less than 1% of the global output, due to low per-hectare yield.³⁸ The Research Into Use programme's country assessment team recommended merging cowpeas and soybeans under one innovation platform because both are high-protein legumes, generate livestock fodder of significant economic value, and involve many value chain entrepreneurial activities of which women are the most visible actors.

Historically, less than 20% of agricultural research outputs in Nigeria has been adopted on a commercial scale (Banta, 2009). This is seen as an indication of inefficiency and ineffectiveness of state-run agricultural extension services which have held sway in most post-colonial sub-Saharan Africa countries. Critics point out that, relative to the enormous

³⁷ Research Into Use (RIU) programme.

³⁸ See www.researchintouse.com

public investments on the state-run extension systems, they have not produced impressive results in promoting agricultural innovation. This, the critics argue, has partly been due to erroneous assumptions under the linear or top-down model of extension, in which: 1) the researcher is the sole originator of new agricultural knowledge and technologies; 2) the role of publicly-funded extension systems is simply to push the new knowledge and technologies to the farmer; and 3) farmers are ignorant and therefore ought to adopt, without any objection or questions, any new knowledge and technologies pushed by the extension system. State-run extension services have also been viewed as donor-dependent, not generating revenues from services provided, not self-sustaining and not involving private sector participation.

The general objectives of the Research Into Use programme in orchestrating the innovation platform were, therefore, to address these weaknesses which were generally associated with state-run supply-driven agricultural research and development. The programme envisaged that an experiment in creating and nurturing an innovation platform on cowpea and soybean systems would yield useful lessons on the possibility of an effective alternative approach within the current extension model. The innovation platform was envisaged as a mechanism for knowledge brokering in an innovation-systems perspective in which a range of structural factors, including the efficiency or quality of public infrastructure, financial services, education, and socio-cultural practices, and even national governance, were recognised as intervening variables in innovation capacity (Hargadon, 2002; Klerkx, 2008).

In forming the innovation platform, the RIU programme effectively piloted in Nigeria the knowledge that “intermediaries have emerged whose primary aim is to enhance interaction between agricultural entrepreneurs and providers” of research and knowledge-intensive business services, which require institutional change and capacity building on both the supply and demand sides of the agricultural knowledge market (Klerkx, 2008). The immediate objective of the programme was, therefore, to form and nurture a group (or platform) of economic actors to address selected practical problems in both supply and demand issues relating to soybean and cowpea value chains, in order to improve productivity and efficiency of linked activities.

2 Modus operandi

Facilitation

The platform was envisaged to become self-facilitating after initial capacity-building assistance from the Research Into Use programme. The platform was furthermore envisaged to catalyse innovation in cowpea and soybean value chains among the platform members. The role the programme was therefore to bring platform members together in order to make the platform work. An elected *caretaker committee* (comprised of platform members) served for three months, and helped to organise the election of an executive committee led by two co-chairpersons (one for cowpea matters and the other for soybean). The cowpea co-chair is based in Kano state, and the soybean co-chair in Kaduna. Each co-chair is assisted by a deputy-chair and a treasurer, all four of whom were women. The executive

committee was the platform's official interface with the RIU-Nigeria programme, and federal, state and local agricultural agencies responsible for various support services. In addition, the executive committee serves as a channel between member organisations and addresses the needs of the platform members as they come up. The duties of the committee include: 1) Convening meetings of the platform; 2) Liaison with the programme's country office to discuss ideas, relay/receive messages from/to member-organisations; 3) Inform member-organisations of opportunities for addressing their expressed needs; and 4) Facilitating networking to promote business interactions and transactions among the platform members.

Members

Membership of the innovation platform is based on free entry and free exit, and comprises mainly of interested member stakeholders which are loosely organised and not legally incorporated. The platform was open to interested entities, irrespective of spatial location. It attracted farmers' groups from Bauchi, Gombe, Kaduna, Kano, Katsina and Jigawa states, which are among the leading producers of cowpeas and soybeans in Nigeria. It also attracted private-sector producers of animal feed, grain storage products, agro-chemicals, seeds for improved crop varieties, and produce marketers. The interests of the platform's members were diverse, but coalesced around the overall innovation of cowpea or soybean value chains. Each organisation joined the platform with its own expectations and objectives on behalf of its members.

For example, cowpea farmers wanted seeds for high-yielding, medium-maturing, *Striga*-resistant dual-purpose (giving both a high yield in seeds and livestock fodder) varieties of cowpea. Cowpea farmers, marketers and processors identified weevil infestation of stored cowpea as their biggest challenge in the post-harvesting phase of the value chain. Soybean farmers wanted seeds for rust-resistant varieties, better seeds and other inputs which would enable them to get a higher farm yield. Farmers also wanted to get higher prices for their soybeans. Vegetable oil-producing companies wanted a strong collective front to pressure the ban on indiscriminate importation of cooking oils so that domestic vegetable oil-producers could survive. Hence, the platform was a channel for an information market to serve the needs of diverse stakeholder groups in pursuing innovation.

Between March 2009 and June 2011, 39 organisations involved in various activities (for example farming, research, extension input supplies, produce marketing and post-harvest processing, joined the platform). These include:

National/international research organisations: These included the International Institute of Tropical Agriculture (IITA), a Nigeria-based member of the Consultative Group on International Agricultural Research (CGIAR) with robust research mandates on cowpea and soybean crops, and five federally-funded agricultural research agencies, namely: the Institute of Agricultural Research (IAR - cereals mandate); the National Animal Production Research Institute (NAPRI - livestock mandate); the National Agricultural Extension Research & Liaison Services (NAERLS - extension research); the National Stored Products Research Institute (NSPRI - post-harvest storage mandate); and the Agricultural Research Council of Nigeria (ARCN- research regulation/management mandate).

Agricultural extension organisations: At a state level the Agricultural Development Programmes (ADPs) mandated to provide agricultural extension in Bauchi, Gombe, Jigawa, Kaduna, Kano, and Katsina states and at a district level the Agricultural Department of Garko Local Government Council in Kano state;

Private companies: including various cowpea and soybean farmers' groups, produce marketers' groups from Kaduna and Kano states, and eleven private companies (3 animal feed producers, 2 producers of seeds, 2 suppliers of agro-chemicals, 2 banks, an agro-technology fabricator, and a producer of storage bags for grains); and

Community development organisations: 15 farmers' organisations and associations from different states were involved in the platform (for example, seed breeders or outgrowers' associations, a widows' group, and a women-in-agriculture organisation).

Representation

One co-chair was from a cowpea farmers' group, while the other was from a soybean produce marketers' group. The deputy co-chairs, treasurer and secretary (all females) were from farmers' and marketers' groups. Big companies did not show interest in serving on the executive committee. This reassured the farmers and marketers who wanted to be sure that their influence and decision-making capacity would not be undermined by the presence of big companies, research organisations and scholars.

Incentives

The executive committee positions are voluntary, and members are not paid. The Research Into Use programme covered the cost of initial meetings as part of the innovation platform's formative process, but later on this started to change, as platform members started to pay for their own travel costs. For example, farmers' groups paid their delegates' travel costs to attend meetings with seed companies, as this was perceived by the farmers as directly addressing their lack of access to improved seed varieties. Seed companies also offered to cover the delivery cost of seeds to the farmers' location.

External support

Under the Research Into Use programme plan, the platform was provided capacity-building support such as covering the cost of initial meetings, travel, the initial cost of technical assistance input from resource persons, and facilitation of contacts with various resource agencies and individuals. The programme was an important broker during the inception phase of the innovation platform as the various organisations involved in the value chain were acting fully independently. The platform tried to demonstrate the possibility of an independent, private sector-led broker performing the services with which the traditional state-run extension system grappled.

The Research Into Use programme was the initiator, but the platform became self-administered without interference from the programme, just as the various stakeholder members were self-administered without interference from the platform.



Soybean farmer in West Africa

Photo: M. Arnoldus

3 Functions

The cowpea-soybean platform is a multi-stakeholder intermediary. Its functions include:

- Sharing business information to member organisations about potential sources of new knowledge, technologies, financing or market opportunities;
- Discussing common challenges facing the two crop sectors, and selecting people to follow up in seeking for solutions;
- Serving as a unified front for policy advocacy; and
- Maximising access to improved seed varieties, inputs supplies, technical services, and market opportunities for all stakeholders within the combined value chains.

4 Achievements to date

In 2009 and 2010, the participating cowpea and soybean farmers in Kano and Kaduna states successfully acquired and planted authentic seeds for medium-maturing dual-purpose and *Striga*-resistant cowpea varieties, as well as rust-resistant, early-maturing varieties of soybean, resulting in a 30% increase in farm yields for cowpea and 20% for soybean, over 2008 levels (RIU-Nigeria, 2010). It was the first time that authentic seeds were supplied directly by the seed company, and in two kilogram packets, instead of 50kg bags. The farmers proposed this packaging as they operate at a very small scale, with average farm size being 0.5 hectares. They only needed two or four kilograms of seeds. For farmers' associations that acquire their seeds through delegates and intermediaries, the tamper-proof packets of seeds was more convenient for distribution to members, rather than opening 50kg bags and then measuring the seeds out to members in cups and dishes.

About 600,000 cowpea farmers and produce marketers were sensitised to the economic and public health benefits of storing harvested cowpea in airtight containers, instead of applying toxic chemicals to repel weevil infestation, which has historically caused significant post-harvest losses to cowpea production and distribution. The increased awareness led to a boost in demand for locally-produced air-tight storage bags (known as "triple bags").

Cowpea and soybean farmers were trained on improved handling and management of fodder stockpiles to be sold to livestock farmers, through workshops organised by the platform. An engineering firm which is a member of the platform manufactured and introduced a hay compactor to farmers and fodder dealers, which was adopted and put into use in many rural communities. This enabled the compacted fodder to be more easily stored and transported in smaller spaces to livestock grazing reserves in Kaduna and Plateau states, where fodder demand is high during the dry season.

The platform requested a study on the national policies that were causing a glut in soybean prices and making domestic edible soybean oil much more expensive than imported brands. The study team later presented the study's findings to policy makers in a forum for the relevant ministries, departments and agencies, as well as farmers and produce marketers. The forum opened doors to further dialogue between government and key economic stakeholders, and the policy process is still going on to learn and change in support of the platform.

In 2010, the platform invited senior executives of First Bank and Fidelity Bank to present proposals on financial modalities for implementing a federally-funded public-private partnership initiative which provided low-cost loans to actors in various crop sectors, and how the platform's members could access financing under the facility. One of the platform meetings was sponsored by seed companies, suppliers of agro-chemicals, and a major producer of grain storage bags; the co-sponsors took the opportunity to show and tell about their products and services, and by the end of the meeting, several follow-up appointments had been agreed upon to conduct field demonstrations of the products and services.

5 Challenges

Diverse interests and priorities of different members made conflicts inevitable. For example, the representatives of farmers' associations initially did not want the platform membership to include agribusiness companies because of farmers' perception that some of the companies made abnormal profits while paying depressed prices to farmers through unfair contract farming arrangements. Such issues required resolution, and it was part of the role of the Research Into Use programme, as innovation enabler for the platform, to broker the resolution of such conflicts through open discussion and mutual commitments to new ways of working.

The RIU programme invested in the formation of the innovation platform to become an innovation enabler. However, the process of building the capacity of the platform to pick up its role of intermediation to address the diverse challenges and priorities of member organisations proved to be much slower and more complicated than the initial prospects. As the two-year timeframe of the programme support draws to a close, the key question is whether the platform will have the skills and resources to continue to make itself useful and relevant in brokering solutions to members' diverse interests.

6 Future plans

Institutionalisation and mainstreaming

The Agricultural Research Council of Nigeria (ARCN), responsible for the regulation and management of agricultural research in the country, hosted the RIU programme's country office. After observing the programme's brokerage roles and the functioning of the cowpea-soybean platform, the Agricultural Research Council of Nigeria began a process of brokering the emergence of village-based platforms in designated adopted villages, in collaboration with selected national agricultural research institutes. The adopted village initiative aims to match agricultural research to real-life problems, and invite private-sector participation.

The Agricultural Research Council of Nigeria and the Research Into Use programme shared the view of platforms as transitory arrangements in terms of objectives, membership, leading stakeholders, sources of technical/financial support, and spatial location. In this notion, indicators of sustainability would include whether private sector-led relationships and transactions that develop through the platform, were repeating themselves without the need for a broker, rather than whether the platform itself was still in existence.

7 Lessons learned

The Research Into Use programme used a two-step process to form and support a platform. First, they brokered the formation of the platform, then the platform brokered the processes and interactions among its members. After the RIU programme ends, the emergence

of a market-led brokerage or intermediation service provider similar to some of the programme's roles can be envisaged. The lesson here is that the role of platforms as enablers of innovation can be impacted by external actors, whose form and mission may be transitory but driven by opportunity or investment.

As part of a platform, stakeholder members had a stronger convening power, enabling them to meet with banks, policy makers and other actors who were previously not accessible to them. For example, a widows' group used the platform as a formal entity to acquire land where they previously could not get any.

The platform enabled farmers to get access to improved seeds and related inputs, improved post-harvest storage methods and skills, and face-to-face meetings with policy makers. This confirms that the pooling of ideas, social networks, skills and information can enable the capacity for addressing innovation challenges.

The distribution of inputs went smoothly for farmers' associations that had honest and transparent leadership, and poorly for those with corrupt leaders. For example, some delegates collected, diverted and sold the authentic seeds for a higher price elsewhere. The degree to which the leadership of partner groups – especially associations and umbrella groups – was internally cohesive, democratic, accountable and transparent, helped or hindered the effort of the members to innovate.

The Agricultural Development Programmes (ADPs) which partnered with the RIU programme on triple bagging, made very positive contributions to the success of the intervention. Programme staff were highly motivated and effective, and the bag producers and sellers did not report any case of theft or missing money from the sale of the bags. This was contrary to widely-held view that the Agricultural Development Programmes, often seen as inefficient and unmotivated, would not contribute positively within a platform setting.

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VIII Maize in Rwanda

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One of the platform members said: “Akanyonikatagurutse ntikamenya iyo bweze”, which means: “A bird which doesn’t fly cannot know where food can be found” – This indicated the benefits from exchange tours for accessing relevant information and technologies.

1 Introduction

Since 2006, the Department for International Development (DFID) in the United Kingdom has been supporting a programme in Rwanda to enhance the uptake of relevant agricultural technologies using innovation platforms through a programme known as “Research Into Use” (RIU). Three major crop commodities were selected, namely cassava, potato and maize. This case study focuses on the experiences of the maize innovation platform to foster diffusion of maize technologies in Rwanda.

Maize is a key priority for the Government of Rwanda under the National Crop Intensification Programme. Nyagatare District in the Eastern Province was earmarked for maize production. In spite of the many efforts made by the government, different projects and several NGOs, adoption of maize agricultural technologies by smallholder farmers in Rwanda has not been very successful (Hakizimana, 2007). Inadequate co-operation between the key players in the agricultural sector has been partly responsible for the limited uptake of new knowledge and technologies by the farmers.

The Research Into Use programme intended to address this gap through the establishment of innovation platforms to create and facilitate the essential collaborative relationships between stakeholders. The Innovation Systems approach and innovation platforms in particular seek to establish a mutual relationship among all stakeholders to work together to utilise the available knowledge, technologies and services for economic and social benefits. The use of innovation platforms in agricultural development is an approach that requires developing the capacities not only of the farmers but for all other actors in the value chain, namely, seeds multipliers, inputs suppliers, co-operatives, processors, traders, local leaders, research and extension, to work together in a co-ordinated and mutually beneficial way. Moreover, innovation platforms require a mutually agreed governance system that takes care of the diverse interests of each of the stakeholders.

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Maize

Place: East Africa. Photo: International Livestock Research Institute (ILRI)

2 Modus operandi

The maize platform was initiated in 2008 by the Research Into Use programme, in partnership with the Ministry of Agriculture (MINAGRI) and the Rwanda Development Organisation (RDO), a non-government organisation (NGO). The maize platform was constituted by a cluster of eleven public and private organisations engaged in maize-related activities. Prior to the beginning of the platform activities, the RIU programme supported several sensitisation meetings to map out the stakeholder groups, and solicited their commitment to the platform activities. The process was participatory and inclusive, involving; farmers, local leaders, researchers, extensionists, NGOs, and traders in the planning of platform activities.

Members and representation

The maize innovation platform started with 55 members, the majority (70%) being farmers. For governance of the platform, a committee of six members was set-up. The committee comprised of a president (farmer), a vice/president (farmer), a secretary (local leader), a treasurer (an NGO extension worker), two counsellors (one researcher and one farmer). Representation of stakeholders on the platform committee was determined by the number of members from the stakeholder categories. This implied that farmers who were the majority also took on more positions in the committee. The traders for example were not represented on the innovation platform committee because they were only a few.

At the time, there was no experience of such diverse actors along the value chain working together to promote a commodity like maize and its related products. Setting up such an arrangement therefore required a lot of preparatory planning. For this reason, the RIU programme took four months (May 2008-August 2008) to carry out pre-planning activities and the actual implementation of the platform activities started in late 2008. During the pre-planning activities, the programme staff found it necessary to develop binding mechanisms in the form of Memorandums of Understanding for platform members and local organisations. Three types of memorandums were signed. The first one was among the platform members regarding sharing of roles and responsibilities. The second was between the Research Into Use programme and the platforms, and the third was between the programme and local NGOs. Development of these memorandums allowed for the stakeholders to negotiate their interests in a transparent manner, to establish common understanding of the intentions of the platform, developing trust amongst themselves, and to develop a shared vision. The purpose of the memorandums was to clarify the roles and responsibilities of the partners and ensure their commitment to undertake their obligations. The Memorandums of Understanding were signed in March 2010 although they should have been signed in March 2009, according to the plan. This delay is attributed to the complex process of negotiation of interests which is often under-estimated both in terms of process and time. Some stakeholders needed to consult their constituents and also seek advice of lawyers before they could sign the memorandums.

3 Activities

The most critical constraints identified by the maize innovation platforms included lack of good quality seeds and predominant use of poor crop management techniques. Since these were seen to be the factors that most limited agricultural production and farmer income, they formed the core of issues to be addressed, at least at the beginning. At this stage, the convergence of interests began to appear. Table 6 summarises the major activities of the different stakeholder groups.

Stakeholder agreement on sharing roles as indicated in this table is usually more easily stated on paper than in reality. It takes commitment for the platform members to undertake their assigned roles with determination. Motivation to undertake these roles and actively participate relies largely on each of the platform member's expectations. The articulation of the above-mentioned constraints was possibly the major driver for farmers to join the maize platform. Farmers expected to further increase their production and subsequent income if they were able to access better quality seed and improved farming practices. As a result of addressing the constraints and developing increased production, traders and processors also expected to increase their volume of business – hence profits. The NGOs, researchers and government agents also expected to increase their efficiency by working with organised and motivated clients.

Table 6 Activity schedules and responsible stakeholder groups in maize platform, Nyagatare District

Activities	Responsible	Timelines
Land consolidation	farmers and local leaders	June-August 2008
Training through farmer field schools and study tours organised on maize production	RIU, researchers, extensionists and NGOs	July 2008
Use of oxen for ploughing	farmers and farmer "champions", NGOs	August 2008
Purchase of agricultural inputs including inorganic and organic fertilisers	RIU, platform committee and NGOs	August 2008
Planting improved ⁴¹ varieties of maize and use of appropriate agronomic practices	farmers, researchers, extensionists and NGOs	September 2008, first planting season for the maize platform
Promoting improved post-harvest handling through the purchase of small shelling machines	traders and farmers	December 2008
Memorandum of Understanding development and sharing of responsibilities	all platform members involved	March 2009
Construction of maize driers	farmers, platform committee and RIU	June 2009
Establishment of the Maize investment group (NYAMIG)	all stakeholders and RIU	August 2009
Increased access to credit through dialogue with financial institute to improve agricultural financing	RIU and financial institutes	December 2009

4 Achievements

Increased access to and use of improved and good quality maize: Quality Protein Maize (QPM) varieties were introduced through the platform. This variety is dual purpose: it gives better yields than other open-pollinated maize varieties, and also has a high protein content which is crucial for the improvement of nutrition. Increased yield of the maize crop has also led to the introduction of other support technologies such as maize driers to enhance value addition.

Increased knowledge and skills in using improved maize production technologies: The maize platform adopted a Farmer Field School approach to farmer learning. Specifically, some of the knowledge and skills gained from the Farmer Field School training and Study tours were related to selection of good planting material/seed, spacing and planting, disease and pest management, and fertiliser application. For example, a study tour to Uganda by Rwandan maize farmers stimulated them to take on several initiatives among which is acquiring small machines for milling maize to add value. As one farmer put it: "*Akanyonikatagurutse ntikamenya iyo bweze*" which means: "A bird which doesn't fly can't know

⁴¹ In collaboration with ISAR, RIU has supported the introduction and multiplication of M081 maize early maturing variety (7 ha) and 4,000 households benefited from this new variety

where food can be found". This was an expression of the farmer benefits from tours with regard to accessing relevant information and technologies.

Strengthening social networks and farmers' organisations: The maize innovation platform strengthened collaborative relationships between various stakeholders in a local maize value chain, namely: farmers and farmer co-operatives, researchers and extensionists, processors and input suppliers, financial service providers, local leaders and policy makers. This widened the social networks of all the stakeholders involved and further strengthened their mutual trust. For example, interaction among farmers resulted in seed exchanges and field visits among farmers to exchange knowledge and experiences.

Creation of new business deals for platform members: The maize platform has given birth to maize investment group NYAMIG as the business arm of the innovation platform. NYAMIG is made up of about 30 farmers' co-operatives. It is responsible for searching for markets and marketing maize on behalf of the maize platform. Through this, the platform has now established a voucher system, that enables farmers to get warrants (vouchers) so that they can safely store their produce for longer periods to access better market prices and avoid exploitation by maize traders. The voucher programme in itself serves as collateral for the farmers to access bank loans and at the same time make business deals with input dealers to purchase seed and fertilisers.

Access to new maize markets: New markets for maize were accessed by farmers in Kigali (the capital of Rwanda) and other urban centres. This was an opportunity for farmers to increase their profits and overall benefits from their efforts. In a study on diffusion of innovations, Cochrane (as cited in Sanginga *et al.*, 2009), clearly emphasised that the windfall profit for early adopters is the foremost incentive. The amount of cash in farmers' pockets and the change in the household livelihood motivate not only the producers but also all their neighbours. For example, one maize farmer in Nyagatare District, proudly asserted during a training session that: *"From the past two maize seasons, I was able to buy two motorcycles, build a new house and I am planning to acquire a computer for my children to use"*. Despite the fact that the farmer had been growing maize for many years, he had never achieved such tangible benefits by doing things differently. In addition, the Research Into Use programme facilitated the establishment of linking the farmers' association (NYAMIG) with the World Food Programme, thereby providing new market opportunities.

5 Challenges

The maize innovation platform had a diversity of stakeholders whose expectations and needs differed. The management and co-ordination of platform activities, as well as capacity building for the different stakeholder groups in such a short time pose a major challenge. This resulted in discontent among some platform members who felt that their needs were not given as much priority as those of their counterparts. A sense of dissatisfaction affects the commitment and ownership of the innovation platform initiative.

The pre-planning activities for establishing the maize platform took a very long time and were expensive. The funds were provided by the Research Into Use programme but otherwise it turned out to be an expensive process. The platform members thought that some of those funds would have been better spent on implementing platform activities rather than some of the pre-planning activities.

While it is desirable to maintain the memberships and stakeholder composition of the platforms, the membership of the maize innovation platform is very dynamic, with new members joining and others dropping out. This in itself is a challenge because the platform is constantly changing its membership, which may imply continuous changes in roles and responsibilities.

An attitude of dependency associated with development projects is a constraint to empowerment and self-reliance. This attitude can develop over time as projects tend to provide hand-outs and inducements for people to participate. The platform struggled to convince people that they will be rewarded by their acts and that they should not expect immediate rewards like cash incentives (from the Research Into Use programme). It was thought that acquisition of skills would be a strong incentive but it turned out that this was not the case for many platform members – especially for the processors and traders. The Rwandan government already had a policy of rewarding hard-working and innovative farmers with items such as wheelbarrows, shovels, spades, etc., but the cash incentive was stronger. These kinds of incentives were expected by many platform members.

6 Future plans

The maize innovation platform is considered to have been successful and has been tasked in taking the lead in establishing maize innovation centres in other areas. It is anticipated that these centres will serve as learning sites in the process of scaling out products of the platform through demonstrations, and at the same time provide space for the farmers to interact and share lessons. The centres could develop into new platforms.

Continuity of the platform activities will most likely be affected when its RIU programme funding stops. This may slow down activities if alternative funding is not found in time and if partners do not demonstrate commitment, including co-funding. The success of the process of implementation is largely dependent on the Ministry of Agriculture and other development partners taking ownership of the platform and commitment to support institutionalisation in other (national) organisations or programmes. At the same time, however, the Research Into Use programme has developed a strategy for putting the responsibility of the platform in the hands of public-private partners. This step could furthermore contribute to local ownership. Several partners, including NGOs and government parastatals, could support the work and/or champion the activities of the maize platform after the programme phases out support. This requires mobilisation of local organisations including farmers' organisations, research institutes, extension organisations, NGOs and development partners.

7 Lessons learned

The operation of the innovation platform turned out to be an effective approach in promoting the development of a commodity-based agricultural value chain. This is carried out in a holistic manner as it creates space for participation and brings together a wide range of stakeholders to work together towards a common goal. In doing so, social networks are built and strengthened, and the stakeholders become empowered to negotiate, lobby for and demand what they need from public and private service providers.

There must be a local facilitator (a local NGO or government ministry) that takes on the role of driving platform activities after the donor ceases to fund platform activities. Local ownership is critical to support the work or take the lead after phasing out support of a donor.

The necessary negotiations and other pre-planning activities make the establishment of a platform a long and costly process. Establishing an innovation platform requires the participation of a wide range of stakeholders from the private as well as the public sector, but also their commitment to actively participate. The diversity of interests of the various stakeholders could be a constraint, and convergence of interests needs to be achieved. Only when there is convergence of interests and commitment, are members likely to collaborate fruitfully.

Capacity building for all stakeholder members is a critical element in developing platforms. The Research Into Use programme however emphasises building the capacity of the demand side (farmers) to participate in innovation platforms and probably over-estimated the capacity of other platform members. To comprehensively develop capacity of actors, a thorough capacity needs assessment is required. One of the flaws of this programme has been that it started without such a needs assessment.

The strongest incentives to the platform members are those that have economic value. It is therefore important that the platform members specify their anticipated economic expectations prior to joining the platform. Support services to the innovation platform, such as training, should then be geared towards unleashing the economic benefits to the platform members; otherwise, training *per se* may not be valued very much as an incentive.

Memorandums of Understanding as an instrument for operationalisation of innovation platforms is a good starting point for clarifying the roles of platform members and to get their commitment on performing their roles. But the memorandums turned out to by themselves not be adequate for inspiring platform members to perform their expected roles. Capacity building is essential for the various stakeholders to realise the potential opportunities in the platforms, to motivate them to continue engaging.

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IX Agricultural innovation platforms: The ASARECA experience

L. Kimenye, J. Methu⁴² and W. Heemskerk⁴³

Effective facilitation of multi-stakeholder platforms requires particular skills if mutual learning has to be enhanced in multi-stakeholder networks. Such skills are currently not commonly found among researchers, extension or even among NGO staff.

This case study analyses the ASARECA experience with multi-stakeholder partnerships in innovation processes. It is based on an analysis of the application of Agricultural Innovation System principles in research activities which receive grants through ASARECA's Competitive Grant System. Although the paper discusses the ASARECA programme in its entirety, specific examples of different innovation platforms from different countries are provided.

1 Introduction

The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) is a not-for-profit sub-regional organisation established in 1994 to foster and stimulate collaborative work in agricultural research for development in the Eastern and Central Africa region. ASARECA adds value to the work of the national agricultural research systems in the region through identification of shared goals, generation of sub-regional public goods and facilitating the sharing of knowledge and technology spillover. It has its secretariat in Entebbe, Uganda and consists of ten members, namely: Burundi, DR Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda. ASARECA's mission is to promote economic growth, fight poverty, reduce hunger and enhance resources through regional collective action in agricultural research for development.

To achieve its mission, ASARECA has in the past few years adopted the Agricultural Innovation Systems' thinking (AIS) in its strategies. This reflects the recognition of the growing importance of multi-stakeholder partnerships. The adoption of agricultural research for development has been enhanced both at the ASARECA level and by some key implementing partners. Simply put, working from an Agricultural Innovation Systems perspective calls for greater emphasis on the innovation process, interaction and learning between different stakeholders. For more on the Agricultural Innovation Systems concept see the principles by Otim-Nape (2010) in the Introduction to this book.

⁴² L. Kimenye and J. Methu are both affiliated to Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA).

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ASARECA promotes collaboration in national agricultural research systems, by creating opportunities for organisations to enlarge their partnerships and participation in research platforms. For this reason, the organisation launched its Competitive Grant System in 2004. This refers to a research funding mechanism for projects that are implemented by consortia and communities of practice that cut across countries, and reach from the local to the national and international level. ASARECA's Competitive Grant System calls for the incorporation of Agricultural Innovation System principles into research-for-development approaches. The Competitive Grant System is also an important mechanism for re-aligning the national agricultural research systems and their partners in the fight against poverty and the improvement of agricultural production in the region. It promotes a more demand-driven and pluralistic approach to increasing agricultural productivity and competitiveness, through encouraging the development of partnerships.

The Competitive Grant System grant is a key incentive to the formation of multi-stakeholder partnerships across different levels (local, national and international). This funding mechanism promotes the establishment of various innovation platforms which are based around facilities, geographic areas, researchable themes or institutional arrangements that increase access by partners to resources and services. Innovation platforms under the ASARECA Competitive Grant System address two main concerns: to involve farmers and their organisations in innovation processes, and to recognise that the private-sector value chain actors are the main drivers of the innovation process. This mechanism ensures that ASARECA embraces a much more market-oriented approach to Agricultural Research for Development. The Competitive Grant System ultimately aims to contribute to national policy change through the lessons on institutional change acquired by the local innovation platforms in the various countries. The influence is expected to be strengthened as results are obtained across countries in different contexts and on the basis of local stakeholder configurations.

2 Modus operandi of ASARECA's Competitive Grant System partnerships

There is a formal procedure for consortia to obtain grants from the Competitive Grant System. To gain a better understanding of how the grants lead to the establishment of platforms across levels, we will now take a closer look at the mechanisms that lead to the set-up of innovation platforms.

ASARECA's multi-stakeholder partnerships: mechanisms for establishing innovation platforms

The initial steps in the Competitive Grant System process involve the call and evaluation of concept notes for research projects. This can only be done by consortia of organisations at the sub-regional level; with the involvement of organisations of at least three different countries. These partnerships are to come up with projects that promote the formation of innovation platforms at the national and local levels.⁴⁴ Hence, the Competitive Grant System promotes partnerships at three levels: the sub-regional, the national and the local level.



Training on Agricultural Innovation Systems (AIS), in progress for members of innovation platforms under the Dissemination of New Agricultural Technologies in Africa (DONATA) project. Nairobi, Kenya on 15 June 2011

Photo: Julius Nyangaga, Research Associate, International Livestock Research Institute (ILRI)

The *sub-regional partnerships* comprise at least four organisations,⁴⁵ distributed across three or more participating countries, who have agreed to work together to implement a research project. Contracts are subsequently signed between ASARECA and the organisations. The sub-regional partnerships serve as mechanisms for the identification of the common challenges and opportunities, and for addressing these collectively. They also enable the partners to share results among them and other ASARECA member countries.

The establishment of *innovation platforms* at the national level commences at the launch of the projects' activities in the participating countries. In the course of implementation, many local-level platforms are created. The national platforms draw on the experiences of local platforms to enhance learning and innovation within a country. Through its interaction with local-level platforms, the national innovation platform can come up with practice-based policy advice.

At the local level there are *pilot sites* where platform members innovate through organisational and individual capacity strengthening and learning.

Stakeholders involved

The nature, composition and partnering arrangements of the research partnerships under ASARECA's Competitive Grant System vary depending on the type of research activity and also between the older and newer projects. The new projects, commissioned after ASARECA's re-organisation in 2009⁴⁶, use the updated version of the grant system. This new version

⁴⁴ ASARECA sees a platform as a multi-stakeholder grouping of organisations and individuals working together to achieve desired goals. The underlying principle in an innovation platform is that research organisations have an active interaction with private firms and farms, the latter mainly in the form of farmers' organisations, private sector organisations and NGOs. Going by this definition and in relation to the Competitive Grant System, innovation platforms are seen at the national and local levels only.

⁴⁵ In general, the sub-regional platforms involve formal partnerships usually referred to as sub-grant agreements. These organisations are referred to as sub-grantees. In the Competitive Grant System projects, these are the ones that receive funds directly from ASARECA.

⁴⁶ Previously ASARECA operated through seventeen regional commodity networks. In its re-organisation, the networks were collapsed into seven research programmes to improve efficiency and effectiveness in delivering the ASARECA mandate.

tends to exhibit more diversity in partner composition. The partnerships typically involve private sector (seed companies, processors, local radio), farmers' associations and groups, public extension, NGOs, research (national agricultural research institutes, CGIAR research centres and universities), schools, and health organisations. The diversity of partners generally tends to be more pronounced at the local level, while the multi-disciplinary and multi-stakeholder composition is usually not as evident at the sub-regional level.

National-level platforms generally feature both formal and informal partnerships, while local level platforms are mainly informal partnerships. Table 7 illustrates examples of formal and informal partnerships in some ASARECA projects. The projects funded under the "Dissemination of new agricultural technologies in Africa" (DONATA) initiative provide a good example of projects that have broad-based partnerships with both formal and informal arrangements.

The number and compilation of partners generally change as the platforms evolve, with stakeholders joining and leaving over time. However, it should be noted that most of the dynamism of the innovation platforms takes place at the local level, as these operate more on informal arrangements.

Facilitation of the innovation platforms

At *national level*, facilitation is often either provided by specific public or private (and NGO) extension services, or through embedded services in research organisations (see Box 5). Under the DONATA project, for example, facilitation in the national-level platforms is usually provided by research organisations or universities, as they have the capacity and resources to convene the platform players. They are also often interested in some Monitoring and Evaluation information and knowledge sharing.

At *local-level* innovation platforms, mainly NGOs or farmers' organisations assume the facilitation role. This is because at this level, facilitation is more operational and is often centred around activities such as bulking of produce, and capacity building of farmers for production, and accessing other services.

Box 5 Facilitation of multi-stakeholder processes in Ethiopia (Source: Woodhill et al., 2011)

Brokering of innovation networks and facilitation of innovation processes is a capacity which does not widely exist in the current extension set-up. Recognition of the value of "free actor facilitators" (people or organisations who are perceived by others as having a relatively neutral position) is growing but still relatively limited. Research and university organisations as well as the corporate horticultural sector see potential for playing a greater role in this regard. Free-actor-facilitation experiences mainly exist with NGOs (e.g. co-ordinating group mode by the Dutch organisation SNV, or the learning alliance by NGOs) and the commercial sector (e.g. Horticultural Development Agency as facilitator in the floriculture export system). The Farmer Trainer Centres can develop into local platforms and networks, with a facilitation role for the extension workers. Researchers from universities are increasingly interacting with market parties and have as such changed their attitude towards the private sector; but according to research managers, market-orientation skills and knowledge still need to be improved. A similar observation applies to the perceived need of facilitation skills in multi-stakeholder settings, as well as the need to have independent or free brokers in such processes. This need is recognised by SNV, not less by researchers as well as the Bureau of Agriculture, as expressed by their observation: "*Facilitation of the innovation process? –We can do it ourselves*".

Table 7 Stakeholder, country partnerships from a sample of Competitive Grant System projects (Source: Various project proposals and reports)

Project short title	Country	Formal partners	Informal partners
Scaling up farmer-led seed enterprises (FLSE) for African indigenous vegetables	Kenya	KARI; Kenya Seed company; TATRO (a farmers' organisation)	KEPHIS; Extension department
	Tanzania	HORTI Tengeru; World Vegetable Research Center-Regional Center for Africa (AVRDC); INADES Formation (NGO); Tanzania official seed certification Institute (TOSCI)	Farmers' groups
	Regional organisation as lead institute	CABI Africa	
Farmer empowerment for innovation in smallholder agriculture	Burundi	CAPAD- a farmers' organisation	Farmers' co-operatives
	Ethiopia	Oromia Coffee farmers co-operative union	
	Kenya	Kenya National Federation of Agricultural Producers (KENFAP)	Farmers' organisations, Area branches of KENFAP, Financial institutes, Research institutes, East African Grain Council
	Rwanda	IMBARAGA	Farmers' Co-operatives
	Regional organisation	Eastern Africa Farmers Federation (EAFB)	-
International organisation as lead institute	Royal Tropical Institute (KIT)	-	
Enhancing competitiveness of snap beans for domestic and export markets	Kenya	University of Nairobi; KARI-Thika	
	Uganda	NaCRRRI as lead institutes	
	Tanzania	Serian Agricultural Research Institute (SARI)	
	Rwanda	ISAR	
Dissemination of New Agricultural Technologies in Africa (DONATA) - orange-fleshed sweet potato	Ethiopia	Goal Ethiopia; AwassaAgric Research Centre	Hawssa University
	Kenya	Kenya Agricultural Research Institute (KARI); CREADIS	REFSO ARDAP
	Rwanda	ISAR	World Vision; Africare
	Tanzania	LZARDI	Extension; KOLPING; TAHEA
	Uganda	Gulu University; NaCRRRI (Ngeta ZARDI)	Mega FM Radio, Red Cross; farmers' association

3 Capacity-building activities

Besides technology generation, Competitive Grant System projects also aim to build the capacity of national agricultural research systems stakeholders at all these three levels and in the process strengthen capacity for agricultural research in the sub-region. In addition, stakeholder groups need to acquire particular capacities at the personal, organisational, as well as the institutional levels to play their expected roles within the platforms (at local, national and sub-regional levels). Therefore, Competitive Grant System organizes a number of training workshops and supports general exposure for participating organisations across levels and countries.

ASARECA is addressing some of the capacity gaps through a series of training workshops on Agricultural Innovation System, and Value Chain development approaches. Practical sessions which involve undertaking the mapping of value chain players and appreciating the structures of innovation platforms are usually incorporated in the training workshops. In this way, facilitation skills are also improved.

One important aspect of capacity strengthening is the empowerment of farmers to become strong and effective participants in agricultural research and development. Innovation platforms support this process by strengthening farmers' organisations so that they can have a strong voice in the agricultural research agenda, and to engage effectively with agribusinesses. In the DONATA projects (see Box 6) where innovation platforms are used as the main scaling-out approach, farmers, community-based organisations, and farmers' groups at the local level are active key actors in the platforms, who engage and interact with private sector players such as seed companies and processors.

4 Learning and exchange across levels

In addition to the learning workshops, ASARECA supports exposure and building of experiences among participating organisations across levels and countries. The innovation platforms are intended to provide a learning space. Stakeholders in the platforms periodically share and exchange experiences with, and learn from, each other. This learning takes place at both sub-regional and national levels through experience-sharing workshops and exchange visits. The interaction between the various stakeholders, supported by a skilled platform facilitator, generates a lot of valuable information and knowledge, which can transform the platform into a knowledge/learning hub. In addition to learning within the platforms, the networks generate lessons learned to be shared across the sub-region.

5 Achievements

Several success stories on innovation platforms can be cited (for example, see Box 6). In general, the major achievements are to be found in improved interaction and enhanced capacity of farmers' groups:

Through the Competitive Grant System, ASARECA contributed to improved stakeholder interactions at all three levels: sub-regional, national and local. For example, the sub-regional experience-sharing and learning events bring together stakeholders from participating countries; researchers engage more with different stakeholders such as NGOs, farmers' organisations and the private sector within the country; farmers' groups also interact more with other stakeholders at the local level. Favourable business opportunities are created for the different stakeholders; for example, farmers are able to engage in collective marketing of produce and bulk purchase of inputs.

Competitive Grant System projects have contributed to the strengthening of farmers' groups. For example, in some projects this has led to farmers' groups who have become seed producers. Under the DONATA project, for instance, farmers' groups have become multipliers and producers of orange-fleshed sweet potato vines and are even able to supply farmers outside their districts, as a business activity. Under the quality-protein maize project, some farmers have been contracted to supply their improved maize to grain millers and animal feed manufacturers in Tanzania. A farmers' organisation in Kenya has also secured a contract and is supplying sweet potato flour to a supermarket.

Box 6 Some success stories on ASARECA-supported innovation

1. Innovation platforms under DONATA catalysing uptake of technologies

The DONATA project has two sub-regional level platforms; one on orange-fleshed sweet potatoes covering five countries; the other one on quality protein maize covering four countries. There are 20 local-level innovation platforms across the four countries. The sub-regional level platforms have facilitated the transfer of improved technologies across countries; for example, under the sweet potato project, some varieties were exchanged between Uganda, Kenya, Rwanda and Ethiopia. Similarly, the transfer of quality-protein maize germplasm from Uganda to DR Congo was facilitated. In DR Congo, three such maize varieties are in the process of entering seed production by way of the private sector. At the local level, farmers' groups using quality-protein maize in Tanzania were organised and strengthened, then linked to the market (seed companies, animal feed manufacturers, and grain-milling enterprises). The farmers in one season supplied about 400 tonnes of the maize seed to the seed company on contract. The two projects supported cross-country institutional partnerships (five countries for orange-fleshed sweet potatoes; and four for quality-protein maize). The lead actors in each country are research institutes.

2. Small-scale farmers empowered to sell potatoes to an urban fast-food chain in Uganda (Okoboi, 2008)

The 'Nyabyumba United Farmers is a group of over 120 farmers which evolved from several Farmer Field Schools in Uganda to exploit a market for their potato produce. They are part of a platform whose main actors also include PRAPACE (a former ASARECA commodity network linked to the international potato centre (CIP)), the national agricultural research Organisation, Africare (a NGO that had facilitated the establishment of the Farmer Field Schools) and NANDOS (a fast-food restaurant in Kampala). Nyabyumba United Farmers approached PRAPACE for assistance to identify a market for their potatoes. Contacts between Nyabyumba United Farmers and NANDOS were initiated and after several discussions, a supply contract was signed where Nyabyumba United Farmers was to supply a minimum of ten tonnes of potatoes of a specified size (top grade) per month. PRAPACE took on the role of brokering and facilitating the establishment of the platform. In addition, it provided training, along with the national agricultural research organisation on agronomy and post-harvest handling.

Source: Various DONATA project reports.

6 Challenges and future plans

To effectively establish and manage innovation platforms, two key challenges have been identified under the ASARECA Competitive Grant System, namely: an inadequate understanding of the Agricultural Innovation System paradigm, and difficulties in monitoring successes booked by the platforms.

First, there is an inadequate understanding of the Agricultural Innovation System paradigm, and capacity to monitor, manage and facilitate learning processes. The key players in the ASARECA multi-stakeholder networks are biophysical research scientists who need to internalise the concepts of Agricultural Innovation System and innovation platforms. Also, most of the platform facilitation skills available are weak and subject to bureaucratic structures since they are mainly part of existing government ministries and other public structures.

A more systematic evaluation of the ASARECA innovation platforms and their impacts may be needed, in which capacity development is addressed at different levels (i.e. individual, organisational and institutional); and for different stakeholders involved in the projects. ASARECA has identified difficulties in ensuring systematic analysis, and documentation of the enabling conditions for the successes in the platforms. Given the complex nature of an innovation platform as a multi-stakeholder partnership, the establishment of an effective monitoring and evaluation system can also be a complex and demanding exercise. Monitoring and evaluation mechanisms for the Competitive Grant System must enhance learning at three levels (sub-regional, national and local innovation platform levels), and facilitate the scaling up of lessons learned from local to sub-regional levels.

In accordance with its mandate, ASARECA will continue to strategically address the capacity-strengthening needs identified in the sub-region. It will do so by enhancing interactive learning between agricultural research organisations and other regional stakeholders. Specific considerations will have to be taken into account such as the differences between member countries in research approaches, resources and organisational and institutional culture. In addition, it will have to prevent competition to become a barrier to collaboration and effective interactive learning across borders. This sometimes occurs due to the fact that there can be competition between different project networks for funds.

7 Lessons learned

Effective facilitation of multi-stakeholder platforms requires particular skills if mutual learning has to be enhanced among the platform members. Such skills are not usually found with researchers, extension or even within NGO staff. Under DONATA, skills for platform facilitation and conflict-resolving have been found to be either lacking or inadequate. It has therefore been found necessary to provide capacity building within platform players. One of the expected outputs under the Farmer Empowerment for Innovation in Smallholder Agriculture (FEISA) project is the creation of a pool of well-skilled platform facilitators for innovation platforms.

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X Conservation agriculture in Zambia

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The connections between the three levels (the learning sites, the district innovation platform and the National Innovation Coalition) together form a cross-level network. Within this, the Monze innovation platform is the link between the local and national levels. Considerable interaction takes place between the three levels, and is in fact necessary.

1 Introduction

Soil fertility and soil degradation have been important problems within agriculture throughout the last few decades in Zambia. Smallholder farmers' practices have increasingly led to a decline in soil fertility and in yields. To address these issues, a new way of farming was introduced in Zambia in the 1990s, namely "conservation agriculture". Conservation agriculture, or conservation farming, is based on three main principles: 1) Minimal soil disturbance, 2) Permanent soil cover, and 3) Crop rotation (see the definition in Box 7).

Box 7 What is conservation agriculture?

Conservation agriculture aims at using natural resources in a sustainable manner. It is based on soil and water conservation and the use and maintenance of trees in the farmland. Conservation agriculture comprises three non-negotiable principles:

- 1) Crop rotation of cereals with legumes and deep-rooting crops;
- 2) Minimum tillage such as potholing or ripping, but not ploughing; and
- 3) Maintaining a continuous soil cover, through mulching, cover cropping, planting under sod and agroforestry.

Conservation farming is seen as a way of combining both profitable agriculture and taking environmental sustainability into account. It is believed that increased adoption of agricultural conservation practices could lead to the improved use of natural resources in combination with higher yields and cost reductions for farmers (FAO, 2009). Therefore, the Zambian government, its development partners and Zambia's National Farmers Union (ZNFU)⁵⁰ have undertaken various attempts in the past few years to enhance the adoption of conservation agricultural practices among smallholder farmers.

⁴⁷ Royal Tropical Institute (KIT).

⁴⁸ Both F.M. Kayula and V. Makasa were involved in the Research Into Use (RIU) programme in Zambia.

⁴⁹ Royal Tropical Institute (KIT).

⁵⁰ ZNFU is a union of farmers and organisations whose mission is to promote and safeguard the interests of members as farmers, individuals, corporations or companies and other organisations involved in the business of farming in order to achieve sustainable economic and social development.

In Monze, a small district in the South Province of Zambia, it was felt that the government programmes as well as initiatives from other (inter)national organisations, had achieved very little thus far: only a very low percentage of the local farmer population had seriously taken up conservation agricultural practices. In 2009, the district agricultural co-ordinator⁵¹ therefore invited various stakeholders, all of whom were involved in conservation agriculture in the district, to a meeting where the idea of setting up a platform was introduced.

The RIU-Zambia programme

The Monze innovation platform was initiated as part of a larger programme called Research Into Use (RIU). This is a DFID-funded programme that began in July 2006 and was scheduled to run for five years. The Research Into Use programme⁵² initiated various African country programmes to facilitate agricultural innovation in the country. The RIU programme was initiated in Zambia in 2008.

In 2008, a country assessment team was put in place to come up with a number of suggestions on the structure and strategies for the Zambian programme. The team therefore consulted stakeholders in agriculture and natural resource management in the country. One of their main findings was that research results were currently not being used sufficiently in Zambia, and that research operated in a supply-driven mode. The assessment team proposed an Innovation Systems approach to address this. In line with this approach, it was suggested to establish district agricultural innovation platforms.

A number of districts were chosen, based on on-going activities of potential collaborating partners. In Monze, the innovation platform was formed in 2009 by the district agricultural co-ordinator in collaboration with local partners and stakeholders in conservation agriculture. These identified other partners and called for an inaugural meeting at which the innovation systems concept was discussed and to set up a platform.

2 Modus operandi

Membership and roles

The Monze platform operates at both local and district levels, but is connected to a national platform called the National Innovation Coalition. Each platform has its own specific functions and involves different stakeholder members.

Activities of the Monze innovation platform are mostly being made operational through local learning sites. At these sites (village or ward level) producers are organised in groups and lead farmers have been identified as representatives during activities of the platform. Local lead farmers play a crucial role in the articulation of the voice of the farmers in the communication between the district platform and farmer groups.

⁵¹ The district agricultural co-ordinator is the government custodian of agricultural policy and activities in the district.

⁵² For more information on the RIU programme, go to: www.researchintouse.com



A female farmer shows the results of applying conservation agriculture practices

Place: Monze, Zambia. Photo: Willem Heemskerck

At *district level*, the Monze district agricultural co-ordinator was involved in the initiation of the platform. The Research Into Use programme had as prerequisite to at least involve NGOs, local media organisations, and both the private and public sectors in the innovation platform. The district agricultural co-ordinator was cardinal to stakeholder mapping, identification of potential members and to the holding of follow-up meetings. A number of organisations in Monze was subsequently approached to join the platform. The organisations were requested to select their own representatives and to assure attendance of at least one representative during platform meetings.

The platform currently (2011) comprises of a diversity of interested parties, including: representation of local farmers through the ZNFU, the Ministry of Agriculture and Co-operatives (MACO), the private sector (in the form of a local agricultural input supplier and the Monze Business Association), a local NGO and local media (local radio stations, and government media institutes).

The chairperson of the platform is the district agricultural co-ordinator for Monze. He also runs the day-to-day activities of the innovation platform. His function includes facilitating general forms of interaction; sharing of knowledge and co-ordinating joint activities on

conservation farming. Hence, an important element of his task is to stimulate joint learning for innovation within the platform. Other specific roles such as secretary and treasurer have been assigned to the District Business Association and the District Farmers' Association⁵³ respectively. Each of the other member stakeholders is expected to contribute to the various activities the platform initiates.

At the *national level*, the Research Into Use programme supported the establishment of the National Innovation Coalition (NIC). This coalition is expected to oversee the development of an agricultural innovation system and to lobby for policy changes regarding conservation agriculture in the country. Members of the national coalition are representatives of different organisations ranging from: public sector, NGOs, private sector, research and media organisations that have activities relevant to the promotion of conservation agriculture.

Membership in the NIC is not permanent or obligatory. As a consequence of this, the number and compilation of the platform members have changed over time. However, the Ministry of Agriculture and Co-operatives' permanent secretary is the patron of the coalition, and its chair (who is the representative of the Cotton Association of Zambia) acts as facilitator.

The connections between the three levels (the learning sites, the district innovation platform and the National Innovation Coalition) together form a cross-level network. Within this, the Monze innovation platform is the link between the local and national levels. The Monze innovation platform participates in national coalition meetings twice a year. A member is therefore nominated to represent the district platform. Occasionally coalition members attend some events organised by the Monze platform and offer advice when necessary. Considerable interaction takes place between the three levels, and is in fact necessary.

Meetings

Platform meetings at the district level have been taking place on a monthly basis since its initiation in 2009. All platform members are invited and expected to send a representative to the meeting. These meetings are mainly to co-ordinate activities and harmonise messages on conservation agriculture, spread by each of the organisations in the district. Progress on activities is discussed on the basis of the platform action plan. During each meeting, the secretary writes minutes which are afterwards shared with all members as well as the RIU country team.

National Innovation Coalition meetings were supposed to take place on a quarterly basis. Sometimes, however, they were not able to be held for various reasons, including conflicts with other agriculture sector events needing to be attended by a majority of the members and due to other equally pressing commitments. This resulted meetings being reduced to

⁵³ The District Business Association (DBA) takes care of the interests of its together micro, small, and medium enterprise membership. It is affiliated to the national business body called the Zambia Chamber of Small and Medium Business Association (ZACSMBA) which facilitates support to the development of micro, small, and medium enterprises in the country. The District Farmers' Association (DFA) includes agribusinesses involved in agriculture input and output markets. The DFA advocates and lobbies for members in the district. The DFA is an affiliate of the ZNFU.

two or three per year. In the interim, either the RIU country team took the responsibility to take notes to be circulated to the members, or organised someone else for this task.

Incentives

Members of both the Monze platform and the National Innovation Coalition participate in them because of their interest in achieving higher adoption rates of conservation agriculture practices. More specifically, the public sector members (mainly from the ministry's departments) are driven by the government's mandate to promote conservation farming and reach minimum adoption rates. For the private sector, enhanced sales of inputs such as herbicides and rippers, is the main motivation. NGOs benefit from the generated evidence that conservation agriculture can significantly improve yields and positively impact the rural poor. Research institutes are motivated by the prospects of increasing the use of their research outputs around conservation agriculture by farmers. And farmers in their turn expect to improve their production and incomes while lowering their risks. In addition, platform members see the sharing of knowledge as an important motivation for joining in platform meetings and activities.

In addition, representatives are compensated for transportation costs and were in the beginning provided with "sitting allowances" (at both district and national levels). With the prospect of the programme coming to an end, sitting allowances are no longer provided and members are even requested to make small contributions. Consequently, the membership is changing.

External support

The district platform as well as the National Innovation Coalition, are being supported by the Research Into Use programme's country team.⁵⁴

At the *district level*, the RIU programme's country team offers brokerage services – providing linkages with external experts, with other district platforms and so on. The chairperson is furthermore being assisted in performing his tasks as platform facilitator (through training, support in the organisation of meetings, etc.). In addition, the programme provides financial support to the platform on the basis of an annual action plan. Often, financial support is not sufficient, and the platform member involved in an activity has to find co-funding to cover the remaining costs.

At the *national level*, the RIU programme's country team supports the national coalition only with the facilitation of meetings and activities of the RIU country office.

There are incidences when external support to the platforms, or to its stakeholder members was provided by other organisations. This was for example the case with the linkage be-

⁵⁴ The RIU country team comprises of the country co-ordinator, national programme officer, a programme assistant, and the programme secretary. The country co-ordinator is the overall manager of the programme while the programme officers are core facilitators offering brokerage services to the district platforms and the National Innovation Coalition. The programme secretary manages funds and secretarial services to the team. The team also played the backstopping and monitoring and evaluation roles for the entire process of the programme.

tween local media and the Panos Institute of Southern Africa (PSAf), which was hired through the programme to support the communication component of the district platforms.

3 Activities

Most of the activities initiated by the Monze innovation platform are the result of the joint effort of all platform members, with the chairperson as main facilitator. Most activities take place at the learning sites, where the demonstration plots are situated.

At local level

Activities at this level include: training, demonstrations, radio listening groups, and access to ripping services through the draught animal voucher programme.

Farmer training sessions are mainly aimed at increasing knowledge and skills in conservation farming practices such as ripping or potholing, mulching and crop rotation.

The Monze platform has established 15 learning sites and demonstration plots in Monze district. Here, the platform organises field schools, field days and sometimes shows for farmers at the learning sites, often in conjunction with private-sector actors, such as seed companies.

To make more profound use of local media, a media sub-committee was formed within the platform. This sub-committee consists of a local radio station, the Zambian National Information Services and the National Agriculture Information Services. The sub-committee was set-up to assure the dissemination of harmonised conservation agriculture messages and information. The sub-committee furthermore developed participatory radio programmes. While these activities are co-ordinated at district level, the sub-committee supported the formation of radio listening groups to be involved in local-level participatory radio programmes. Through these radio programmes, farmers could share experiences and consult experts.

Another major activity set up by the platform is the draught animal voucher scheme. This programme was initiated after observation that the main obstacle for farmers to shift from "regular farming" to conservation farming, was the high demand for labour needed for tillage and weed control. It was further noted that ripping by draught power was unaffordable for many farmers due to the loss of many animals in the region due to diseases. The platform addressed this labour constraint by making draught animals available for ripping purposes, on a 50-50 cost-sharing basis. This programme was based on voucher schemes for one animal, animal-drawn rippers and the use of herbicides. The intervention also aimed, through additional training to develop local ripping services, provided to local farmers for a fee.

At district level

Besides co-ordinating various local-level activities, the Monze innovation platform organises activities at the district level, such as stakeholder meetings and training sessions.

Four times a year, a stakeholder meeting is organised by the platform. In addition to the platform members, 40 other stakeholders are invited to attend - such as farmers, seed suppliers, financial service providers, local traders and other chain actors. These meetings function as the main forum through which stakeholders involved in conservation agriculture are informed on platform activities.

At national level

The National Innovation Coalition meets to discuss the progress being made by the different platforms initiated in Zambia. NIC members share lessons learned from the platforms and identify issues that require discussion. In particular, challenges associated with policy bottlenecks or opportunities are addressed in the meeting. For example, discussions could include inadequate capacity of existing local conservation agriculture equipment suppliers or good practices in conservation agriculture extension delivery approaches for up-scaling. Some members of the national coalition also share their experiences and receive feedback or advice from other members. Issues requiring policy intervention are picked up or addressed by representatives of the Ministry of Agriculture and Co-operatives.

4 Achievements to date

Different results have been booked at local, district and at the national level.

At local level

For farmers, benefits can be found in clear messages and increased support from well applied, efficient and co-ordinated efforts and resources from different conservation agriculture promoters in the district. The adoption of conservation agriculture practices is expected to contribute to increased incomes. Conservation farming contributes to achieving higher yields and larger marketed surplus of major food crops such as maize and legumes. Farmers applying conservation agriculture principles also face less risk for example in the event that drought occurs.

At district level

The innovation platform on conservation agriculture in Monze has proven to be very important in co-ordinating all activities on conservation farming in the district. Farmer training in conservation agriculture practices has become more co-ordinated, as have the sharing and dissemination of knowledge. The platform has led to improved interaction between public and private service providers and farmer groups. This has led to the development of commercial ripping services, as well as enhanced involvement of agro-dealers in the promotion of conservation agriculture. In addition, due to the media activities at district level, local radio stations and government media institutes have engaged with stakeholders around the issue of conservation agriculture. Participatory broadcasts on conservation

agriculture have also resulted in links with stakeholders outside the platform. This improved the harmonisation of messages and the identification of more sources of information.

At national level

The National Innovation Coalition has co-ordinated and shared lessons learned in the district platforms. This has been used as input to develop and share policy briefs on for example, the need for diversification and addressing marketing constraints. The NIC has influenced national strategies on the enhancement of conservation farming, such as in the Ministry of Agriculture and Co-operatives' new Strategy on Sustainable Agriculture. The lessons learned around the innovation platforms, especially in relation to joint planning, co-ordination and harmonisation of activities among stakeholders, are being shared and incorporated in the ministry's extension strategies.

5 Challenges to the functioning of the platform

One of the main challenges of the platforms is lack of commitment by some, mainly public-sector, members. Members are refunded for transport costs, lunch and sometimes accommodation (and initially, also for sitting allowances) when they attend meetings or carry out platform activities. This is sometimes considered insufficient in relation to the long-term potential payback of results booked by platform activities (for both at district and national levels). Especially in the case of the national coalition, most of the individual members are busy with many other commitments and this makes it difficult to plan meetings with them. This has resulted in very few and irregularly attended National Innovation Coalition meetings throughout the year.

The external facilitation of innovation platforms at the district level was initiated by the Research Into Use programme's country team. It seemed that the availability of the services of an innovation facilitator or broker for an initial period was important. In the case of the Monze platform, this brokerage and facilitation function has (partly) been taken over by local internal actors. It is, however, still a question as to what will happen when the platforms have to continue "on their own" without further external support.

6 Future plans of the innovation platform

At district level, the Monze platform has worked on incorporating its organisational structure within the district administration system in order to assure the continuation of its activities once the RIU programme ends. One year after the platform's establishment, it became a sub-committee of the District Development Co-ordination Committee (DDCC)⁵⁵. The advantage of becoming part of this district committee is that the platform from then on fell under the responsibility of the local government, assuring the future of the platform.

⁵⁵ The District Development Co-ordination Committee is a government initiative for meeting development actors working in a district.

In addition, as the district agricultural co-ordinator was the chair of the platform, conservation agriculture could become mainstreamed in the development strategy of the Ministry of Agriculture in the district.

At national level, a number of National Innovation Coalition members agreed to set up a larger national forum, in order to enhance policy dialogue and the exchange of information about conservation agriculture: the Conservation Agriculture Association (CAA) was thus formed in September 2009. The Research Into Use programme supported this process, among others by contributing to the organisation of a CAA conference in 2010. The integration of this role into national networks proved to be crucial for the communication of lessons learned from the farmer level, as well as from the platforms at district level.

7 Lessons learned

During the initial stages of setting up the Monze platform, the role of external support in the form of Research Into Use facilitators was crucial. The country team provided brokering support – identification of potential platform members as well as outside expert-support. And the RIU programme provided financial support for the platform activities. Even though most of the platform members were enthusiastic about the idea of establishing a platform –and later even confirmed the need of coming together– no one had taken the initiative of starting an innovation platform in the district before. The combination of time, resources and skills needed to set up a platform had been absent prior to this intervention. After the initial stages, the Research Into Use programme also needed to start phasing out as the programme was coming to an end. While some steps have been made to assure the continuation of the innovation platform (for example, some individuals have been trained in facilitation skills and the platform was incorporated into the local government structures), this does not necessarily mean that the joining together of a multitude of stakeholders and the continuation of activities needed to catalyse innovation are assured. Mobilisation of the time and resources needed to assure the functioning of an innovation platform stands or falls with the commitment of its members. And this is related to the feeling of each of the platform members that the well-functioning of the innovation platform is to their advantage.

The private-sector actors have enhanced their ability to identify business opportunities that can help address gaps or challenges discussed in the innovation platform meetings and with other stakeholders. This interaction has also helped them to establish more linkages. In this way, private-sector actors have become more aware of the needed business services or products, and can move faster to make them available, thereby contributing to increased farmer access to and use of technologies and better practices.

Another lesson relates to participation and how this is enhanced through formalising innovation platforms in the case of Zambia. When the innovation platform in Monze was initiated, it existed with no formal connection to the local government structure. By later linking the platform to the district's agriculture sub-committee, their formalisation was

strengthened, thereby enhancing stakeholder participation. The platform provided a forum for the governmental and non-state actors to interact on matters of common interest.

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XI Putting my fruit with yours: Organising the mango value chain in Kenya



P. Mwangi Gitika⁵⁶ and R. Hawkins⁵⁷

For anyone travelling through Mbeere district in Kenya during the dry season, the profusion of mangoes lying around, going to waste, is a bit puzzling. Mangoes are expensive to buy, especially in European supermarkets where they are still a bit exotic. Why is it that Mbeere farmers don't sell them? Can't they be bothered? Don't they realise there's a market out there? After all, most farmers are poor – surely they need the income? What's the problem...?

1 Introduction: the potential and the reality

The horticultural industry is the fastest growing agricultural sub-sector in Kenya, with an average growth of 15 to 20% per year, and directly employs over four million people. Fruit account for about one-third of total horticultural output, with about 80% of total fruit production coming from smallholders; fruit provide raw material for the agro-processing industry, as well as nutritious food and substantial income for producers (HCDA, 2009).

Mango is a fruit with high potential in Kenya. From 2005 to 2009, the national production increased from about 250,000 to 475,000 metric tonnes of fruit. Even so, the quality and quantity of fresh fruit and processed products are considered to be inadequate to meet the demand of both domestic and export markets. Mango fruit production is highly seasonal. Most production is located in the Coastal region, where the main season runs from November to February, and in the higher-altitude areas of lower Mount Kenya region where the harvest season peaks in February and March. There is an oversupply during the peak season (November-March), resulting in high post-harvest losses, and insufficient supply during the off-peak season (May-October). Mango can be easily processed into juice, jam, pickles and chutneys, or dried for making chips or mango "leather" (dried fruit rolls). There is a market available for fresh fruit in Europe and the Far East, which a few large-scale producers have attempted to access. There are refrigerated containers at international airports provided by the Horticultural Crops Development Authority for fresh produce, which can be leased to farmers, before air-freighting to various destinations (Ministry of Agriculture, 2010).

⁵⁶ Kenya National Federation of Agricultural Producers (KENFAP).

⁵⁷ International Centre for development oriented Research in Agriculture (ICRA).

Contrasted with this potential is the reality. Overall losses along the mango value chain are estimated at 50% per year, representing approximately 90,000 tonnes – a conservatively estimated loss of over one million euros per year. Only about 1% of the mango production is exported, and some exporters have had containers of fruit rejected in foreign ports because of mango weevil. The national juice market is dominated by companies that import pulp to process into juice for the domestic market, rather than processing local fruit. Over 30 different varieties are grown by farmers, which makes it difficult for processors and exporters to obtain a standard, uniform product. Widespread mistrust between actors in the mango value chain is contributing to the destruction of an industry that could otherwise generate income for all business partners along the chain (PSDA, 2007). Attempts at innovation have often been unsuccessful (see Box 8).

This case study looks at the different actors involved in the mango value chain in Kenya, and an unsuccessful attempt to organise them through a “Mango Value Chain Development Working Committee”. While this committee differs in some respects from the “innovation platforms” described elsewhere in this book, this experience contributes some useful lessons about the challenges of establishing platforms based on value chains.

Box 8 Unsuccessful innovations in the mango value chain

A prominent mango farmer in Meru County directly exports mangoes from his farm to Asia. In an effort to support mango production in his region, he sourced fruit from the neighbouring small-scale farmers. However, in the recent past a full container of his mangoes was rejected at the port of entry to an Asian country after the mangoes were screened for the mango weevil. He was faced with shipping his consignment back, or paying to have them dumped. The resulting loss almost forced him out of business.

The *Rwika Kio ni Kindu* farmers’ group at village level was given technical support by KADI (a local NGO) to set up solar driers to add value to production through processing into dried products. The dried mango flakes were intended for the national market, and the left over “waste” was crushed to powder, which was also packaged and targeted at school children. The group faced challenges from the high investment costs, the lack of running water, and the cost of certification of the facilities from the Kenya Bureau of Standards. The scale of production and marketing also proved to be difficult, as the market in Kenya mainly focusses on fresh fruit.

KENFAP -the National Farmers’ Organisation- and the Private Sector Development in Agriculture Programme (GIZ PSDA) helped establish a link between mango farmers’ groups in Meru and Maragua districts, with Kevian K Ltd (a national company producing mango juice). After negotiations, a contract was signed in which it was agreed that mangoes had to be delivered to the factory, then based in Thika. The partnership lasted only two seasons. The farmers complained that the transport cost reduced their profitability. The price of fruits sold to processors is also not as attractive as for the fresh market. The processor complained about the quantity and quality of mangoes, as individual farmers had few trees, were not following good agricultural practices, and had trees of different varieties.

2 Organising the value chain

Actors in the mango value chain in Kenya

The actors involved in the mango value chain, and the flow of mango products within this include:

Producers of mangoes in Kenya are mostly smallholders. Local varieties have dominated production, but produce less marketable fibrous fruit. Introduced varieties require careful pruning, fertilisation and spraying against pests. Farmers find these practices difficult,

and financially risky. Few farmers are organised into groups for technical services, input purchase or marketing of produce. They mostly sell to individual buying agents and have little knowledge about the value chain, and are generally distrustful of other actors in the industry (see Box 9).

*Buying “agents”*⁵⁸ usually buy the mangoes on the tree, organise the picking, sorting and packaging, and then hire a truck to deliver the mangoes to processors or wholesalers in larger urban areas such as Nairobi. For national markets, the mangoes need sorting, grading and bulking before being transported. In hot weather, when fruit temperatures may exceed 35°C, the packed fruit needs to be moved into cold storage as quickly as possible.

Wholesalers resell to retailers and large, regular buyers such as schools, restaurants and prisons. Retailers sell on to consumers in kiosks, other retail markets, green grocers and roadside markets.

Retailers include a wide range of entrepreneurs, from prosperous stallholders in major markets, to roadside stands or small market stalls, to itinerant peddlers who circulate between a few remote villages or who sell in tiny piles on a table beside their houses.

Processors include national companies such as “Sunny Processors” and “Kevian Kenya Ltd”, who process fresh mangoes into a concentrated pulp and/or juice. The pulp is sometimes exported directly, while most juice is sold in the domestic market. These processors are mostly located in and around large towns and usually acquire mangoes from small-scale producers via agents. Multinational processors such as Del Monte generally import the concentrate from outside Kenya that they then convert into juice to be sold domestically. An exception to this is a recent initiative by the Bill and Melinda Gates Foundation⁵⁹, under which national Coca-Cola bottling plants will procure mangoes from small farmers, with brokerage and technical services provided by the international NGO, Technoserve.

Private input dealers provide fertilisers and pesticides to producers, and are also supposed to provide advice on their application. Recently, the Kenya National Agro-dealers Association (KENADA) has been established through the Kenya Agro-dealer Strengthening Programme (KASP) with the support of the CNFA (an international NGO), and finance from AGRA (the Alliance for a Green Revolution in Africa). The Agro-dealer Strengthening Programme has also trained agro-dealers and offers a certified mark of quality through the Agricultural Market Development Trust – AGMARK⁶⁰.

Private nurseries provide planting material. From 2008, all fruit-tree nurseries have been required to register with the Horticultural Crops Development Authority, and be inspected

⁵⁸ These traders are also called “brokers”, “intermediaries” or “middle-men” by farmers and other actors in the value chain. The traders themselves prefer to be called “agents”.

⁵⁹ See <http://www.gatesfoundation.org/press-releases/Pages/technoserv-empowers-farmers-in-uganda-and-kenya-100120.aspx>.

⁶⁰ See <http://www.cnfa.org/kasp> for more information on KASP, and <http://www.cnfa.org/news-a-resources/press-room/156-kenada-launch&Itemid=109> for more information on AGMARK.



A cross-section of farmers following a monitoring meeting in Rufiji district

Place: Rufiji district, Coast region, Tanzania. Photo: Jwani Tranquilino Jube

by the Kenya Plant Health Inspection Services (KEPHIS). However, unregistered roadside nurseries offering cheap seedlings are still attractive to farmers. The Kenya Fruit Tree Nursery Association (KEFTNA) has also been formed, but as yet lacks a strong membership base.

Non-governmental organisations at the local level (such as the Kamarugu Agricultural Development Institute in Mbeere district) also provide planting material, inputs and advice, and to some extent act as brokers to bring stakeholders together.

Banks are the main financial service-providers, although most do not have packages designed for crop enterprises, and are reluctant to finance risky ventures (although new products for crop insurance schemes are being designed). Perhaps the most accessible to smallholder farmers is Equity Bank, which supports the development of business plans and also finances farmers' groups where the group serves as the guarantee.

Regulators include different government bodies such as the Horticultural Crops Development Authority and Kenya Plant health Inspection Services, who regulate quality of plant-

Box 9 Farmers' mistrust of other stakeholders in the value chain (cited by Msabeni et al., 2010)

Regarding input dealers: "...They sell fake chemicals at inflated prices. When we use these chemicals, we do not gain anything. It seems they are just interested in our money and not the welfare of the farmer. The government should help us get rid of these people."

Regarding government advisory services: "...Some of them come around once in a while, others are fellow farmers and we are suffering with them because they also do not know what to do with their own mangoes."

Regarding banks: "Those bank people are very proud and can frustrate you forever ... it takes years before they give you an answer, and when the answer is good, they ask you to give them your business plan. Most of us do not understand these things, so we give up.... If you get the loan, the money you pay back is too much, and if you fail they sell your land. We fear going to them. I wish there was somebody to give money without taking us through circles."

ing materials and products for export. The Kenya Bureau of Standards (KEBS) certifies the quality of processing facilities and products. Local (district) councils develop by-laws that help establish and maintain infrastructure (markets, roads).

Researchers at the Kenya Agricultural Research Institute (KARI) and different universities study various aspects of fruit production. The World Agroforestry Centre (ICRAF) has also supported the introduction of improved varieties through its Tree Genetic Resources and Domestication Programme.

The Kenya National Federation of Agricultural Producers (KENFAP) has facilitated the formation of KEMPMA – the Kenya Mango Producer and Marketing Association – to lobby, advocate and promote agribusiness activities in mangoes through the promotion of various innovations and information dissemination to members. However, the Kenya Mango Producer and Marketing Association is still weak on the ground and needs more members. KENFAP also works with the Ministry of Agriculture to promote innovation within the mango value chain.

The Ministry of Agriculture (MoA), at district level, offers advice to farmers, although their capacity is limited. It also disseminates market information on prices at different markets and packaging requirements through the radio and notice boards at the District Agricultural Offices - but this is limited. At national level, and with the German Development Agency, the Ministry is implementing the Private Sector Development in Agriculture (PSDA) programme, which supports a Value Chain approach in commodities such as mango.

The Mango Value Chain Development Working Committee

In March 2007, the Private Sector Development in Agriculture programme invited a number of stakeholders from the mango value chain for the "participatory development of a value-chain intervention strategy" that could "contribute to a higher profitability of mango production at a small-scale level, while at the same time availing quality and safe mangoes and mango products to Kenyan consumers at affordable prices".

Participants at the workshop agreed to form a "National Mango Value Chain Development Working Committee", with members from the processing industry (Kevian K Ltd, chair;

and Sunny Processors), the chairman of the mango producer and marketing association KEMPMMA, a representative of the buying agents, from the Horticultural Crops Development Authority, the Private Sector Development in Agriculture (PSDA) programme, the national producer federation KENFAP, and two officers from the government. The PSDA programme was requested to facilitate the institutionalisation of this working group. Workshop participants also agreed on an action plan to overcome some of the problems of poor interaction (lack of communication, partnerships) between chain actors.

After its establishment however, the Committee did not function and achieved little, failing to meet over the following three years. What can be learned from this disappointing outcome?

3 Lessons learned

The National Mango Value Chain Development Working Committee described above is somewhat different from the concept of an “innovation platform” as described in this book, as it is organised around a broad commodity, rather than a particular “innovation”. It is also impossible to state unequivocally any one reason why the working committee failed to live up to the expectations of the stakeholders at the meeting in March 2007. Examples do exist of sustained success in other value chains in Kenya (for example in the potato industry). Nevertheless, this case can illustrate some lessons, or at least hypotheses, concerning multi-stakeholder action.

Members need to be legitimate representatives. The members of the working committee were either selected by other stakeholder groups (in effect) or had volunteered at the stakeholder meeting, rather than being selected or elected by their interest group to represent them – and interest groups can only achieve representation if they are organised.

The leadership needs to be recognised by all. The Private Sector Development in Agriculture programme, housed in the Ministry of Agriculture, was nominated as facilitating agency at the stakeholder meeting. Nevertheless, it was not able to take the lead to push the agenda agreed by stakeholders at the meeting. The chairman (the manager of Kevian K. Ltd.), while willing to play the role of “champion”, did not seem to have (for whatever reason) the “convening power” necessary to bring stakeholder representatives together.

Start with specific, urgent and solvable problems. At the meeting where the working committee was formed, participants agreed an extensive intervention strategy and a broad set of actions needed to improve the systemic competitiveness of the value chain by the different actors. Perhaps with such a broad agenda, it was difficult to know where to start.

Link action at both local and national levels. The working committee was a national-level body, but was not effectively linked to local-level platforms that could involve important local-level stakeholders and local farmers’ groups; and that could plan and implement more concrete actions and develop the operational partnerships needed.

An interest group such as “farmers” can only nominate someone to represent them if they are organised at different levels: village, district, regionally and nationally, and if each of these levels is capable of prioritising issues important at these different organisational levels so that this view can be presented to a multi-stakeholder platform. While organisations such as the national producer federation KENFAP have made considerable efforts in recent years to organise farmers, mango farmers are still only rarely organised into groups for co-operative marketing, input purchase, information flow, or lobbying. Previous bad experiences with co-operatives or groups and general lack of trust between farmers is a reason for their reluctance to organise themselves, along with the tendency of group decision making being dominated by men (while it is the women who currently often dominate production and sales). Nevertheless, it seems unlikely that a multi-stakeholder platform will be successful until farmers are organised sufficiently for them to participate through effective representation.

Likewise, agents, wholesalers and processors are also apparently reluctant to organise themselves as trade bodies, individuals working in isolation and an overall spirit of competition rather than of collaboration based on common interests. Other trade bodies – such as the mango producer and marketing association KEMPMA, the fruit-tree nursery association KEFTNA and the agro-dealers association KENADA - have only recently been established and are yet to play a stronger role.

4 Future prospects

Currently, the national producer federation KENFAP, with the support of the German Development Co-operation and the Private Sector Development in Agriculture (PSDA) programme, is looking to bring key stakeholder groups together in effective partnerships. It seems likely that developing farmers to be key chain actors, through developing their skills in producing quality produce for designated markets, will be necessary as a preliminary step to greater organisation of the overall chain. KENFAP and the PSDA programme remain committed to reinvigorating the Mango Value Chain Committee, but it still remains to be seen if KENFAP and/or the ministry will be seen by other stakeholders as a neutral “broker” that can facilitate collaborative action between the main stakeholders, rather than promoting their own agenda.

It will also be important to link national platforms such as the committee with local level platforms focused on concrete opportunities that are important to farmers and other local stakeholders. At the local level, organisations such as the Kamarugu Agricultural Development Institute or Technoserve can play an important role as “champions” or brokers.

Examples of sustained success do exist in other value chains; the potato value chain has received sustained support over decades, and now has a national potato council with a permanent secretariat, capable of raising funds from the National Commission of Science and Technology as well as national competitive funds for agricultural research and agribusiness. A challenge for the mango value chain will be to achieve similar sustained support

and graduate to a sustainable financing mechanism. To do this, it will also be necessary to build capacity of the stakeholder groups to organise, and interact with other interest groups. Experience shows this is not a short-term process.

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XII Vegetable production in the Thyolo District of Malawi

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The innovation platform has managed to develop a common attitude that embraces a diversity of cultures and knowledge systems to pursue problem solving in an inclusive and co-ordinated manner.

1. Introduction

In the district of Thyolo, Malawi, smallholder vegetable producers have followed traditional practices on a household basis despite efforts to improve the situation. Farmers have also continued to have difficulties in marketing their vegetable products. Most farmers said that they had stopped growing vegetables for commercial purposes largely because there were poor local markets. The project conducted an analysis of the vegetable value chain and identified barriers to commercial vegetable production. These included lack of knowledge and information on the type of vegetables that are required by potential buyers; lack of stable and reliable markets; reliance on rain-fed agriculture methods; lack of knowledge and technical skills on irrigation technologies; non-organised production cycles; lack of capital to purchase inputs; lack of knowledge on prices being offered on different markets; long distances to buyers coupled with poor road networks; poor quality and inconsistent fresh produce standards; poor extension services; and fluctuating market prices.

The innovation platform in Thyolo district was set up as a response to this situation, and is one of twelve innovation platforms within the Zimbabwe, Malawi and Mozambique pilot learning site of the Sub-Saharan African Challenge Program (SSA CP). The Challenge Program is an initiative of the Consultative Group on International Agriculture Research (CGIAR) managed by the Forum for Agriculture Research in Africa (FARA).

The aim of the Challenge Program is to increase the impact of agricultural research and development to improve rural livelihoods, increase food security, and achieve sustainable natural resource management in sub-Saharan Africa. The Challenge Program uses the Integrated Agricultural Research for Development (IAR4D) approach to design innovation platforms. The innovation platform brings relevant actors of a specific commodity value chain or system of production together so as to foster interaction, to identify constraints and jointly develop solutions. The establishment of innovation platforms comes as a response to the recognition that new technologies and processes are brought into use, not just by the activities of researchers, but through the activities of a number of different

⁶¹ All authors are affiliated to the Forum for Agricultural Research for Development, located in Ghana.

stakeholders and organisations that have the competence and also the incentive to bring about change. The innovation platform uses interactive and participatory approaches to diagnose problems of common interest, explore opportunities and investigate solutions.

The overall objective of the vegetable innovation platform is to remove poverty and increase food security through improving yield and marketing of vegetables. The innovation platform therefore needed to resolve constraints on the development, dissemination and uptake of science-based practices in vegetable growing, harvesting, preservation, storage, transporting, processing and marketing. Platform members agreed to participate in a common research-for-development agenda to increase vegetable production, with particular emphasis on indigenous vegetables. The platform needed to sustain the farmer-to-market linkage by building a strong link with research and training in order to remove bottlenecks inherent in the value chain and ensure a sustainable supply of quality vegetable produce. The specific objectives of the Thyolo innovation platform are as follows: to improve the income of farmers and the nutrition of poor consumers (including farmers) through increased vegetable production, by creating synergies among the capacities, knowledge, technologies and processes of different stakeholders; and to promote the production of indigenous vegetables, as these are more likely to benefit poor consumers and producers than exotic vegetables.

2 Modus operandi

In 2006 the Vegetable Task Force held a preliminary meeting with all stakeholders in Thyolo District interested in enhancing the production of vegetables to explain the aims of the project and the approach to be used. During this meeting, the stakeholders came up with strategic plans and indicated potential contributions, skills and resources to the functioning of the innovation platform.

Members and their roles

The vegetable innovation platform comprises all stakeholders that are linked to vegetable production in Thyolo District.

Producers: These include smallholder farmers, who work with village-level structures of the platform to produce the vegetables. Village-level structures were set up by the platform to co-ordinate the communication and organisation of farmers in the various villages. The structures facilitate information flows and help farmers with the vegetable production process. Currently there are village level structures in Konzalendo, Nlukula, Mpira, Mpinda and Nkalozwa.

Input suppliers: Four input supply companies are involved in the platform.⁶² These supply agricultural inputs to vegetable farmers such as fertilisers, agro-chemicals, and seeds. They ensure that farmers have easy access to inputs.

⁶² These are: RUMARK, AGORA, Agri-Hort Suppliers Limited and Pannar Seed Company.

Advisors, farmer mobilisers and loan providers: The Ministry of Agriculture and Food Security extension staff provide extension services to farmers and also assist in mobilising farmers. Five NGOs are also involved.⁶³ One of the NGOs offers small loans to farmers, while the other four play an important role in the mobilisation of vegetable growers in the district. These NGOs also bring their expertise acquired over years of working in rural development.

Buyers: Among the buyers are boarding schools and hospitals. These are readily accessible and therefore do not incur excessive transport costs in bringing the vegetables to the market. However, there also plans to reach other markets such as hotels and supermarkets.

Researchers: Bvumbwe Research Station offers biophysical research, and the University of Malawi offers economic, policy and market research.

Representation

At the district level, the innovation platform has drawn up rules of engaging its members. It has also developed the selection criteria of who can be participating communities and farmers. Participants are drawn from agencies working at the national level but that are working in the area. Implementation is undertaken in the communities through the village-level innovation platform structures.

Platform facilitator

Facilitation of the platform is carried out by the Vegetable Task Force. This consists of representatives of Bvumbwe Research Station, AVRDC-World Vegetable, and Bioversity International, which takes the lead in the task force's organisation. The task force is responsible for the facilitation of the communication and sharing of information and ideas amongst the platform members; making a work plan; providing and/or facilitating the trainings and any other capacity-building initiatives necessary to improve the skills of platform members in undertaking action research. Furthermore, the task force carries the responsibility of engaging policy makers from different levels in the platform's activities and achievements.

Individual member organisations of the Vegetable Task Force also have specific responsibilities within the platform: Bioversity International manages the financial resources while Bvumbwe Research Station co-ordinates participatory action research within the platform. AVRDC-World Vegetable Centre provides technical advice in areas including value-chain analysis, germplasm, seed production practices, physiology, breeding and seed supply. The task force has set up committees to facilitate the implementation of platform-related activities.

Meetings

National planning meetings are held twice a year and are used as a forum to evaluate the progress of the innovation platform. This enables platform members to direct their energies

⁶³ These NGOs are: World Vision, Concern Universal, Rural Livelihood Program, Malawi Rural Finance Company, Centre for Integrated Community Development.



Local vegetable market in East Africa

Photo: Maurice van der Hoff

towards the specific tasks at hand, not to go off target, and to make rational decisions about changes in platform goals or processes.

In addition to the national planning meetings, the platform has three major scheduled meetings and a number of unscheduled ones during a vegetable-growing season. The first meeting is largely for stakeholders in the innovation platform to spell out their planned actions. The second meeting is normally held in the middle of the season to monitor progress. The last meeting of the season is for reviewing the impacts of the activities and to reassess the innovation platform's objectives in the light of observations and to reformulate plans for the next phase. Unscheduled meetings are also held as needs arise.

Incentives

The platform sought to align its objectives with those of statutory authorities and other stakeholders (including donors) that have been involved in the innovation platform; in this way, their work for the innovation platform fits in with their other activities. Incentives include resources for training and collection of data for higher degrees. The innovation platform also provides direct benefits to all its members by being active in the vegetable value chain. For instance, while financial institutes benefit from provision of credit to stakeholders, agro-dealers have a guaranteed market for their products, and producers benefit from a better functioning supply chain.

3 Activities

While the Task Force makes the work plans, different combinations of stakeholders were asked to implement the activities. The platform member leading the activity was responsible for applying for funding from Bioversity International.

At *platform level*, building the capacity of the members has been an important activity for the innovation platform. This includes capacity strengthening in team work and systems thinking. Also, the facilitator received facilitation skills training. Other stakeholders received content-related technical training; for example, farmers benefited from training in co-curricular subjects like collective marketing, negotiation, business management and programmed production. Other activities included conducting of marketing and consumer surveys, market identification, formation of vegetable marketing groups in order to reduce transaction costs, use of germplasm and indigenous knowledge, and organisation of seed diversity fairs.

At *village level*, the following activities were executed:

- Farmers (at least 10 per participating village) were trained in germplasm and indigenous knowledge collection as an effort to promote indigenous vegetable production.
- Indigenous vegetable varieties were collected; however, emphasis on the promotion of indigenous vegetables was later dropped as the project focused on more marketable vegetables including modern crops.
- The platform established plant nurseries in the participating villages, for testing different and new varieties of vegetables and alternative agronomic practices. These also serve as sites for agronomists to train farmers on seedbed preparation, sowing of vegetable seeds, nursery management and transplanting.
- Farmers have received numerous training sessions, including on irrigation practices, cropping systems and crop management.

4 Achievements

The innovation platform encourages direct and continuous interaction, communication, knowledge sharing and joint learning among the platform members. During the existence of the platform, information sharing, and understanding of critical issues at stake in the vegetable value chain improved considerably. The authors believe that the correct matching of new knowledge and practices with existing inefficiencies in the system (inefficient markets, poor policy mixes, unsustainable natural resources practices, and ineffective research and development strategies) created a momentum within the partnership that is necessary for a continuous increase in vegetable production, resulting in improved incomes and food security.

The processes of implementing the platform activities also improved. Innovation platform registers show that there were high attendance rates of members in meetings such as planning, annual review meetings and markets surveys which significantly contributed to decision making within the innovation platform. The innovation platform has managed to

develop a common attitude that embraces a diversity of business cultures and knowledge systems to pursue problem solving in an inclusive and co-ordinated manner.

Innovation platform exercises opened farmers' eyes to new marketing possibilities and the confidence to go into commercial farming. This, in combination with the improvement in vegetable production, has led to an increase of the income of participating farmers.

The innovation platform also improved interactions between different actors in the value chain. Upon the establishment of the vegetable innovation platform, one input supplier was very sceptical about the purchasing power of smallholder vegetable growers. The innovation platform advised the supplier to design an input pack for growers. The pack contained vegetable seeds, fertilisers and fungicides, and was small and affordable. The platform also arranged for vegetable growers to access loans from the microfinance institute to buy the pack. This lowered the transaction costs incurred by farmers since they were able to buy all the vegetable inputs in one pack. Through the work of the platform, one microfinance provider saw the smallholders as potential customers and thus committed itself to helping farmers with loans to purchase inputs. A local hospital also saw the smallholders as a possible source of fresh vegetables for its patients. It therefore offered to buy all the vegetables from the farmers. A manager of one leading agricultural input dealer at Thyolo's district centre found a lot of positive aspects from being part of the innovation platform: *"The platform provides a very useful forum that gives all stakeholders equal participation during the meetings. The innovation platform brought me in close contact with vegetable growers and allowed me to get their input requirements on the spot. It also offers an opportunity to get direct feedback from growers on the performance of all the inputs I sell to them. The innovation platform has improved the stock in my shop."*

5 Challenges

Innovation platforms bring stakeholders with different social agendas and styles of operation together to work towards an identified common goal. Creating a common agenda for this disparate group is a challenge.

Representation of some specific stakeholder groups in the platform has been challenging. This was the case for policy makers who can influence the decision-making process. But also for private-sector players who are typically more critical of activities which are not very obviously leading directly to increased revenues, and may thus be difficult to be retained on the innovation platform. At community level, marginalised groups such as ethnic minorities and poor women may feel intimidated by the scale and activities of certain gatherings, and therefore proactive initiatives are needed to ensure their representation and fullest participation.

6 Future plans

The Vegetable Task Force has noted that the overwhelming positive feedback from all stakeholders involved in the innovation platform shows a great determination to push the process forward. After the first three years of project implementation, real benefits are starting to trickle in. During the next three years, the platform plans to expand its activities to other villages within and outside the district.

The innovation platform also plans to continue expanding the market base of the vegetables in order to accommodate produce from old and new vegetable growers. Plans are also under way to introduce other types of vegetables that have markets not only in Malawi but also in the region. Although the emphasis is on marketable vegetables, the project also seeks to continue to promote the consumption of indigenous vegetables through campaigns on radio and during seed fairs. With regard to training, the project plans to conduct courses that improve group cohesion among the vegetable growers in order to improve collective marketing; planned courses include group dynamics, leadership and marketing skills.

7 Lessons learned

The innovation platform has a poor link with the policy level. The Thyolo vegetable innovation platform has a bottom-heavy structure. Such a structure is ideal for making operational rules and deals with questions such as what agricultural produce to grow and for whom. To a much lesser extent, it does purport to promote collective decisions to effect change at a higher level such as at district level. However, the vegetable innovation platform in its present form is ill-equipped to lobby for an enabling environment at the district, let alone national level.

Participation of farmers is very important for nurturing a feeling of ownership of the research agenda. Other stakeholders were just brought in to solve critical issues that were already identified by farmers. It is important to take advantage of already existing social networks that also serve as channels of communication to and mobilisation of more farmers. The platform structure has the potential to balance the interests of those who are less articulate, assertive and aggressive in making demands, particularly women.

There was a high level of participation of farmers during the platform's field-level activities probably due the realisation that collective rather than individual action provides a better opportunity to gain. In the experience of the vegetable innovation platform, farmers advocated for action once they understood the working principles of the platform. When they realised that they could not go on alone, they sought strategic alliances with other stakeholders with the help from the facilitators. The smallholder vegetable growers then responded to market demand rather than to what they could supply, or to the experimentation requests of the platform.

Although the initial thrust of the project was on promoting indigenous vegetables, it was felt to be important to grow vegetables that are marketable, including the modern ones. A market survey identified a number of vegetables as being the most promising, based on the preference of farmers and buyers. This required flexibility on the part of facilitators in supporting smallholder vegetable growers to respond to what is demanded rather than to what the farmers could supply or the project's experimentation agenda. The inclusive and participatory nature of the process creates a sense of ownership over its outcomes such that there were no financial incentives required to garner farmers' participation.

The level of engagement of the private sector is largely dependent on the ability of the innovation platform to produce quality vegetables and also to out-compete other producers; otherwise they might leave the platform.



Glossary

This glossary provides definitions of certain terms as they were used in the context of this book.

Actor

Individual or organisation, mostly referred to in relation to a specific value chain.

Attribution

Strong supporting evidence that specific changes that have taken place are the result of the intervention of the platform.

Impact

The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended (adapted from OECD (1991), <http://www.oecd.org/dataoecd/31/12/2755284.pdf>).

Innovation

New ways of doing things. The appropriate mix of technology, ways of organising and the institutions (adapted from Smits (2000), *Innovation in the university*. Inaugural address, University of Utrecht, Utrecht).

Innovation broker

A person or organisation that brings together and mediates interaction between stakeholders within the context of an innovation platform.

Innovation platform

A forum that aims to help stakeholders interact in a concerted manner towards a shared objective.

Innovation system

A network of organisations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organisation into use (Adapted from Hall et al. (2006), http://siteresources.worldbank.org/INTARD/Resources/Enhancing_Ag_Innovation.pdf).

Institutions

The rules and regulations, norms and behaviours, both formal and informal (adapted from North, D.C. (2005). *Understanding the Process of Economic Change*. Princeton University Press, Princeton, USA).

Institutionalisation

Incorporating an idea or approach, or its principles, into an organisational culture, policy or activities.

Practitioners

In the context of this book, this refers to development professionals, specifically those involved in brokering.

Scaling out

Doing more of the same, or reaching more people/organisations.

Scaling up (or up-scaling)

This term is used here as a “catchall term” with two categories: a. Scaling out; and b. Institutionalisation (Adapted from Menter et al. (2004). “Scaling up”. In: Pachico, D. and Fujisaka, S. (eds), *Scaling up and out: Achieving widespread impact through agricultural research*. Centro Internacional de Agricultura tropical (CIAT), Cali, Colombia).

Scoping

Preparing for setting up an innovation platform by making an analysis of the context - and then giving examples of questions that might be asked: e.g. Who are different potential stakeholders? What are key issues and concerns of the interested parties? Why do they have these issues? How does government policy affect them?

Stakeholders

All individuals and organisations that have an interest in the issue at stake (which is in the case of this publication related to a platform or to its activities).

Sustainability

Here used to refer to the continuation of benefits from an activity after donor funding has been withdrawn (adapted from OECD (1991), <http://www.oecd.org/dataoecd/31/12/2755284.pdf>).

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