

AFRICA



ASARECA STRATEGY

Together for Sustained Agricultural
Transformation, Improved Livelihoods
and Sustained Economic Growth

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Mandate

The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) is a not-for-profit Inter-Governmental Organization created in 1994 and owned by the National Agricultural Research Institutes (NARIs) of 15 member States in Eastern and Central Africa (ECA). Its overarching mandate is to Transform Agriculture for Improved Livelihood, Sustained Economic Growth, and Inclusive Development in ECA in alignment with SDGs, Agenda 2063, and Malabo Targets.

ASARECA Vision



▶ A Transformed Eastern and Central Africa Agricultural Sector Supporting Improved Livelihoods, Sustained Economic Growth and Inclusive Development

ASARECA Mission



▶ To Contribute to Increased Productivity, Commercialization and Competitiveness of the Eastern and Central Africa Agricultural Sector through Strengthening, Catalyzing and Coordination Agricultural Research for Development in the Sub-Region.

Niche & Regional Priorities

ASARECA is mandated by Member States to **strengthen, catalyze, facilitate and coordinate** regional agricultural research for development (AR4D) to improve delivery of national and regional **research driven** inclusive and sustainable agricultural transformation and development **outcomes and impact** in ECA through the following initiatives: (i) enhancing sustainable livelihoods for all; (ii) supporting value addition of selected commodities; (iii) enabling smallholder farmers deal with climate change issues via climate smart agriculture; (iv) enhancing livelihoods among regional pastoral communities; (v) supporting Member States in development of Agricultural Development Plan; (vii) coordinating ASARECA Regional Agricultural Market Information System (A-RAMIS).

ASARECA Niche



ASARECA's Uniqueness

ASARECA coordinates knowledge management, information sharing, operationalization of innovation platforms, use of disruptive technologies, management of big data, strategic foresight, trend analyses, policy analyses and formulation, engagement with RECs, and convening of Biennial Review sessions, thus enabling Member States to improve their **relevance, effectiveness and efficiency**. ASARECA enhances **value for money** of priority interventions through attainment of **economies of scale** and significant reduction on **duplication and misalignment of efforts and resources**. This is because it has one of the largest Think Tank of experts. ASARECA enables Member States to reduce on the cost incurred to develop TIMPs by sharing existing proven ones, including handling difficulties in addressing cross border challenges which no one country can address alone.

Major Benefits of Being an ASARECA Member State

Political Benefits

The Ministers actively participate in ASARECA's governance where they:

- Engage and interact with fellow Ministers from other Member States.
- Represent other Member Ministers and ASARECA in regional, continental, and global events.
- Jointly with other Ministers lobby Development Partners to support Regional Priority Projects for generation of regional public goods.
- Collectively formulate, execute, evaluate, and approve policies that apply to and benefit more than one Member State.
- Oversee performance of joint actions of the Committee of Agriculture in 5 Regional Economic Communities.

The Member States have the opportunity to:

- Engage top government officials responsible for agricultural research during strategic events such as ASARECA Agriculture Ministerial Conference.
- Become a Regional Centre of Excellence, Regional Centre of Leadership, or National Centre of Specialization.
- Convene / host major international events, conferences, and exhibitions.
- Become part of decision-making organ on issues of Agricultural Research for Development in Eastern and Central Africa.
- Serve in leading governance organs as President/Vice President of General Assembly or Chair/Vice Chair/Secretary of ASARECA Business Committee.

The Directors General have the opportunity to:

- Become automatic member of ASARECA Board of Directors, including being elected Board Chair, or Board Committee Chair.
- Represent other Directors General and ASARECA in regional, continental, and global events.
- Convene major events, conferences, seminars, and related meetings that enhance peer learning and exchange of knowledge.
- Engage with other Directors General in their Committee of Directors General.

Technical Benefits

- Platform for technical research exchanges to engage with technical experts from other Member States.
- Medium of consolidating technical experts to engage in national, regional, and continental decision-making forums on AR4D in Africa.
- Space to develop new partnerships with potential donors, commissions, agencies, and foundations.
- Reliable podium for sharing national priorities and lessons learned that enable Member States identify quick solutions to their similar challenges.
- Space for ready access to tested technologies and innovations without having to go through entire cycle of technology development.
- Opportunity for scientists to lead or co-lead a team of experts from other Member States, including being Chair of ASARECA Community of Practice.

Socio-Economic Benefits

- Access to facilitated transfer and dissemination of research technologies, innovations, products, services, and goods, thus saving on cost, time, and other resources.
- Creation of equitable environment for partnership.
- Building practice of “Do No Harm”.
- Participation in implementation of regional projects to tackle joint regional challenges and cross-border issues.
- Platform to work with Senior Scientists from other Member States to develop National and Regional Proposals and engage in Joint Fundraising for relevant research.
- Platform for peer learning, exchange, mentorship, and exhibitions.

Sustainable Development Goals (SDGs)





Issues: Major AR4D Challenges in Eastern and Central Africa

- Capacity gaps in diverse technical fields in the food systems.
- Imbalanced demand and supply of proven technologies and innovations among the Member States.
- Skewed policy cycles among Member States, especially on foresight, policy analyses, policy approval, and policy implementation.
- Non-targeted information, communication, and knowledge management due to diverse delivery channels in Member States.
- Limited capacity and implementation of agriculture-based ICT (AgICT).
- Imbalance in dealing with climate change and associated shocks in Member States.
- Serious escalation of nutrition insecurity and poverty.
- Staggered market access by different smallholder farmers.
- Increased incidences of fragility and conflicts in some Member States.
- Weak private sector activities with the farmers, including weak networks within and across Member States.
- Gender inequality in almost all Member States.
- Decreased agricultural productivity, including diminished access to seeds and fertilizers.
- Limited value addition of major value chains.

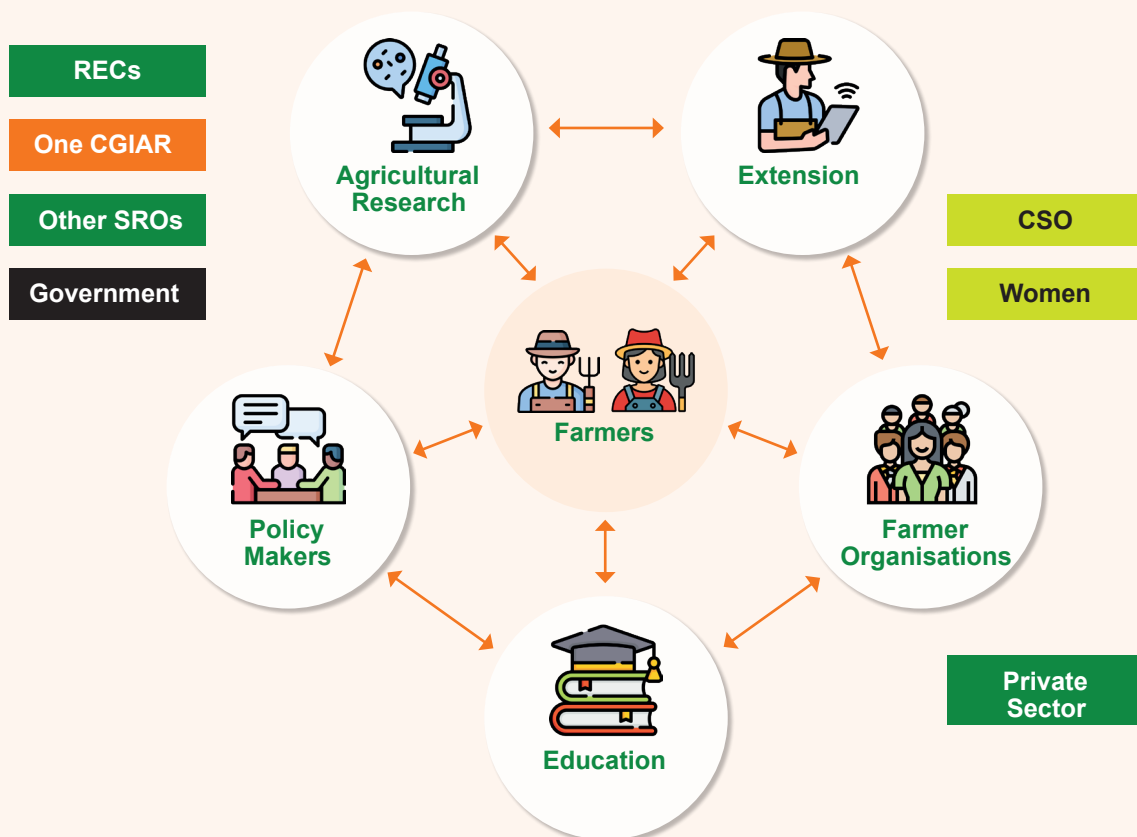
Justification: Why ASARECA Focuses on these Issues

- Imbalance in Member States with respect to AR4D capacities.
- Complexities in adopting smart agriculture and smart farms.
- Limited supply of new, superior home-grown technologies and innovations.
- Incoherence in technology and innovation transfer and after-transfer management.
- Limited commercialization of proven agricultural food technologies and innovations.
- Limited agro-healing businesses and technology generation and scaling.
- Regional development and generation of public goods.
- Uncoordinated drive to meet continental and global agenda.
- Limited economies of scale in AR4D and technology generation.
- Fulfil its regional mandate and enhance engagement with RECs for coordinated and enhanced policy environment.



Collaborating with Partners

ASARECA works through **strategic partnership arrangements** in the financing and implementation of **priority regional programs** and would like to invite you to partner with us in this noble task. Among its main stakeholders include:



Approaches: How ASARECA Addresses Challenges

15-Point Commitment. We Pledge to:

- 1 Build on existing efforts and jointly address the food security situation in Eastern and Central Africa to generate sustainable impact at scale and achieve results that are beyond the reach of any one agency or organization.
- 2 Remain committed to CAADP Goals, Malabo Declaration, AU Agenda 2063, the 2030 Agenda for Sustainable Development, the Paris Agreement on Climate Change, and the specific climate resilience and low-carbon development plans and biodiversity strategies of AU Member States.
- 3 Ensure that our initiatives add value and not duplicate or displace beneficial existing ones.
- 4 Promote smart agriculture on smart farms using proven technologies and innovations.
- 5 Replicate catalytic and upstream initiatives that attract more funds.
- 6 Enhances knowledge building by operating data collection, dissemination of best practices, and brain gain.

7	Heighten regional integration via trade promotion, joint implementation, and private sector development.
8	Focus on enhancing food security and nutrition in ECA: SDGs 2.2
9	Facilitate private sector network for Enhanced Trade and Commercialization of TIMPs.
10	Coordinate efforts to eradicate hunger through sustainable Regional AR4D.
11	Facilitate Regional Gender Responsive AR4D by enhancing gender equity.
12	Enhance ICT-based Regional AR4D environment.
13	Coordinating actions aimed at addressing threats of climate change.
14	Catalyzing NRM for future generations in Regional AR4D.
15	We pledge to contribute to regional agricultural transformation in ECA by facilitating standardization of TIMPs for smallholder farmers' access.

Platforms: Main Mechanisms ASARECA Adopts

- ASARECA Agriculture Ministerial Conference (AAMC).
- Committee of Permanent Secretaries of the Ministry of Agriculture.
- ASARECA Committee of the Directors General of NARIs.
- ASARECA Policy Makers Network (PMN).
- ASARECA Private Sector Network (A-PSN).
- ASARECA Climate Smart Agriculture Alliance (A-CSAA).
- ASARECA Knowledge and Information Hub (KI-Hub).
- Agricultural Digital Transformation for Development (AgDT4D) Hub. This is used to bridge the digital divide for Society 5.0.
- Regional Priority Projects (RPPs). This is implemented through the concept of PRECI (Productivity, Resilience, Empowerment, Competitiveness, and Incubation / Industrialization).

ASARECA also supports Member States to develop and mainstream tools to aid early warning, analysis, foresight and responses to food crises and climate change impacts. Some of the early warning, foresight and data tracking tools include: KI-Hub, A-RAMIS, A-APPI, ACSAA Map and Assorted databases.

ASARECA will:

- Develop a scientific-oriented knowledge and information infrastructure based on its robust Knowledge and Information Hub (KI-Hub).
- Promote / support non-rival interventions that benefit at least 2 Member States.
- Enhance non-excludability of Member States and communities.
- Prioritize public interest and ownership by Member States and RECs.
- Coordinate joint and integrated policy (national and regional) formulation, planning and implementation on priority areas.
- Promote smart agriculture by supporting real-time monitoring using VIA-approach to optimize fertilizer and water use.
- Pursue access to climate finance.
- Create an environment for business incubation, especially for the youth.
- Strengthen business linkages between farmers and local companies.

ASARECA's Focus on Resilience

ASARECA strengthens resilience of major crops and indigenous crops by coordinating development of breeding materials and production technologies that favor agricultural practices in harsh environments.

Cases: What ASARECA Delivers

With funding from Member State Governments and Development Partners, ASARECA has been able to support and coordinate development and sharing of many **demand-driven technologies and innovations** that are now contributing significantly to **increased productivity, commercialization and competitiveness** of ECA agriculture sector and food systems leading to **improved food and nutrition security, wealth and employment creation, and improved livelihoods** particularly for the marginalized rural communities, women and youth. Key flagship interventions at national and regional level include:

Transfer and Dissemination of Quality Protein Maize in DRC, Kenya, Tanzania & Uganda



ASARECA promoted the rapid scaling-up of QPM, reputed for its protein value, which 90% higher than of milk

Achievements

- QPM was adopted as a major ingredient in regular diets for over 800,000 people, mainly malnourished children, and lactating mothers.
- Breeder seed for varieties promoted by the project including LONGE 5 for DR Congo and Uganda, and LISHE K1, LISHE H1, and LISHE H2 for Tanzania were produced.

Climate-Smart Crop-Livestock Innovations in Burundi, Kenya, Rwanda, Tanzania & Uganda



ASARECA promoted climate-smart initiatives to improve the resilience of smallholder farmers to climate change.

Achievements

- 200,000 people accessed water harvesting, small-scale irrigation facilities and labour saving innovations.
- Soil fertility improved, leading to increase in crop yields from 22 to 44t/ha
- Fodder yield increased by 2%, milk by 78% and vegetables by 500%
- Household income increased by 66%

Mitigating Effects of Climate Change in Burundi, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, South Sudan & Uganda



ASARECA used water as entry point to stimulate demand for other productivity-enhancing technologies to boost agricultural productivity in ECA.

Achievements

- Over 30,000 households adopted water use efficiency technologies.
- Over 10,000 hectares of degraded land was rehabilitated through efficient water use and management practices.
- Kenya: maize yields improved from 500kg/ha to 3.2 t/ha; while Napier grass production increased from 0 to 10 t/ha due to adoption of the pitting (tumbukiza) technique.

Harmonization of Cassava and Potato Standards in Burundi, Kenya, Rwanda, Tanzania & Uganda



ASARECA coordinated harmonization of quality standards for cassava and potato for cross border trade by convening private and state actors to agree on the standards.

Achievements

- The 11 rationalized & harmonized standards for cassava and sweet potato by EAC include:
 - EAS 738: Fresh sweet cassava
 - EAS 739: Dried cassava chips
 - EAS 740: Cassava flour
 - EAS 741: Cassava wheat composite flour
 - EAS 742: Food grade cassava
 - EAS 743: Cassava crisps
 - EAS 744: Cassava
 - EAS 745: Potato crisps
 - EAS 746: Frozen potato chips
 - EAS 747: Fried potato chips
 - EAS 748: Fresh (ware) potato
-

Promotion of Regional Seed Trade through Policy Harmonization in Kenya, Rwanda, Tanzania & Uganda



ASARECA coordinated efforts to reduce transaction costs through rationalization and harmonization of selected policies.

Achievements

- Member countries revised certification procedures and harmonized variety release, import and export procedures
- Member countries produced quarantine pests lists and seed certification standards
- Eastern Africa Seed Committee (EASCOM) published varietal lists & standards handbooks and shared them with PSs in 4 countries for approval and adoption
- Local seed production in Uganda tripled from 43,000 to 122,000 tones.

Upscaling Adoption of Orange-Fleshed Sweet Potato in Ethiopia, Kenya, Rwanda, Tanzania & Uganda



Promoted adoption of OFSP technology to improve livelihoods by increasing production, consumption & marketing. OFSP is reputed as a cheaper source of Vitamin A, thus suitable for breastfeeding mothers and their children.

Achievements

- 12 high yielding, nutritious OFSP varieties adopted in the 5 countries.
- OFSP improved the food and income security for over 800,000 vulnerable communities.
- 2,000 ha were put under multiplication of OFSP varieties

Biotechnology – Fighting Striga in Sudan, Rwanda, Ethiopia, Eritrea & Uganda



Over 47,000 ha of sorghum infested by Striga, leading to yield losses of up to 2.3 million metric tons annually. ASARECA coordinated efforts to fight Striga by deploying resistance genes to boost sorghum productivity & enhancing sorghum adaptability to climate change.

Achievements

- 51 lines of striga-resistant sorghum varieties generated using molecular marker breeding technology.
- 4 lines code named ASARS1, ASARS2, ASARS3, ASARS4, released in Sudan.

Work in Biotechnology – Fighting CBSD



Countries affected: Uganda (100% crop losses), Kenya (5-100%), Tanzania (80%): Spillovers: Rwanda, Burundi, Sudan, Malawi, Ethiopia

ASARECA coordinated efforts by NARIs and international partners to:

- Promote use of resistant varieties
- Study the spread of the disease
- Generate information to control spread.

Achievements

- Researchers adopted use of resistant varieties as long term control strategy.
- Existing relatively tolerant varieties multiplied and distributed to farmers.
- CBSD was subdued.
- Uganda's Cassava Centre of Excellence hosted by Uganda, advanced progress in finding CBSD resistant varieties

Forecast: What ASARECA Aims to Achieve by 2030

- At least 3 million farmers out of severe climate risks, including 1.5 million from pastoral communities.
- At least 10 million farmers adopting anti-food loss and waste technologies and innovations.
- At least 10,000 hectares of degraded lands reclaimed, thus addressing conflict and fragility issues.
- At least 5 million farmers diversifying production of priority commodities.
- At least 5% increase in management of land, soil, water, and biodiversity.
- At least 25% of farmers accessing healthy seeds and planting materials.
- Enforcement of standards on agrochemicals to prevent contamination from hazardous chemicals.
- At least 3% increase in youth employment in agribusinesses.
- At least 10 million children and mothers accessing sufficient, safe, and nutritious foods using biofortification initiatives.
- Train 5,000 human resources for food and agriculture nutrition.
- Facilitate generation of 500 TIMPs; and Scaling of 500 TIMPs.
- Coordinate 30 policy analyses; 10 dialogues; 10 policies approved; 10 policies implemented.
- Facilitate 5% increase in trade volumes of priority commodities.
- Facilitate market access for at least 10,000 smallholder farmers (50% women and youth).
- KI-Hub: Targeting 1M stakeholders....



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