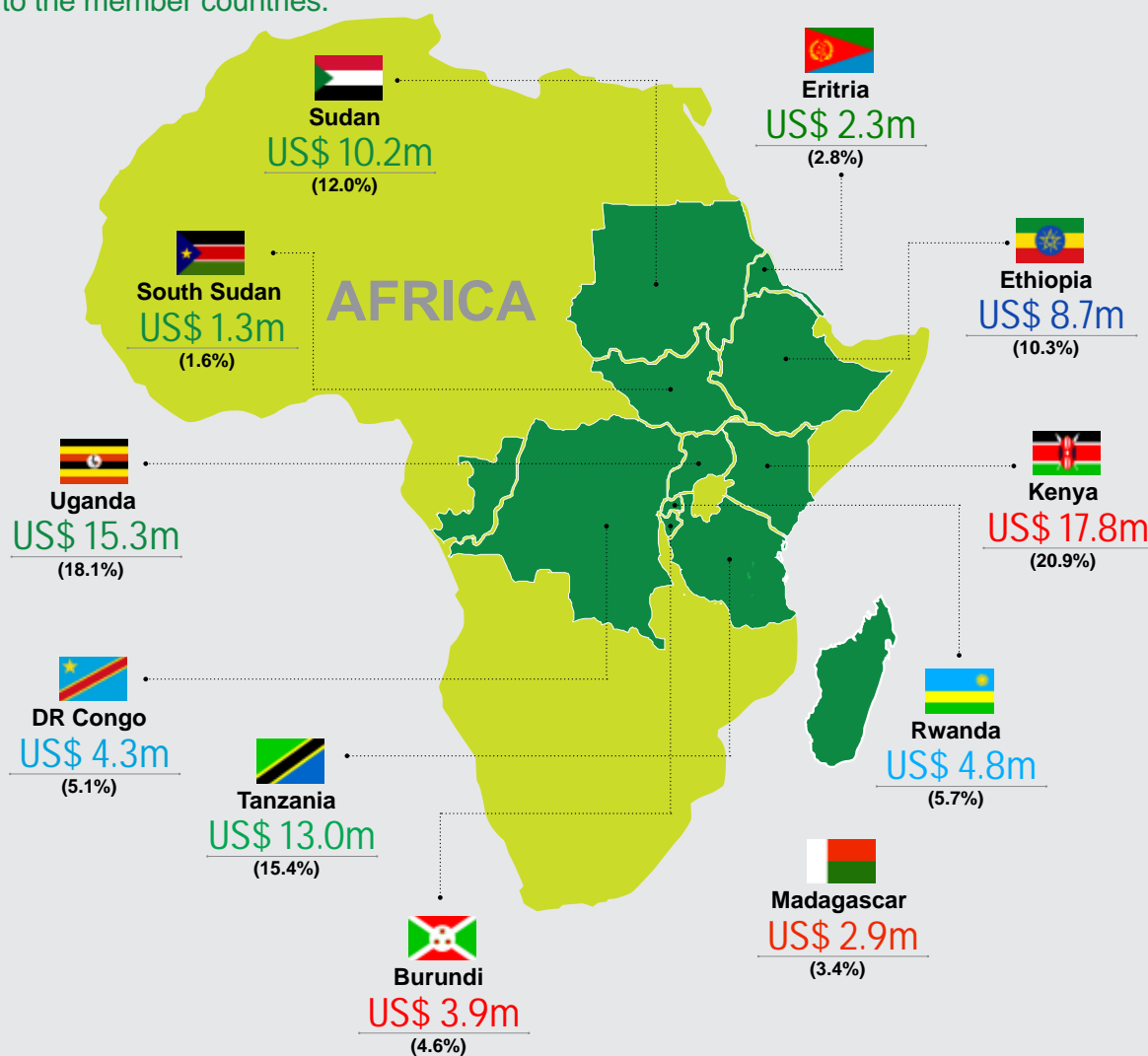


Contribution to Member Countries

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.



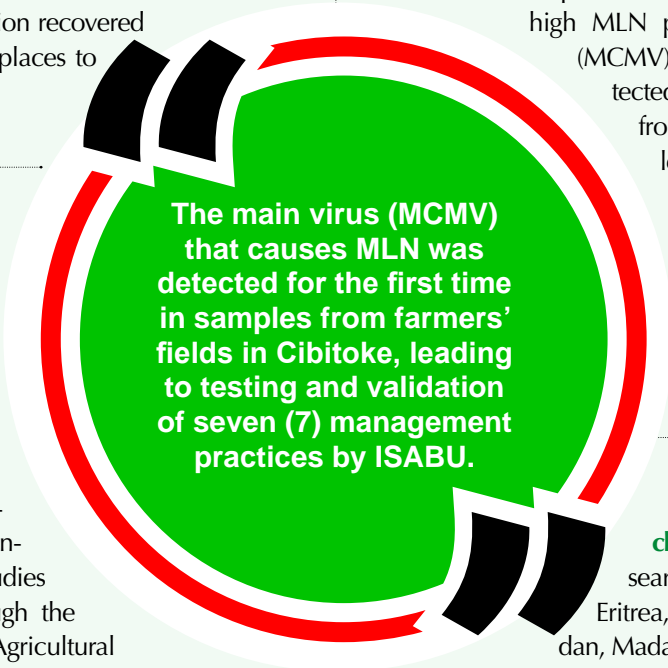
Burundi

Since inception, ASARECA has worked mainly with Institut des Sciences Agronomiques du Burundi (ISABU) and the Ministry of Agriculture to implement AR4D projects. Between 1994 and 2018 ASARECA invested US\$ 3.9 million to catalyze agricultural transformation in Burundi through key beneficiary projects highlighted below:

Controlling the spread of Banana Xanthomonas Wilt (BXW): ASARECA supported ISABU to promote proven and cost-effective measures to control the deadly BXW epidemic that caused up to 92% crop loss and affected 72% of the banana farmers in Burundi. Farmers in Cibitoke were trained on how to control the spread of BXW and regain banana production. 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%.

Building capacity of scientists to deliver AR4D: As part of enhancing capacity and regional collaboration among scientists, ASARECA 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. A total of five scientists in Burundi received Master's degrees, and returned to take up various leadership positions in the ISABU research structure.

Fighting the Maize Lethal Necrosis Virus: ASARECA coordinated seven countries (Burundi, Ethiopia, Kenya, Rwanda, South Sudan, Tanzania and Uganda) to fight MLN. In collaboration with CIMMYT, ASARECA supported the countries to adopt integrated and multi-pronged control strategies, including development and use of appropriate management practices, breeding and germplasm development. In Burundi, MLN surveillance was conducted in Ngozi, Kirundo, Ruyigi, Cankuzo, Rutana, Makamba and Cibitoke provinces that border countries with high MLN prevalence. The main virus (MCMV) that causes MLN was detected for the first time in samples from farmers' fields in Cibitoke, leading to testing and validation of seven (7) management practices by ISABU. Majority of the affected farmers have adopted the available technologies and innovations.



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Mitigating effects of climate change: Working with researchers from Kenya, Ethiopia, Eritrea, Burundi, Uganda, South Sudan, Madagascar and Rwanda, ASARECA implemented two 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, and at the watershed level. In Burundi, the project

was implemented in Muhembuzi (Kirundo) and Kibimba (Gitega) watersheds. Following the transformation of one of the hilly landscapes in the watersheds into agricultural land, the participating farmer groups generated US\$ 17,358 from sale of cabbages, onions, amaranths, tomatoes, beans, chicken and fish, besides 592 households reporting improved nutrition levels.

Promoting clean potato planting materials: Research in the early 2000s established that 95 percent of farmers in Eastern and Central Africa were using poor quality tubers riddled with bacterial wilt and viruses, leading to low yields. In response to the challenge, ASARECA in collaboration with the International Potato Center (CIP), supported scientists from ISABU to increase the productivity of Irish Potato through the seed plot technology. The technology involved maximizing the production of disease-free seed tubers using best practices. Farmers who adopted the technology in Bunyengeru, Mugongomanga and Muruta, witnessed a production increase from 10 to 30 tons per/ha.

Promoting climbing bean innovations: Following decline in yields and quality of most bean varieties in Rwanda, Burundi and DRC, ASARECA supported researchers from these countries to identify and test the best bean cropping systems. Two systems, namely: intercropping beans with maize stalks (as stakes) and mono-cropping beans using sisal and banana fibre/strings were selected. Extension workers and farmers were trained on best agronomic practices. As a result, beneficiary farmers registered yield increases from 780 to 3,500 kg/ha, while those who intercropped climbing beans with maize realized yield increases from 367 to 2,100 kg/ha compared to farmers who did not use these technologies.

Improving wheat productivity: Despite being a major staple food crop, wheat productivity is marginal in Burundi. To reduce increasing importation of the commodity, ASARECA partnered with International Maize and Wheat Improvement Center (CIMMYT) to support ISABU to pi-

lot productivity measures in Mugongomanga and Muruta communes. Using two new varieties, ISWSN 64 and HRWYT12, six proven wheat management practices and innovations were tested for techniques in sowing, fertilizer application, weeding, harvesting, threshing, and post harvest. As a result, the mean yield at project sites increased from 0.8 to 2.5 t/ha.

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.

Increasing productivity of pigs: Following reports of the outbreak of Porcine cysticercosis in human beings as a result of consuming pork infected with *Teania solium*, ASARECA coordinated researchers from International Livestock Research Institute (ILRI), Uganda, Kenya, Tanzania, Burundi and DRC to develop national capacities for surveillance, prevention and control of *Teania solium*. National Action Plans were developed for control of the disease in the five countries, leading to remarkable control, and increased productivity in the piggery sector.

Support to Policy reform processes: ASARECA supported Burundi institutions to develop a seeds and varieties roadmap leading to the national review to draft changes to the Ministerial Orders, which were then forwarded to the Ministry of Justice for endorsement. Besides, as part of the process towards implementation of the COMESA Biosafety Policy Implementation Plan (COMBIP), ASARECA in 2016 provided technical support to Burundi to review the national seed acts, aligning them with COMESA seed regulations under the Seeds Regulations Implementation Plan (COMSHIP).