

A DECADE OF IMPROVING FOOD SECURITY AROUND THE WORLD

Five ways the Canadian International Food Security Research Fund transformed lives

POSTED BY BRIAN OWENS ON DECEMBER 18, 2018

For almost 10 years, the [Canadian International Food Security Research Fund](#) has been supporting projects to improve food security in the developing world. Launched in 2009 in the aftermath of the food price crisis brought on by the 2008 recession, the \$124.5 million program, which is funded by IDRC and Global Affairs Canada, has supported 39 projects, reaching an estimated 78 million people. “Our projects addressed not only food availability, but also access and quality, with a focus on smallholders, neglected crops, women and youth,” says Renaud De Plaen, IDRC’s program leader for agriculture and food security. With the program coming to an end in December 2018, here’s a look at five of its biggest successes.

Family Farms for the Future – Cambodia

This [project](#) aimed to improve nutrition and provide income for subsistence farmers in Cambodia by offering training and materials to improve their small farms. Participants chose one of four options: backyard gardens; gardens plus fishponds; gardens plus poultry; or gardens plus fish and poultry. To give them a stake in the success of their farms, participants contributed 30 per cent of the set-up costs.

Nearly 3,700 households in four provinces took part. They produced significantly more fruit, large fish, eggs and birds than the control group, as well as a greater variety of vegetables. They also significantly reduced incidents of zinc, thiamin, riboflavin and vitamin A deficiency in women and children. The project’s findings will help inform the Cambodian government’s next five-year National Strategy for Food Security and Nutrition.

Scaling up production of indigenous vegetables – West Africa

Two earlier projects had developed innovative ways to improve cultivation of indigenous vegetables in Nigeria and Benin, through fertilizer micro-dosing and improved water management. The goal of this [project](#) was to find ways to increase the adoption of these techniques throughout the region.

The MicroVeg Innovation Platform developed by the project reached almost 340,000 farmers in the two countries, increasing the amount of land under cultivation, especially by women, as well as increasing yields and income. It also helped develop new ways of processing the food, to create value-added products and business opportunities for rural farmers.

Double-fortified salt – India

Salt fortified with iodine is already common around the world. Researchers in Canada and India spent almost two decades developing, testing and scaling up ways to fortify salt with iron as well, to help fight anemia and iron deficiency, the most common form of malnutrition in the world.



A woman checks the health of a flowering potato field in El Socorro, Colombia, where a Canadian International Food Security Research Fund project helped develop new varieties of healthier yellow potatoes. (Photo: IDRC/Bartay)

Once the salt was ready, [IDRC](#) helped get regulatory approval in India, and supported the development of manufacturing and distribution in the country. “We got it into the public distribution system, and by the end of the project it was going to more than 50 million consumers,” says Wendy Manchur, a program officer for the Canadian International Food Security Research Fund.

New varieties of yellow potatoes – Colombia

Yellow potatoes are a staple crop in Colombia, but they tend to have low yields and are susceptible to late blight disease. So farmers, breeders and scientists [teamed up](#) to develop three new varieties with 40 per cent higher yields, double the protein and 20 per cent more iron and zinc, and resistance to late blight disease.

The project also established seven groups of rural entrepreneurs that work together to produce high-quality potato seeds that are sold to potato growers. This has led to 16 per cent of the production of yellow potatoes in the country being replaced with the new varieties, which are now available to more than six million consumers.

Fermented Food for Life – Uganda

Probiotic yogurt and other fermented foods can help improve weight gain in malnourished adults and children, reduce skin

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rashes, fight diarrhea, enhance immunity in HIV patients and reduce absorption of heavy metals and aflatoxins in women and children. But in Africa, most yogurt production is focused on urban markets or only occurs on a small scale because of a lack of shelf-stable bacterial cultures.

That has changed with the development of an affordable freeze-dried bacteria that doesn't require refrigeration and enables

local production of up to 100 litres of yogurt within 24 hours. [IDRC](#) helped develop an innovative "pro-poor" business model to support local production facilities and created new markets for farmers' milk, new jobs and additional income, primarily for women and youth.

Nearly 260,000 children and adults have begun consuming healthy probiotic foods in Tanzania, Kenya and Uganda.

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READING AS THINKING

1. In the Family Farms for the Future project, why do you think farmers were offered four options to choose from for backyard gardens? What are the benefits of this?

2. What was the primary goal of the project in West Africa? From an ecological or geographical perspective, why is this goal important?

3. What is double-fortified salt? Why is it a sought-after product, especially in developing countries?

4. Why is it important to develop new and better potato varieties? Do the human and natural worlds benefit from this development?

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5. What is a pro-poor business model, such as the one used in the Fermented Food for Life project?

6. List three things that the five stories in this article have in common:

a) _____

b) _____

c) _____

7. If you could be involved with one of these projects, which one would you choose, and why? In what ways could you take the project one step further if you had the opportunity?

8. Although the Canadian International Food Security Research Fund was a highly successful initiative, it came to an end in December 2018.

a. Do you think there should be continued collaboration between developed countries such as Canada and developing countries such as Cambodia to help solve the issue of food security?

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b. Do you think food security is likely to continue to be an issue in the next 10, 20 or 50 years? If so, for who?

c. Is it possible for Canadians to experience food security issues (e.g., Indigenous Peoples living in northern Canada)?

Think-Pair-Share

Think

9. Using the Internet or the books available in your school library, do some independent research on the project you chose in question number seven. Answer the following questions:

What was the issue/problem that created a need for this project?	
Why is this issue/problem tied to this particular geographic area?	
What is it about the human and environmental history of this area that made it susceptible to this issue/problem?	
What were some of the challenges that the researchers involved in this project likely faced?	
What are the future implications of the success of this project in this region?	

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Pair

10. With a partner, research a different part of the world not mentioned in any of the projects in the above article. Answer the following questions:

Identify an issue/problem that is affecting humans or the environment in this region.	
Why is this issue/problem tied to this particular geographic area?	
Is this region in a developing country or a developed country?	
What is it about the human and environmental history of this area that made it susceptible to this issue/problem?	
If you were granted funds to complete a research project similar to those presented in the article above, what would you choose to research in this particular region? Come up with a brief research plan outlining your research objective and the steps you would take to complete this objective.	
What are some of the challenges that you would likely face with this project?	
If this project was successful, what could be the future implications of its success in this region?	

Share

11. With you partner, share your research plan and objectives from question number 10 with the rest of the class (e.g., using an infographic or an Esri Story Map). Be sure to summarize what this exercise taught you about ongoing food security issues around the world.

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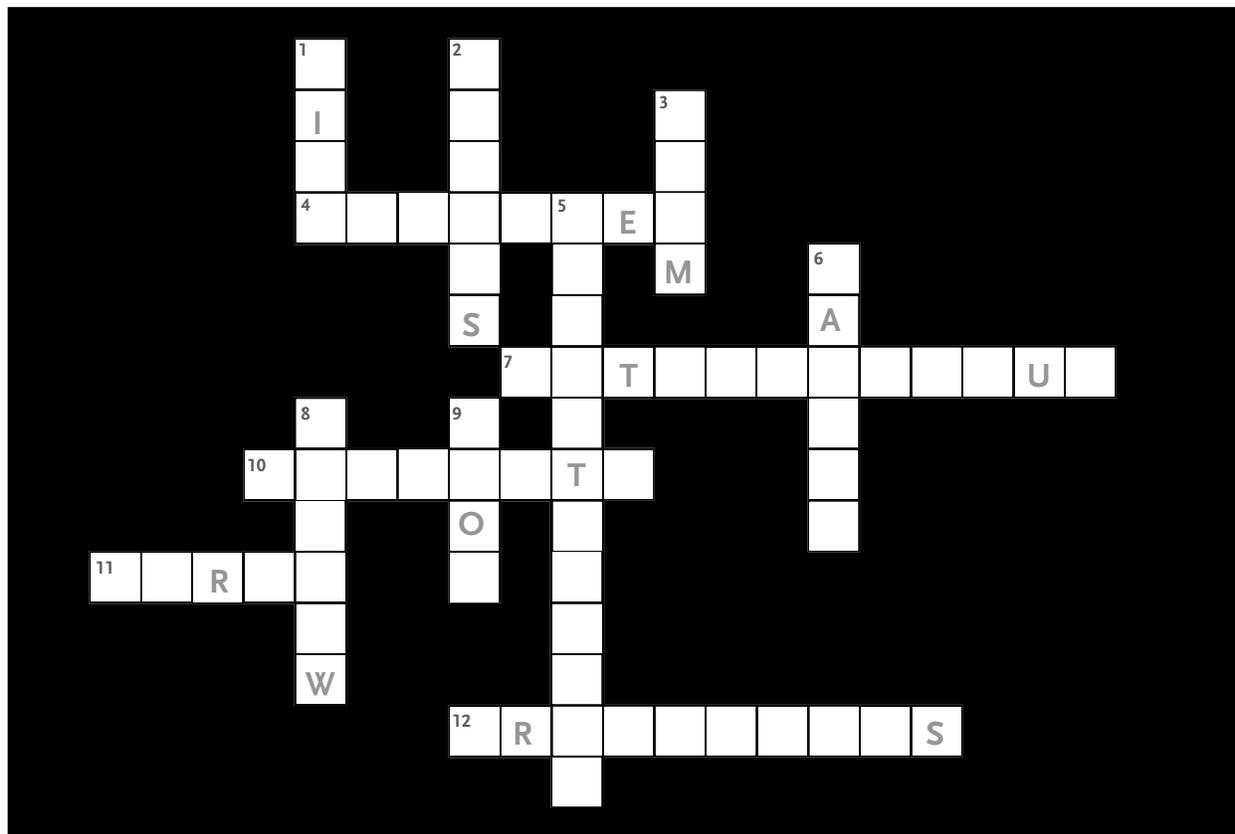
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ONLINE

- The [Canadian International Food Security Research Fund](#)
- The [Food Secure Canada](#) website
- The [Action Against Hunger](#) campaign
- Countries of the [Third World](#)
- Some [specific issues of developing countries](#)
- Problems of [development today](#) (English only)
- Seven actions to [fight extreme poverty](#) by improving education in the developing world

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CROSSWORD:

Across

4. A person who makes purchases for personal use
7. A person who operates a business of their own
10. A word used to describe the state of having reliable access to a sufficient quantity of nutritious food
11. Relating to the countryside rather than the city
12. Live microorganisms added to yogurts commonly eaten in the Western world

Down

1. An element required for human health
2. A time of intense difficulty when important decisions need to be made
3. An area of land and buildings used for growing crops
5. The lack of proper nutrition
6. A system or location that allows people to exchange goods
8. The colour of this staple crop of potatoes in Columbia
9. A mineral that can be found in fortified salt, which the human body uses to make hemoglobin