



ASARECA Contribution to Member States

UNITED REPUBLIC OF TANZANIA

Since inception in 1994, ASARECA has worked with the National Agricultural Research Systems (NARS) of its 14 member countries: Burundi, Cameroon, Central African Republic, Democratic Republic of Congo, Eritrea, Ethiopia, Kenya, Madagascar, Republic of the Congo, Rwanda, South Sudan, Sudan, Tanzania, and Uganda.

Between 1994 and 2023, ASARECA has mobilised over US\$ 258 million to implement Agricultural Research for Development (AR4D) initiatives in member countries. Out of these, US\$ 138 million was received directly by the Secretariat, which disbursed US\$ 101 million (73.5%) to member countries retaining US\$ 37 million (26.5%) for operational costs. The rest of the money (US\$ 120 million) was disbursed directly to select countries by Development Partners under the East Africa Agricultural Productivity Programme (EAAP), an initiative that was closely coordinated by ASARECA.

Tanzania is a founding member and one of the 14 Member States of ASARECA. Since inception, ASARECA has been working mainly with the Division of Research and Development in the Ministry of Agriculture and now the Tanzania Agriculture Research Institute (TARI) to jointly address AR4D challenges in the country. To date, ASARECA has invested US\$ 14.4 million to catalyze agricultural transformation in Tanzania through key beneficiary projects highlighted below:

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ASARECA work in the United Republic of Tanzania

Controlling the spread of Banana Xanthomonas Wilt (BXW)

ASARECA supported researchers from Tanzania to promote proven and cost-effective measures to control the deadly BXW epidemic that threatened to wipe out the banana crop in the country. In Muleba district, researchers deployed disease eradication approaches, including propagation of clean planting materials and trained farmers on how to detect and control the disease. Since then, the committees monitor the compliance of households to control measures. Within six months of adoption, BXW prevalence reduced from over 90% to less than 5%, while the proportion of farmers who controlled the disease increased from less than 5% to over 60%. After 15 months, banana production recovered from zero percent in some places to over 80%.

Introducing mixed crop livestock innovations

ASARECA supported scientists in National Livestock Research Institute (NLRI) in Tanzania to work with farmers to improve efficiency and quality of crops and livestock production. In Ilemela and Nyagagana, a feeding ration comprising maize bran and cotton seed cake with 75% energy, 20% protein and 5% mineral content was produced. The ration led to significantly higher milk yield per animal per day than any other ration tested in the project and was therefore quickly promoted to 3,100 beneficiaries. As a result, farmers reported an increase in income from US\$ 1,00 to 1,600 when cows were supplemented with the blocks.

In addition, farmers realized increased fodder availability by 50%, and crude protein content by 20% through inter-cropping Napier grass with forage legume (*Centrosema pubescens*). Feeding livestock with the new fodder mixture increased feeding efficiency by 30%. The fodder yields increased by 22%, milk yield (65%), vegetable yield (500%) and household income (66%).

Establishing cassava and potato standards for EAC states

ASARECA in partnership with the National Bureaus of Standards of the East African Community (EAC) states coordinated the formulation of the East African standards for cassava, seed potato, and related products. As a result, 11 rationalized and harmonized standards for cassava and sweet potato were approved by the EAC in 2010, hence opening up space for structured trade and industrialization of the commodities. The

Standards are anticipated to stimulate the emergence of value addition and processing initiatives for both the local and export markets.

Clean planting materials

In an effort to reduce disease infestation of potato, cassava and other staple crops, ASARECA supported researchers in Tanzania to apply tissue culture interventions for mass production of disease-free planting materials of cassava, sweet potatoes and banana. New laboratories, mainly for tissue culture were built and old ones were refurbished, technicians were recruited and trained, thus reducing the cost of production of tissue culture plantlets by 40%. Over 200 farmers benefitted from this initiative.

Controlling Napier smut and Napier stunt diseases

Following the outbreak of Napier smut and Napier stunt diseases, ASARECA coordinated researchers from Uganda, Kenya and Tanzania to quantify the incidence of the diseases in the region. Consequently, scientists developed tolerant clones and molecular diagnostic tools to identify the diseases. In Tanzania, ASARECA provided additional support to researchers to scale up adoption superior Napier clones by farmers using recommended management practices. As a result, there was a reduction of disease incidence by up to 35%, and increase in milk production by over 40%.

Tanzania received a livestock breed survey tool and Nine Napier grass collections from Kenya; and protocols for quality management, virus diagnostic procedures and cassava-processing equipment.

Eastern Africa Agricultural Productivity Project (EAAPP)

ASARECA coordinated this regional initiative of the Governments of Ethiopia, Kenya, Tanzania and Uganda. Tanzania provided leadership as the Regional Centre of Excellence for rice, thus bringing together 128 researchers to work on 33 regional projects. Through ASARECA's coordination, Tanzania sold over 676,436 doses of livestock semen within EAAPP countries. On the other hand, Tanzania received: A livestock breed survey tool and Nine Napier grass collections from Kenya; and protocols for quality management, virus diagnostic procedures and cassava-processing equipment from Uganda.

Promoting Quality Protein Maize (QPM)

ASARECA supported Tanzania in rapid scaling-up of QPM. This improved variety of maize contains 70-100% more building blocks of proteins than normal maize varieties. Two varieties (Lishe K1 and TAN H611) were promoted, alongside crop

management and post harvest handling practices. Over 80% of the farmers adopted these varieties, leading to improved nutrition and income. Value addition has been promoted, including use of QPM recipes in cakes, samosas, biscuits and salads.

Delivering high yields through irrigation innovations

ASARECA is supporting the National Irrigation Commission, Sokoine University and Arusha Technical Institute to facilitate 1,200 households in Buigiri, Kiwera and Msolwa-Ujamaa Irrigation Schemes to promote the use of soil moisture and nutrient measuring tools. The farmers use these tools to make decisions on when to irrigate and add nutrients to the soil. The project has so far supplied about 4 Wi-Fi readers, installed 80 chameleon sensor arrays and 55 Wetting Front Detectors to farmers' fields. This has reduced the frequency of irrigation from six times a week before the intervention to only two times. This in turn has reduced conflicts over water, which is attributed to increased availability of water; improved household incomes; increased yields; new jobs and improved food security. As a result of applying the new knowledge, farmers are now able to save time for other activities such as grazing livestock or work in factories.

Facilitating learning through benchmarking

ASARECA organized two benchmarking exercises for eight (8) ASARECA member countries, one in October, 2021 hosted by the National Agricultural Research Organisation (NARO), Uganda; and the other in July, 2012 hosted by Tanzania Agricultural Research Institute (TARI). During the two exercises ASARECA facilitated a total of 88 researchers from the National Agricultural Research Institutes (NARIs), farmers and selected private sector actors (43 in 2021, and 45 in 2022) to enhance their capacities in implementing climate relevant AR4D initiatives. The beneficiary countries were: Cameroon, Burundi, Central African Republic, Democratic Republic of Congo, Eritrea, Republic of Congo, South Sudan, and Sudan. They were supported to visit sister NARIs in Uganda and Tanzania to enhance their skills through peer-to-peer learning and mentorship.

The researchers interacted in key areas such as: (i) laboratory diagnostic tools; (ii) bio-policy and bio-safety; (iii) aflatoxin management; (iv) tissue culture, biotechnology and hydroponics; (v) bio-fortification of banana; (vi) livestock nutrition and embryo transfer; (vii) integrated pest management; (viii) marketing and private sector involvement; (ix) soil analysis; (x) crop production using CSA practices; (xi) strategies for livestock management

to mitigate impacts of climate change; (xii) new approaches to farming; (xiii) application of commercialization concepts and marketing; (xiv) and choice of crop varieties for diversified agro-ecological zones.

Climate Smart Agriculture Alliance (ACSAA)

ASARECA mobilised the National Agricultural Research Institutes (NARIs) of member countries to form a united front to mitigate the effects of climate change. Through this initiative, which was adopted by the Directors General of all the 14 member countries including Tanzania, the ASARECA Climate Smart Agriculture Alliance (ACSAA) was established in August 2021 with the overall objective of bringing together all climate relevant multi-stakeholder platforms, partnerships and networks within the region to scale up CSA. All researchers from the 14 member countries are members of this alliance which has already embarked on an ambitious collaborative effort to: (i) Define a framework for institutionalizing CSA among partner institutions; (ii) act as a clearing house for exchange of CSA TIMPs; (iii) facilitate exchange of knowledge among the partners; and (iv) provide a platform for CSA partners to engage with governments and global partners on climate relevant priorities. ASARECA secretariat has since organized five training and consultative workshops for the Alliance on application and uptake of CSA technologies and constituted them into a Community of Practice (CoP) for regular interaction.

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Commercialization of CSA Technologies

ASARECA convened researchers from its 14-member NARIs including **Tanzania**; other actors from the National Agricultural Research Systems (NARS); and the private sector for a dialogue to chat out sustainable pathways for commercialization and scaling up of gender responsive and climate smart agricultural technologies. During the Dialogue held in Nairobi, Kenya, in March 2022, the participants showcased the best bet climate-smart TIMPs of regional importance for commercialization and scaling. They: (i) identified over 100 technologies and innovations that are ready for commercialization; (ii) established a platform comprising private sector actors, researchers, and civil society organizations to advance the initiative; (iii) identified barriers and pathways for commercializing and scaling identified TIMPs; (iv) and identified and documented digital climate advisory capacity gaps in ECA.

Agricultural Trade Policy Reforms

ASARECA convened the Regional Policy Dialogue on Agricultural and Trade Policy Reforms in Eastern and Central Africa for all

the 14 member countries, including Tanzania to enhance the capacity of member states to comply with quality standards for cross border trade in agricultural inputs and commodities. The Dialogue was attended by 50 participants drawn from NARIs; Ministries of Agriculture; Ministries of Trade; National Revenue Authorities; National Bureaus of Standards; farmers' organizations; youth groups; the private sector; the African Union Commission; and the Regional Economic Communities. The participants discussed recent agriculture related policy and trade policy reforms in ECA; and mechanisms to address barriers to cross border trade. Overall, it was noted that challenges such as political instability; overlapping membership to Regional Economic blocs; uncoordinated macro-economic policies; and poor compliance to international standards cut across member states. The meeting agreed to resolve these through review and harmonization of regional trade policies and standards; adoption of harmonized certification and regulations for seed by all member states; strengthening customs administration procedures; and establishing measures to eliminate trade barriers.

Enhancing market information for cross border trade in agricultural commodities

ASARECA organized a policy dialogue with the objective to enhance market information for cross border trade in agricultural commodities in Eastern and Central Africa. The Dialogue sought to provide a platform for farmers, private sector, and other key stakeholders to engage with the East African Community (EAC) Secretariat on strategies for improving availability and access to market information to improve the resilience of farmers to climate shocks and boost cross border trade. The dialogue brought together 39 representatives of farmers; private sector; youth groups; policy makers from the Ministries of Agriculture and Trade; NARIs; regulators from the National Bureaus of Standards and National Revenue Authorities; and the East African Community. The participants were drawn from Burundi, South Sudan, Democratic Republic of Congo, Kenya, Uganda, Rwanda and Tanzania.

Financial Commitments by Member States

To facilitate operations at the Secretariat, fund jointly conceived priority Research for Development Projects, and indeed as a badge of ownership, the Member States earlier committed to make a one-off capitalisation payment of US\$ 100,000 and an annual membership fee of US\$ 50,000. The Business Committee of the General Assembly on February 7, 2023 approved the revision of annual fees to 100,000 to match-up the demand for the Secretariat to catalyse the creation of impact in Member States. The Business Committee also made a passionate appeal to the Member States to clear outstanding arrears currently standing at US\$ 1,819,206 as of December 2022. The Secretariat anticipates that fulfilment of these obligations is the beginning of a journey towards self-sustenance in the financing of ASARECA.

Council of Patron Ministers

The ASARECA Constitution has placed the ASARECA Council of Patron Ministers for Agriculture at the helm of the Governance of the Association to ensure close oversight, guidance and value for money for the Member States. Similarly, ASARECA is currently affiliated to COMESA, IGAD, and the EAC, through mutually agreed arrangements to serve as their technical arm. The main purpose of such an affiliation is to reinforce full ownership from Member States and mainstream their issues and priorities through the joint Meeting of Council of Ministers of Agriculture, Environment and Natural Resources at the COMESA level.



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