

Malawi

Root and tuber crops for agricultural transformation

Investor: Irish Aid (2016–21)

This CIP-led project seeks to help 200,000 households improve nutritional outcomes and incomes through the adoption of cassava, potato and sweetpotato technologies, benefiting one million consumers from the availability of nutritious crops.

Integrated value chains to enhance rural incomes and food security

Investor: EU (2017–20)

This project has reached 3,000 farm households with OFSP planting material, conducted value addition training and home-based food processing to 100 lead farmers. The objective is to help build resilience among the target households through improved food security, incomes and nutrition levels.

KULIMA: Improving use of agricultural innovations

Investor: GIZ (2018–19)

KULIMA promotes enhanced agricultural productivity and diversification through the broad-scale adoption of climate-smart agriculture technologies and improved links to markets.

Promoting OFSP in West Africa

While sweetpotato is a traditional crop in West Africa, nutritious orange-fleshed varieties were hardly grown in the region before CIP began promoting them. SASHA and BNBF has played a crucial role in developing, deploying and creating demand for biofortified, and later climate-smart, sweetpotato varieties in Burkina Faso, Ghana and Nigeria over the past decade.

Nutrition sensitive kitchens

Investor: DFID (2018–19)

The nutrition kitchen incorporates sweetpotato and other vegetables into kitchen garden interventions in Nigeria, benefiting 35,000 households with children under five by 2018.

Root, tuber and banana crop for end-user preferences

Investor: BMGF (2017–22)

Operating in Benin, Cameroon, Ghana, Nigeria and Côte d'Ivoire, this project helps determine the needs and preferences of men and women farmers for sweetpotato, potato, yam, cassava and banana. Getting this data to crop breeders will ensure future varieties possess the characteristics (disease resistance, taste, etc.) wanted by farmers and consumers, facilitating greater adoption.

Recent projects

Feed the Future Rwanda OFSP for income and nutrition

Investor: USAID (2015–18)

This Feed the Future project improved smallholder incomes and the nutritional uptake of women and children under five through increased production and consumption of OFSP in ten districts in Rwanda, reaching more than 207,000 new households directly and 144,000 households indirectly, through partnerships.

BNFB: Building nutritious food baskets

Investor: BMGF (2015–19)

A multi-CGIAR center collaboration, BNFB drove the delivery of biofortified crops—bean, cassava, maize and sweetpotato—through public awareness raising activities, helping reduce malnutrition and increase the incomes of 94,000 households in Nigeria and Tanzania. Private, public and development partners subsequently made investment commitments of USD 6.5 million to catalyze availability and demand for highly nutritious foods.

VISTA: Viable sweetpotato technologies in Africa

Investor: USAID (2014–19)

VISTA Malawi has reached more than 60,000 farming households with nutritious sweetpotato planting materials, 80% of whom families with children under five years of age. Partnerships have ensured their further distribution an additional 300,000 households. In Mozambique, complementing a drought intervention initiative, the project supported wider cultivation, consumption and commercialization of nutritious CIP varieties, benefiting nearly 240,000 households by mid-2019.

CIP is a research-for-development organization with a focus on potato, sweetpotato and Andean roots and tubers. It delivers innovative science-based solutions to enhance access to affordable nutritious food, foster inclusive sustainable business and employment growth, and drive the climate resilience of root and tuber agri-food systems. Headquartered in Lima, Peru, CIP has a research presence in more than 20 countries in Africa, Asia and Latin America.

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CIP is a CGIAR research center

CGIAR is a global research partnership for a food-secure future. Its science is carried out by 15 research centers in close collaboration with hundreds of partners across the globe.

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INTERNATIONAL POTATO CENTER

Nutritional security, livelihoods and climate resilience in Africa

CIP institutional goals



Improved food and
nutritional security



Increased livelihood
opportunities and
wide-scale development
of inclusive value chains

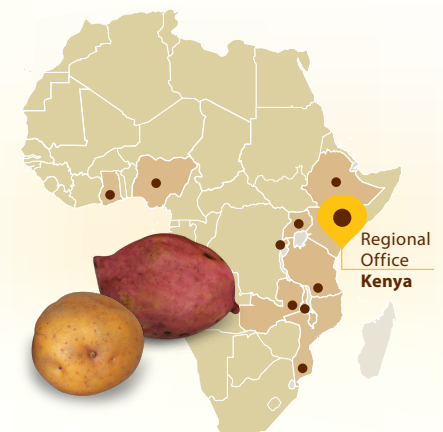


Sustainable intensification
of agri-food systems
through climate-resilient
and biodiverse agriculture

Recent achievements

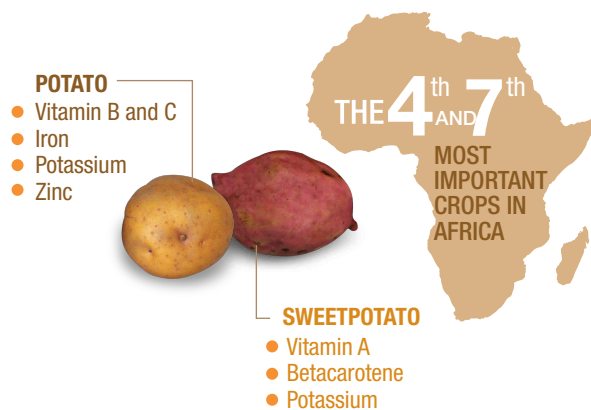
1 APPROXIMATELY
MILLION SMALLHOLDER
FARMERS IN AFRICA
increased yields by planting
quality seed potatoes and
improved varieties.

5 NUTRITIONAL STATUS OF MORE THAN
MILLION HOUSEHOLDS
in Africa improved through
development and dissemination
of vitamin A-rich OFSP varieties.





Substantial economic growth over swathes of Africa in recent years has helped significantly reduce poverty, malnutrition, and food and nutritional insecurity. The fourth and seventh most important crops on the continent, potato and sweetpotato are suitable for challenging circumstances, contributing to the nutrition and incomes of millions of African families. Both crops are highly efficient in transforming water into calories and have short maturity periods. Orange-fleshed sweetpotato (OFSP) provides a rich source of vitamin A—commonly deficient among children and women of reproductive age—and potato contains significant amounts of vitamin B and C, iron, potassium and zinc. With rising demand, there is huge potential for closing crop yield gaps, sustainably intensifying production systems and strengthening value chains in Africa.



Established in 1971, the International Potato Center (CIP) has been working in Africa for four decades and is currently active in 15 countries on the continent. CIP delivers innovative science-based solutions to enhance access to affordable nutritious food, foster inclusive sustainable business and employment growth, and drive the climate resilience of root and tuber agri-food systems.

Working closely with national and international partners across Africa, utilizing the genetic diversity safeguarded at its genebank, CIP has contributed to the release of 124 and more than 130 improved potato and sweetpotato varieties, representing a significant contribution to genetic diversity in the continent. CIP breeders have developed and deployed disease-resistant, heat- and drought-tolerant potato varieties and comparably resilient vitamin-A rich OFSP varieties, helping African farmers produce more nutritious and marketable food and adapt to climate change.

MAJOR PROJECTS

SASHA II: Sweetpotato action for security and health in Africa
Investor: Bill & Melinda Gates Foundation (BMGF) (2014–19)

In its second phase, SASHA has helped national research programs accelerate the development and dissemination of 46 resilient sweetpotato varieties—37 of them vitamin-A-rich, orange-fleshed varieties—while promoting the crop to farmers and consumers. Genetic gains (increased yields) that took breeders 36 years, can now be achieved in 5 years using improved conventional breeding, and average productivity rates have risen from 10.9 to 18.5 tons/ha under rainfed conditions. Efforts have expanded farmer access to quality planting material, improved farming practices, and created demand through the development of sweetpotato products, vastly expanding its production and consumption in Uganda, Kenya, Ethiopia, Tanzania, Mozambique and Ghana.

Development and delivery of biofortified crops at scale
Investor: UK Department for International Development (DFID) (2019–22)

Phase I of the project enabled the scaling of biofortified orange-fleshed sweetpotato (OFSP) varieties to a targeted 2.3 million farming households with children under five in Kenya, Malawi, Mozambique, Rwanda and Bangladesh, provided nutritional education to 2 million caregivers and facilitated the establishment of sweetpotato businesses and products with annual sales of an estimated USD 890,000. Phase II seeks to scale up the benefits of biofortified sweetpotato more widely and target vulnerable communities more explicitly — building links with large-scale commercial and humanitarian initiatives.

Transforming potato and sweetpotato for food security, nutrition and incomes
Investor: United States Agency for International Development (USAID) (2015–18)

By 2018, phase I of the Feed the Future Accelerated Value Chain Development project had enabled the creation of sustainable and productive value chains that enhanced incomes and nutritional outcomes in Kenya. Potato value chain work reached some 46,000 households with productivity-enhancing technologies and support for farmer-marketing institutions; sweetpotato interventions benefitted nearly 70,000 households with children under five with improved OFSP varieties and nutrition education. Phase II expands the work to two neighboring counties, supporting institutional potato sector development planning and improved nutrition outreach, and bringing productivity-enhancing technologies to a further 20,000 smallholder households.

TAAT: Technologies for African agricultural transformation, OFSP compact

Investor: African Development Bank (2018–21)

TAAT aims to build a highly diversified sweetpotato sector that delivers nutritious food to rural and urban populations and provides business opportunities for young people and women. It leverages CIP's work in 12 African countries to increase OFSP production, improve incomes, generate employment from the sale of fresh OFSP roots and processed products, and expand the use of sweetpotato-foliage-based silage by small- to medium-scale livestock and dairy farmers.

Ethiopia

Scaling up orange-fleshed sweetpotato for improved nutrition and food security. Institutional strengthening

Investor: Irish Aid (2013–19)

This project began with the distribution of quality planting material for nutritious sweetpotato varieties and agronomic and nutrition training to nearly 20,000 rural households with young children and women of reproductive age in the Southern Nations, Nationalities and Peoples' (SNNP) and Tigray regions. It was so

successful in improving their vitamin A consumption and food security that phase II sought to institutionalize the approaches in the two regions. Ethiopia's five main agricultural vocational education colleges incorporated CIP modules into their training courses and sweetpotato recipes have been adopted by 10 government health bureaus as part of their nutritious cooking demonstrations. CIP is currently working with the government on the development of a national potato and sweetpotato strategy to drive impact at scale.

Gender-sensitive emergency drought responses

Investor: USAID (2018–20)

This project builds on earlier work to improve the food and nutrition security of at least 21,000 drought-affected farmers in the SNNP and Amhara regions by facilitating production of improved potato and sweetpotato varieties. Teams support farmer training centers and groups with access to irrigation, production and post-harvest technologies, quality planting material, and training in nutrition.

Climate-and nutrition-smart OSFP

Investor: European Union (EU) (2016–21)

The project helps improve the nutrition status of families with young children in the SNNP region with orange-fleshed sweetpotato: a reliable source of vitamin A and energy. It builds the capacity of extension agents to train specialized farmers to produce quality planting material for biofortified sweetpotato varieties and disseminate it to other farmers in their area. By early 2019, the project had reached 33,000 farmers with quality planting material and training enabling them to maximize yields and produce enough for their families and a surplus to market.

Scaling sweetpotato-led interventions to improve food and nutrition security

Investors: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (2018–21)

This project was designed to improve the food security and nutrition of households with children under 2 in three districts in Tigray through increased production and consumption of vitamin A-rich sweetpotato as part of efforts to diversify diets. Agronomic and nutrition training, and field days, were organized for 469 agriculture and health bureau staff, and model farmers. Consequently, more than 3,500 women have started growing nutritious sweetpotato to improve household nutrition. Phase II of the project is scaling the approach in two more nearby districts.

Seeds for change

Investor: Federal Ministry for Economic Cooperation and Development, Germany (2019–21)

Seeds for change helps farmers adapt to climate change, facilitating the adoption by 60,000 farm households of high-yielding, disease-resistant, climate-smart potatoes in the Amhara, Oromia and SNNP regions.

Mozambique

Home to CIP's breeding platform that has produced 22 drought-resistant OFSP varieties in the last decade, 19 of which vitamin A-rich—a third of sweetpotatoes grown in the country.

Drought mitigation through resilient sweetpotato

Investor: USAID (2017–19)

Having survived droughts that destroyed staple crops, such as maize, this project has disseminated OFSP planting materials to 24,000 poor households in Gaza, Inhambane and Maputo provinces. An earlier EUR 2 million intervention, financed by Irish Aid, improved the vitamin A and energy intake of 44,000 families in Niassa and Inhambane provinces.