

Project brief

Yam Improvement for Income and Food Security in West Africa (YIIFSWA)

Proponent: International Institute of Tropical Agriculture (IITA)

Key partners: National Root and Tuber Crop Research Institute (NRCRI), Nigeria; Crops Research Institute (CRI), Ghana; Natural Resources Institute (NRI, UK); Alliance for a Green Revolution in Africa (AGRA) through the Farmer Organizations Support Center in Africa (FOSCA); Missionary Sisters of the Holy Rosary (MSHR), Kogi State, Nigeria; and Catholic Relief Services (CRS) in collaboration with several national institutions

Geographic coverage of project: Nigeria and Ghana

Background: Yam (*Dioscorea* spp.) is a very important food and income source for millions of producers, processors, and consumers in West Africa. About 48 million tons of the tuber are produced annually in this subregion on 4 million hectares of land. The five major yam-producing countries (Benin, Côte d'Ivoire, Ghana, Nigeria, and Togo) account for 93% of world production. Nigeria alone accounts for 68% of global production (36 million tons on 3 million hectares). The average per capita consumption of yam in these countries ranges from 193 kcal a day in Togo to 502 kcal per day in Côte d'Ivoire.

Yam ranks as the most important source of dietary calories in Côte d'Ivoire, Benin, Ghana, and Nigeria. The crop also makes a substantial contribution to protein in the diet, ranking as the third most important source of supply. Hence, yam is important for food security (as mainstay for at least 60 million people) and income generation; 31.8% of the population in Nigeria and 26.2% in Ghana depend on yams for food and income security. Yam is also integral to the sociocultural life in this subregion.

Major challenges: Despite its importance in the economy and lives of many people, yam faces several constraints that significantly reduce its potential to support rural development and meet consumers' needs as an affordable nutritional product: unavailability and affordability of high quality seed yams, on-farm postharvest losses, low soil fertility, unexploited potential of yam (ware and seed) markets by smallholder farmers, unavailability of adapted varieties to stress environments of the savannah agroecologies, diseases and pests, and limited opportunities for smallholder farmers mainly rural women, in yam production and marketing.

Goal: To double incomes from yam for 3 million small-holder farming families who depend on the crop in West Africa, and contribute to food security for producers and consumers.

Strategy

This project aims to address these challenges through the following objectives:

1. Strengthen small-scale farmer and trader market linkages, particularly in less accessible production areas, to realise benefits from increased ware yam productivity and market demand.
2. Strengthen capacities and empower smallholder farmers in the yam value chain.
3. Establish sustainable availability of high quality seed yam on a commercially viable (price competitive) basis in targeted areas.
4. Reduce post-harvest losses and improve product quality.
5. Develop technologies for high ratio propagation of high quality breeder and foundation seed yam.
6. Evaluate and scale out yam production technologies with improved and local popular varieties.
7. Identify more effective prevention and management tools and strategies for pests and diseases.

These objectives will be supported by cross-cutting components: monitoring, evaluation and learning; and communication and information dissemination.

Impact: This project will, in the next five years: (a) increase yam productivity (yield and net output) by 40% for 200,000 small-holder yam farmers in Ghana and Nigeria; and (b) deliver key global good research products that will contribute to the 10-year vision of doubling incomes from yams for 3 million small-holder farming families who depend on the crop in West Africa, and (c) contribute to food security for producers and consumers.

Donor, project duration, and cost: Bill & Melinda Gates Foundation; 2012-2016; \$12.2 million

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