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Transforming Agriculture for Improved Livelihoods

ASARECA Contribution to Member States

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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 mobilsed 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.

In Uganda, ASARECA works with the National Agricultural Research Organisation (NARO) and a number of Ugandan institutions, including Universities (Makerere, Mbarara, and Gulu); and the Ministry of Agriculture, Animal Industry and Fisheries. Todate, ASARECA has invested US\$ 17.2 million to catalyze agricultural transformation in Uganda through key flagship projects highlighted below:

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ASARECA work in the Republic of Uganda

Fighting Cassava Brown Streak Disease (CBSD)

ASARECA supported scientists from Uganda to fight CBSD that had wrecked havoc in the region between 2000 and 2011. Losses due to CBSD were estimated at above US\$ 100 million. Up to 25 districts in Uganda were affected, with Luweero, Busia, Pallisa, Wakiso, Mukono, and Kaberamaido being the hotspots. ASARECA led the development of an Information Resource Kit used in awareness creation campaigns, and in training of farmers and extension workers on detection of affected materials. Researchers have since developed varieties that are tolerant to CBSD as efforts continue to find varieties that are totally resistant to the disease.

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, 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. As a result of this breakthrough, the Popular Kumi Women Initiative (PKWI) cooperative (with 2,500 farmers) collaborated with Cassava Adding Value for Africa (CAVA-Uganda) and started producing high quality cassava flour that was sold to confectionaries in Kampala, while Makerere University's Department of Food Science and Technology currently makes cassava chips for local and export markets.

Introducing mixed crop livestock innovations

ASARECA supported scientists from NARO to work with farmers to improve efficiency and quality of production for crops and livestock. As a result, farmers in Masaka and Kumi districts 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%. Following the provision of 35,000-litre water-harvesting tanks to each of selected 24 farmers, water availability increased by 46%; the area under forage production increased by 134%; and fodder quantity increased by 76%. Consequently, milk yields increased by 80%, leading to a 52.4% increase in household income.

High yielding maize varieties

ASARECA supported Ugandan scientists to introduce high yielding highland maize varieties with grain yields of about 9 t/



The devastating Cassava Brown Streak Disease was subdued through a regionally coordinated response.

ha (representing an exponential growth compared to 2.3 t/ha of lowland varieties that are predominant in the country). Some of the new varieties, including four hybrids, have a potential yield of 12 t/ha, which is at par with global standards.

Controlling Banana Xanthomonas Wilt (BXW)

ASARECA supported Uganda in the promotion of proven and cost-effective measures against BXW that threatened to wipe out banana crop in the country. Deployment of disease eradication approaches, including propagation of clean planting materials led to increased production from less than 5% at the start of the epidemic to over 60%. Farmers from the affected districts of Bushenyi, Ntungamo and Mbarara recovered production from zero to over 60%, and currently earn at least US\$ 450 per month, up from only US\$ 30 during infestation.

Promoting Quality Protein Maize (QPM)

ASARECA supported NARO in the rapid scaling-up of QPM. Two varieties (Longe 5 and Salongo) were promoted, alongside crop management and post harvest handling practices in Lira and Gulu districts where acute malnutrition was predominant following the over two decades of the Lord's Resistance Army war. Over 80% of the farmers adopted these varieties, leading to improved nutrition and income.

Fighting Striga (witch weed)

ASARECA supported and coordinated a team of scientists

from Sudan, Kenya, Eritrea, Rwanda and Uganda to develop striga-resistant sorghum lines using biotechnology. The joint research efforts led to the release of four out of the 51 lines of striga-resistant sorghum varieties with mechanical barriers to striga in Sudan. Given that the released lines are capable of yielding up to 3.6 tons/ha, ASARECA facilitated the movement of these released varieties to Uganda, Kenya, Tanzania and Rwanda where adaptability trials were carried out. In Uganda, the 36 lines were tested at the National Semi-Arid Research Institute (NaSARRI) for striga resistance, farmer acceptance and colour. The farmers have already adopted the selected varieties.

Mitigating effects of climate change

ASARECA facilitated and coordinated waterefficient projects in rain-fed and irrigated farming systems. The projects built capacity to harness the use of water resources, including rainwater, runoff, surface and ground water at farm, and at watershed levels in Kumi (Ongino), Mbale (Bunghoko), and Tororo (Kwapa) districts. Over 5,000 hectares of severely degraded land was rehabilitated, thus increasing water availability for agriculture. Farmers in Ongino, Bunghoko and Kwapa districts planted 18,600 trees, and established 780 water trenches on farmers' plots.

Eastern Africa Agricultural Productivity Project (EAAPP)

ASARECA coordinated this regional initiative of the Governments of Ethiopia, Kenya, Tanzania

and Uganda. Uganda provided leadership as the Centre of Excellence for cassava, thus bringing together 128 researchers to work on 33 regional projects. Through ASARECA's collaboration, Uganda sold over 40,000 doses of livestock semen within EAAPP countries. On the other hand, ASARECA facilitated the transfer of the following technologies from other countries to Uganda: 300 straws of high quality Ayrshire breed semen from Kenya; nine Napier grass collections from Kenya; four rice varieties (TXD306, Tai, Komboka and Ziada) from Tanzania; elite cassava materials tolerant to CBSD from Tanzania; 951 lines of bread-wheat from Ethiopia; and nine improved cassava varieties from Tanzania (already released in Uganda).

Climate Smart Agriculture Alliance

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 Uganda, the ASARECA Climate Smart Agriculture Alliance (ACSAA) was established in August 2021 with the overall objective of bringing together all climate relevant multistakeholder 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 **Uganda** 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.

In Uganda, the Capacity Development Community of Practice (CoP) Vice Chairperson, Mr. Ahimbisibwe Allan has since conducted training on urban vegetable farming, making organic fertilizers, pesticides and yoghurt. He has so far trained a total of 30 farmers from Kampala and Wakiso Districts, Uganda. As a result of this training, over 20 farmers have picked up model ventures as their businesses.

Commercialization of CSA Technologies

ASARECA convened researchers from its 14-member NARIs, including **Uganda**; other actors from the National Agricultural Research Systems (NARS); and the private sector for a dialogue

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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 climatesmart 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 **Uganda** 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.

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 oneoff 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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