

## **COMPLETION REPORT: AFR: Innovation and Technology Development Program (TF No 070970)**

### **Background:**

Until it raises its agricultural productivity, Africa, in particular sub-Saharan Africa, is unlikely to register significant development advances. Higher agricultural productivity (and technological advances) is a precondition for growth and development, and higher yields a way to raise incomes and reduce poverty, particularly in rural areas. Understanding how agricultural innovation takes place and developing policies and institutions that facilitate enhanced innovation are thus central to the process of agricultural development on the African continent. There are some examples of increasing vitality of technology and innovation in Africa. However, in most cases technology investments have not been successful. Poor infrastructure and inadequate infrastructure services, lack of human skills and linkages between the important actors, as well as lack of institutions to support the use of technology are some of the most important factors explaining the relative slow progress in many African countries.

In this context WBI teamed up with Danish Ministry of Foreign Affairs and other partners within and outside the World Bank to deliver a Forum on Agricultural Innovation in Dar es Salaam in May 2008 for six African countries (Mozambique, Rwanda, Ghana, Tanzania, Kenya, Uganda), based on background studies and cases, which was followed by nurturing networks of agricultural innovation in Africa, the publication of a book, and a series of videoconferences on agricultural innovation with African countries. These activities complemented and added to the recent initiatives of African and donor countries such as NEPAD's Africa Science and Technology Consolidated Plan of Action, the Framework of African Agricultural Productivity (FAAP), as well as STI projects by the World Bank.

### **I Preparation Materials (Research) for the Forum on Agricultural Innovation**

To stimulate the discussions at the Forum May 2008 two sets of inputs were developed: analytical material on policies and incentives for fostering innovation within the agricultural sector in the six African countries studied; and innovative case studies of successful technology projects having achieved scale within the four mentioned technologies within the six countries

#### **A) Agribusiness Reports - Policies and Incentives for Fostering Technology Development**

Country studies focusing on "how national public policies encourage or impede agribusiness innovation" were undertaken. They analyzed the performance of existing policies in relevant

sectors (e.g., agriculture, trade, research and innovation, education and training, rural energy, finance, intellectual property rights, environment, health and food safety, etc.) in the six countries in providing the right incentives and regulatory frameworks to support the growth of agriculture and the food industry. A draft research proposal was reviewed closely by agriculture, private sector development, and education experts. Based on the research proposal, six country reports were commissioned assessing the relevance of current policies and incentives in the six African countries in promoting technology development and innovation within agriculture and food industries.

### **B) Case Studies on agricultural innovation and technology development**

To establish a well-informed dialogue and engage a “bottom-up” approach identifying innovative case studies on agricultural innovation and technology development, an “invitation to bid” was organized inviting submissions in the form of a written short document from universities, research institutes, private sector enterprises, business associations, and non-government organizations describing a current project.

The objectives of the case-studies were to:

- a. Analyze in detail the role of the private sector, business associations, NGOs, research institutes, and other organizations in disseminating, adopting, refining, and applying existing and new technologies in African countries;
- b. Provide concrete points of discussion for the Forum.

Particular attention was given to projects which have achieved scale, have involved many different stakeholders effectively, or have endogenously developed technologies or successfully adapted technologies for local use.

## **II Forum “Practicing Agricultural Innovation in Africa: A Platform for Action”, Dar es Salaam 12-14 May 2008**

Between 12 and 14<sup>th</sup> of May 2008 a forum on "Practicing Agricultural Innovation in Africa: A Platform for Africa" was held in Dar Es Salaam, Tanzania, and involved major stakeholders from the government, private sector, research and learning institutions as well as civil society from Kenya, Ghana, Rwanda, Uganda, Tanzania and Mozambique.

The overall objective of the Forum was to facilitate learning on key policies, practices, and actors that help enable innovation and technology development in agriculture, food industry, rural energy and physical environment in African countries, using analytical materials – in the form of case studies – to stimulate dialogue and debate.

The intended result was to inform representatives from the private sector including small and medium enterprises (SMEs), universities, research institutes, government agencies, and civil society on crucial agricultural innovation and technology development issues, with an emphasis on identifying and discussing technological advancements in the above-mentioned sectors and replicating and scaling up success in African countries. A final objective was to establish tangible next steps, offer support to the participants in their technology-related work, and continue the learning on these critical topics.

The WBI team's role at the forum was to make presentations, chair a number of sessions, facilitate overall the event, and help lead the country team discussions that resulted in the drafting of informal national agricultural innovation action plans for the participating six countries. Renowned experts from the World Bank, the Danish Foreign Ministry and other institutions made key presentations and chaired sessions.

Among the highlights during the forum were:

- Comments made in the opening session by various high-level speakers that served as a reminders of the relevance and timeliness of the forum, especially given the growing attention being paid to food security issues globally and particularly in Africa;
- The sharing of lessons on agricultural innovation within countries in Africa and across other countries such as Brazil and China;
- The stimulating contributions made by various representatives of the private sector and NGOs who introduced a critical but often underestimated perspective;
- The productive small group work that really engaged the country teams in developing national action plans.

The forum also received significant interest from the media (print, TV, and radio) in connection with the high media attention on increased food prices. A 45 minutes press conference with the Tanzanian Deputy Minister of Agriculture David Mathayo; Danish Ambassador to Tanzania Bjarne Sørensen; Henry Gordon, AFTAR; Director Adewale Adekunle, FARA and Kurt Larsen, WBI attracted 20 journalists including from BBC TV and Radio, East African and Tanzanian newspapers. Several other participants were interviewed during the Forum.

#### **Immediate follow-up results:**

A number of initiatives and follow-up initiatives emanated from the Forum. The emphasis in the next steps will be put on bank-wide collaboration and will build on the partnership with the Danish government, GDN as well as other organizations:

- 1) National Agriculture Innovation (AIS) fora: Based on country interest and building on the work of the country teams initiatives for national agriculture innovation (AIS) fora were initiated such as KENAIS in Kenya;
- 2) Other Innovation System initiatives and the nurturing of networks: Through the Forum in particular education and research staff from the different countries had an intense exchange beyond the actual workshop, which stimulated and informed the set-up of various learning initiatives such as the development of a agricultural innovation PhD program at Makerere University. Furthermore, the online discussion group is often used as a vehicle of exchange and communication here, and continues to get expanded.

- 3) Pilots on how to operationalize the AIS approach in World Bank agriculture projects with education, technology and research components were started in 2008 and 2009 respectively, one of them being in Kenya;
- 4) Dissemination of the innovative case studies e.g. by developing training material (as has been done in Francophone African countries) and through collaboration with agricultural producer organizations, agricultural training institutions, FARA, SciDev.net etc. is being undertaken.

### **III Medium-term (1-2 years) follow-up initiatives after the Forum: Book publication and Series of Videoconferences on Agricultural Innovation**

#### **A) Publication of World Bank publication “Agribusiness and Innovation Systems in Africa”**

Building on the preparation material for the Forum on Agricultural Innovation in Dar es Salaam and the Forum itself, the publication makes a structured attempt to shed new light on some critical questions surrounding agricultural productivity and innovation in Africa, notably: What are effective ways to innovate? How is innovation promoted? What are the roles of the private sector, researchers, and the government? Which policies help or hinder innovation?

This book attempts to address these questions and challenges, by examining how agricultural innovation arises in four African countries –Ghana, Kenya, Tanzania, and Uganda- through agribusiness, public policies, and specific value chains for food staples, high value products, and livestock. Determinants of innovation are not viewed individually, but within the context of a complex agricultural innovation system (AIS) involving many actors and interactions. The synthesis chapter preceding the country reports presents the main findings of the country reports, links common themes, and distils lessons learned.

**Further outcomes:** The publication has been disseminated widely among the pertinent stakeholders in the respective countries and among the participants of the Forum; the book launch was taken up by several country media such as the main Tanzanian newspaper. It served already as training material for a videoconference on agricultural innovation and furthermore aims to inform operational projects within the World Bank and beyond.

#### **B) South-South Learning Series of Videoconferences on issues of Agricultural Innovation between Anglophone and Francophone African Countries**

Responding to strong country request, the overall objective of this series of VCs is to facilitate South-South knowledge exchange on building Agricultural Innovation Systems (AIS), with the aim of helping respond to the current food crisis through medium to long term actions and supporting the development agenda.

This series of videoconferences builds on the conference on AIS in Dar-es-Salaam May 2008 and the joint publication mentioned, but will also be based on work and learning on agricultural innovation systems in World Bank operations - including a forthcoming World Bank sourcebook on AIS.

This first videoconference included discussions of AIS in the African context and was the book launch for the WBI/ARD publication '*Agribusiness and Innovation Systems in Africa*'. The authors of the report from Ghana, Kenya, Uganda and Tanzania presented the main findings of the report at the VC; World Bank experts on agriculture and the co-authors and editors of the book provided the framework for the subsequent discussion on major themes of the book.

### Disbursement of the TF Allocation

The initial allocation for TF No 070970 was \$280,298.04. Of this amount \$249,254.10 has been disbursed for co financing the activities mentioned above (see below for details).

<b>Disbursement Transaction Details</b>				
<b>All Amounts are shown in USD</b>				
<b>Expense Category</b>	<b>Disbursement</b>			<b>Total Disbursements</b>
	<b>FY( 2009 )</b>	<b>FY( 2008 )</b>		
Short Term Consultant	46,930.00	12,000.00		58,930.00
Training External	20,352.51	89,657.00		110,009.51
Learning Svc-Ext CL	0.00	5,148.89		5,148.89
Travel Airfare	2,333.11	43,236.05		45,569.16
Travel Airfare Rebate	-963.62	-1,287.37		-2,250.99
Travel Subsistence	3,492.00	10,230.29		13,722.29
Travel Other (includes local transportation, communications)	0.00	4,429.36		4,429.36
Representation	1,050.00	81.27		1,131.27
Miscellaneous	1,490.18	0.00		1,490.18
Translation/Proof	2,351.75	0.00		2,351.75
Telephone	0.00	335.62		335.62
Contract Printing	4,845.00	0.00		4,845.00
Other Publish Costs	3,437.06	0.00		3,437.06
Ext Participant Cost	0.00	105.00		105.00
<b>Total</b>	<b>85,317.99</b>	<b>163,936.11</b>		<b>249,254.10</b>