The program funds a wide range of projects and research initiatives that address many aspects of food security, including:

**Technologies to help women boost productivity and nutrition**

Millets are labour-intensive to harvest and thresh, which places a heavy burden on the women who traditionally do this work. Researchers are working to develop machines to reduce this drudgery for women. One project in India has developed a safe, simple, and efficient millet dehulling machine for use in local villages. The machine will remove a key obstacle to increasing the production and consumption of millets among poor rural households.

In Ethiopia, women smallholder farmers are testing practical solutions to increase the soil’s fertility by adopting chickpeas, lentils, and faba beans. These crops provide an alternative source of protein, income, and food security.

**Using Canadian expertise to create new livestock vaccines**

Canada’s expertise in vaccine research is being put to work in South Africa to test a cost-effective and easy-to-administer single-dose vaccine that protects cattle, sheep, goats, and pigs from several diseases. A second project, involving researchers from Canada and South Africa, is testing strategies to accelerate large-scale adoption and scaling up of durable farming systems in three regions of Kenya. The results will also link farmers to markets and influence policies for dryland agriculture.

**Improving diets with better foods**

Aquaiculture can improve local diets and the livelihoods of small-scale farmers, but it is still under-utilized in many poor rural communities. In Cambodia, researchers are measuring the impact of combining fish farming and homestead food production. They hope to improve household food security and nutritional status, and women’s livelihoods. Another project in the Caribbean is helping break the region’s dependence on imports of high calorie, low-nutrition foods. Researchers are developing new strategies for smallholder farms to increase food production by strategies that diversely produce, conserve water and use land more efficiently.

**Making science work for small-scale farmers**

Technologies and practices that could help African farmers improve output often lie unused, and policies to relieve hunger and malnutrition have often failed. CIFSRF-supported researchers are testing strategies to accelerate large-scale adoption and scaling up of durable farming systems in three regions of Kenya. The results will also link farmers to markets and influence policies for dryland agriculture.

**Under-researched local crops**

Local traditional crops offer one of the best opportunities for improving agricultural productivity and enhancing nutrition for smallholder farmers. Researchers are working in India, Sri Lanka, and Nepal on three projects aimed at improving millets production, processing, and marketing in rainfed regions of South Asia. One project is researching ways to improve village-based seed systems, and developing sustainable agriculture kits containing seeds and management tools for farmers in these regions. The kits could be used throughout South Asia and other parts of the world where this hardy and nutritious grain is grown.

**The challenge: 1 billion people in need**

Hunger in developing countries ranks among the more dire and pressing of global issues. More than 1 billion people are undernourished, with nearly 90% living in sub-Saharan Africa and Asia. The Food and Agriculture Organization estimates global food production must double by 2050 to meet the increasing global demand. Investing in small-scale agriculture is one of the most effective ways to decrease poverty and meet the food security needs of vulnerable populations in developing countries, especially women, children, the elderly, ethnic minorities, and indigenous people.

**Canada’s commitment**

Canada is working with developing countries, local communities, and smallholder farmers to reduce poverty by improving access to sufficient, safe, and nutritious food.

In 2009, Canada launched the five-year CA$62-million Canadian International Food Security Research Fund (CIFSRF). The Fund is a joint initiative between the International Development Research Centre (IDRC) and the Canadian International Development Agency (CIDA) to support research implemented in Africa, Asia, Latin America, and the Caribbean.

CIFSRF Objectives

- Increase food security in developing countries by:
  - funding applied research in agricultural development and nutrition
  - deploying Canadian science and technology expertise in collaboration with developing country partners
  - using research results to inform food security policies and programs.

Supporting small-scale farmers worldwide – especially women

CIFSRF is helping small-scale farmers in low- to medium-potential agricultural regions of the developing world, where research is most needed.

In many of these regions, women make up nearly half of the agricultural workforce — which is why the Fund supports projects that expressly target women smallholder farmers as the primary agents of change for sustainable agriculture.

**Focusing on practical solutions**

CIFSRF focuses on applied research. It produces lasting solutions to food security that are economically viable, socially acceptable, and environmentally sustainable.

Research topics focus on local traditional crops, organic agriculture, post-harvest losses, livestock production and vaccines, fish cultivation, better policies, and the development of new markets.

**Protecting the environment**

Environmental sustainability is a key element in all CIFSRF-supported projects. In several projects, research aims to reduce agriculture’s impact on the environment through:

- sustainable land management
- soil nutrient and water management
- protection and enhancement of biodiversity
- adaptation to and mitigation of climate change

**Building partnerships**

With CIFSRF support, Canadian and Southern researchers from the natural and social sciences together develop, test, and implement practical innovations. These technological, institutional, political, economic, and social changes will intensify and diversify small-scale agriculture, improve the nutritional quality of crops, and increase incomes without adverse consequences to societies and the environment.

The interdisciplinary teams include 26 different institutions in 20 developing countries and 12 different Canadian institutions. They involve universities, government research centres, civil-society organizations, and private-sector companies in their research.

**High standards for scientific excellence**

The Fund’s research projects are large, ranging in size from CA$1 million to $5 million, and last 2 to 3.5 years. Grants are awarded through a transparent and rigorous competitive process.

For more information

Canadian International Food Security Research Fund (CIFSRF) is a program of Canada’s International Development Research Centre (IDRC). CIFSRF is a program of Canada’s International Development Research Centre (IDRC). The Fund is a joint initiative of the International Development Research Centre (IDRC) and the Canadian International Development Agency (CIDA) to support research implemented in Africa, Asia, Latin America, and the Caribbean.

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