



Ministry of Agriculture  
and Forests



# ASARECA Contribution to Member States

## REPUBLIC OF THE SUDAN

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.

Sudan is a founding member and one of the 14 Member Countries of ASARECA. Since inception, ASARECA has been working mainly with Agricultural Research Corporation (ARC) and the Ministry of Science and Technology to jointly address AR4D challenges in the country. To date, ASARECA has invested US\$ 11.3 million to catalyze agricultural transformation in Sudan through key beneficiary projects highlighted below:

[www.asareca.org](http://www.asareca.org)

# ASARECA work in the Republic of the Sudan

## Fighting Striga for improved food security

Sorghum is the second most important staple crop in Eastern and Central Africa. Prior to ASARECA's intervention in 2008, which focused research efforts to controlling the spread of Striga, over 17,000 ha of sorghum had been infested by the weed, leading to yield losses of up to 2.3 million metric tons annually. ASARECA supported and coordinated scientists from Agricultural Research Corporation of Sudan (ARC), University of Nairobi, the National Agricultural Research Institute of Eritrea, the Rwanda Agricultural Board, and the International Centre for Agricultural Research in Arid and Semi Arid Tropics (ICRISAT) to develop striga-resistant sorghum lines. Led by ARC, the researchers used biotechnology, reputed for its precision and effectiveness in breeding. The process involved backcrossing a donor striga-resistant sorghum line N13 and three farmer preferred sorghum cultivars—Tabat, Wad Ahmed and AG-8, that were susceptible to striga.

As a result, the government of Sudan in 2012 released four out of the 51 lines of striga-resistant sorghum varieties (ASARS1, ASARS2, ASARS3, and ASARS4, with yield potential of up to 3.6 tonnes per hectare). These new varieties with barriers to striga, have been widely disseminated to farmers in Sudan and are performing well. Besides, ASARECA facilitated movement of the striga resistant varieties to Uganda, Kenya, Tanzania and Rwanda where adaptability trials were carried out. The adoption of the varieties in Sudan and the entire ASARECA region is a major milestone towards restoring the productivity of sorghum and getting 300 million people in Eastern and Central Africa (ECA) out of hunger.

## Building capacity of scientists to deliver AR4D

ASARECA in 2008 sponsored 34 young, mid-level scientists from Rwanda, Burundi and Sudan to undertake leadership and mentorship training, and master's degree studies in various disciplines through the Strengthening Capacity for Agricultural Research and Development in Eastern and Central Africa (SCARDA) project. Two (2) scientists from ARC were supported through this project and received Master's degrees in Plant Breeding and Seed Systems from Makerere University. The students carried out research in areas that were deemed relevant for their country. Such areas included development of molecular markers for introgression of resistance to turicum leaf blight in sorghum and mapping of genes associated with striga resistance in sorghum. Both students were mentored and had an opportunity to use advanced laboratory facilities for their research.



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## Controlling tick-borne diseases

In 2009, ASARECA implemented a project to support tick-borne disease experts from Uganda, Kenya, Tanzania, Burundi, Madagascar, Sudan and Madagascar to develop, validate and promote appropriate technologies for the control of tick-borne diseases in pastoral and agro-pastoral farming systems. Experts from Sudan, conducted epidemiological studies; identified management options for different livestock production systems; and documented best-bet practices for ticks and tick-borne disease control. Thirty male and five female veterinarians and technicians were trained in tick ecology, survey, collection, preservation, identification, diagnosis, prevention, control, and proper use of acaricides. Over 150 farmers benefited from training in tick-borne disease diagnosis and the use of acaricides. As a result, farmers in the intervention areas registered unprecedented reduction of tick-borne infestation, leading to increased dairy and meat production.

## Promoting pearl millet

ASARECA supported scientists from Eritrea, Sudan, Kenya and Tanzania to develop a profitable cropping system and value-chain for pearl millet in order to enhance its production in the arid and semiarid lands of the sub-region. ASARECA invested in boosting the capacity of Sudan to enhance its genetic resources as well as addressing post harvest handling, utilization, input delivery and marketing constraints. As a result, pearl millet production was boosted through use of improved varieties, best bet agronomic practices including water and soil conservation. Following successful implementation of the project, researchers in the sub region endorsed pearl millet as the crop that is most suitable for the semi arid areas in June 2010.

## Mitigating effects of climate change

Working with researchers from Sudan, ASARECA implemented projects to increase the 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. The project was able to improve the productive performance of sheep significantly in one of the project sites in the Western Sudan Sandy Plains, through strategic feeding, thereby improving livelihoods of the target families. Up to 300 farmers in the target sites adopted the agricultural water productivity innovations.

## Facilitating learning through benchmarking

ASARECA organized two benchmarking exercises for eight (8) ASARECA member countries including Sudan, 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 Sudan, 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.

## Commercialization of CSA Technologies

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

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**The benchmarking exercise facilitated collaboration and sharing of technologies and entailed a series of activities such as in-class training and visits to selected private sector and model farmers' fields on application of CSA technologies.**



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.

### Building capacity for international negotiations

ASARECA organised a workshop for key climate scientists and country United Nations Framework Convention on Climate Change (UNFCCC) focal points to enhance their negotiation ability in international climate change meetings. The workshop sought to: (i) consider ASARECA member states views on the socioeconomic and food security dimensions of climate change negotiations; (ii) improve analytical skills of climate scientists, agriculture experts and UNFCCC Focal Points from ASARECA Member States on international climate decision making processes; and (iii) to provide a platform for climate scientists, agriculture experts and UNFCCC Focal Points from ASARECA member states to share their experiences and lessons learned on engagements in the UNFCCC processes. The discussions focused on: (i) the history of the United Nations Framework Convention on Climate Change (UNFCCC). The workshop was attended by 41 participants from the 12 ASARECA member countries of Cameroon, Ethiopia, Kenya, Madagascar, Republic of Congo, Burundi, Democratic Republic of Congo; Rwanda, South Sudan, Sudan, Tanzania, and Uganda.

### 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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