



Arctic Health Research Network—Yukon

Food Security in Times of Change

A Policy Brief on Food Security for Northern Canada

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Executive Summary

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

This internationally accepted definition of food security, established at the 1996 World Food Summit in Rome, includes the following four components:

- **Availability** of sufficient food of appropriate quality.
- **Stability** of food supply.
- **Accessibility** or affordability of food.
- **Utilization** of safe food through adequate diet, clean water, sanitation and health care.

Food insecurity is rampant in many remote northern communities, the result of high costs for imported food, social and environmental changes affecting traditional foods, high unemployment, inadequate housing, and a variety of other factors. All of northern Canada can expect to see food security increasingly threatened by fuel and transportation costs, and by environmental and economic changes linked to climate change.

Some of the consequences of food insecurity include chronic health problems such as obesity, diabetes, anemia, heart disease, impacts on infant health and mortality, impacts on child development, and stress on parents and caregivers. An added issue in northern Canada is the availability of traditional foods, which are vital to the physical and cultural health of aboriginal northerners.

Action is required at the national, regional, and local levels. The following steps should be considered:

National recommendations

- That Canada revise and update its Action Plan for Food Security, particularly in the light of climate change and economic change.
- That the Government of Canada recognize a national responsibility to achieve food security for all Canadians and undertake a leadership role.

Regional recommendations

- That detailed information on food security and levels of food insecurity/hunger be collected for communities across the three territories.
- That food security resources be assessed at regional and territorial levels to identify strengths, weaknesses, and opportunities.
- That Canada, northerners, and indigenous groups participate in the United Nations Environment Programme's initiative, through Many Strong Voices, to

examine research and issues related to climate change and food security in the Canadian North.

Actions regarding traditional foods:

- Provide financial support for harvesters.
- Train youth in traditional harvesting and food preparation.
- Disseminate information about the value of traditional foods.
- Encourage community-based approaches to acquiring, distributing, and preserving traditional foods, particularly for single mothers and children (e.g., some Nunavut communities share community boats and community freezers).
- Encourage the federal department Indian and Northern Affairs Canada, through its Food Mail Program or another vehicle, and other agencies, to assist in making traditional foods available to people living away from their traditional communities.
- Continue the Food Mail Program across the 3 Territories.

Actions regarding community capacity development:

- Develop community-operated food basket or food bank systems.
- Develop or maintain public education programs about healthy eating and healthy food preparation.
- Facilitate communal food storage arrangements, particularly where climate change is affecting traditional approaches to food storage.
- Facilitate communal food purchase/preparation arrangements, particularly for parents and family caregivers, including growing their own/greenhouses, husbandry and community gardens.

Food Security in Times of Change

A Policy Paper on Food Security for Northern Canada

“Indian people didn’t throw anything away. They took everything. We hunted moose, grizzly, and caribou. Whatever way they went, we followed their tracks in the wintertime....” Johnson Lucas.

Quoted in *Part of the Land, Part of the Water* by Catherine McClellan et al.
Vancouver/Toronto: Douglas & McIntyre, 1987.

Northerners have never taken food security for granted. In a harsh climate and remote location, knowing where your next meal will come from—or that there will be a next meal—has always been a matter of survival. Today, social change, economic change, and climate change are adding complicating factors to the central issue of food security. Northern Canadians are not alone. Lack of food security threatens lives and futures around the world.

What is food security?

The internationally accepted definition of food security was set out in the 1996 Rome Declaration on World Food Security and the World Food Summit Plan of Action:

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

This concept of food security includes the following four components:

- **Availability** of sufficient food of appropriate quality.
- **Stability** of food supply without seasonal fluctuations or shortages due to sudden shocks such as economic or climatic crises.
- **Accessibility** or affordability of food through purchase, harvest, or other social arrangement.
- **Utilization** of safe food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being.

Canada was one of the nations that developed the declaration and plan of action, and one of 187 nations to endorse the goal set out in the final documents: to cut the number of undernourished people in the world in half by 2015.

That pledge has been renewed at subsequent follow-up summits. However, progress toward the goal has been complicated by—among other factors—war, drought, climate change, and civil unrest. In 1996, the Food and Agriculture Organization (FAO) of the United Nations estimated that 800 million people around the world suffered from chronic undernutrition. At the 2008 World Food Summit, again held in Rome, the FAO estimated that 850 million people faced famine or malnutrition, and that rising food and fuel prices would soon push that figure over the one billion mark.

The importance of food security in Northern Canada

Food security is more than a question of hunger. It's the foundation for both individual and community health. In the North, food security can also be a question of both physical and cultural survival.

And food insecurity is expensive, in both human and financial terms. For example, the former head of Canada's Food Security Bureau, Jean-Charles Le Vallée, told the 2004 National Food Security Assembly in Winnipeg that diet-related chronic diseases cost an estimated \$6.6 billion in direct and indirect health care costs and lost productivity each year. He added that food is the flexible item in a family's budget. People will cut back on quantity and quality of food in order to meet consistent commitments such as rent, utility payments, and debt payments to survive.

Food security, therefore, is closely related to income levels, housing and heating costs, transportation costs, and other demands on the family resources. In the North, all such costs tend to be higher than the national average. At the same time, in many northern communities, cash income is substantially lower than the national average. This is particularly true in smaller northern communities, which are often subject to high rates of unemployment.

In *Hunger in the Arctic*, a 2004 discussion paper prepared for the National Aboriginal Health Organization, David A. Boulton wrote: "Low income, changing dietary habits, high cost of food, lack of awareness of healthy eating habits, and a number of other factors have combined to ensure hunger and poor nutrition continue to impact many Inuit families." The same can be said of many First Nations families and some non-aboriginal families across northern Canada.

Some of the consequences of food insecurity include:

- chronic health problems such as obesity, diabetes, anemia, heart disease;
- impacts on infant health and mortality;
- impacts on child development and learning ability; and,
- increased stress on parents and caregivers.

The security of traditional food sources adds an extra dimension to the food security issues facing aboriginal northerners. Harvesting traditional foods is important to both the physical health of Inuit and First Nations people and to their emotional, economic and cultural well being. Traditional foods are a link with traditional culture, an anchor of stability and identity in a rapidly changing world. Traditional foods are also a healthy alternative to many of the processed foods making their way into northern communities.

However, traditional foods and access to them are threatened by such factors as:

- climate change;
- environmental degradation due to industrial development;
- declining stocks
- contaminants, from both local sources and long-range transport;
- harvesting pressure; and,
- declining harvesting skills.

Problems in achieving food security in the North

Northern Canadians face some particular problems in achieving the four components of food security.

- **Availability:**
 - Most *non-traditional food* must be transported long distances from southern Canada, often under adverse conditions. This affects the quality and variety of foods available.
 - Availability of *traditional foods* is highly variable, depending on the location of the community, individual capacity to harvest, environmental conditions, and a variety of other factors.
- **Stability:**
 - Shortages of *non-traditional foods* are common in more remote fly-in communities where supplies are delivered infrequently or by means of delay-prone communications links, such as air transport, barge, or ice road. Even locations with relatively stable communications links, such as the Yukon, are prone to periodic shortages of some commodities, often due to weather or to economic patterns.
 - *Traditional foods* are, by their nature, subject to seasonal fluctuations, including fluctuations related to the migratory patterns of animals such as caribou or salmon. Food preservation and storage are important elements in increasing the stability of traditional food supplies.
- **Accessibility:**
 - Affordability of *non-traditional foods* is a huge problem in many northern communities where unemployment rates are extremely high and cash income extremely low. The problem is exacerbated by the high cost of non-traditional food in the North, due to transportation costs and the limited distribution system.

- Access to *traditional foods* can be limited by both cost and skill. Many low-income northerners simply cannot afford the costs (equipment, fuel, ammunition, supplies) associated with harvesting traditional foods. As people move away from traditional lifestyles, many more northerners do not have the skills and knowledge required to harvest and preserve traditional foods. And many aboriginal northerners live in larger communities, removed geographically from the sources of traditional foods.
- **Utilization:**
 - Clean water, adequate sanitation/housing, and nutritional knowledge remain major impediments to the effective utilization of both *traditional* and *non-traditional foods* in much of northern Canada.
 - The combination of environmental change and the decline in traditional skills and knowledge limit the effective utilization of *traditional foods*.

Canada's policy and performance on food security

As a signatory of the World Food Summit Plan of Action, the Government of Canada developed *Canada's Action Plan for Food Security* in 1998. The plan laid out a set of domestic and international commitments designed to improve food security in Canada and in the world at large.

The fourth and most recent progress report on the Action Plan, published in May 2006, indicates that Canada is falling far short of the goal laid out at the World Food Summit. The 2004 Canadian Community Health Survey on nutrition found that 2.3 million Canadians were food insecure, and 715,616 Canadians, or 2.3 percent of the population, were both food insecure and faced hunger. The three northern territories were not included in this survey, but more limited studies indicate that food insecurity and hunger are much higher than the Canadian average in many northern communities, where food costs can be double that paid in southern cities. A 2001 study in Kugaaruk, Nunavut, found that five out of six Inuit households were "food insecure" and more than half the families responding had experienced hunger in the previous year. (Judith Lawn and Dan Harvey, *Nutrition and Food Security in Kugaaruk, Nunavut*. Ottawa: INAC, 2003.)

In 1999, a Food Security Bureau was established within Agriculture and Agri-Food Canada to coordinate government efforts, both domestic and external, to achieve the World Food Summit goals. However, the Bureau was disbanded a few years later. Agriculture and Agri-Food Canada's International Markets Bureau has taken over some of its responsibilities, including preparation of Canada's biennial progress report to the FAO Committee on Food Security.

A Northern Food Security Directorate exists within Indian and Northern Affairs Canada. Its function appears to be primarily associated with the Food Mail Program, which subsidizes transportation of perishable food to about 140

northern communities that do not have year-round access by surface transportation.

In recent years, a number of provinces, cities, universities, and non-governmental organizations have taken up the cause of food security. However, there is currently no coordinated national approach to the issue and no coordinated regional approach for northern Canada.

What are the problems?

Food security in northern Canada is currently limited or threatened by a variety of factors, including the following:

- Insufficient income, due to unemployment, seasonal employment, inadequate pay;
- Increasing food prices, part of a global phenomenon but exacerbated by northern conditions;
- Increasing transportation costs, largely due to fuel and infrastructure costs;
- Difficulty in accessing traditional food sources, due to environmental change and population relocation;
- Decline of traditional harvesting skills and increasing cost of harvesting (gas, ammunition, vehicles);
- Pressure on traditional food sources in some areas (e.g., near permanent settlements);
- Environmental contaminants from both local sources and long-range transport;
- Changing food preferences;
- Lack of knowledge about nutrition and health;
- Lack of availability of nutritional foods in some communities, especially items like dairy products or fresh fruit and vegetables; and,
- Limited access to a healthy variety of food, due mainly to limitations of the delivery and marketing systems.

In the near and foreseeable future, food security in northern Canada is likely to be affected by the following factors:

- Continuing high or increasing prices for imported food;
- Continuing high or increasing costs for transportation;
- Increasing uncertainty of transportation, related to changes in the industry;
- Impacts of climate change on transportation infrastructure and on environmental conditions affecting transportation (e.g., storm frequency, permafrost, ice conditions);
- Growing pressures on traditional food sources, due to environmental change, industrial development, population increase, and increase in non-traditional users of the resources;
- Declining familiarity with traditional food sources;

- Environmental degradation due to climate change, industrial activity, overuse;
- Food storage problems due to climate warming; and,
- Difficulty of access to traditional foods as environmental conditions change.

What can we do?

National recommendations

- That Canada revise and update its Action Plan for Food Security, particularly in the light of climate change and economic change.
- That the Government of Canada recognize a national responsibility to achieve food security for all Canadians and undertake a leadership role.

Regional recommendations

- That detailed information on food security and levels of food insecurity/hunger be collected for communities across the three territories to fill out the picture painted by the 2004 Canadian Community Health Survey.
- That food security resources be assessed at regional and territorial levels to identify strengths, weaknesses, and opportunities. A possible model is the 2007 Saskatchewan Food Security Initiatives Inventory (http://www.bitsandbytes.ca/resources/health_regions_inventory_07.pdf).
- That Canada, northerners, and indigenous groups participate in the United Nations Environment Programme's initiative, through Many Strong Voices, to examine research and issues related to climate change and food security in the Canadian North.

Actions regarding traditional foods:

- Provide financial support for harvesters.
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- Encourage the federal department Indian and Northern Affairs Canada, through its Food Mail Subsidy Program or another vehicle, and other agencies, to assist in making traditional foods available to people living away from their traditional communities.
- Continue the Food Mail Subsidy Program

Actions regarding community capacity development:

- Develop community-operated food basket or food bank systems.

- Develop or maintain public education programs about healthy eating and healthy food preparation.
- Facilitate communal food storage arrangements, particularly where climate change is affecting traditional approaches to food storage.
- Facilitate communal food purchase/preparation arrangements, particularly for parents and family caregivers, including growing their own/greenhouses, husbandry and community gardens.

Selected resources

International and national policy

The Rome Declaration on Food Security and World Food Summit Plan of Action (1996). Online at <http://www.fao.org/docrep/003/w3613e/w3613e00.HTM>.

Canada's Action Plan for Food Security (1998). Online at http://www.agr.gc.ca/misb/fsec-seca/pdf/action_e.pdf.

Canada's Fourth Progress Report on Food Security. Agriculture and Agri-Food Canada, May 2006. Online at <ftp://ftp.fao.org/docrep/fao/meeting/010/ag308e.pdf>.

Climate change, energy and food. Website reporting results of the most recent World Food Summit, held in June 2008 in Rome. Includes links to updates, fact sheets, and the full report of the conference. Online at <http://www.fao.org/foodclimate/hlc-home/en/>.

Reports and discussion papers

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Food for Thought: A Workbook on Food Security & Influencing Policy. Developed by the Food Security Projects of the Nova Scotia Nutrition Council and the Atlantic Health Promotion Research Centre, Dalhousie University, June 2005. Online at <http://www.foodthoughtful.ca/English.pdf>.

Friendly, Abigail. *Towards Food Security Policy for Canada's Social Housing Sector*. CPRN Research Report. Canadian Policy Research Network, September 2008. Online at http://www.shscorp.ca/content/research/resources/DOCSCPRN_Abigail_Friendly.pdf.

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Local Food Initiatives in Canada – An Overview and Policy Recommendations. Canadian Co-operative Association. June 18, 2008. Online at http://www.ccednet-rcdec.ca/files/ccednet/ves_in_Canada_Brief_Final_-_June_18_2008_3.pdf.
http://www.bitsandbytes.ca/resources/Local_Food_Initiatives_in_Canada.pdf

Making the Connection: Food Security and Public Health. Submitted to The Ministry of Health Services and The Health Authorities of British Columbia by The Community Nutritionists Council of BC, June 2004. Online at http://www.bitsandbytes.ca/resources/Making_the_Connection.pdf.

Nellemann, C., MacDevette, M., Manders, T., Eickhout, B., Svihus, B., Prins, A. G., Kaltenborn, B. P. (Eds). February 2009. *The Environmental Food Crisis: The Environment's Role in Averting Future Food Crises*. A UNEP Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal. Online at <http://www.grida.no/publications/rr/food-crisis/>

Saskatchewan Food Security Inventory, produced by Saskatchewan Health Regions in 2007. Online at http://www.bitsandbytes.ca/resources/health_regions_inventory_07.pdf.

Tarasuk, Valerie. *Discussion Paper on Household and Individual Food Insecurity*. Prepared for Health Canada, March 2001. Online at http://www.hc-sc.gc.ca/fn-an/nutrition/pol/food_sec_entire-sec_aliments_entier-eng.php

Some Canadian organizations working on food security

Food Secure Canada, a national organization working toward food security in Canada and internationally: <http://www.foodsecurecanada.org/>

International Food Economy Research Group (InFERG), University of Guelph: <http://www.inferg.ca/index.shtml>

McGill Centre for Indigenous Peoples' Nutrition and Environment (CINE): <http://www.mcgill.ca/cine/>

Ryerson Centre for Studies in Food Security, Ryerson University, Toronto, Ontario: <http://www.ryerson.ca/foodsecurity/>

Online resources

Bits & Bytes: an online collection of freely-accessible, community food security resources. The Building Community Food Security with Bits & Bytes Project was launched 1 March 2008 and ran 31 March 2009 with funding from the Social Development Partnerships Program of Human Resources and Skills Development Canada. The resulting website and database is now maintained by Food Secure Canada. Online at <http://www.bitsandbytes.ca/>.