

## INCREASING FOOD SECURITY



Global hunger and malnutrition continue to threaten the quality of life and livelihoods of hundreds of millions of people in developing countries. With an estimated 795 million people food insecure and almost two billion people malnourished, food insecurity is a major obstacle to growth and the rights of millions, particularly women. The challenges of increasing food production to meet the needs of a rising global population are further compounded by land degradation, increased competition for water, and changing climatic conditions.

The 2015 El Niño weather phenomenon has been one of the most intense broad weather phases of the past 100 years and its impact on global hunger has been significant and wide reaching. It is estimated that the agricultural systems and food security of up to 60 million people around the world have been negatively affected by droughts, floods and extreme hot and cold weather caused by El Niño alone. In response, Canada joined international efforts to build the resilience of rural communities and mitigate the negative impacts of El Niño, and included climate change considerations in its agriculture and food security programming.

In 2015-2016, Canada supported women to increase the adoption of sustainable agricultural practices, improve the efficiency of agri-food value chains, and increase the consumption of nutritious foods by food insecure and undernourished populations. Support for smallholder farmers, agri-business and government authorities helped reduce hunger and undernutrition, increase agricultural productivity and foster greater agricultural growth in the rural areas of developing countries.

### SUSTAINABLE AGRICULTURAL DEVELOPMENT, NUTRITION AND INNOVATION AT FARM LEVEL

Canada helped smallholder farmers adopt sustainable agricultural practices, including water and land conservation measures and other climate-smart agricultural approaches. Canada supported a wide range of agricultural innovation activities with smallholder farmers via support for research and innovation in development projects.



Country: Rwanda © Global Affairs Canada/Steve Simon

A project with the West and Central African Council for Agricultural Research and Development helped 30,700 smallholder farmers from 22 countries in Western and Central Africa adopt agricultural innovations that increase productivity and climate resilience. These included artificial insemination for livestock, better fish farming techniques, developing five disease-resistant varieties of tomatoes and potatoes, developing four aflatoxin-tolerant peanut varieties and inventing a zero-energy cooler chamber for vegetable storage.

Canada's support for the International Fund for Agricultural Development, the Consultative Group for International Agricultural Research (CGIAR) and the Global Agriculture and Food Security Program (GAFSP) helped millions of smallholder farmers in the world's poorest countries receive agricultural inputs, such as locally adapted seeds, and technical training to boost productivity and market access. Canada's funding for the public and private sector windows of the GAFSP helped to support the development and execution of government agricultural investment plans and agri-business projects in 39 countries. One GAFSP project with the Government of Rwanda helped 209,251 people increase their agricultural productivity and market access. The project introduced new high-yield, high-nutrition crop varieties that achieved yields of maize, beans and potato that were well above their national average. A complementary project from the GAFSP private sector window used blended finance to attract private sector investment to address chronic malnutrition.

In 2015-2016, Canada's support for the CGIAR's Wheat Initiative which used advanced science and field research to improve wheat production for 2.5 billion resource-poor consumers, particularly in sub-Saharan Africa and South Asia, where people depend on wheat as a staple food. An impact study concluded that the total area sown with modern varieties of wheat (over 100 million hectares) had an economic benefit to farmers of US\$3.1 billion per year.