



ASARECA Contribution to Member States

REPUBLIC OF KENYA

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.

Since inception, ASARECA has been working mainly with the Ministry of Agriculture, Kenya Agriculture and Livestock Research Organisation (KALRO), formerly Kenya Agricultural Research Institute (KARI), and universities (Kenyatta, Egerton, and Nairobi). Over the last 25 years, ASARECA has invested US\$ 19.91 million to catalyze agricultural transformation in Kenya through key beneficiary projects highlighted below:

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ASARECA work in the Republic of Kenya

Controlling the spread of Banana Xanthomonas Wilt (BXW)

ASARECA supported KALRO to promote proven and cost-effective measures to control the deadly BXW epidemic that threatened to wipe out the banana crop in Rwanda, Burundi, Tanzania, Democratic Republic of Congo, Uganda and **Kenya** between 2005 to 2010. Six hardening nurseries, 10 demonstration plots and 10 macro-propagation units were installed at the BXW hotspots. 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%.

Mitigating effects of climate change

Working with researchers from KALRO, ASARECA implemented projects to increase availability and productivity of water in rain-fed and irrigated farms. The projects built capacity to harness water resources from the rain, runoff, surface, and ground water at farm and watershed levels. In Machakos and Makueni, over 1,500 households adopted water-efficient technologies, leading to the rehabilitation of over 5,000 hectares of severely degraded land as well as increased maize yields from 0.5t/ha to 3 t/ha. Over 1,000 households previously dependent on relief food are now food secure. To ensure sustainability, Machakos and Makueni County governments mainstreamed agricultural extension and advisory services, and allocated US\$ 40,000 to out-scale availed technologies.

Out-scaling OFSP (the darling potato)

ASARECA supported KALRO to out-scale Orange-fleshed Sweet Potato (OFSP) as a cheaper source of vitamin A for children and breast-feeding mothers (as alternatives to fish, liver, milk and eggs). Three varieties (Ejumula, Kabode and Vita) were promoted on 27 hectares dedicated to multiplication of planting materials. Over 474,000 vines were produced and distributed to farmers in Western Kenya, with over 30 orphanages using OFSP as a nutritional diet. In Busia and Bungoma Counties, farmers earned US\$ 20,000 and 17, 000 respectively from sales of vines.

Genetic modification of maize for drought tolerance

ASARECA in collaboration with Kenyatta University supported a team of young scientists from Sudan, Ethiopia, Tanzania and **Kenya** to undertake PhD research that focused on inserting drought tolerance genes into local maize varieties (sourced from Ethiopia (2), Kenya (3), Sudan (2), and Tanzania (2)). The scientists successfully transformed nine transgenic maize lines with drought resistant genes that were bulked awaiting confined



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field trials in participating countries.

Fighting Cassava Brown Streak Disease (CBSD)

ASARECA supported scientists from Uganda, Kenya, Democratic Republic of Congo, Madagascar, Rwanda and Burundi to fight CBSD that had wrecked havoc in the region, with losses estimated at above US\$ 100 million. This led to the development of Information Resource Kit used in awareness creation campaigns, and in training of farmers and extension workers on detecting affected materials. Breeders in Kenya developed CBSD tolerant varieties that have been availed to farmers.

Introducing mixed crop livestock innovations

ASARECA supported KALRO to improve efficiency and quality of production for crops and livestock in semi-arid lands of Wote, Machakos and Wamunyu. Increased fodder availability by 50%, and crude protein content by 20% was recorded through inter-cropping Napier grass with forage legume (*Centrosema pubescens*). Similarly, feeding livestock with new fodder mixture increased feeding efficiency by 30% and milk yield by 65%. Vegetable yields and household income grew by 500% and 66% respectively. Overall, 8,000 farmers benefited from the project.

Establishing cassava and potato standards for EAC states

Aware of the dual roles of cassava and potato as food security crops, and as commodities with high industrial potential, ASARECA in partnership with National Bureaus of Standards of East African Community (EAC) states jointly formulated the East

African standards for cassava, seed potato, potato and related products. Eleven (11) rationalized and harmonized standards for cassava and sweet potato were approved by EAC, hence opening up space for structured trade and industrialization of the commodities. Motivated, KIWAFA and Uwezo Mashambani farmer groups initiated procedures towards acquiring the Kenya Bureau of Standards quality mark and bar code for potato crisp export.

Eastern Africa Agricultural Productivity Project (EAAPP)

ASARECA coordinated this regional initiative of the Governments of Ethiopia, Kenya, Tanzania and Uganda. Kenya provided leadership as the Centre of Excellence for Dairy. Through ASARECA's coordination, Kenya sold over 3 million doses of livestock semen, and received the following technologies from collaborating countries: Descriptions of livestock cross-breeding practices from Uganda; four rice varieties (TXD306, Tai, Komboka and Ziada) from Tanzania (and officially released Komboka and TXD306); improved cassava varieties including elite materials tolerant to CBSD from Tanzania; quality management protocols for multiplying clean cassava materials from Uganda; virus diagnostic procedures from Uganda; 951 lines of bread-wheat from Ethiopia (72 elite lines are in advanced trials for release).

Promoting Napier grass as key livestock feed

Through the Napier grass smut and stunt disease resistance project, ASARECA coordinated researchers from Uganda, Kenya and Tanzania to help farmers adopt superior resistant clones alongside management practices to mitigate the spread of the diseases. Tolerant clones, management practices and molecular diagnostic tools were developed, validated and disseminated for regular testing. This led to reduction to disease incidence and milk production in the countries

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 **Kenya**, 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.

Building a pool of experts on AIS

ASARECA in collaboration with FAO facilitated two Training of Trainers (ToT) workshops to support integration of the Tropical Agriculture Platform (TAP) Common Framework (CF) into ASARECA member NARIs, including **Kenya** and farmer organisations. The selected cohort of trainers who have now been constituted into a database included Researchers, Directors of Research, Private sector actors, farmer organizations. At the end of the training held in March 2022 and July 2022, the ToTs became certified trainers on Integrating the TAP framework for Capacity Development in the Agricultural Innovation System. They have since implemented their Participant Action Plans (PAP) by training other trainers in the TAP AIS concept in their respective countries. Through this action, ASARECA and the NARIs have built a common pool of experts in the NARS who are now enhancing the utilisation of AIS tools and approaches among researchers, farmer organisations and other stakeholders.

Commercialization of CSA Technologies

ASARECA convened researchers from its 14-member NARIs; other actors from the National Agricultural Research Systems (NARS) including **Kenya**; 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

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and Trade Policy Reforms in Eastern and Central Africa for all the 14 member countries, including **Kenya** 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**. They agreed to establish a Regional Market Information System in ASARECA to act as a one-stop agricultural data hub for information for cross-border traders as well as act as an agro advisory.

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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