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ASARECA SETS STAGE FOR NEW RESEARCH PROJECTS

In a move to implement its new Operation Plan (OP II), ASARECA has issued out its first call for concept notes for partners to implement regional research projects.

A glimpse at ASARECA's Second Operation Plan (OPII)

During its first Operational Plan (OP1 2008– 2013), ASARECA scored remarkable achievements in transforming agriculture to improve livelihoods in the region. Some of the highlights include:

Technologies, innovations and management practices

A total of 409 different agricultural technologies, innovations and management practices (TIMPs) were generated to suit farmers' demands. In addition, 498 TIMPs were availed for uptake by targeted stakeholders, leading to significant benefits. For example, through the adoption of labour-saving equipment such as ox-planters, ox-weeders, ox-rippers and threshers, farmers reported reduction in drudgery by up to 75% per acre.

2.5 million people benefit

A total of 422,176 rural households directly benefited from ASARECA-related support initiatives, and over 2.5 million individuals benefited directly from an assortment of ASARECA support initiatives. Furthermore, 270,000 farmers and other stakeholders adopted new TIMPs generated and availed for uptake from project-related interventions. This has led to an increase in net crop production value of US\$ 73.4 million.

Farmers received clean potato planting materials through the seed plot technology promoted during OPI

More food for households

Food security improved for beneficiary households from 74 to 81% (7 percentage points), compared to an increase from 78 to 79% (1 percentage point) for non-beneficiaries.

Spillovers

Highly positive spillover effects were noted for the projects, with an average pass-on rate to non-project farmers of 7 for each beneficiary household.

Putting knowledge into practice

Over 4,600 ha of land were dedicated to improved TIMPs, especially for the production and multiplication of quality pre-basic, basic and certified seeds of selected crops. As a result, over 800 metric tons of quality seed were produced and either

sold or distributed to farmers for further multiplication. On the other hand, over 5,000 ha of highly degraded lands and watersheds were reclaimed, providing targeted households with steady water supply for domestic and farm use.

Good policies

ASARECA contributed to the enabling policy environment for agricultural products by facilitating the review of existing policies, laws, regulations and management practices. A total of 100 policies, laws, regulations and procedures were analyzed, 46 were presented for legislation and dialogue, while 17 were approved by the EAC and COMESA parliaments.

Training

As part of enhancing the capacity of NARES, over 470 assorted infrastructure(s) were provided to targeted partner institutions. A total of





ASARECA staff pose with Dr. Peter Ewell (2nd right) of USAID, during an interactive meeting in

81,751 persons (45,620 male, 36,131 female) were given short-term training in integrated water management, value addition, integrated soil fertility management, value chain development, project management, monitoring and evaluation, environment and social safeguards, basic agronomic and management practices, among others. In addition, over 150 students benefited from ASARECA long-term training.

Better income

A significant range of benefits were generated stakeholders. These include provision of additional income for farmers, processors and small-scale traders. For example, average total crop revenue increased by 63% from US\$ 272 to US\$ 442 between 2008 and 2012 for beneficiaries (compared to only 5% for non-beneficiaries). Total livestock revenues also increased by 139% from US\$ 157 to US\$ 375 over the same period, compared to a fall of 21% for non-beneficiaries.

OP II kicks off

To address the changing environment and make the best use of lessons learnt from the last five years, ASARECA is now implementing its second Operational Plan (OP II 2014 –2018), which builds on the experiences gained and lessons learnt to meet new challenges.

Learning from the past

ASARECA has adopted the climate smart agriculture (CSA) approach in all its interventions in OP 2. Through CSA, ASARECA is increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and removing greenhouse gas emissions to attain food security, better income and other related benefits.

The priority of OP2 is to transform agriculture into a viable market-oriented venture by focusing on access to markets for smallholder farmers. This, ASARECA anticipates, will draw more youth to agriculture.

Implementation approach

ASARECA is developing multi-disciplinary projects based on priorities clustered under themes. A theme is defined as a major opportunity or challenge facing agricultural transformation in the sub-region. Below are highlights of the themes:

Natural Resource Management and Ecosystems Services

ASARECA and its stakeholders have prioritised Natural Resources Management and Ecosystems Services as a key theme to marshal investments and reach populations. The priority key areas that will be tackled under this

theme include: improving agricultural water productivity; improving soil health; adoption of climate smart forestry, agroforestry and biodiversity conservation; enhancing resilience of drylands; and managing ecosystems for sustainable development among others.

Markets, Market Linkages and Trade

This theme is concerned with enhancing commercialisation of smallholder farming through improved access to input and output markets. This will be done by promoting approaches that improve access to markets; and advocating for an enabling policy environment. This will be supported by value chains and technologies to promote value addition among others.

Sustainable Agriculture, Food Security and Nutrition

This theme addresses challenges created by climate change, and pests and diseases of livestock and crops. The theme addresses issues of nutrition and food security with links to human health and its effects on agriculture, mechanisation, harvest and postharvest handling and processing. This will be addressed by developing and promoting breeds, varieties and management practices for adaptation to climate change; managing diseases and pests of strategic crops, livestock and fisheries among others.

Knowledge and Information Hub

ASARECA is in the process of establishing a Knowledge and Information Hub (KI-hub) for the sub-region. The KI-Hub will be a focal point for generating and exchanging knowledge.

Partnerships

ASARECA will continue to create enabling platforms and partnerships to address issues of a sub-regional nature.

Capacity strengthening

ASARECA will identify gaps and potential areas for synergy to strengthen the capacity of NARES.

Knowledge management

ASARECA is expanding investment to facilitate uptake and upscaling of TIMPS

Read full OPII document on www.asareca.org

After receiving approval from development partners including the European Union, USAID East Africa, Swedish International Development Agency and the International Maize and Wheat Improvement Center, ASARECA plans to build on successes from the just concluded first Operational Plan (OP I) by commissioning projects to scale out the successes. The new research areas ASARECA is seeking partners to implement include:

Sustainable agricultural water productivity enhancement for improved food security and nutrition in Eastern and Central Africa

This project is designed to consolidate gains from previous ASARECA work on water productivity and soil management with a view to out scale the benefits to more beneficiaries, and address research gaps. Under the project, water will be used to stimulate demand for other productivity enhancing technologies to increase productivity and improve food, nutrition and income security in the households. This will be achieved by harnessing and enhancing utilization of water resources including rainwater, runoff water, surface and ground water at farm and community levels. The project starts this year and lasts 48 months.

Facilitating implementation of policies to enhance equitable access to input and output markets in Eastern and Central Africa

The new project is meant integrate smallholder farmers and other actors into the input and output markets for seeds, credit, mechanization and fertilizer use. The project will also facilitate the development and implementation of appropriate policies including harmonizing policy options to enhance standards and grades, import/export documentation; and non tariff barriers, among others. It is a follow up on ASARECA efforts to ensure a harmonized policy environment for regional trade in

In the new projects, ASARECA plans to build on successes from the just concluded first Operational Plan (OP I) by commissioning projects to scale out the successes.

agricultural products that was such a remarkable milestone in OPI. It starts this year and lasts 48 months.

Enhancing capacities in price forecasting and input and output markets price policy analysis.

ASARECA in 2013 entered a partnership with the European Union's Agri-food projections for the EU member states (AGMEMOD) to develop a model to forecast food prices in Ethiopia, Kenya and Uganda. The new project seeks to take forward these efforts by building regional capacity for analysing and implementing appropriate policy responses. It is meant, among other things to institutionalize modeling of food market trends and early warning mechanisms for strategic decisions for food security. Successful implementation of this project is expected to boost food security in the region. The project starts this year and last 48 months.

Enhancing participation of small and medium enterprise actors in the higher end of value chains in Eastern and Central Africa

The project is intended to facilitate small and micro enterprises (SMEs), smallholder farmers, and rural agro-entrepreneurs to attain capacity to access and participate profitably in high-end markets. This is hoped to be achieved by strengthening linkages between value chain actors through collective



Scaling out innovations to increase the production of high value and income generating food crops

enterprises, brokering contracts, facilitating access to business development services, adaptation of value added technologies, quality assurance and addressing policy bottlenecks. This project is informed by failure by SMEs and smallholder farmers to benefit from market-oriented agricultural production due to stringent market requirements, and concerns over quality and food safety. The project starts this year and is expected to last 48 months.

Developing and upscaling technologies and innovations for the management of maize lethal necrosis disease in Eastern and Central Africa

The project is focusing on developing, validating and upscaling technologies, innovations and management practices to control the Maize Lethal Necrosis (MLN) disease. MLN is a serious challenge to maize production and poses a big threat to food security in Kenya, Tanzania, Uganda, Rwanda and South Sudan. The effect of the disease is massive, especially for smallholder farmers. Many of the recently released hybrids and the commercial varieties of maize are susceptible to the disease.



Increasing productivity of climate change resilient crops and bringing more untamed lands into productive use.

The new project is a follow up on earlier efforts by ASARECA to mobilize regional stakeholders to develop a strategy to tackle MLN. The project starts this year and will last 48 months.

Development of smallholder wheat production systems and value chains in Eastern and Central Africa

The project is aimed at improving the production of wheat among smallholder farmers by linking them to high end markets. This is hoped to be achieved by reducing transaction costs, boosting SME participation in markets and motivating smallholder farmers to adopt appropriate innovations to improve their yields, and add value to their wheat to fetch higher profits. Among other things, the joint project will specifically seek to understand constraints for smallholder wheat production and consumption trends, and profitability potential in rain-fed and irrigated areas. The project will document its findings in Burundi and Rwanda and the strategies to address them.

Crop-livestock-fish integration to enhance food security, nutrition and resilience of smallholder farms in Eastern and Central Africa

The project is meant to help integrate

crop/livestock and aquaculture value chains into strong and market oriented smallholder production farms. The teams will work with farmers to enhance the adoption of existing technologies and innovations to improve production. The farmers have been identified as mixed crop and livestock households that compete for land based resources. Though they produce more than 80% of the food in the sub-region, they are the most vulnerable to food and nutrition insecurity, poverty and environmental degradation. Their main problem is how to increase their production to meet the increasing demand for food from the ever increasing population. The project is informed by success from ASARECA work on climate smart agriculture, livestock and fish value chains and water harvesting and conservation technologies among others. The project starts this year and lasts 48 months.

Capacity development for sustainable plant genetic resources (PGRS) utilization and conservation in Eastern and Central Africa

This project is meant to promote efficient use and sustainable conservation of the environment by boosting existing efforts by ASARECA and partners to use plant genetic resources today,

while safeguarding the health, food and nutritional needs of future generations. It will enhance the use of germplasm, conservation and management by among other things, research into methods of acquiring germplasm, value addition, use and conservation; promoting the use and conservation of plant genetic resources; and promote access to information on plant genetic resources by breeders, farmers and other users at national and regional levels

Strengthening fruits and vegetables value chains for improved production, processing, marketing and nutrition security in Eastern and Central Africa

The new project is aimed at enhancing access to, uptake and utilization of mango and tomato in Eastern and Central Africa. This will be achieved by boosting mango and tomato production, processing, post harvest handling, marketing and utilization.

The project is set to address challenges related to post harvest losses and enhance capacity for product value addition, paving way for a better marketing platform to increase the incomes of actors. The project starts this year and last for 48 months.

Expanding climate smart initiatives to millions

ASARECA is rolling out a new project to strengthen the capacity of agricultural research for development and training institutions in Eastern and Central Africa to empower communities to adapt to climate change. Unlike most ASARECA projects, which are limited to 11 member countries, this 14 month initiative, will stretch beyond ASARECA sub-region to COMESA. It was thought-out in a pan-African partnership between ASARECA and COMESA and is informed by the rapid change in climatic conditions leading to risks such as crop failure, livestock deaths, loss of income, food insecurity, malnutrition and conflicts, which have a direct and immediate impact on the livelihoods of the populations.

The project will work on the following areas:

Conduct feasibility studies

It will undertake a comprehensive feasibility study on the application and sustainability of climate smart agriculture in Ethiopia, Kenya, Lesotho, Malawi, South Africa and Tanzania. A comprehensive inventory of appropriate climate smart innovations will be undertaken using the existing ASARECA networks for out-scaling.

Documenting research efforts by universities

The project will form partnerships with a number of research institutes and universities across the COMESA region to promote conservation agriculture through the Agriculture, Forest and other Related Land Uses (AFOLU) framework. This partnership will enable ASARECA analyze and document the extent to which research institutions and universities have mainstreamed climate adaptation and mitigation in their research agenda.

Based on the findings, ASARECA in partnership with the institutions will prepare training courses tailored to promote conservation agriculture as climate change adaptation and mitigation measures. In addition, a peer-reviewed book will be published as reference material for students at



ASARECA is seeking to capture real evidence of initiatives on ground to mitigate climate change.

university level. The institutions that have been earmarked for this collaboration include: Addis Ababa University, Alemaya University of Agriculture, Ethiopian Institute of Agricultural Research; Kenyatta University, Kenya Agricultural Research Institute, Kenya Forestry Research Institute; Makerere University Uganda, National Agricultural Research Institute; Sokoine University of Agriculture, Tanzania, Selian Agricultural Research Institute in Tanzania, Tanzania Forestry Research Institute; Bunda College of Agriculture in Malawi, KwaZulu Natal University in South Africa and Lubumbashi University in DR Congo.

Towards creating one African voice on climate change

ASARECA will facilitate collection of evidence on various aspects of climate change. The evidence will inform the African position at the international level in addition to providing a basis for formulating policy briefs, position papers, and regional synthesis papers on climate change and required regional responses in areas of agriculture, water, and forestry.

Training for climate mitigation

The project will facilitate member states to develop regional and national climate mitigation strategies and methodologies

by training regulators and investors in climate smart agriculture technologies, methodologies, and processes; developing information, dissemination and training materials in measurement, reporting and verification mitigation progress among others. The Eastern and Southern Africa region is marked by an extended stretch of semi-arid and humid areas covering large parts of Djibouti, Eritrea, Ethiopia, Kenya, Tanzania, Malawi, Lesotho and South Africa among others. These areas form an important component of these countries' economic and social development fabric.

They are known for supporting agro-pastoral and small-scale agricultural activities as well as wildlife conservation. In addition, with increasing population within what is traditionally known as high potential areas (humid zones), the Eastern and Southern Africa semi-arid and sub-humid areas are experiencing increasing human population settlements. The semi-arid and sub-humid areas are therefore, the most vulnerable to climate variability and change. In the recent past, they have experienced increased incidences of prolonged dry spells, unpredictable onset of rainfall, and more frequent flash floods resulting in crop failure, livestock losses, and chronic hunger among the resident populations.

Bringing wheat on board through partnerships



Wheat is a strategic commodity for food in Africa but its production is low with deficits met by imports.

In a bold move to improve the production of wheat among smallholder farmers, ASARECA and Wheat for Africa (W4A), have teamed-up to implement a joint initiative to link smallholder farmers to high end markets. According to Dr. Ivan Rwomushana, the Manager for Staples Crops, ASARECA, this will be achieved by reducing transactions costs, boosting the participation of small and medium enterprises (SME) in markets, developing; and validating new innovations to enable smallholder farmers to improve their yields, and add value to their wheat to fetch higher profits.

New project in offing

This initiative is due to be rolled out through a project, Development of smallholder wheat production systems and value chains in Eastern and Central Africa, which starts in the coming few months. As part of the partnership, ASARECA has already issued out calls for proposals.

Understanding wheat problems

Among other things, the joint project will specifically study options for smallholder wheat production and consumption trends and profitability potential in rain-fed and irrigated areas to understand the constraints for

The project will strengthen the seed system, promote use of best practices and help small holder farmers to access improved varieties and germplasm

smallholder wheat production. This will involve analysing farming systems, alternative crops, inputs and outputs market conditions, land and labour etc. The project will document its findings in Burundi and Rwanda and the strategies to address them.

Starting them off

The project will also pilot proven, innovations with smallholder wheat producers. This will involve helping them to access improved varieties, strengthening the seed system, optimizing crop management practices, and facilitating the acquisition of germplasm, wheat nurseries and varieties

suitable for Rwanda and Burundi.

ASARECA strength

The move by ASARECA and W4A is strategic for wheat production and development in Eastern and Central Africa because the two organizations command vantage positions for the crop. ASARECA, through the Eastern Africa Agricultural Productivity Programme (EAAPP), and earlier initiatives, has been taking a regional lead in leveraging wheat research for development. These efforts have narrowed the gap between domestic wheat production and consumption, which has been straining foreign exchange reserves of ECA economies.

W4A's unique package

W4A on the other hand, has developed unique solutions to promote sustainable wheat production in Africa. For instance, the centre has developed and disseminated high-yielding and heat-tolerant varieties that have enabled participating farmers in Sudan to achieve yield advantages of up to 70% over non-participating farmers. The W4A efforts have also led to the release of a heat-and disease-resistant variety (Goumria-3), which is expected to be cultivated widely across Sudan.

Why wheat?

Wheat is a major staple food crop globally and an imported food commodity in Africa. Wheat accounts for a fifth of human food. It is second only to rice as a source of calories in the diets of consumers in developing countries and is first as a source of protein. Between 2000 and 2009, per capita wheat consumption in sub-Saharan Africa increased at a rate of 0.35 kilogram (kg)/year, outpacing maize and rice. Urbanization, a growing middle class, and changing lifestyles are driving a rapid increase in demand for wheat.

The current down-side

The crop has become a strategic commodity for food in many parts of Africa. Its production in Sub-Saharan Africa, however, remains low with deficits met by imports worth 0.15 to 1 billion dollars per annum depending on country.

Important highlights from the Second ASARECA General Assembly

ASARECA held its 2nd General Assembly and Scientific Conference under the theme: “Transforming Agriculture for Economic Growth in Eastern and Central Africa” from December 9 to 13 2013 in Bujumbura, Burundi. The following are the recommendations that the over 600 delegates made to the General Assembly:

1. Generation of Technologies

The ASARECA transformation agenda should focus on prospecting for knowledge and innovatively adapting it to the context of the smallholder farmer.

Recognizing that farmers who are still using the hand hoe cannot transform agriculture; ASARECA should therefore be at the forefront of seeking and promoting appropriate agricultural mechanization as a way of improving labour productivity particularly for women and for attracting the youth to participate in agricultural transformation. Great attention needs to be paid to attract the youth by uniquely positioning the agriculture sector. Research needs to adapt and design mechanised tools that are appropriate for smallholder farmers.

ASARECA should seek to develop and introduce innovations that simplify compliance to commodity standards by farmers and by other stakeholders.

Together with member countries, ASARECA should mobilize adequate resources to continue regional knowledge sharing and research that addresses emerging trans-boundary crop and livestock pests and diseases, and food safety issues such as Aflotoxins.

ASARECA should contribute to the enhanced use of modern technologies such as biotechnology, ICTs, agro-processing and irrigation.

ASARECA should prioritize and harness the unexploited livestock potential in Africa.

ASARECA should conduct research based on demand at the various levels of the different agricultural value chain



ASARECA 2nd General Assembly President Prof. Joseph Bigirimana after his election.



ASARECA BOD Chairman Dr. Fidelis Angelo Myaka speaks to delegates.



(L-R) ASARECA Executive Director Dr. Fina Opio, 1st ASARECA Burundian agriculture and livestock minister Mrs. Odette K.



Rwandan agriculture Minister Dr. Agnes Kalibata address the General Assembly.



Makes

with special focus on post-harvest technologies, promote proven and appropriate agri-business models as enablers to transforming smallholder agriculture. Such models should take into consideration the role of farmer organizations, private sector, youth and women. ASARECA should carry out economic business research to inform agricultural business planning. Research should focus more on systems research as opposed to commodity-based research. There is need to integrate crop, livestock, forestry and fisheries in order to benefit poor farmers by increasing their household incomes and ensuring food security.

ASARECA should determine the principle beneficiaries of research projects before implementing them. Technologies and innovations need to be packaged to target the right category of farmers, whether commercial or smallholder farmers. For smallholder households, food security should be the main concern. ASARECA research should be guided by policies and strategies that farmers have participated in developing such as the IGAD strategy and the CAADP compacts.

ASARECA should be more vigilant about forecasting climate change impacts such

General Assembly and Scientific Conference



ASARECA General Assembly President Prof. Elly Sabiiti, Burundian Vice President Gervais Rufyikiri and a woman seated at the table during the General Assembly in Burundi, December 2013.



Prof. Elly Sabiiti speaking at a point during the ministerial address ...



Gervais Rufyikiri speaks to the delegates ...

as floods. ASARECA and partners should familiarize themselves with the automated weather system, which would enable them to predict weather changes and put mechanisms in place to prevent or handle the devastating effects.

2. Technology Upscaling

Farm level impacts need to be scaled out to reach far more farmers. ASARECA should devise means of stimulating the adoption of technologies that have been generated over the decades of agricultural research. There is need for increased efforts in the multiplication of good quality seed so that farmers can access the right seed.

In the transfer of technology and capacity development, ASARECA should place more focus to ensure that less participating NARS get a bigger share. This should be done in close consultation with the national

governments.

ASARECA should implement gender mainstreaming in its research work in order to ensure equitable access and benefit sharing by both men, women and youth, and reduce gender-based violence. In addition, gender mainstreaming should take into account the dynamics of cultural diversity, and gender relations that hinder the participation of women, in relation to the appropriateness of technologies developed.

ASARECA needs to focus on and promote a few but effective and high impact-oriented agricultural research innovations that provide a basis for up scaling. ASARECA research should support smallholder farmers in their choice agricultural enterprises and also guide farmers on enterprise selection

ASARECA should through innovative ways promote the commercialization of under-utilized crops and livestock through innovative ways, and take a lead in initiating a platform where research, extension, private sector and other actors will exchange knowledge and experiences on effective extension services delivery.

3. Policies

ASARECA member countries must strive to participate more in international seed trade and increase Africa's share from 2% by adopting and implementing international seed standards.

Member countries must expedite the domestication and implementation of the harmonized seed standards, procedures and regulations to facilitate increased seed trade within the region

National informal seed systems are still predominant in the region and need to be gradually transformed to formal systems. This can be facilitated through training within member countries to improve the quality of seeds they produce. Universities, research organizations, governments and the private sector should work together to achieve this transformation, taking into consideration the needs of individual countries.

ASARECA should conduct strategic research on the implications of various land use policies and tenure regimes to guide investments in land resources. This should include social economic impacts on foreign investments on agricultural land and related trade-offs

►► Continued on page 10

ASARECA should lobby governments in member countries:

For collective action at the ministerial level to deal with emergency situations, such as trans-boundary pests and diseases, like the tomato leaf miner affecting Sudan and Ethiopia; the maize lethal necrosis disease affecting Kenya, Uganda, South Sudan, Rwanda and Tanzania. The regional ministers can use ASARECA to address these sub-regional issues.

To support farmersto access infrastructure for post harvest handling, processing, value addition and marketing

To focus on infrastructure development like roads and agro processing to move food from surplus to deficient areas at national and regional level

To allocate more funding towards capacity building

To retain and attract agricultural researchers through increased funding to research institutes and commensurate remuneration for researchers

ASARECA should analyse extent to which common challenges faced in the region have been identified and addressed through regional cooperation

ASARECA member countries should continue to develop mechanisms for sharing their research results to foster agricultural transformation

ASARECA should continue to support the generation of evidence-based guidelines on biosafety issues including GMOs.

4. Capacity Building and Partnerships

ASARECA should build the capacity of farmers in appropriate agronomic practices, safe chemical use, post harvest handling, processing, value addition and marketing, focusing on farmer-to-farmer training. The establishment of demonstration plots and farmer-learning sites could enhance this.

There is need for research to build strong partnerships with the private sector, and develop their capacity, together with farmers' capacity, to trade in



Burundian traditional dancers (above & below) entertain delegates at the General Assembly



Delegates listen to the proceedings of the General Assembly

commodities that comply with standards required by national, regional and international markets.

There is need to empower women scientists to be part of the innovation and agricultural transformation process.

ASARECA should link into and add value to the farmer organizations' business plan. EAAPP also needs to link to farmer organizations. ASARECA should also assist in engaging and sustaining farmer organizations' partnerships, by identifying and developing farmer institutions, and ensuring that more farmers join farmers associations that are affiliated to the umbrella organization.

ASARECA needs to increase its engagement with the private sector, especially with regional private sector bodies. It needs to identify key players to partner with from the broad private sector, which includes seed producers, processors, agri-input

suppliers, manufacturers, and suppliers of machinery. In addition, ASARECA should identify and partner with strategic NGOs organizations, whose mission closely matches that of ASARECA.

ASARECA should support extension by supporting them with short skills enhancement training

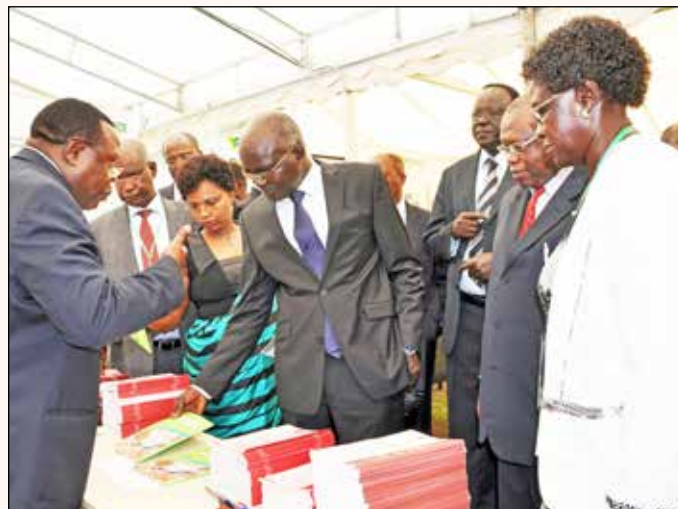
With respect to universities: ASARECA should assist in reviewing delivery of university education to ensure synergy between research, extension and education with a focus on applied agriculture and farming as a business

Universities need to be represented at the highest level in the ASARECA Board by a Vice Chancellor who can effectively articulate how Universities can collaborate better with ASARECA.

ASARECA should organize a forum with Universities to jointly prepare a long-term holistic vision and conceptual



(Left - Right) Vice President Gervais Rufyikiri, Minister Odette Kayitesi, Dr. Fina Opio and Prof. Elly Sabiiti acknowledge Burundian traditional dancers. Dr. Charles Mugoya (right) explains ASARECA publications to the Vice President



Attentive delegates at the General Assembly



Dr. Fina Opio (Left) with some of the Eastern and Central Africa Agriculture ministers listen to a scientist explaining the potato seed plot technology during a field tour

framework for agricultural transformation incorporating curricula review.

ASARECA can collaborate with universities in capacity building for agriculture by engaging student interns in on-going ASARECA projects and training of researchers on innovation systems.

ASARECA priority setting and baseline surveys could be used to guide research in universities.

5. Information, Communication and Knowledge Sharing

ASARECA needs to scale up adoption of the available TIMPS in partnership with extension and advisory services organisations like AFAAS and the national systems. ASARECA should explore the possibility of a joint database of TIMPs with CORAF and CARDESA. The TIMPs should be packaged to target the private sector, and NGOs.

ASARECA researchers should simplify information and ease access to it by the target farmers. In sharing knowledge the complete chain of players in the agriculture sector should be included (researchers, extension agents, farmers, policy makers and others).

ASARECA seek innovative ways of disseminating information e.g. through ICTs, community radio, farmer-to-farmer dissemination, and other dissemination through intermediaries such as NGOs and civil society organizations.

ASARECA should carry out market intelligence, create awareness on East African and global standards and feed the information into its information dissemination system. ASARECA should produce publications that document information shared in such forums as the general assembly/scientific conference.

6. Financing and resource mobilization

ASARECA needs to mobilize resources that are available within the Private Sector to fund research

ASARECA should lobby governments in member countries:

To abide by the Maputo declaration of 2003, and increase spending in agriculture to at least 10% or more of their national budgets.

To finance their own research in order to invest in agriculture that meets their future food needs, to invest in ASARECA to do research of regional nature and reduce dependence on donors for research, increase investment to research through the CAADP national investment plans, and strategically direct public funds to procure local private sector to spur innovation in their countries.

ASARECA rolls out environmental conservation initiative

ASARECA has announced a new promise to promote efficient use and sustainable conservation of the environment through an ambitious five-year project due to be rolled out soon.

According to the Manager Agrobiodiversity and biotechnology Programme, ASARECA, Dr. Charles Mugoya, the project will boost existing efforts by ASARECA and partners to use plant genetic resources today, while safeguarding the health, food and nutritional needs of future generations.

Environment under threat

The East and Central African region holds an immense biological diversity of plants of importance for food, agriculture, forestry and medicine. These resources are, however, under constant threat of genetic erosion and degradation. In the new project, Capacity development for sustainable plant genetic resources utilization and conservation in Eastern and Central Africa, ASARECA plans to enhance the use of germplasm, conservation, management, and research through the following activities:

Key actions

- Researching into methods of acquiring germplasm, value addition, use and conservation.
- Promoting the use and conservation of plant genetic resources.
- Promoting access to information on plant genetic resources by breeders, farmers and other users at national and regional levels.
- Facilitating training for personnel nationally and regionally for plant genetic resources work.
- Promoting awareness and influencing favourable conservation policies through national dialogue.
- Promoting and harness the role of women in plant genetic resources use and conservation.



The new project is meant to enhance conservation of animal and plant genetic resources.

- Conducting detailed survey on existing plant genetic resources data.
- Training the genebank managers on how to effectively and efficiently use plant genetic resources information platform.
- Promoting the use of international standards for documenting and creating inventory of plant genetic resources to share with regional partners.

Outscaling previous success

The new project seeks to use of lessons learned from the last five years of ASARECA work on plant genetic resources through its network (EAPGREN). EAPGREN recorded tremendous successes in conservation of farmers' crops such as cereals, millets and pulses.

However, there still remains a big challenge of inadequate data, human resources shortage, to effectively undertake conservation. The utilization of the conserved materials is low due to inadequate and incomplete characterization, evaluation and documentation. The infrastructure to undertake effective conservation and enhance utilization is still limited.

New outlook

The second phase will emphasise agro-ecosystems conservation at a larger integrated level including cultivated species, wild relatives of domesticated plants, weedy relatives of crops and traditional farming systems. The East and Central Africa sub-region is one of the most important biodiversity hotspots in the world.

The sub-region's heterogeneous environmental conditions and the diverse cultural history make the region an important primary and secondary gene centre for many cultivated species. The sub-region is one of several areas in the world where crop plants were originally domesticated from wild species. The region is a host to a wide range of important rare and endemic species, habitats and ecosystems.

However, the sub-region's plant genetic resources are under threat from man-made and natural factors such as climate change, natural habitat degradation among others. Although the countries in the region are Parties to the CBD and ITPGRFA, none has explicitly directed adequate investment into PGR conservation and rational utilization.

Gender Mainstreaming promoting agricultural transformation

ASARECA and partners have demonstrated that gender mainstreaming is critical in catalyzing adoption of agricultural technologies, innovations and practices. In partnership with the International Maize and Wheat Improvement Centre (CIMMYT) and the Australian Centre for International Agricultural Research (ACIAR), ASARECA facilitated training of National Agricultural Research Systems (NARS) staff and other trainers on gender mainstreaming and analysis in Ethiopia, Kenya, Malawi, Mozambique and Tanzania.

ASARECA in particular supported the just concluded *Sustainable intensification of maize-legume cropping systems for food security in Eastern and Southern Africa (SIMLESA)* project by providing expertise to turn the theory of the gender mainstreaming into practice.

A series of regional and national level training workshops were conducted for a selection of stakeholders to develop skills on collection and interpretation of gender desegregated data, among other skills. After the training, the scientists said it was possible to use results of gender analysis to design experiments, demonstrations and trials, and even reveal gender-based benefits of research undertakings.

As a result of implementing gender responsive approaches for maize-legume production, options of maize and legume cropping systems for smallholders have increased. It was noted during the project that inclusive and participatory engagement of women, men and youth from various socio economic backgrounds was a key driver for technology adoption and increased productivity.

Lessons learnt and good practices
Households learnt how to maximise benefits from crop-live stock residues. For example, crop residues are now being used as fuel for cooking, besides feeding livestock. This is particularly good for women.



The new project is meant to enhance conservation of animal and plant genetic resources.

The farmers have learnt to keep desired amounts of biomass in the farm to retain moisture. They also adopted intercropping maize and beans.

The SIMLESA approach of combined use of organic fertilizers for soil fertility management alongside forages to reduce pressure on feed supply. This allows farmers to use crop residues for mulching, feeding animals and fuel, hence reducing the pressure on women and children.

Following the project, there is evidence that providing skills and production resources to women boosts family income and food because the women are able to venture into more innovative ways of expanding sources for family livelihood.

The non-participating farmers have learnt from the best practices in the demonstration plots of participating farmers.

Through farmer groups and associations, households have been able to save time in the field and in their homes. This has enabled them to expand their range of activities and also the range of benefits.

Training in seed production and multiplication has improved farmers' access to seed. It has also opened up new opportunities for women and men to increase their incomes. Preservation of seed through informal systems ensures timely provision of seed for poor households.

It has been noted that the new varieties of maize are easy to cook, but vulnerable to attack by pests. SIMLESA therefore needs to promote farmer preferred varieties.

It was noted that access to herbicides, farming tools and improved varieties is critical in transformational agriculture. Delayed access to these inputs affects productivity.

It was observed that one of the reasons the youth shun farming is that they have specific needs which their parents do not fulfill after harvest and sale of family produce. The youth therefore, need motivation by enabling them benefit directly from farming.

Food security, income, youth high on ASARECA agenda

Expanding the function and perception of agriculture from the current predominantly food security orientation, to a money making orientation, is one of the sure ways to motivate the youth to join agriculture, a brain storming session of ASARECA top leadership has agreed.

According to ASARECA Executive Director, Dr. Fina Opio, this is in line with ASARECA's new priorities that include promoting market linkages, value addition, business incubation and promoting mechanisation of farming to increase economic benefits.

Speaking to ASARECA staff in Entebbe on May 28, ASARECA General Assembly (GA) President Prof. Joseph Bigirimana, GA Vice President Eve Kasirye Alemu, and the outgoing GA President, Prof. Elly Sabiiti, also emphasised that food security, nutrition



(Left - Right) The GA Presidents and Dr. Fina Opio chat with ASARECA staff in Entebbe recently.

and income must be considered at the same level of importance in livelihoods transformation.

The Presidents were on a working tour of ASARECA secretariat from May 8-9. During the tour, they interacted with secretariat staff in plenary and one-on-one discussions.

The meeting discussed how to stimulate more private sector investment in agriculture, effective delivery of agricultural tools, practices and services to the farmers. "The private sector and farmers need ASARECA technologies, innovations and management practices... they want them in a simplified and relevant form," said Dr. Kasirye.

ASARECA praised for new developmental direction

ASARECA's second Operation Plan (OPII) takes ASARECA work closer to the farmers, businessmen and actors along agricultural commodity value chains, a key development partner has said.

"From predominantly a research focus, you have now shifted mainly to dissemination and up scaling of agricultural innovations to the people, which is an exciting movement," said Mellisa Wood, Director, Australian International Food Security Research Centre (AIFSRC).

Ms. Wood, together with the Acting Regional manager Australian International Food Security Research Centre, Liz Ogutu had paid a courtesy call to familiarize themselves with ASARECA work. Ms Ogutu noted that ASARECA is an important and strategic partner because of its experience in collaborative research in the sub-region and its network of National Agricultural Research Systems.



Mellisa Wood, Liz Ogutu discuss with ASARECA staff in Entebbe recently

ASARECA Executive Director, Dr. Fina Opio, said ASARECA's focus on new themes namely Natural Resource Management and Ecosystems Services; Markets, Market Linkages and Trade; and Sustainable Agriculture, Food Security and Nutrition was meant to position the organisation to filter the benefits of agricultural research and development to the people.

During the meeting, ASARECA urged (AIFSRC) to consider targeted support for long term training for agricultural researchers in less resourced national agricultural research systems such as Burundi, Eritrea, Madagascar, DR Congo and Rwanda to boost their capacity to conduct research for their countries.



ASARECA staff and the General Assembly Presidents (Centre) pose for a group photo after a discourse at Protea hotel in Entebbe recently



Ms. Florence Kabugo Byamukama

Ms. Florence Kabugo Byamukama joined ASARECA in January 2014 as Programme Assistant for the Eastern Africa Agricultural Productivity Programme (EAAPP). Before joining ASARECA, she worked as Monitoring and Evaluation Officer with Uganda National Agro-input Dealers' Association, and the National Agricultural Advisory Services. Florence holds an MSc in Agricultural Economics and a BSc in Agriculture both from Makerere University. She will provide support to the EAAPP programme.

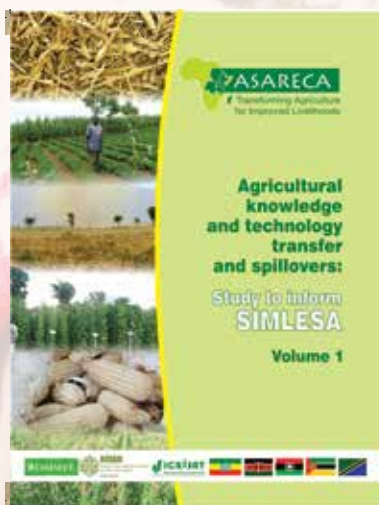


Ms. Halima Birungi

Ms. Halima Birungi joined ASARECA as the Receptionist recently. Prior to joining ASARECA, she was working in a similar position with Britam Insurance Company Uganda Limited. She holds a Degree in Administrative and Secretarial Science from Kyambogo University, Uganda. Birungi is among other things, charged with front office coordination, providing secretarial and administrative support in preparation of meetings and conferences, and coordinating the maintenance of office equipment.



ASARECA Executive Director, Dr. Fina Opio (centre front), leads ASARECA staff and stakeholders from the Tanzanian Government, the private sector, regulatory authorities, the National Agricultural Research Institutes in Tanzania and farmers' representatives in a workshop to validate analysis for the Tanzania seed sector in Dar Es Salaam on January 24. ASARECA and the Royal Tropical Institute are facilitating the analysis of the Tanzania seed sector to understand issues, challenges and opportunities to inform the redesign of the National Integrated Seed Sector Development Programme for Tanzania. The initiative is supported by Bill and Belinda Gates Foundation



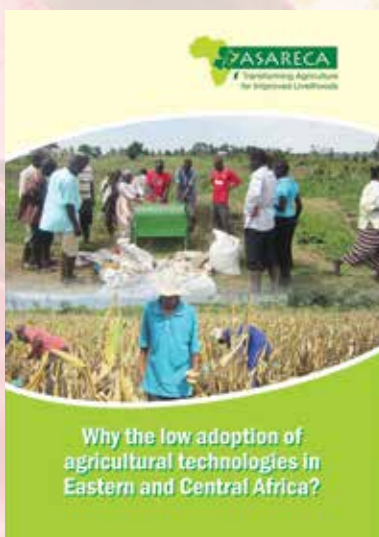
Title: Facilitating Scaling Out and Spillovers of Agricultural Technologies and Knowledge: Study to inform SIMLESA. Volume 1: Main report

Compiled by: Percy R, Kimenye, L, Pound B, Phiri A and Mills A.

Published by: ASARECA

Year of publication: 2014

Synopsis: The book is a report of study commissioned by ASARECA in 2012 to establish possible strategies to effectively transfer information and knowledge to end users, and to facilitate scaling out benefits of the Sustainable Intensification of Maize–Legume cropping systems for food security in Eastern and Southern Africa (SIMLESA) project. ASARECA was responsible for providing technical support in knowledge transfers and spillovers during the SIMLESA programme. The study sought to generate an inventory of available maize and legume technologies and conservation agriculture practices that could be scaled out to communities in participating countries to facilitate spillovers among others functions. . **Available on www.asareca.org**



Title: Why the Low Adoption of Agricultural Technologies in Eastern and Central Africa?

Compiled by: Hannington Odame, Lydia Kimenye, Charity Kabutha, Dawit Alemu and Leonard Haggai Oduori

Published by: ASARECA in collaboration with CABE

Year of Publication: 2013

Synopsis: Over the past decade, research institutions in ECA have generated numerous technologies, innovations and management practices (TIMPs) that are effective in addressing most agricultural challenges. However, many of the TIMPs have not been widely adopted by the intended users, especially smallholder farmers. To help resolve this challenge, ASARECA commissioned a study to determine the factors responsible for the low adoption, which culminated in this report. The report identifies key factors of low adoption and provides strategies to address them. The study covered five countries namely: Democratic Republic of Congo, Ethiopia, Kenya, Sudan and Uganda of the 11 member countries of ASARECA. **Available on www.asareca.org**

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