



## ASARECA Contribution to Member States

### REPUBLIC OF MADAGASCAR

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.

In Madagascar, ASARECA works mainly with Centre National de Recherche Appliquée au Développement Rural (FOFIFA/CENRADERU) and the Ministry of Agriculture and Livestock to jointly address AR4D challenges. To date, ASARECA has invested US\$ 3.87 million to catalyze agricultural transformation in Madagascar through key beneficiary projects highlighted below:

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

# ASARECA work in the Republic of Madagascar

## Promoting pearl millet

ASARECA supported scientists from Eritrea, **Madagascar**, Kenya, Sudan and Tanzania to develop a cropping system and value chain to enhance the production of pearl millet in the arid and semi-arid lands of the sub-region. This investment boosted the capacity of the Institution to enhance its genetic resources and address post-harvest losses, input delivery and marketing constraints. Following the successful implementation of the project, researchers in ASARECA countries endorsed pearl millet as the crop that is most suitable for semi-arid areas.

## Controlling tick-borne diseases

ASARECA supported experts in tick-borne disease control from six countries (Uganda, Kenya, Tanzania, Burundi, Sudan and **Madagascar**) to develop, validate and promote appropriate technologies to control tick and tick-borne diseases in pastoral and agro-pastoral farming systems. The experts conducted epidemiological studies; identified management options for different livestock production systems; and documented best-bet practices for disease control. Thirty-five (30 male; 5 female) veterinarians and technicians were trained in tick ecology, data collection, sample preservation and proper use of acaricides, among others. In addition, 120 farmers were trained in disease diagnosis and the use of acaricides. As a result, farmers in the intervention areas registered an unprecedented reduction in tick-borne infestation, leading to increased dairy and meat production.

## Delivery of clean planting materials

In an effort to reduce disease infestation of cassava, sweet potato and banana, ASARECA supported researchers in Madagascar to apply tissue culture interventions for the mass production of disease-free planting materials. Through this initiative, a baseline study of the status of tissue culture applications in the country was conducted, while virus sequences for cassava and sweet potato viruses were collected. Over 200 sequences of viruses for cassava brown streak disease, sweet potato feathery mottle virus, sweet potato chlorotic stunt virus, sweet potato chlorotic fleck virus and sweet potato mild mottle virus were collected for virus indexing. As a result, FOFIFA produced clean cassava and sweet potato tissue culture materials for national breeding, rapid multiplication and dissemination to farmers. These efforts helped to keep the major diseases at bay, thus increasing productivity for cassava, potato and banana.



Researchers in ASARECA countries endorsed pearl millet as the crop that is most suitable for the semi-arid areas.

## Mitigating the effects of climate change

Working with researchers from Kenya, Ethiopia, Eritrea, Burundi, Uganda, South Sudan, Rwanda and **Madagascar**, ASARECA implemented projects to increase the availability and productivity of water in rain-fed and irrigated farms. The projects built the capacity to harness water resources from rain, runoff, surface and groundwater at the farm and watershed level for drip and supplemental irrigation. In **Madagascar**, the project was implemented in Avaratrambolo, Manjakandriana, Ankazomiriotra and Betafo–Antsirabe districts, which are characterized by high growth of population, expansion of agriculture into fragile lands, high levels of land degradation and poor harnessing of available water.

The project promoted the use of: improved rice varieties; harrowing in land preparation; seedlings instead of direct sowing; and recommended quantities of fertilisers. As a result of the adoption of improved rice varieties (such as x265), yields increased from 0.5t/ha to 4 t/ha, while onion yields increased from 10 to 25 t/ha due to prudent management of water and other inputs. Farmers adopted CSA innovations to stop the over 20% harvest losses associated with dry spells and land degradation. As a result, communities in the watersheds are now 60% food-secure and are able to earn about US\$ 2,500 per ha per year from the sale of onions and potatoes during off-season. As a means of sustaining the project, the Water,

Sanitation and Hygiene Ministry provided funding to further improve water access in Avaratrambolo watershed, which is anticipated to serve over 600 people.

### Facilitating learning through benchmarking

ASARECA organized two benchmarking exercises for eight (8) ASARECA member countries including **Madagascar**, 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: **Madagascar**, 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.

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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.

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.

### ASARECA 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 **Madagascar**, 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 in 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 actors on climate relevant priorities. ASARECA secretariat has since organized five training and consultative workshops for members of the Alliance on application and uptake of CSA technologies.

### 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 NARS and farmer organisations including **Madagascar**. The selected cohort of trainers, who have now been constituted into a database, included Researchers, Directors of Research, Private sector actors, and farmer representatives.

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 started 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 Madagascar and other 13 member 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 agreed on 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 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 **Madagascar**, 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 establishment of 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 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 with 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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