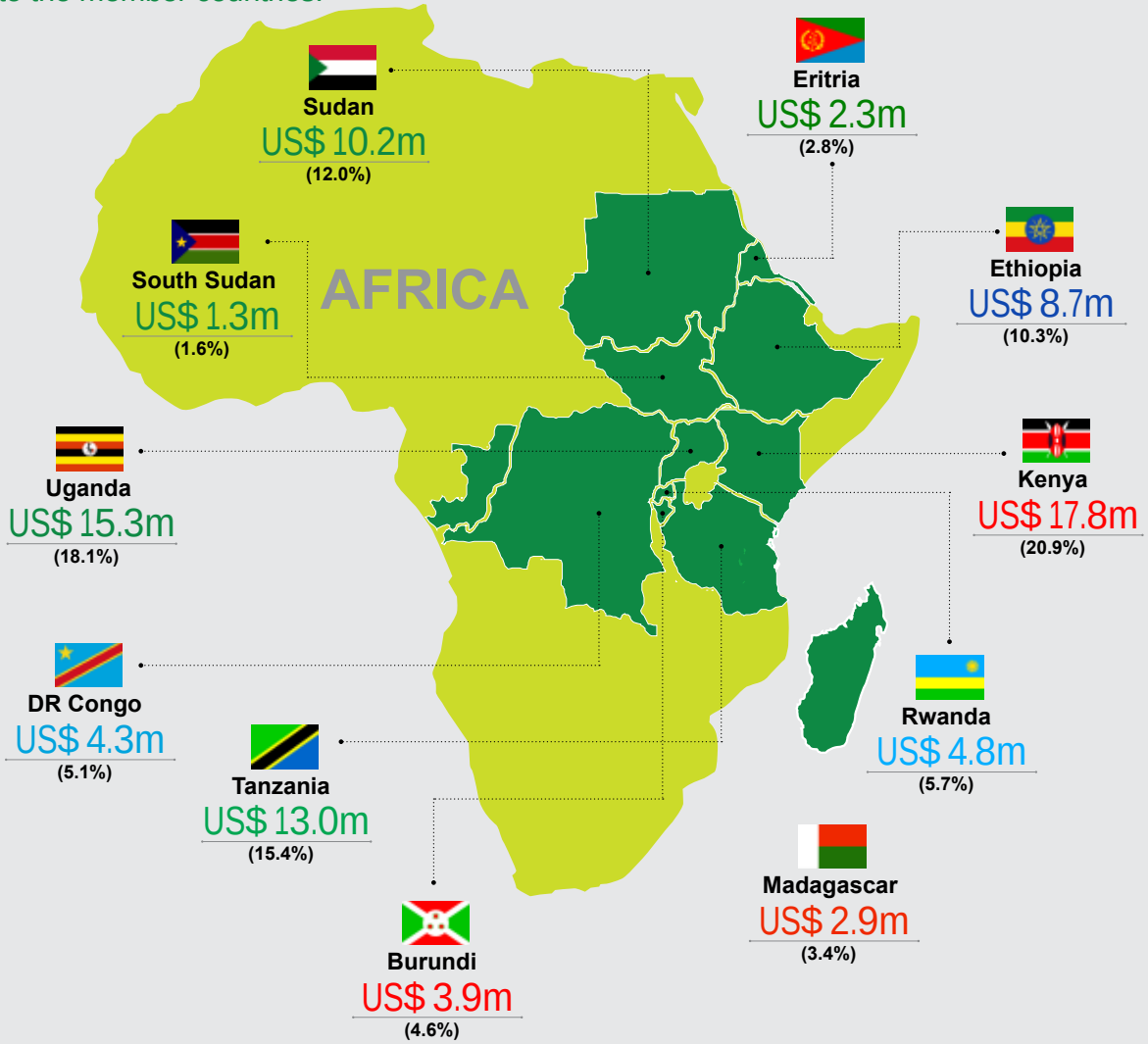
Contribution to Member Countries

Since inception in 1994, ASARECA has worked with National Agricultural Research Systems (NARS) of its twelve member countries: Burundi, Democratic Republic of Congo, Eritrea, Ethiopia, Kenya, Madagascar, Republic of the Congo, Rwanda, South Sudan, Sudan, Tanzania and Uganda. Between 1994 and 2018, ASARECA mobilized US$ 131 million to implement Agricultural Research for Development (AR4D) initiatives in the countries. In addition, ASARECA coordinated the EAAPP programme in five member countries. Below are snapshots of ASARECA contribution to the member countries.

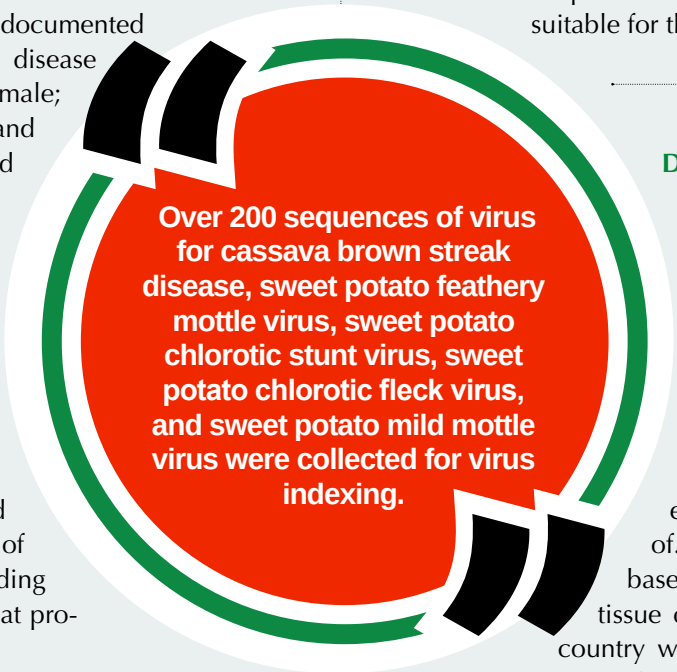


Madagascar

Since inception, ASARECA has worked mainly with Canter National de Recherche Appliquee au Developpement Rural (FOFIFA) and the Ministry of Agriculture, Livestock and Fisheries to jointly address AR4D challenges in the country. Between 1994 and 2018, ASARECA invested US$ 2.9 million to catalyze agricultural transformation in Madagascar through key beneficiary projects highlighted below:

Controlling tick-borne diseases: ASARECA supported experts on tick-borne diseases 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 the 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 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 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 successful implementation of the project, researchers in ASARECA countries endorsed pearl millet as the crop that is most suitable for the semi arid areas.



Delivery of clean planting materials: In an effort to reduce disease infestation of cassava, sweet potatoes and banana, ASARECA supported researchers in Madagascar to apply tissue culture interventions for mass production of disease-free planting materials of. 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 virus were collected. Over 200 sequences of virus for cassava brown streak disease, sweet potato feathery mottle virus, sweet potato chlorotic stunt virus, sweet potato chlorotic fleck virus, and sweet potato mild

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

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.

Mitigating 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 capacity to harness water resources from rain, runoff, surface, and ground water at farm for drip and supplemental irrigation, and at the watershed level. 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 the 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.