

Corporate Report 2017-2018

- **Rebranded**
- **Refreshed**
- **Repositioned**

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ASARECA Value Proposition

Strengthening, catalyzing and coordinating the Eastern and Central Africa sub-regional agricultural research for development initiatives by strengthening and integrating capacities; supporting and coordinating development and scaling up of technologies and innovations; advocating for an enabling policy environment, functional markets and institutions; and managing and communicating knowledge and information to accelerate sustainable agricultural transformation and growth for shared prosperity and improved food and nutrition security and livelihood of the ECA people.



ASARECA Vision

A transformed ECA agricultural sector supporting improved livelihoods, sustained economic growth and inclusive development.

ASARECA Mission

To contribute to increased productivity, commercialization and competitiveness of the ECA agricultural sector through strengthening, catalyzing and coordinating agricultural research for development in the ECA sub region.



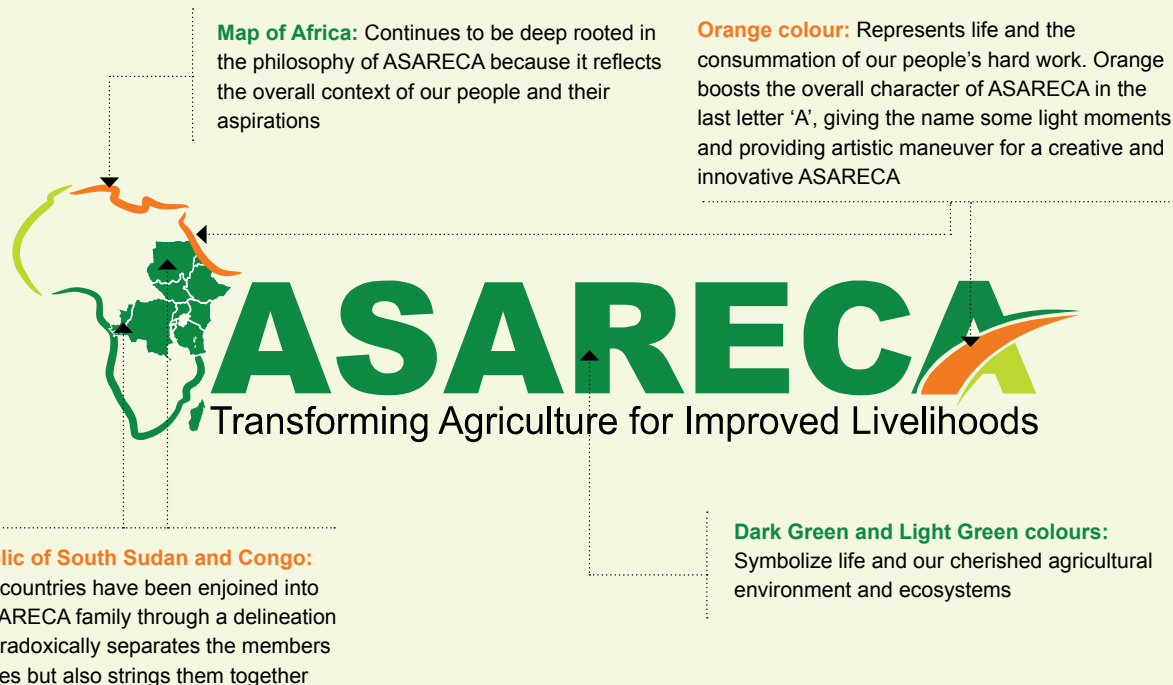
ASARECA Coverage



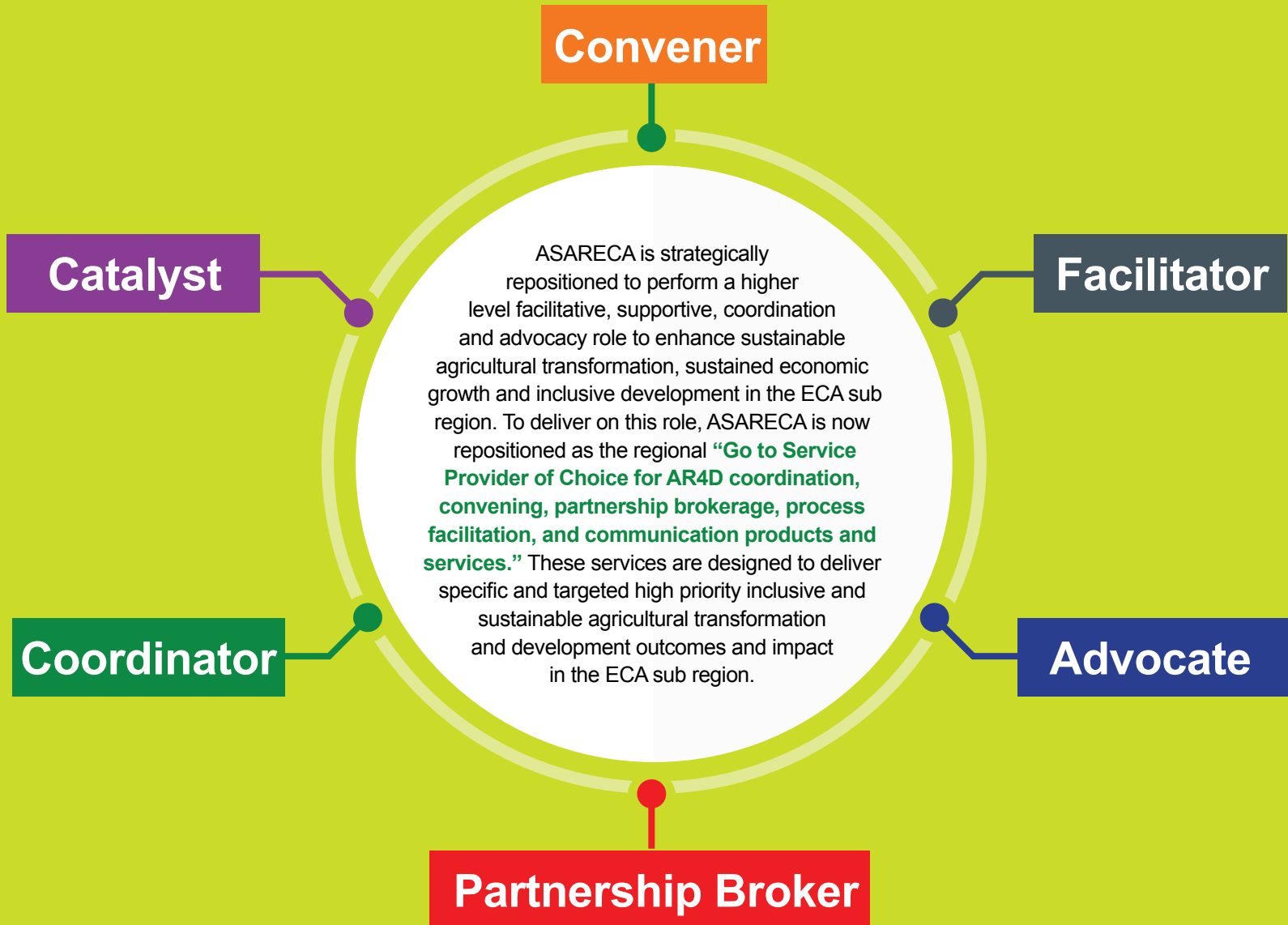
Rebranded

ASARECA launched a rebranding campaign to enhance its corporate image, expand its visibility among critical stakeholders, mobilize financial resources to implement its Strategy, strengthen partnerships and networks. The campaign characterised by wide stakeholder consultations and feedback, and a Brand Interrogation and Internalisation workshop in Entebbe, led to the development of a refreshed Brand Value Proposition. ASARECA's Visual identity has also been revamped, making it confident and bold.

Feature of the ASARECE new Logo



ASARECA Refreshed Mandate



Thematic Areas of Focus

ASARECA has identified four thematic areas of focus as articulated in its Strategy and Results Framework (2019-2028). These were arrived at through rationalization of the identified critical strategic issues and core functions. The four ASARECA thematic areas of focus include:

1

Transformative Capacity Strengthening and Integration

This theme focuses on strengthening: (i) capacities and competencies for stakeholder engagement; (ii) strategic visioning and policy formulation; (iii) capacities and competencies for generation, access and utilization of agricultural knowledge and information; (iv) capacities and competencies for effective institutional management and performance monitoring, evaluation and learning; and (v) internal capacities and competencies.

2

Agricultural Transformation Technologies and Innovations

This theme is about: (i) development and adaptation of gender responsive and climate-smart technologies, innovations and management practices; (ii) scaling up of gender-responsive and climate-smart technologies, innovations and management practices; and (iii) development and scaling up of gender-responsive regional value chains and agribusinesses.

4

Enabling Policy Environment, Functional Markets and Transformative Institutions

The theme deals with support and advocacy for establishment of: (i) transformative enabling policy and regulatory environment; (ii) functional and structured regional input and output markets; and (iii) transformative regional institutions and arrangements.

4

Knowledge and Information Management

This thematic area focuses on improving management and access to reliable and up-to-date data, information, and knowledge to inform agricultural transformation decision-making processes. Under this theme, ASARECA promises to establish and manage: (i) a regional technology and information clearing house; (ii) regional databases; (iii) functional platforms for knowledge and information exchange; and (iv) an effective monitoring, evaluation, communication and learning system.

Briefing by the Chairman Board of Directors

Dr. Ambrose Agona

This year marks two and half decades since ASARECA was born. Of necessity, ASARECA is re-examining, refreshing, and where need be, renewing the body of knowledge that informed its creation by the National Agricultural Research Systems of its founding members to serve them better. Over these decades, ASARECA activities have been guided by two strategic plans: The ASARECA Long-Term Strategic Plan of 1997; and the Second ASARECA Strategic Plan (2007-2016), which were implemented through two successive Operational Plans.

There is no doubt that the Agricultural Research for Development (AR4D) environment in which ASARECA operates has changed over time. Real time challenges such as climate change, emerging pests and diseases, rising population, increasing youth unemployment, just to mention but a few, have dictated that ASARECA reviews its orientation to address the needs arising from the challenges.

It is for this reason that ASARECA management took a bold decision to assess the institutions' health, relevance and contribution to AR4D in ECA over the last 20 years and prepare to address future needs. ASARECA undertook an Internally





Stakeholders across Eastern and Central Africa at the workshop to develop ASARECA's new Strategy in Entebbe, Uganda.

Commissioned External Programme and Management Review (ICER), which conducted extensive stakeholder consultations to: (i) Re-examine ASARECA's niche and set fresh priorities for the Association to remain relevant; (ii) Reposition the Association to continue providing support in transforming the sub regional agriculture; (iii) Increase ASARECA's effectiveness, visibility, sustainability and impact; (iv) Identify and articulate areas of comparative advantage that ASARECA can leverage on to offer high quality research products and services; and (v) Define an appropriate organizational structure.

The ICER showed that the AR4D environment in which ASARECA was established had substantially changed with collaborating partners and member states growing in capacity; new potential areas of collaboration emerging; new regional, continental and global frameworks and development

programmes evolving; and the need for rapid transformation of the African agriculture gaining significant political support at the national, regional and continental levels.

Consequently, ASARECA Board of Directors and Management made a strategic decision to re-examine its focus and niche, leading to the development of a ten-year ASARECA Strategy and Results Framework (A-SRF) for the period 2019-2028. The new A-SRF repositions ASARECA to perform its mandate as a convener, partnership broker, catalyst, process facilitator, communicator and coordinator of regional AR4D initiatives, thereby delivering specific and targeted high priority inclusive and sustainable agricultural transformation and development outcomes such as improved livelihoods, food and nutrition security.

Starting 2019, ASARECA will pursue this mandate specifically through: (i) providing leadership strategic visioning, priority setting and programming; (ii) strengthening and integrating agricultural research capacities and competencies at systemic, organizational and individual levels; (iii) supporting and coordinating development and scaling up of gender-responsive and climate-smart agricultural transformation technologies, innovations and management practices.

ASARECA will also work through; (iv) managing and communicating integrated agricultural knowledge and information to inform agricultural transformation; (v) establishing and managing value adding partnerships, strategic alliances and collaborations to address agricultural transformation priorities; (vi) providing research evidence to support formulation, harmonization and implementation of evidence-based policies and regulatory frameworks; (vii) supporting and catalyzing participation of private sector in AR4D; (viii) providing

research evidence to support the establishment of functional, structured and accessible regional markets; (ix) coordinating harmonization and rationalization of agricultural sector policies, standards, guidelines and procedures; (x) participating actively in regional, continental and global agricultural transformation discussions, agenda setting and implementation.

ASARECA management took a bold decision to assess the institutions' health, relevance and contribution to AR4D in ECA over the last 20 years and prepare to address future needs.

In addition, ASARECA will also work through: (xi) supporting and coordinating establishment and effective management of regional agricultural research Centres of Excellence; (xii) supporting and coordinating establishment and management of agricultural transformation research institutions and institutional arrangements; (xiii) supporting mobilization and allocation of resources to fund the development and implementation of regional priority agricultural research programmes and projects; and (xiv) supporting and coordinating monitoring, evaluation and reporting to track progress on agricultural transformation.



Some of the delegates drawn from Eastern and Central Africa who participated in informing ASARECA's new Strategic direction

ASARECA's Achievements During OP1

364

Total number of Technologies, Innovations and Management Practices generated to suit farmers' demands



60,000

Number of men and women trained in various AR4D disciplines and basic agronomic practices



228,349

Total number of rural households that benefited directly from ASARECA supported initiatives



435

Total number of demand-driven gender-responsive Technologies, Innovations and Management Practices availed for uptake



700

Information packages availed to over 1 million targeted stakeholders through 250 delivery pathways



400

Assorted infrastructure/facilities provided to partner institutions



SEEDS

800Mt

Quality seed of selected crops produced and sold or distributed to farmers for further multiplication



Policies, laws, regulations



89

Total number analyzed,

39

Total number presented for legislation dialogue

37

Total number approved by national legislative bodies, EAC and COMESA

5000 ha

Area of highly degraded lands and watersheds reclaimed through ASARECA supported initiatives



150

Number of students who benefited from ASARECA supported PhD, and MSc studies



Briefing by the Executive Secretary

Prof. Jean Jacques Mbonigaba Muhinda

This year (2019), ASARECA will mark a Silver Jubilee in AR4D leadership since its inception in 1994. Beyond the Silver Jubilee, ASARECA and partners have set eyes on 2019 as the year the Association will start implementing the new ASARECA Strategy and Results Framework (A-SRF) for the period 2019-2028, and a new Medium Term Operational Plan III (MTOPIII: 2019-2023).

As mentioned in the Chairman's briefing, the Strategy that is just being launched, repositions ASARECA as a convener, partnership broker, catalyst, process facilitator, communicator and coordinator of regional AR4D initiatives to deliver targeted high priority inclusive and sustainable agricultural transformation and development outcomes.

The foundation for the successful implementation of A-SRF: 2019-2028, and the MTOPIII: 2019-2023 was laid 25 years ago and has over the years yielded positive results. Specifically, during the last two and a half decades, projects supported by ASARECA developed and promoted over 360 agricultural technologies, innovations and management practices (TIMPs). These include: improved crop varieties, integrated water management, soil fertility and agronomic packages, storage, value addition and





Dr. Cyprian Ebong (L), out-going Executive Secretary, hands over to Prof. Jean Jacques Mbonigaba Muhinda (R) in a ceremony witnessed by the Chairman ASARECA Board of Directors, Dr. Ambrose Agona and the Secretariat staff in Entebbe, Uganda.

marketing innovations. These TIMPs directly benefited over 1,370,000 smallholder farming households with an average of six family members. This means that over 8 million individuals directly benefitted from ASARECA interventions. Some specific highlights of these achievements are highlighted below:

1. A total of 364 different TIMPs were either generated or improved to suit farmers' demands. Of these, 435 demand-driven gender-responsive TIMPs were availed for uptake by targeted stakeholders.

2. Over 1,000 ha of land were dedicated to improved TIMPs, especially for production and multiplication of quality pre-basic, basic and certified seeds.

3. Over 800 metric tons of quality seed of selected crops were produced and either sold or distributed to farmers for further multiplication.

4. Over 5,000 ha of highly degraded lands and watersheds were reclaimed. This enabled the targeted households to have steady water supply for domestic and farm use.

5. A total of 89 policies, laws, regulations and procedures were analyzed, 39 presented for legislation and dialogue, while 37 were approved by national legislative bodies, the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA).

6. Over 400 assorted infrastructure and facilities were provided to partner institutions, particularly the weaker NARIs, while 280 different partnerships were formed.

7. Over 60,000 persons (34,009 male and 30,887 female) were trained in integrated water management, value addition, integrated soil fertility management, value chain development, project management, monitoring and evaluation, and environment and social safeguards, among others. In addition, over 150 students (15 PhD, 112 MSc, 4 BSc and 19 Diploma/Certificate) benefited

from ASARECA long-term training.

The years 2017-2018 were more or less cornerstone to ASARECA because the institution was transiting from the Second ASARECA Strategic Plan (2007-2016) and the Second Operation Plan to A-SRF: 2019-2028 and MTOP III: 2019-2023. During this period, ASARECA has proactively implemented a series of management and governance reforms agreed to jointly by ASARECA management and partners. These reforms aim at ensuring that ASARECA repositions itself strategically as the regional **“Go to Service Provider of Choice”** for AR4D coordination and convening products and services.

The years 2017-2018 were more or less cornerstone to ASARECA because the institution was transiting from the Second ASARECA Strategic Plan (2007-2016), and the Second Operation Plan II.

Some of the key reforms implemented include:

1. Governance Management Reforms

ASARECA has advanced actions towards implementing a new Governance Structure scheduled for completion by April 2019. A White paper to guide this process has been developed and approved by the BoD, while processes for establishing a viable governance system that responds to ASARECA's evolving context and re-positioning is underway. The new Governance Structure is expected to consolidate political patronage by Agriculture Ministers in ASARECA Member Countries and integrate the Regional Economic Communities (RECs), especially the East Africa Community (EAC), the Common Market for Eastern and Southern

Africa (COMESA), and the Intergovernmental Authority for Development (IGAD) into its structures. A fully reconstituted Board of Directors shall comprise five Director Generals of NARIs, one representative from the RECs, one representative from CGIAR, one representative from development partners, and five sector representatives (mainly farmers' organizations, extension services, private sector/agribusiness, non-government organizations and agricultural high education).

A select Committee of the ASARECA General Assembly, supported by the High Level Advisory Panel, comprising eminent Africans, is scheduled to nominate the new board members on February 11-12, 2019.

The whole reform procedure expected to be completed in April 2019, when the new Board, the Revised Constitution and Governance Manual will be presented to the General Assembly for endorsement, and ratified by the Council of Patron Ministers.

2. Enhancing Controls on Operations for Transparency, Accountability and Ethical Standards

Activities meant to ensure that ASARECA retains its reputation for transparency, accountability, and ethical standards, thereby ensuring value for money to its stakeholders have been satisfactorily implemented. These include: (i) review of ASARECA Operations Manual and development of associated

Policy Documents; and (ii) transparent recruitment of the Executive Secretary, fiduciary staff and a technical team of Theme Leaders.

3. Completion of the Functional and Institutional Analysis

The functional and institutional review of ASARECA to strengthen management structures has been completed, with key outputs being: (i) identification of efficient, effective, transparent and accountable management system for administration and implementation of programmes; (ii) development of capacity needs assessment and incentive schemes to attract and retain skills sets; and (iii) undertaking of a remuneration survey to support the development of a remuneration policy.

4. Institutional Rebranding

Following recommendations of the ICER requiring ASARECA to focus on reforms and refreshment of its strategic focus, the Association has embarked on a rebranding campaign to enhance its corporate image and expand its visibility among critical stakeholders, mobilize financial resources, and seek partnerships.

A *Rebranding Strategy and Implementation Plan* has been developed through a consultative Brand Interrogation Process. The Strategy highlights ASARECA's Brand Value Proposition, Brand Promise and Brand visual enhancement elements.

ASARECA is strategically repositioned as regional "Go to Service Provider of Choice" for AR4D coordination and convening products and services.



GOING FORWARD

Pipeline projects



High quality breeds produced by the Dairy Centre of Excellence for sharing among participating countries.

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Update on the Eastern and Central Africa Agricultural Transformation Project

ASARECA was in November 2017 selected by the National Agricultural Research Education and Extension Systems (NARES) of six African countries to coordinate the six-year Eastern and Central Africa Agriculture Transformation Project (ECAATP). ASARECA was selected during a regional meeting to tease out the finer details of ECAATP national and regional programming in Arusha, Tanzania from October 29 to November 10. The choice of ASARECA was due to, among other reasons, its stellar performance in coordinating ECAATP's predecessor programme, the Eastern Africa Agricultural Productivity Programme (EAAPP).

To facilitate ASARECA to perform its role in ECAATP, Permanent Secretaries from the six Eastern Africa Agriculture Transformation Project (ECAATP) implementing countries of Kenya, Rwanda, Burundi, Uganda,

Democratic Republic of Congo and Republic of Congo have pledged to fund ASARECA to the tune of US\$ 10.7 million to coordinate the project. A meeting convened for the Permanent Secretaries, ECAATP National Coordinators, the World Bank,

and ASARECA, on November 30, 2018, resolved that each country makes a one-off contribution to ASARECA. In addition, the World Bank will provide ASARECA with an additional US\$ 10 million grant to supplement the country contributions, thus bringing the total coordination fund to US\$ 20.7 million.

During EAAPP (2010-2015), ASARECA coordinated regional collaborative research to achieve EAAPP goal of increasing adoption of new varieties, breeds and management practices; increasing adoption of improved processing and handling methods by processors; increasing access to disseminated new technologies; increasing land area under improved technologies and increasing the number of improved livestock breeds.

As a result, average level of regional specialization and collaboration across the four countries hit 63 percent, an increase of 53 percentage points above the baselines. Twenty-nine regional (29) research projects were initiated with high levels of country participation. Short and long-term training of research scientists increased the capacity of Regional Centres of Excellence (RCoEs) in each country. A total of 105 Masters students and 44 PhD candidates were fully funded under the project. A further 50 students received partial funding from the project.

RCoEs developed 138 new technologies, while 23 new

technologies were disseminated across national boundaries. These include: two rice varieties from Tanzania that were released in Kenya and Uganda and subjected to national performance trials in Ethiopia; four clones of Napier grass from Kenya that were recommended for dissemination in Uganda; botanical seed of cassava with enhanced carotene that were sent to Ethiopia, Tanzania and Kenya; assisted reproductive technologies from Kenya that were sent to other countries.

To facilitate ASARECA to perform its role in ECAATP, Permanent Secretaries from the six ECAATP implementing countries have pledged to fund ASARECA to the tune of USD 10m. This is in addition to USD 20.7m granted by the World Bank

ASARECA was also selected by the countries to coordinate ECAATP because of its vantage position as sub-regional organization (SRO) mandated by the NARES in Eastern and Central Africa to convene and coordinate collaboration amongst member states; as well as because of its physical presence and implementation impacts in all the ECAATP countries.

As an ambitious multi-million-dollar regional transformation initiative, ECAATP is uniquely designed to leverage on human and infrastructural resources of the countries to undertake collaborative research for development and facilitate cross-border sharing of research products to catalyze agricultural transformation.

Given that EAAPP promoted collaborative agricultural research for development and sharing of research outcomes among member countries of Ethiopia (the regional centre of



Permanent Secretaries from ECAATP countries, World Bank officials and ASARECA staff at a meeting to discuss financing for ECAATP coordination in Entebbe, Uganda.

excellence for wheat), Kenya (for dairy), Tanzania (for rice), and Uganda (for cassava), and increased agricultural productivity and competitiveness, thereby raising farm incomes, reducing poverty and improving food security in Eastern Africa; ECAATP moves a step forward by building on investments made under EAAPP to cause transformation in agricultural research for development within the ECA sub region.

Whereas EAAPP was implemented in four countries that hosted the four Regional Centres of Excellence, ECAATP brings on board four additional countries (excluding Ethiopia and Tanzania) and four commodities, namely edible oilseeds,

poultry/meat, beans, and maize. A unique additional area of research—land husbandry—brought on board by Rwanda, has been accepted as a priority investment area under ECAATP.

The role of ASARECA in ECAATP

In preparation for its role, ASARECA has participated in planning meetings held in Arusha (November 2017) and in the regional project Pre-Appraisal Mission held in Nakuru Kenya (4-13 April 2018). ASARECA started off its coordination role by convening a meeting of: (i) M&E Focal Persons to develop the ECAATP M&E framework; and (ii)

AR4D institutions in the region and entire continent to map out value addition they could bring to ECAATP.

ASARECA's role in ECAATP

ASARECA's role includes: convening workshops, financing regular studies such as foresight and forecast modelling to update regional priorities, and establishing formal networks of researchers and actors working on the commodities. The regional networks will crowd-in private sector actors and other players including existing networks such as PABRA, global knowledge sources like CGIAR centres, and national and regional universities to collaborate in AR4D, thus addressing specific constraints along the value chain. Besides the above, ASARECA will coordinate:

1. Regional testing and release of TIMPs developed by ECAATP. During the network meetings convened by ASARECA, NCoS at country level will showcase available TIMPs while indicating their TIMPs requirements from other actors within the network. These meetings will result in a listing of all TIMPs available for regional release across ECAATP countries and agreement on regional testing sites, harmonized testing procedures, terms and conditions for transfer, among others.

2. Exchange/transfer of TIMPs available at CGIAR centres, Agricultural Productivity Program for Southern Africa (APPSA), West

Africa Agricultural Transformation Program (WAATP), and EAAPP and across ECAATP countries, mainly through mediating between parties in the signing of MTAs and other IPR instruments.

3. Development of an inventory of private sector actors, especially agribusinesses involved in both input and output markets for food commodities and products, and foster strong linkages for the purpose of planning, development, dissemination and commercialization of TIMPs.

4. Results and knowledge management and communication agenda for the regional project, including supporting M&E units in the National Project Implementation Units in each participating country. This will include supporting countries to design M&E frameworks with linkages to regional M&E framework, GIS-enabled maps showing flow of TIMPs across countries and partners, timing of various surveys and project reporting, managing project's MIS systems and developing Communication Strategy for external communication to showcase the project's results and to crowd-in partnerships.

5. Regional policy development and harmonization, by involving the platforms of participating RECs (EAC, COMESA, IGAD) to obtain commitment of participating countries to the regional policy harmonization agenda.

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Farmers in Kilombero, Tanzania. The SISTA Project is meant to promote climate relevant innovations by conserving the environment.

ASARECA Set to Participate in SISTA Project

ASARECA is among 5 organizations participating in the new European Union project on “Supporting Implementation of a Science-Led and Climate-Relevant Agricultural Transformation in Africa (SISTA)”. Other participating organizations are Forum for Agricultural Research in Africa (FARA), African Forum for Agricultural Advisory Services (AFAAS), CORAF and the Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA).

The €30 million project has so far obtained a positive opinion from the EU Member States and will be managed by IFAD. This six-year project is expected to start in the second semester of 2019, with each organization signing separate agreements.

The project is designed to increase agriculture’s contribution to economic growth and inclusive development of African countries through climate-relevant food and innovation systems. This action aims at contributing to all climate relevant Comprehensive Africa Agriculture Development Programme (CAADP) achievements as set in the 2014 African Union’s Malabo Declaration. This will enhance accelerated

innovation to address climate change challenges impacting on smallholder farmers and Small and Medium Enterprises (SMEs) in Sub-Saharan Africa.

SISTA will deliver five key outputs: (i) Strengthening capacity of African regional AR4D organizations; (ii) Enhancing collaboration among multi-stakeholders to enhance the deployment of Science, Technology and Innovations (STI) to achieve CAADP results; (iii) Developing and establishing Policy, Advocacy and Market Linkages; (iv) Strengthening Knowledge Management and Communication among NARS; and (v) Effective Planning, coordination, Monitoring, Evaluation, Learning (MEL) and Reporting.



2017-2018

Key Events that Marked ASARECA Transition Process



Participants at the Fall Army Worm Workshop convened by ASARECA and FAO in Entebbe, Uganda in September 2017.

June 2017

Science Agenda

ASARECA hosted a series of high-level regional and consultative workshops for the Science Agenda for Agriculture in Africa (S3A), during which a road map for its roll out was developed. The National roll out and consultative meeting was held in June 2017 in Kigali, Rwanda from where a roadmap for S3A implementation was developed with Rwanda becoming Tier One Country for ASARECA region. Participation in this meeting was strategic, as it enabled ASARECA to demonstrate its capacity for coordination to its partners and other high level stakeholders. The workshop drew participants from Rwanda's Ministry of Agriculture and Animal Resources; Ministry of Finance and Economic Planning; Ministry of Education; University of Rwanda; the National Commission of Science and Technology; Capacity Development and Employment Services Board; the University of Kibungo; Ministry of Natural Resources; and Rwanda Agriculture Board (RAB); among others

September 2017

Partnership on Fall Army Worm

ASARECA in collaboration with the Food and Agriculture Organization (FAO) convened the Fall Army Worm (FAW) workshop in September 2017. The meeting was aimed at providing leadership on the fight against FAW.

“As the umbrella body of the National Agricultural Research Systems in Eastern and Central Africa, ASARECA has the mandate of the national agricultural research systems to coordinate the deployment of efforts in providing solutions to the threat,” said Dr. Cyprian Ebong, ASARECA Interim Executive Secretary.

During the meeting, plans to develop a regional Strategy for containing FAW were discussed. In August 2018, a final strategy was jointly developed by FAO and ASARECA and will be shared widely with all the stakeholders.

December 2017



Dr. Enock Warinda, ASARECA Theme Leader for Monitoring, Evaluation and Knowledge Management

ECAATP M&E Meeting

ASARECA convened a three-day regional Monitoring and Evaluation (M&E) workshop of all ECAATP member countries to harmonize the Results Framework and Theory of Change for the project. The workshop, which targeted mainly the M&E focal persons and national coordinators, comprehensively reviewed ECAATP indicators, set indicator targets, harmonized tools for baseline studies and developed a comprehensive Project Monitoring Plan (PMP). Addressing participants, ASARECA Theme Leader for Monitoring, Evaluation and Knowledge Management Dr. Enock Warinda said, “To ensure successful implementation of ECAATP, ASARECA, the Regional Centres of Leadership (RCoLs) and the National Centres of Specialisation (NCoS), must develop a sound Theory of Change and Results Framework.”

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January 2018

ASARECA Prepares Partners to Add Value to ACAATP Project

ASARECA convened a regional consultative workshop to identify modalities for value addition to the Eastern and Central Africa Agriculture Transformation (ECAATP) from January 15-16, 2018, in Entebbe. The workshop brought together national coordinators from the participating countries to catalogue technologies that members are offering ECAATP. The consortium members included: International Livestock Research Institute, International

Center for Tropical Agriculture (CIAT), International Institute for Tropical Agriculture, African Agricultural Technology Fund, Heifer International, HarvestPlus, African Agribusiness Incubators Network, Kilimo Trust, CABI, RUFORUM, African Forum for Agricultural Advisory Service, East African Farmers Federation (EAFF), East African Grain Council (EAGC), and East African Farmers Federation (EAFF). A catalogue of innovations was developed.



Out going Executive Secretary, Dr. Cyprian Ebong (L), hands over to Prof. Jean Jacques Mbonigaba Muhinda (R) in a ceremony graced by the BoD Chairman, Dr. Ambrose Agona and the Secretariat staff in Entebbe, Uganda.

September 2018

Prof. Mbonigaba Muhinda Takes Over from ASARECA Dr. Ebong

ASARECA Board of Directors appointed Prof. Jean Jacques Mbonigaba Muhinda as the new Executive Secretary for the Association on 15 September 2018. Prof. Muhinda holds a PhD in Agricultural Sciences and Biological Engineering and brings to ASARECA over 18 years of experience in AR4D at the continental, sub-regional and national levels.

He has an elaborate career, which has afforded him the opportunity to interact at the continental discourse at the AU/NEPAD, Regional Economic Community level, and with major Development Partners. Until his appointment, Professor Muhinda was a Senior Consultant for Government Support and Policy Engagement under AGRA. Prior to this (2016-2017), he worked as the Team Leader and Principal

Investigator for a project commissioned by AGRA and the International Fertilizer Development Center (IFDC) to evaluate agricultural inputs markets, subsidies and delivery systems in 10 Sub-Saharan Africa countries (Kenya, Uganda, Rwanda, Tanzania, Malawi, Mozambique, Nigeria, Ghana, Mali and Burkina Faso).

Before expanding his professional wings to the continental level, Prof. Muhinda served as the Director General of Rwanda Agricultural Board (RAB, 2012-2015), the country's apex AR4D body. He also served as a member of the ASARECA Board of Directors (2012-2013), and in the Ministry of Agriculture in Rwanda as the Chairman of the National Task Force for Irrigation and Mechanization Development (2010-2012).

ASARECA Convenes Meeting of National Focal Persons (NFPs)

In readiness for the establishment of new governance structures, the Secretariat mobilized and sensitized its National Focal Persons (NFPs) and deployed them to in-turn mobilize ASARECA General Assembly Business Committee members in their respective countries. The National Business Committee is expected to nominate representatives to the regional Select Committee, who will together with the High Level Advisory Panel (HLAP) constitute an Electoral College to nominate new board members to be presented to the Patron Ministers for appointment as the new ASARECA Board of Directors.

October 2018

Training on Ethics Management

ASARECA staff received training on Ethics and Fraud Risk Management from the Institute of Corporate Governance of Uganda (ICGU). Speaking to the staff, the ICGU corporate governance expert, Mr. Peter Paul Mubiru, said that the best strategy to keep off fraud in an institution is to design a Fraud Risk Management Framework and to adequately implement it. The staff were taken through a number of topics including: traits and characteristics of fraudulent acts; the need to fight fraud; why organizations lose the fight against fraud; fraud prevention; fraud detection and investigation; mechanisms to correct fraud; and fraud risk assessment.

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ASARECA Staff who attended training on ethics management at the Secretariat in Entebbe, Uganda.



Prof. Jean Jacques Mbonigaba Muhinda (4L) chats with CIMMYT and ACIAR colleagues in his office in Entebbe, Uganda.

ASARECA, ACIAR, CIMMYT in Talks

ASARECA, the International Maize and Wheat Improvement Center (CIMMYT), and the Australian Center for International Agricultural Research (ACIAR) in October 2018 held bilateral talks aimed at strengthening partnership among the three institutions.

Over the last eight years, ASARECA in partnership with CIMMYT have implemented joint projects including: Sustainable Intensification of Maize-Legume Cropping Systems in Eastern and Southern Africa (SIMLESA); wheat productivity improvement; and Mainstreaming Gender in Agricultural Research for Development in Eastern and Central Africa, among others. ASARECA, CIMMYT and ACIAR will in April 2019 convene the High Level Policy Forum on Conservation Agriculture-based Sustainable Intensification (CASI). The Forum is expected to engage agriculture line ministers, the Regional Economic Communities and other key AR4D players.

November 2018

ASARECA Staff Get Financial Management Training

ASARECA staff received training on Financial Management from the World Bank. The one-day training conducted at ASARECA Secretariat in Entebbe, Uganda, covered a number of topics including: Internal Audit Arrangements; Budgeting; and Internal Controls. Underscoring the critical role of Internal Audit in an organization, Mr. "Paul Kamucwezi, the World Bank Senior Finance Specialist at the Uganda country office reiterated the need to have strong internal audit departments in order to perform well in fiduciary management. When Internal Audit is well harnessed, an organization hardly gets external audit issues. On the contrary, any management that looks at Internal Audit as a hostile party is likely to run into trouble."



Dr. Agnes Kalibata and Prof. Jean Jacques Mbonigaba Muhinda.

November 2018

ASARECA and AGRA Discuss Opportunities for Collaboration

ASARECA Executive Secretary, Prof. Jean Jacques Mbonigaba Muhinda, held bilateral talks with the Alliance for a Green Revolution in Africa (AGRA) top executives late November 2018. The meeting between Prof. Muhinda and AGRA President, Dr. Agnes Kalibata, and AGRA Interim Vice President for Policy and State Capability Division, Dr. Fadel Ndiame, took place at AGRA offices in Nairobi, Kenya.

The three chief executives noted that AGRA and ASARECA play complementary roles in helping the Regional Economic Communities (RECs) and the national governments in achieving targets of the Malabo declaration. Both AGRA and ASARECA work in Uganda, Kenya, Tanzania, Rwanda and Ethiopia.

December 2018

Republic of Congo Joins ASARECA

ASARECA Board of Directors accepted a request by the Republic of Congo (RoC) to join the ASARECA family. RoC was formally admitted in to the Association in October 2018, making it ASARECA's 12th member, 25 years since the Association was formed.

The admission of RoC is strategic for ASARECA as the institution seeks to expand its influence and mandate to cover countries in ECA that are missing out on benefits of regionally coordinated AR4D initiatives. Already RoC is set to participate in ECAATP, a mega transformation project, which ASARECA is slated to coordinate.



The 27th ASARECA Board of Directors meeting in Entebbe, Uganda admitted Republic of Congo into the ASARECA family.



AU Commissioner for Rural Economy and Agriculture, H.E. Josefa L. C. Sacko receives the HLAP delegation in her office in Addis Ababa, Ethiopia

High Level Advisory Panel Lobbies for ASARECA Across the Continent

The High Level Advisory Panel (HLAP), a team of eminent African Professionals, was established to foster decision making on ownership of ASARECA at a high political level. The HLAP comprises H.E Rhoda Timusiime, the former Commissioner for Rural Economy and Agriculture at the African Union Commission (AUC), Dr. Ephraim Mukisira, former Director General Kenya Agricultural Research Institute (KARI, now KALRO), and ASARECA Executive Secretary, Prof. Jean Jacques Mbonigaba Muhinda, briefed the Commissioner on the ongoing reform process in ASARECA.

Other HLAP members are: Prof. Paul Mafuka, a former ASARECA Board Member, Mr. Stephen Muchiri, Chief Executive Officer East African Farmers Federation and Dr. Ambrose Agona, ASARECA Board Chairman. Specifically; the HLAP was tasked to: Review the revised ASARECA Constitution and Governance Manual; lobby

Chief Executives of the Regional Economic Communities (RECs) namely the Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC) and Intergovernmental Agency for Development (IGAD), for integration of ASARECA in the respective RECs.

Other roles include: Lobbying for political patronage by Ministers responsible for Agriculture and/or Scientific Research in ASARECA countries; identify nominees for appointment as members of an independent Board of Directors of ASARECA; support ASARECA in facilitating the inaugural meeting of a new Board by Patron Ministers. Between the months of October to November 2019, the HLAP made key engagements, which are critical in defining ASARECA's future partnerships and engagements. Below are highlights of their engagements:

IGAD asks for closer ties: IGAD welcomed the move by ASARECA to become its technical arm. Speaking to the HLAP, IGAD Secretary General, Amb (Eng). Mahboud M. Maalim noted that it was extremely important for IGAD to work with ASARECA as a technical arm because of the Association's vantage position as a coordinating entity for the National Agricultural Research Systems in the Sub Region.

Ethiopia Agriculture Minister pledges full Government support: The Ethiopian State Minister of Agriculture, Dr Eyasu Abraha, pledged full support of the Ethiopian government to facilitate ASARECA in providing technical guidance to Agricultural Research Systems (NARS) in its 12 Member Countries.

African Union keen on ASARECA's role in Malabo Declaration: In a meeting in her office in Adis Ababa, Ethiopia, the African Union Commissioner for Rural Economy and Agriculture, H.E. Josefa L. C. Sacko emphasized that ASARECA has a critical role in supporting the Regional Economic Communities (RECs) to achieve the Malabo declaration targets.

Kenyan Government pledges full political support: In a meeting with the HLAP, the Permanent Secretary, State Department for Agricultural Research, Prof. Hamadi Iddi Boga said his Government would provide total political backing to ASARECA because the Association is a creation of member countries, including Kenya.

COMESA eager for close engagement: COMESA Acting Secretary General Amb. Kipyego Cheluget told the HLAP in his office in Lusaka, Zambia that ASARECA is a central partner to the RECs and the countries in endeavours to transform Agriculture. Cheluget said



HLAP delegation meets Amb. Kipyego Cheluget (2L), COMESA Acting Secretary General in his office in Lusaka, Zambia



HLAP delegation meets Prof. Hamadi Iddi Boga (3R), Kenya's Permanent Secretary, State Department for Agricultural Research.

ASARECA's mandate is aligned to all major regional frameworks, institutions and National Investment Plans in working towards transforming AR4D.

ASARECA team meets Burundi Agriculture Minister: The HLAP held discussions with the Burundi Minister of Agriculture, Dr. Deo Guide Rurema in Burundi's capital, Bujumbura. The Minister pledged to play an active role in mobilising support for ASARECA in and outside Burundi.



Cause to jubilate: Farmers in ASARECA project site celebrate the benefits of using climate smart innovations to increase production of food and cash crops



STORIES



Peter Ilumbo shows off green pepper at his farm in Buigiri, Irrigation Scheme in Dodoma, Tanzania

The Water Management Revolution in Tanzania

A heavy-laden Fuso truck snakes its way up a village path at half past four o'clock. From the sound coming out of its engine, it is evident the truck is overwhelmed by the weight it is carrying—fresh green maize harvested only a few hours ago. The driver's mission is to get back to Dar es Salaam, Tanzania's major commercial city. It is the 17th day of October 2017, perhaps one of the most hostile months of the year. Around this time in Tanzania, the sun is scorching, the land dry, the air uncomfortably warm, and plant life long dead since the rains ceased in July.

But in Buigiri Irrigation Scheme in Chamwino district in Dodoma, the Kiwera Irrigation Scheme in Iringa district, and the Msolwa Ujamaa Rice Scheme in Kilombero district, a contrasting picture blossoms. Farmers are tending to plots of maize, rice, beans, onions, tomatoes, okra, green and yellow apple pepper. It is from these green islands of life that Tanzanian city populations get food supplies.

Farmers Upbeat

Since the introduction of soil moisture content and nutrient level monitoring tools to farmers in these locations, the village folks are upbeat about what they see as a silver lining in a dark cloud. "This year, and for the first time in my life, I am set to earn Tsh 2,311,000 (about US\$ 1,050) from a single harvest," says Peter Ilumbo from Buigiri irrigation scheme in Chamwino district, Dodoma. "This is because of the knowledge that I got from the VIA project, which enabled me to improve how I prepare the land, plant, weed and use water." VIA is acronym for Virtual Irrigation Academy (project).

Mr. Ilumbo grew apple pepper on a 0.5-acre plot, followed recommended agronomic practices and reduced the frequency of irrigation from four to only two times a month. This not only enabled him to save the crop from consequences of over irrigation,

but also enabled him to save water. "I used to determine how much water was needed by the crop by just looking at the wetness of the top soil. That meant that the soil had to be wet at all times. Since the introduction of the VIA monitoring tools, I have learnt that I was choking the crops with water," Ilumbo notes in retrospection. "No wonder the crops then were thin and yellow. The fertilizer seemed not to help as it often got washed away by excess water, making it unavailable to the plants."

Lessons Learnt

Ilumbo learnt that over-irrigating the land could result into accumulation of salts in the soil, which is bad for crop health. The reward for his consistent application of knowledge on use of monitoring tools is that he expects to harvest 60 bags of green pepper, which will fetch him Tsh 3,024,000 (about US\$ 1,375) when sold at average farm gate price of Tsh 700 (about US \$ 0.3) per kg. Ilumbo and the rest of the farming community in Buigiri Scheme wouldn't have taken the decision to reduce the amount of water for irrigating their crops if they had not received tools such as Chameleon readers, sensors and Wetting Front Detectors for monitoring soil moisture levels and nutrient content in the soil respectively. Wetting Front Detectors show amount of nitrate in the soil, while Chameleon sensors display the amount of soil moisture



Daudi Mtangi, a youth farmer from Msolwa Ujamaa Rice Scheme in Morogoro, Tanzania, says his life has changed for the better.

at different soil depths using blue, green and red lights. The lights provide visual interpretations of the moisture levels.

What is VIA?

The Virtual Irrigation Academy (VIA) project was launched in 2015. It is a brainchild of the Commonwealth Scientific and Industrial Research Organization (CSIRO) in partnership with the Australian Centre of International Agricultural Research (ACIAR).

In Africa, the project is undertaken in Malawi and Tanzania. In Tanzania, the National Irrigation Commission in collaboration

with Arusha Technical College implements it, while ASARECA coordinates and provides technical backstopping in the two countries. According to Dr. Eliakim Chitutu Matekere, Director for Research and Technology Promotion, National Irrigation Commission, Ministry of Water and Irrigation, Dar es Salaam, a total of 100 farmers are currently being supported by VIA project to improve farm water productivity and profitability in Tanzania.

Colours that Trigger Decisions

The project provided beneficiary farmers with tools designed to

Testimony

Daudi Mtangi, a youth farmer, Msolwa Ujamaa, Tanzania

Before the introduction of the VIA monitoring tools, the village folks had nicknamed my garden Mtera farm. They were comparing it to Mtera Dam because the garden was always flooded like a dam. The rice often turned yellow and was stunted, resulting in poor harvest. I consider the project a blessing because it has created standard procedures for irrigation and application of fertilizer. I have registered improvement on a 0.5-acre farm from five bags before the project to 11 bags. I earned Tsh 1,320,000 (about US\$ 600) after selling harvested rice at the peak price of Tsh 120,000 (about US\$ 54) this year. From the proceeds, I bought a plot of land, built a house and allocated some funds to renovate my father's house. Besides, I have saved time to help my father in his farm, and work in a sugar factory where I earn Tsh 185,000 (about US\$ 84) monthly. Many youth who were once averse to farming now consider me a role model and have adopted farming.

fit their mental model to give an output that is linked to action. Information on soil water suction, nitrate concentration and salinity levels are illustrated by colour signals that represent action thresholds instead of numbers with complicated numerical units. The farmers were deliberately trained to read and interpret the tools to inform decisions on amount of water, salts and fertilizer needed for the good health of their crops. As of October 2017, the project had supplied about 4 WI-FI readers, and installed 80 chameleon sensor arrays and 55 Wetting Front Detectors to farmers.

Things Get Better

Monitoring and evaluation information indicates that some early outcomes such as reduced conflicts attributed to increased availability of water; improved household incomes; increased yields; opportunities for new jobs and improved food security are now being realized. Baseline information from two schemes where interventions are underway, indicates that only 24 percent of the farmers in the intervention areas said they had sufficient amount of water for irrigation prior to the intervention. About 57 percent said the number and intensity of conflicts was high, while 76 percent believed that production, income and profitability were low.

The farmers report that previously they used the appearance of the crop and the look of the topsoil to decide when to irrigate. However, as a result of using the monitoring tools, they have now reduced the frequency of irrigation from four to two times a month. "The use of the tools has introduced more or less standard procedures for irrigation and application of fertilizer," says Daudi Mtangi, a youth farmer. "Previously, fertilizer was washed away due to over irrigation, making it unavailable at the root zone, but now we are able to mitigate it." The farmers learnt that targeting amounts that replenish the root zone was critical for plant health and maximizing fertilizer intake. They have therefore noticed a 45 percent reduction in fertilizer cost.

Time Saved

As a result of applying new knowledge, the farmers are now able to save time for other activities such as grazing livestock, cultivating other crops. Some farmers, especially the youth, work as masons or in the sugar factory nearby. The women spare time to operate local restaurants and all sorts of enterprises – an indication of

expanded income generating options. Besides, many youth who were previously averse to farming have been attracted to it by associated technology-based solutions.

Weekly Uploading of Data

Implementation of the project brought on board data collectors who visit the farms weekly to jointly read the monitoring tools with farmers and upload data into the VIA online platforms. The data collectors are within reach of the irrigation schemes and are provided with motorcycles to enable them reach at the schemes promptly to collect data.

They work with two lead farmers in each scheme, who help them coordinate with 20 other farmers. Their role includes taking readings from the sensors using WI-FI readers and uploading it on to the VIA website; collecting farmer stories on the use of the tools to track learning; checking to see if water has been collected in Wetting Front Detectors and making nitrate and salinity measurements; and checking the water table and record crop growth. This data is immediately discussed with the farmers. The analysis is discussed with the scheme extension workers and the district level extension officers who have been integrated into the VIA learning community. The data is then uploaded onto the website to be shared with the research facilitator and the project coordinator, who in turn make comments for subsequent discussions at the monthly meetings with all the farmers.

Motivated to Invest

Having realized the benefits, the farmers are now more motivated to make critical investment decisions which they wouldn't have made when they had limited information. Some farmers were



Santia Muna from Buigiri Irrigation Scheme in Dodoma, Tanzania made a fortune from okra.

motivated to invest their resources in establishing natural wells when the main water supply source dried up.

Big Yield Improvements

Significant productivity changes have been reported by participating farmers in nearly all intervention schemes. According to the chairman of Kiwere Irrigation Scheme in Iringa, Mr. Rapahel Myinga, yields have grown by over 50 percent on average as a result of efficient water management and following recommended agronomic practices.



Asmini Mkangamo in her rice garden in Tanzania. She built a house and bought a motor cycle using proceeds from her farm.

Testimony

Asmini Mkangamo, Msolwa Ujamaa, Tanzania

Asmini Mkangamo harvested 23 bags (each of about 150Kg) of un-threshed rice which she sold at Tsh 120,000 (about US\$ 55) per bag earning Tsh 2,760,000 (about US\$ 1,255). From the income, she bought a motorbike and rehabilitated the family house. The balance was used gradually to buy food and re-invest into the farm. The women have experienced reduction of workload,

respect from the community and better family relations due to their increasing contribution to the family economy. Mkangamo testifies that she has additional time to make and sell mandazi (African dough-nuts), which earns her about Tsh 300,000 (about US\$ 136) additional income; manage other household activities and participate in the mosque as well as community banking initiatives.



Mr. John Lucius and Ms. Fanny Makwinia (centre) from Matabwa in Chikwakwa district explain Chameleon colour patterns to other farmers during an M&E and learning day in October 2017.

Irrigation Innovations Boost Livelihoods in Malawi

“My family is healthy and happy because we have adequate food to eat,” says Joseph Mkaka from Mlongola village in Chikwawa district in Malawi. “During the last season, I registered a big harvest of beans, which earned me MK 144,000 (about US\$ 195). Yields from my garden (0.12 ha) increased from 75 kg to 360 kg,” says Mkaka.

In real terms, the yields increased by 373%, while his income rose by MK 114,000 (about US\$ 155) from MK 30,000 (US\$ 40.8) the previous years.

Another farmer, Fanny Makwinja from Matabwa village registered a yield growth of 164% from 25kg to 66kgs from a 15x50 plot (0.075ha), earning MK 26,400 (US\$ 35.9). This, Fanny attributes to her ardent application of irrigation monitoring tools, soil and crop management, practices. “I am not the only one benefiting, two other farmers who did not receive irrigation monitoring tools are using information derived from the tools to make irrigation decisions,” she explains.

Mkaka and Fanny are just only two among the 132—plus—farmers in Malawi who are being supported under a project named: “A Virtual Irrigation Academy to Improve Water Productivity in Malawi and Tanzania.” Among other things, the farmers have been trained to use the tools to make decisions on when and when not to irrigate, when to regulate amounts of salts in the soil and how to ensure that the fertilizer applied in their plots is effectively used.

A total of six irrigation schemes in the two districts of Chikwawa and Dedza were selected to pilot the innovations. The schemes are: Kasinthula Cane Growers Irrigation Scheme;

Nanzolo Irrigation Scheme; Mthumba Irrigation Scheme; Matabwa Irrigation Scheme; Bwanje Irrigation Scheme; and Tadala Irrigation Scheme.

Through the project, farmers in these locations now see a reason to live and look to the future since they were provided with simple monitoring tools such as chameleon readers, sensors and wetting front detectors for monitoring moisture levels and nutrient content in the soil. Since inception, the project has deployed a total of 9 chameleon readers, 132 chameleon sensors and 120 wetting front detectors to 132 farmers to learn efficient water use and nutrient management by doing.

Testimony

John Lucius, Matabwa village in Chikwawa district

Gone are the days of irrigating by trial and error. I used to irrigate my bean garden once every week, which caused rotting of pods. After the introduction of the tools, I reduced the frequency to twice monthly. I learnt that the water requirements for beans and maize are different. Before the VIA tools, I used to harvest 30kgs of beans on 15x35 (0.05 hectares), but now the yield from the same plot has grown to 66kgs.



VIA farmers demonstrate enthusiasm to maximise the benefits of using modern irrigation decision support tools.

A wetting front detector shows the depth that water has infiltrated into the soil and captures a water sample for in-field testing of nutrients using colour strips, while a Chameleon sensor displays the level of soil water suction using blue, green and red lights as information signals. It is these colours, which the farmers use to determine when and when not to irrigate.

Launched in 2015, the four-year project is meant to improve water productivity and on farm profitability through efficient water and salt management. It is a brainchild of the Commonwealth Scientific and Industrial Research Organization (CSIRO) in partnership with the Australian Centre of International Agricultural Research (ACIAR).

In Malawi, the Department of Agricultural Research Services

(DARS) in collaboration with the Department of Irrigation (DoI) are the lead implementers. The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), coordinates and provides technical backstopping to the project.

The specific objectives of the VIA project include; refining and deploying farmer-friendly monitoring tools that measure amount of moisture, nutrients and salts in the soils; developing a “Virtual Irrigation Academy”(VIA) through on-line visualization of data from the monitoring tools linked to a virtual discussion, learning and teaching space with skilled facilitators; determine how the VIA promotes social and institutional learning that improves irrigated farm productivity; and develop partnerships for sustainable outscaling of VIA and monitoring tools.

Baseline information shows that over 50% of potential irrigable areas within irrigation schemes in Malawi have not been utilized mainly because of inadequate irrigation water. Even areas where water is supplied sometimes experience crop failure as a result of drying up of rivers. Interestingly, not all the water channeled to the farms may be needed at all times as most farmers tend to over irrigate. The scramble for water often led to conflicts among members of the schemes and between farmers in the up-stream and downstream schemes.

However, just two years since the launch of the VIA activities in these areas, farmers are reporting early indications of trends towards good change. In all the schemes, farmers note that the intervals of irrigation have reduced on average from four to five times a month to once or twice a month, signifying a 50% water saving. "This implies that water has been saved and made available to increase area under irrigation," says Dr. Isaac Fandika, Research Scientist, Department of Agricultural Research Services, Kasinthula Agricultural Research Station, Irrigation and Drainage Commodity Team in Malawi.

In Tadala scheme for example, the area under irrigation has increased from 6 ha to 11 ha, signifying 83 percent expansion. Farmers in Matabwa irrigation scheme say whenever the tools show that they don't need to irrigate, they often advise the village headman, who is in-charge of controlling water release, to channel it to farms.

The Comprehensive Africa Agriculture Development Programme estimates that only 13 million hectares of land have been developed for irrigation, a far cry from the full potential of 46 million hectares.

The VIA project has resulted in significant changes in productivity among participating farmers. The benefits from using the chameleon moisture detector and the wetting front detectors are multiple and create knock-on effects. On average, farmers used to get a range of 0.5 to 0.8 ton/ha of beans and between 1.4 to 1.8 ton/ha of maize, but currently both yield for beans and maize has improved to 1 to 1.5 ton/ha and 2 to 2.3 ton/ha respectively. This represents a 34.4 percent increase in maize yields and 92.3 per cent increase in bean yields. Over irrigation (four to five) times a month, often led to saturation of the soil, which caused rotting of pods and accumulation of salts, which is dangerous for plant life. Excess water leached nutrients beyond the root zone, which rendered it unavailable to the crops. Frustrated, some farmers thought the fertilizers were fake. However, they have now noticed that the problem was improper management of water.

Farmers now have more time to undertake secondary income generation streams such as brick laying, besides sparing time for leisure, making African doughnuts (*mandazi*) and pan cakes for sale; indulging in recreation or joining brethren in religious worship and fellowship.

Before the VIA, the incidence of water sharing conflicts was becoming a social problem with security repercussions. The village leader, commonly referred to as headman, had to resolve four to six cases a week. However, today weeks pass without cases related to water sharing.



ASARECA, FARA Studies Expose Capacity Gaps

ASARECA has completed studies aimed at finding lasting solutions to human and institutional capacity and capital challenges that are slowing down the successful implementation of CAADP and S3A. Validation meetings were held in Ethiopia; Kenya and Rwanda starting June 2017 upto early 2018. Critical actors from the governments, development organisations and researchers assembled to enrich preliminary findings from studies commissioned by FARA and coordinated by ASARECA.

The latest round of papers included: Interpreting existing yield gap atlas data to determine capacity gaps (Kenya); Assessing and forecasting qualitative human capital requirements for agriculture (Ethiopia); Interpreting the existing global yield gap atlas data in Ethiopia to determine capacity gaps; and review of National Agricultural and Food Security Investment Plans to determine implementation capacity gaps in Rwanda.

The studies were initiated under the African Human Capital in Science, Technology and Agri-preneurship for Food Security Framework (AHC-STAFF). AHC-STAFF is a three-year project supported by the European Union to develop country-based and regional investment frameworks to guide domestic and development partner support, to demand-led and forecasted human capital formation in agriculture. The initiative is expected to benefit CAADP implementation across Africa.

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Overall, AHC-STAFF outputs were designed to be delivered through four sector-wide studies, which are expected to define the current human capacities and the gaps to achieve the desired pool of resources at sub-regional and continental levels.

validated:

Within the ASARECA sub region, the following studies have been initiated:

- (i) Review of the National Agriculture and Food Security Investment Plans (NAFSIPs) and determination of implementation capacity gaps;
 - (ii) Assessment of human capital requirements along technology value chains;
 - (iii) Assessment and forecast of the qualitative human capital requirements in agriculture; and
 - (iv) Interpreting existing yield gap atlas data to determine capacity gaps.
- All in all, the following studies have been undertaken and

Kenya

Interpreting Existing Yield Gap Atlas Data to Determine Capacity Gaps

The study findings indicate that institutional capacity development should aim at increasing cereals research funding at the national and county governments, strengthening cereals breeding programs, establishing seed processing units at local level, establishing elaborate seed multiplication and distribution programs at the local levels, revitalizing the extension programs at local level and involving both private and government efforts. The study recommends making credit facilities available to resource-poor farmers to buy inputs, thereby reducing transaction costs and strengthening monitoring mechanisms of the current credit system.

Assessing human capital requirements along technology and value chains

The study on human capital requirements in Kenya noted

considerable under-utilization of the existing potential in productivity, commercialization and competitiveness in the dairy sector. The study recommends more investment in increasing productivity to meet the country's 7% target growth rate stipulated in the Agriculture Sector Development Support Programme (ASDSP).

Review of NaFSIPs and implementation gaps

The study on the National Food Security Investment Plan (NAFSIP) for Kenya notes that the Agriculture Sector Development Support Programme (ASDSP) still faces a host of challenges such as weak sector coordination and low capacity for policy advocacy. If addressed, these two ingredients are critical in promoting private sector investments in agriculture.

Rwanda

Review of National Agricultural and Food Security Investment Plans in Rwanda

According to the study, Rwanda's key investment areas are intensification and development of sustainable production systems, support to the professionalization of producers, promotion of chains and development of agribusiness, and institutional development. The study recommends deepening of institutional capacity development for critical skills for each value chain and more hands-on skills training for the agricultural population.

Assessing human capital requirements along technology and value chains

Preliminary findings from the study in Rwanda show that there are significant gaps in terms of human capital requirement along technology and value chains. For example, the gap in the required number of personnel in the banana value chain was estimated at 66 % for the technology development level and 51 % for the processing level.

Review of NaFSIPs and Implementation Gaps

The report suggests that the Development Strategy and Investment Plan (DSIP-2010/11 – 2014/15) does not provide for capacity development as a necessary component for a successful Monitoring and Evaluation system and that the fiduciary capacity of the Ministry for Agriculture Animal Industry and Fisheries is ill prepared to handle large development projects.

Assessing and forecasting qualitative human capital requirements in agriculture

The draft report for Uganda states that the annual supply of agricultural human resources is currently growing at a rate of 12% and stands at 1,714 graduates mainly from Agricultural Universities and Colleges compared to Kenya which needs to produce 3,393 agricultural graduates per annum for the next 10 years to meet the demand that will be created by the projected growth in agriculture.

Assessing and Forecasting Qualitative Human Capital Requirements for Agriculture

Preliminary findings indicate that to achieve the 8% targeted output in Ethiopia's five-year investment plan, human capital should increase at the rate of 7.5 - 22 percent. This means that government needs to invest heavily in building human capacity. Similarly, the study also shows that number of extension workers needs to grow at an average annual rates of about 7.5 - 22 percent, while the capacity of existing training institutions needs to be boosted to produce the number of personnel required to attain the national targets.

Interpreting the existing global yield gap atlas data in Ethiopia to determine capacity gaps

According to the study, Ethiopia has registered a slight improvement in total national crop production, doubling to 2.3% per year (below 4.4% of CAADP target, but a bit higher than the 1 per cent is Sub-Saharan Africa rate. According to the study, narrowing the gap remains the only feasible option

that can be achieved through intensification of agricultural production using modern scientific management practices. Closing yield gap requires investment in irrigation infrastructure, agricultural research, removing barriers to global and regional trade, and strengthening human and institutional capacity.

Review of NaFSIPs and implementation gaps

The study on the National Agricultural and Food Security Investment Plans (NAFSIPS) for Ethiopia indicated that significant economic development was achieved during the past decade, which included a steady increase of production in agriculture. Ethiopia's rural population is still highly vulnerable to effects of drought, affecting almost 1 million food insecure small-holder farmers, agro-pastoralists and pastoralists. This was attributed to institutional capacity gaps and low investments in Agricultural Research and Development, which is as low as 0.22% of the total GDP share.



ISABU scientists during training on Gender Responsive research.

Linking the GREAT Gender Project to NARS

Following the formalization of a partnership agreement for the implementation of the Gender-Responsive Researchers Equipped for Agricultural Transformation (GREAT) project in January 2017, ASARECA has facilitated the Bill and Melinda Gates funded capacity building initiative to mainstream gender to the NARS. ASARECA is directly responsible for ensuring that the NARIs institutionalize gender-responsive approaches to research. Four countries (Burundi, Ethiopia, Tanzania and Uganda) implement this project (in addition to Ghana and Nigeria).

What is GREAT?

GREAT is a five-year project aimed at equipping agricultural researchers with the skills, tools and theory to address gender issues in their research projects. It focuses on equipping researchers to create more inclusive and effective agricultural systems by addressing the priorities of both women and men in sub-Saharan Africa. ASARECA started supporting GREAT in 2016 by facilitating training of participants, especially in the area of Communities of Practice and institutional transformation towards gender responsive research. It has also provided mentoring support in the pilot phase of the project.

As a result of this work, the following key milestones have been recorded:

ASARECA started providing unwavering support to GREAT in 2016 by facilitating training of participants, especially in the area of Communities of Practice and institutional transformation towards gender responsive research.

1. A total of 89 participants (45 men; 44 women), drawn from 3 cohorts: (i) Roots, Tubers and Bananas (2016/17); (ii) Cereals (2017/18); and (iii) Legumes (2018/19) attended GREAT courses.
2. An institutional engagement strategy for gender-responsive agricultural research for development is near completion pending approval. The new strategy focuses on engaging institutions to institutionalize training to enhance researchers' competences and skills in gender mainstreaming.
3. Rapid assessments of gender responsiveness of Fellow's institutions for Cohort I and II were completed in February 2017 and January 2018, respectively. Baseline studies have been finalised in Bioversity International (Burundi office); IITA Nigeria; ISABU (Burundi); EIAR (Ethiopia); CSIR (Ghana); KALRO (Kenya);



Burundian women get tips on handling the bean value chain. These women are the ultimate beneficiaries of the GREAT initiative.

AfricaRice (Madagascar office); INRAN (Niger); ARC (Nigeria); ARI (Tanzania); and NARO (Uganda).

4. ASARECA worked with ISABU (Burundi) to undertake an in-depth assessment of its gender-responsiveness. In March 2018, a gender-sensitization meeting was held for research leaders and managers, culminating in the development of ISABU Gender Action Plan.

5. In NARO (Uganda), ASARECA collaborated with AWARD, and

facilitated a gender sensitization meeting for the research leaders and managers, while in NACCRI, ASARECA worked with GREAT team to develop the research protocol for gender-responsive participatory variety trials which has been piloted on the cassava trials in Zombo District.

6. ASARECA provided field-mentoring support to the KALRO team. This 5-6 month support is available only to those who have participated in the GREAT Certificate course.



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Corporate Report 2017-2018



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