

soybean processing plant, and improve their knowledge about nutrition, including on new soy-based products such as milk, tofu and yogurt. Additionally, in South Sudan, a total of 58,920 households were employed in the DFATD-funded World Food Programme's food-for-work and cash-for-work activities (75 percent of those employed were women). These activities resulted in the construction and rehabilitation of 361 km of community roads, the production of 2.5 million seedlings, and the clearing and conversion of 15,121 ha for cereal farming. These activities benefited 412,000 rural poor.

## Food Assistance and Nutrition

Canada responded to vulnerable populations affected by conflicts, natural disasters and situations of food insecurity by providing emergency food assistance and nutritional interventions. In addition, Canada provided food assistance and nutrition programming in developing countries to help improve the food security, health and nutritional well-being of populations affected by chronic poverty.

In 2014, Canada provided an estimated \$375 million in food assistance funding to 17 partners, including support for in-kind food commodities, cash-based programming, nutritional interventions and livelihoods programming (i.e. the provision of seeds and tools). With the help of Canada's support and other donors, the UN's World Food Programme reached 80 million beneficiaries in 82 countries throughout 2014. Countries suffering from chronic food insecurity and those experiencing conflict or protracted crisis, or hosting refugees—such as Ethiopia, Syria, Jordan, Lebanon, Pakistan and the Democratic Republic of Congo—were among the top recipient countries of Canada's food assistance funding.

Canada's support to nutrition provides life-saving nutrition supplements and improves nutrition-sensitive agricultural approaches. Through Canada's support, the Micronutrient Initiative (MI) reached over 150 million children under five with two doses of vitamin A; 750,000 pregnant women received iron and folic acid supplements; 1.4 million metric tons of salt was adequately iodized for potential consumption by approximately 370 million people; and 327,000 children under five with diarrhea received treatment with zinc and oral rehydration solution. Canada's support to Helen Keller International also saved an estimated 128,000 child lives due to twice-yearly receipt of vitamin A supplementation and an additional 55,000 lives due to the twice-yearly receipt of deworming tablets.

DFATD's support to the CGIAR Research Program on Agriculture for Nutrition and Health contributed to the development and release of new varieties of iron-fortified beans that help to reduce iron deficiency. By the end of 2014, nine new varieties were released in Rwanda, reaching about 800,000 households, and 10 new varieties were released in the Democratic Republic of Congo, reaching about 350,000 households.

## Research and Development

Canada supported agricultural innovation by funding research partnerships and strengthening national and regional research systems that develop and deliver new practices and technologies to smallholder farmers.

For example, Canada's support to Ghana's Ministry of Local Government and Rural Development helped to fund 27 innovative community projects implemented by Ghanaian organizations. One of these projects developed new onion production methods that increased onion yield by 33 percent—from 9 tonnes per acre to 12 tonnes per acre—decreased post-harvest losses from 41 percent to 27 percent, and earned farmers a price increase of up to 500 percent.

In 2014–2015, support to a regional project of the Africa Rice Center improved the capacity of local rice farmers, processors and marketers in applying new technologies and innovations for producing high-quality rice that meets market demand in eight countries of the region, including Ghana, Mali, Nigeria and Senegal. A notable success was the development of a new user-friendly, efficient and locally built rice thresher machine that mechanically separates rice grains from panicles without damaging the grains.

Through the Canadian International Food Security Research Fund (CIFSRF), a joint DFATD-IDRC initiative, Canada has helped to sustainably enhance yields, nutrition and food security among 383,000 smallholder farmers in Africa, Asia, Latin America and the Caribbean. In CIFSRF's first phase of research, which ended in March 2015, Canadian and developing-country experts participated in 21 projects, testing some 144 innovations and practices such as new livestock vaccines, high-yielding and nutritious crop varieties, and tools that empower women farmers. For example, researchers working in South Africa and Canada completed the laboratory testing of three potential candidates for a first-ever vaccine against African swine fever, a devastating disease that is endemic to Africa. CIFSRF's second phase, now underway, focuses on scaling up market-ready innovations for greater global food security impact.

In 2014–2015, DFATD and IDRC, together with the Australian Government, helped to test strategies for responding to the emergence of infectious diseases—including avian flu, severe dengue and others—under the Ecohealth Emerging Infectious Diseases Research Initiative. The findings from 17 research teams in China and Southeast Asia have shaped policies that reduce disease transmission and improve food safety management. For example, these solutions are now enabling families to raise poultry under safer conditions, enrich family diets and generate extra income.