

Is Healthy Food on the Table in Northern Manitoba?

Evaluating Northern Healthy Foods Initiative for Sustainability and Food Access



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EXECUTIVE SUMMARY

The Northern Healthy Foods Initiative (NHFI) is a community-based intervention funded by the provincial government of Manitoba designed to increase access to affordable nutritious food in Northern Manitoba communities. At present, northern Manitoba communities suffer from a food security crisis. At 75% food insecurity, households in the 14 communities studied have eight times the food insecurity rate as the Canada food insecurity rate. This situation is largely due to limited selection of healthy foods in stores, expensive food prices, escalating transport costs, uncertainty of travel with winter roads not freezing over, high poverty rates, structural unemployment, environmental change reducing the capacity to live off the land and a decline in the use of country foods due to regulations limiting use and cultural change. Approximately one third of households report experiencing severe food insecurity manifested as reduced food intake and disrupted food patterns, while a further 42% report moderate food insecurity as measured by compromised food quality and quantity. The food insecurity rates are even higher in fly-in communities. Clearly, NHFI is needed.

NHFI received its mandate from the well-respected Northern Food Prices Report (2003), which came out of an extensive community consultation process. The NHFI terms of reference are focused on self-sufficiency and capacity building in remote and other Northern Manitoba communities:

The NHFI assists Northern communities to develop their capacity to increase the local production of food for local consumption, increase the availability of nutritional foods, implement strategies to lower the cost for healthy foods, increase awareness of healthy eating, leverage funding for projects and create food based economic development opportunities where feasible. The Provincial Cabinet has targeted the following four strategic priorities for early implementation, using the dedicated NHFI financial resources provided through Manitoba Aboriginal and Northern Affairs: community gardens/local foods; greenhouse pilot projects; food focused businesses; and nutritional awareness” (ANA, 2005).

The NHFI has achieved some notable successes, including the gardening, greenhouse, poultry and freezer loan projects, as well as the Veggie Adventures school programming. This evaluation found NHFI offers great potential for realizing food security in northern communities through the agency of community people, particularly Elders, school teachers and health workers, with support from the NHFI team and non-government organizations. Elders in Northern Manitoba talk about how all food was once taken locally from the land, with one Elder stating: “we were poor but ate good and were healthy. We ate better than we eat today.”

NHFI is well positioned, if strengthened and diversified, to assist communities to build food self-sufficiency to alleviate the food crisis in Northern Manitoba for a number of reasons. This initiative has succeeded in starting a northern healthy food process in the north without extensive funding or administrative supports. With no greenhouses or gardening tools in most remote communities prior to NHFI, the community development initiated by NHFI has resulted in noticeable changes and enthusiasm at the community level. However, without

permanent infrastructure change and with the limited community capacity building NHFI's impact could be transitory without further funding and greater capacity building at the community level. Success is largely due to the multidisciplinary NHFI team with diverse expertise from five departments to leverage funds, community-support for this "program people were waiting for" and support of non-government organizations (NGOs) who are contracted with to provide services to communities. However, communities receive very different levels of service based on what NGO they are assigned to. The most successful projects were found to be where the NGOs worked with community people in schools or community health centres to build community capacity.

With no greenhouses or gardening tools in most remote communities prior to NHFI, the NHFI gardening inputs have resulted in noticeable changes and enthusiasm at the community level. However, with no permanent structural change in the northern food system and capacity building occurring on a very limited basis, NHFI's impact could be transitory. Although there have been initial successes these are small relative to the challenge of a northern food system that needs a major overhaul to reduce the high rate of food insecurity. Enhanced levels of funding, programming, networks and supports are needed to bring about sustainable change and improve food security on a population level. To help meet this challenge, NHFI needs to scale up, diversify its projects portfolio and work to improve some areas. Areas where NHFI have not made much progress include provincial/federal collaboration, prioritizing remote communities, documentation, on-going evaluation, food enterprises, and promotion or support of traditional country food. At the government level, this initiative needs clarification and documentation of: responsibilities of NHFI-team members, decision-making processes, strategic plan, on-going evaluation procedures and a communication strategy. NHFI funding should be used to leverage other funding, projects and programs on nutrition, country foods including hunting, fishing and gardening from the Federal government, Regional Health Authorities of the province and First Nations, provincial departments, Green Team and the private sector. The mandate to develop food self-sufficiency requires that supports, habitat restoration and infrastructure for hunting, fishing and traditional gathering of medicines and berries be funded, considering commercial enterprises and the great potential for country foods programming, such as the country food program at Nelson House First Nation.

At the community level, local capacity building, employment opportunities and farming, fishing and hunting equipment and infrastructure are needed. A train the trainer program was developed by the Bayline Regional Roundtable (BRRT), which provided each of their seven communities with a paid agriculture technician advisor that provides an excellent model that works. Without this train-the-trainer program in other communities very limited capacity building and community activities are occurring, as hands-on work and organizing by most NGOs and the NHFI team in communities is restricted to a one or two day visit each year due to difficult logistics, limited funding and lack of experience with outreach and agriculture in the north. Annually two people from each NHFI community, particularly remote communities, should receive intensive, hands-on training on how to maintain and operate a rototiller, plant, weed and harvest northern plants in a garden, outreach effectively to community members, how to use and build cold-frames and greenhouses and how to train others.

RECOMMENDATIONS

- 1) Increased, steady and multi-year funding from the provincial government for NHFI is recommended. The true cost of building a sustainable NHFI program requires that the large problem of food security be dealt with and the NHFI administrative requirements;
- 2) Communities not served by all weather roads have the highest food insecurity and greatest need for community infrastructure (e.g., walk-in freezers, greenhouses), personal freezers and other food programming and thus require equitable or enhanced NHFI funding, which has not occurred. To enact this, freezers should be designated an essential appliance in remote communities in Northern Manitoba by the province, which would require the federal government adopt and fund the same policy for First Nation communities in Northern Manitoba;
- 3) A mandate to develop food self-sufficiency requires that supports for hunting, fishing and traditional gathering of medicines and berries be considered after consultation and research with northern people;
- 4) Local food focused business development is needed that includes promoting, training, local marketing, supports for country foods, providing country and other food to people in need (e.g., Nelson House Country Foods Program model), and overcoming barriers (grading requirements which can only be done in south and federal meat processing facilities that are only available in the south) that prevent the sale and/or gift of wild meat or fish to schools, health centres and the public;
- 5) Administrating NHFI requires clarification and documentation of: responsibilities of NHFI-team members, decision-making processes, strategic plan, on-going evaluation procedures and communication strategy (e.g., website, community posters, brochures, video, northern community radio and television stations) and impact of NHFI through monitoring food security levels and local commercial food prices against income levels;
- 6) Leveraging of programming and/or funds on nutrition, gardening and country foods from the Federal government, provincial departments (e.g., Conservation and Healthy Living), Regional Health Authorities of the province and First Nations, Green Team, schools and/or school boards and the private sector should be pursued. For example, promises of gardening supports, like a plough, permanent greenhouse or community freezer may leverage workshops and programming on canning, gardening, country foods programs and nutrition programs, as well as facilitate youth employment and involvement with applications for Green Team and Sustainable Development Innovations Fund (SDIF) to facilitate special projects by providing plough, permanent greenhouse or community freezer in exchange;
- 7) To reduce high freight costs for healthy food NHFI should assist communities and groups to better access Food Mail. One way to do this is by supporting direct bulk buying by social assistance workers and by lunch programs in schools for healthy food in remote communities (e.g., providing capabilities for on-line purchasing of foods or supporting healthy food boxes);

- 8) Assignment of communities to NGOs should consider the logistical aspects of shipping equipment and supplies, as well as conducting programming activities and visits and representation. The health authorities of Keewatin Tribal Council and the Southeast Resource and Development Council should be approached to be NGOs to allow better representation and services to their communities, which are currently underserved;
- 9) All NHFI communities should receive the same opportunities for the different NHFI programs. For example, chicken and other livestock production should be available to all who are interested, rather than just through BRRT communities. To be strategic NGOs and the NHFI team should engage with health centres, schools or other networks to solicit local leadership and distribution networks for education, nutrition and gardening programs where they provide hands on training and assistance (e.g., participate in community garden work parties);
- 10) To build capacity in food security the Northern Harvest Forum in the fall should be augmented or replaced with an annual spring intensive train the training and planning program, similar to the BRRT agricultural technician advisor approach, for community members to prepare for the growing season and allow the timely distribution of plants and materials;
- 11) Youth and teacher training should be provided on cooking, gardening, fishing, hunting and traditional food preservation through funded and supported education programs (e.g., Frontier School Division's Veggie Adventures), garden clubs, summer traditional camps, in-school activities, youth employment opportunities (Green Team) and achievement awards;
- 12) Lack of stores in some communities and the high prices of limited healthy foods in the stores of other communities should be addressed by supporting regular monthly or weekly country foods/farmers markets and mobile food units (e.g., refrigerated rail car along Bayline and refrigerated trucks and airport freezer units) providing healthy food boxes and /or local food; and,
- 13) Supports, habitat preservation/restoration, education opportunities (traditional weeks where communities live off land and teaching programs by Elders) and infrastructure for hunting, fishing and traditional gathering of medicines and berries should be funded, considering the great potential for commercial enterprises if barriers are overcome (e.g., small quotas available to First Nation fisherman, monopoly of Freshwater Fish Marketing Corporation that does not consider northern freight, requirements for grading and processing in federal facility in southern Manitoba before sale to anyone or donating for public use) and the positive food security impact of the country foods program at Nelson House First Nation.

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1 EVALUATING THE NORTHERN HEALTHY FOODS INITIATIVE

The Northern Healthy Foods Initiative (NHFI) is a community-based intervention funded by the provincial government of Manitoba designed to increase access to affordable nutritious food in Northern Manitoba communities. Problems associated with food access in remote communities were identified in the Northern Food Prices Report and include expensive food prices, the lack of fruit and vegetables, escalating transportation costs, high poverty rates, and a decline in the use of country foods (Northern Food Prices Steering Committee 2003). Our Canadian Institutes for Health Research (CIHR) proposal writes: “as a direct outcome of recommendations from this report, NHFI was developed and launched as a pilot project in 2005 in 17 remote and semi-remote Northern communities, with six components focused on increasing healthy food access, namely: 1) community gardens; 2) greenhouse pilot projects; 3) increasing access to nutritious commercial food (direct buy, retail, federal food mail subsidy, co-ops, etc); 4) school nutrition; 5) increasing access to country foods (hunting, fishing, berries, poultry and other production, etc); and, 6) food preservation (freezer loans, cold cellars, canning, etc.)” (Thompson 2008). Community engagement through five non-government organizations [NGOs] has resulted in different projects across more than a dozen communities, however, without a formal evaluation in place, the impact of the NHFI on food security and sustainable food systems was unknown. This study evaluated the NHFI operational strategy, service delivery model and outcomes, to determine its effectiveness in increasing access to affordable nutritious food in the participating communities. Is NHFI building more self-sufficient, food secure communities and improving healthy living and chronic disease prevention outcomes?

The team of researchers, from the University of Manitoba, led by Dr. Shirley Thompson, conducted an independent evaluation of the NHFI funded solely by Canadian Institute for Health Research. A variety of quantitative and qualitative evaluation measures were undertaken at three levels of project organization: 1) Government infrastructure and service delivery model; 2) Community implementation and involvement; and 3) Community, household and individual outcomes. All NGOs and the NHFI team were involved in determining evaluation methods including indicators/measures to assess the NHFI outcomes and objectives. Level 1 included interviews with government policy and program managers, as well as NHFI extension workers. A document review, interviews and strategic analysis workshop to track the progress of original aims and expectations of NHFI through policy and operational decisions. Level 2 included interviews, strategic analysis and tried to enlist NGOs to collect indicators for all projects and to survey participants in projects. Level 3 involved a household food security survey in fourteen communities, store surveys of the national healthy food basket, interviews and observation of food activities. Focus groups organized at the regional workshop at the Northern Harvest Forum in 2008 facilitated community members to share information on a number of diverse topics (Wood, 2003). The evaluation took place in 2008/2009. This timing was critical to inform policy decisions on the future continuation, refinement and expansion of the program, as the initial three years pilot period

of the NHFI ended in 2009. The NHFI management team indicated that this evaluation will play a key part in assisting future policy and program decisions.

The results and detailed methods of the food security household survey and food costing are available in a separate report and will only briefly be referred to in this report to show the context that the NHFI is working in.

1.1 SUMMARY OF THE RELEVANT LITERATURE

Many families in Northern Manitoba lack access to nutritious foods, particularly fruits and vegetables. Problems associated with food access in remote communities include limited selection of perishable foods, expensive food prices, escalating transport costs, uncertainty of travel with winter roads not freezing over, high poverty rates, and a decline in the use of country foods (Northern Food Prices Steering Committee 2003).

From both health policy and population health perspectives current nutrition concerns centre around two main issues, which are actually inter-related. The first is food insecurity – a consequence of inadequate or uncertain access to healthy food in terms of quantity or quality. “Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (World Food Summit 1996: 1). The second is obesity and its implications for chronic disease, which is ascribed to a combination of excess food energy intake and reduced energy expenditure through physical inactivity. While obesity points to issues around “over-supply” of cheap energy-dense food, the provision of sufficient accessible, affordable healthy food is a central concern for food security. Promotion of healthy living and chronic disease prevention are predicated on the ability of individuals and communities to make healthy choices. Having access to nutritious affordable food is one of the conditions required to make healthy food choices possible but is unavailable to low income people due to lack of fresh fruit and vegetables and high food costs (Field 2006; Fieldhouse 2005; Thompson 2008).

Food insecurity is linked with broader food-related health problems, such as obesity and multiple chronic conditions, including heart disease, diabetes, high blood pressure and is reflected in differing dietary patterns such as low intakes of fruits and vegetables (Chen and Chen 2001; Scheier 2005; Tarasuk 2002). This food insecurity may be a large cause of diabetes. Manitoba has the highest rate of pediatric diabetes in North America:

Canadian Aboriginal children <18 years of age have the highest incidence of type 2 diabetes and the majority of these children are from Manitoba explaining the 20-fold higher incidence rate of type 2 diabetes in this province.... Interestingly, type 2 diabetes in American Indian children <10 years of age is rare, however, in Canadian Aboriginal children, 11 cases (11%) of type 2 diabetes occurred in children <10 years of age (Amed et al 2010).

Although household food insecurity rates for the general population in Manitoba average 9.4%, they reach much higher levels in households in sub-population groups such as the lowest income adequacy quintile (55%), social assistance recipients (62%) and Aboriginals off-reserve (33%)

(Health Canada 2007; Shields 2005). The Canadian Community Health Survey 2.2; Nutrition Focus Study (CCHS 2.2) excluded First Nation reserves in its Canadian-wide study but it is reasonable to expect that food insecurity rates would be even higher in northern First Nation reserve communities than off-reserve, as these provide non-supportive food environments which provide a health disadvantage to Aboriginal communities (Northern Food Prices Steering Committee 2003). This health disadvantage is visible with Manitoba's First Nations population having double the premature mortality rate compared to all other Manitobans: life expectancy for First Nations people is about eight years less than all other Manitobans (males 68 versus 76 years; females 73 versus 81 years) (Martens et al 2002). Archibald and Grey (2000) point to the underlying shortages of affordable, nutritious food, as well as infrastructure, and employment as the cause of the health 'crisis' among Aboriginal people: "Provide people with proper housing, water, sewage, jobs and the means to provide adequate food and health statistics would improve" (Quoted in Kinnon 2002: 12). WHO describes the impact of social determinants of health: "The social conditions in which people live powerfully influence their chances to be healthy. Indeed, factors such as poverty, food insecurity, social exclusion and discrimination, poor housing, unhealthy early childhood conditions and low occupational status are important determinants of most of disease, death and health inequalities between and within countries" (WHO 2004: 1).

A provincial analysis indicates that obesity and overweight status in Manitoban children is related to food insecurity (Yu, Anderson, Fieldhouse and Protjuder 2007). In Manitoba, as in the rest of Canada, the prevalence of obesity and overweight has risen dramatically over the last few decades, mirroring a worldwide phenomenon. Findings from the CCHS 2.2 indicated that 8% of Canadian children aged 2 to 17 and 23% of adults were obese, compared to respectively 3% and 15% a quarter century earlier (Shields 2005; Tjepkema 2006). In Manitoba, the overweight/obese rates for children (2-17 yrs) of 31% and the obesity rate for men of 30.4% were significantly higher than the national average of 26% and 22.9% respectively and rates are even higher in children (2-17 yrs) living in the north, amongst off-reserve aboriginal children and amongst boys living in food-insecure households (Yu, Anderson, Fieldhouse and Protudjer 2007). Obesity is a major risk factor for chronic diseases such as Type 2 diabetes, cardiovascular disease and some cancers.

What people eat is the result of complex interactions between multiple factors operating at various levels of social organization. While much of traditional nutritional health promotion has been aimed at the daily decisions made by individual eaters, decisions are made in socio-cultural and geo-economic contexts that have a profound influence on what food is actually available for people to choose from (Fieldhouse 1995; 2005). Evidence in North America indicates that characteristics of the food environment may help explain racial and socio-economic inequalities in health and nutritional outcomes (Morland, Wing and Diez-Roux 2002; Zenck, et al 2005). Living in a low-income or deprived area is independently associated with the prevalence of obesity and the consumption of a poor diet. This research finding is consistent across urban settings in the UK (Ellaway, Anderson and Macintyre 1997; Shohaimi et al. 2004), the Netherlands (van Lenthe and Mackenbach 2002), Sweden (Sundquist, Malmstrom and Johansson 1999), Australia (Dollman and Pilgrim 2005), the US (Kahn et al 1998) and Canada (Moffat, Galloway and Latham 2005). Exposure to poor quality food environments amplifies individual risk factors for obesity such as low income, absence of transportation, and poor cooking skills or knowledge (Cummins and

Macintyre 2005). The presence of supermarkets in a neighbourhood has been associated with a lower prevalence of obesity (Morland, Diez-Roux and Wing 2002). The study of ‘food deserts’ (Kayani 2003), which studies the relationship of built environment, food access and health outcomes, has not, however, considered isolated Aboriginal communities.

Northern Aboriginal communities are widely recognized as having a mixed, subsistence-based economy in which the harvesting of country food for primarily domestic consumption plays a significant role in their food security and culture (Usher, Duhaime and Searles 2003). The term “country food”, or “traditional food”, refers to the mammals, fish, plants, berries and waterfowl/seabirds harvested from local stocks. Traditional economies, governments, social and spiritual practices of Aboriginal people were systematically disrupted by settler societies, particularly after the Indian Act with reserves, residential schools and regulations, which undermines sustainability (Churchill 1999). The decline of hunting as a way to obtain food has also increased reliance on store-bought food and thus supports adoption of characteristic southern dietary habits (Thompson 2005). These constraints have resulted in dietary practices associated with obesity, dental caries, anemia, lowered resistance to infection and diabetes (Szathmary et al. 1987; Thouez et al. 1989). With hunting declining, many people rely on the 28 Northern Stores, and other convenience stores, across Northern Manitoba to purchase food. These stores are typically not local co-operatives or locally owned. Northern stores are the latest reincarnation of the Hudson Bay Corporation and North West Company. A typical store is 7,500 square feet in size and offers food, family apparel, housewares, appliances, outdoor products and special services like cheque cashing, catalogue ordering, money transfers and fast food outlets (Thompson 2007) but the cost and quality of food is often inadequate to support healthy dietary choices.

Community-based food programming is one policy response to tackling food insecurity; to complement food and health policy and social policy (Power & Tarasuk 2006; Power 1999). These community economic development (CED) efforts to increase access to nutritious and local food include the NHFI’s community gardens, greenhouses and poultry production. Through sustainable agriculture, food justice, and community empowerment (Gottlieb and Fisher 1996; Winne, Hamm and Bellows 2003) local institutions, economies and networks are built to resolve issues of poverty, hunger, and inequality (Shragge 1997; Winne, Joseph and Fisher 1998; Agriculture and Agrifood Canada 2007). Manitoba “CED lens” (Loxley and Simpson 2007) incorporates CED principles into the government’s policy-making practice. However, CED has been criticized as gap filling, providing limited government funding, for areas of social policy and welfare that governments have vacated (Sheldrick 2007). This research asks whether CED can be effective and under what circumstances, considering that distinct characteristics of Aboriginal economic development include improving the socioeconomic circumstances of Aboriginal people; and, preserving and strengthening traditional culture, values and languages (Anderson 1999). In summary, evaluation is needed of the potential for community-based food programs, implemented within a strategic framework, to change the conditions of food access that underlie the ultimate success of healthy living and chronic disease prevention efforts.

2 METHODS

The evaluation was conducted in 2008/2009 by a research team from the Natural Resources Institute, University of Manitoba funded independently by the Canadian Institutes of Health Research. The communities studied are listed in Table 2.1 were identified by the different NGOs to study both those communities with the best response but also the least response that they were engaged with.

Table 2-1: Communities that were toured and surveyed to observe NHFI projects

Non-government Organization (NGOs)	Greatest response to project[^]	Least response to project[^]
Four Arrows Regional Health Authority	1) St Theresa Point 2) Garden Hill	1) Red Sucker 2) Wasagamak
Bayline Regional Roundtable	1) Wabowden; 2) Thicket-Portage	1) Ilford /War Lake FN 2) Cormorant 3) Nelson House
Northern Association of Community Councils	1) Leaf Rapids; 2) Brochet*	1) Berens River 2) Granville Lake*
Frontier School Division	1) Leaf Rapids; 2) Lynn Lake	1) Brochet 2) South Indian

[^] As perceived by the NGOs

*NACC originally requested Sherridon as the greatest response and Moose Lake as the least response but the research shifted these to Granville Lake and Brochet after further dialogue and participatory research and Nelson House was added for BRRT as initial investigation of Cormorant and Wabowden found that people saw these communities as relatively accessible and southern to other more northern or remote communities.

Data were collected in the communities listed in Table 2-1 using multiple techniques, which are summarized below and described in more detail in the corresponding number following this summary:

- 1) Collected indicators and measures of NHFI programming for 14 communities.
- 2) Focus group with 28 people that included government, NGOs and community members from 15 communities.
- 3) Interviews, document analysis and strategic analysis were carried out with NHFI team and NGOs. In-depth interviews with more than 50 community members from 15 communities.
- 4) Participant interviews for different activities in the six different projects were carried out in the fourteen communities.
- 5) Community Food Assessment [CFA] was initiated with seven communities with meetings at South Indian Lake, Berens River, Wabowden and meetings in Thompson and Winnipeg with several representatives from each four Island Lake communities and FARHA.

- 6) National Nutritious Food Basket (NNFB) survey was undertaken in the stores in 14 NHFI communities in 2008/2009, as well as other northern and southern Manitoba communities.
- 7) Household food security survey was carried out with 534 people in 14 communities. **This 18-item food security module of the CCHS 2.2 uses a simple and scientifically grounded measurement tool that was modified from the US Food Security Survey Module (Bickell, Nord, Price et al. 2000) by Health Canada (2007: 45-49).**
- 8) Participatory video recorded peoples' stories in communities and produced an educational video.

Detailed descriptions of the eight methods are listed in the same order as above.

i) Some appropriate indicators and measures were collected that had been identified in four workshops held with the NHFI team and NGOs in April 2008 in 14 NHFI communities listed in Table 2-1. The researchers triangulated community assessment data with researcher observation. Triangulation is an approach to data analysis that synthesizes data from multiple sources to strengthen interpretations and improve policy and programs based on the available evidence (Cresswell 2003). Indicators are statistics or parameters that, tracked over time, provide information on the current situation; trends in the condition; and causative agents. Indicators have significance extending beyond the specific statistics, to simplify a complex reality. Indicators are however limited by the underlying data availability, quality and validity. FARHA provided records and BRRT provided evaluation reports but another NGO had no records and were unable to track the indicators they viewed as important.

ii) Focus groups occurred at the regional food security workshop for a full day prior to the Northern Harvest Forum, in Thompson in October 2008 with 22 participants representing most communities from every NGO. As well, the forum provided a brief opportunity to dialogue and conduct a prioritization exercise with 60+ people from both NHFI communities and non-NHFI communities. The workshop questions were modified from Cohen et al., 2002. Qualitative research methods applied standard qualitative research procedures (Bryman & Burgess 1993) including systematic content analyses of transcripts. Three researchers independently analyzed the materials for themes and facts that emerged from the participants,

iii) Interviews, document analysis and strategic analysis were carried out with NHFI team and NGOs. At the government level, a document review and interviews with government policy-makers; government program managers; and NHFI extension workers was done to track the progress of original aims and expectations of NHFI through policy and operational decisions: A focus group was also carried out with NHFI team members. The interviews and focus group transcripts were sent back to the participants for checking.

We conducted interviews, document reviews and site tours with each of the four NGOs for each of the four communities they wanted reviewed (see table 1). Food Matters Manitoba (FMM) was not included in these interviews as they have only recently become a NGO with community responsibilities. All the NGOs were invited and most accompanied and assisted the tours of at least some of their communities, with the exception of NACC. Interview questions included: What are the NHFI programs in place in the different communities? What problems or assets are these NHFI

programs trying to address? Why were these projects and locations chosen? What changes are you seeing in your communities as a result of these programs? What worked? Why? What didn't work? Why? What are the critical aspects of success of the NHFI in your communities? How is food security going to be sustained? What is the participation level? What are the barriers? Are sufficient resources available? What are the next steps? What kind of training and support do your communities receive? Qualitative research does not rely on large scale data collection as on richness of individual accounts to build up an emerging picture by identifying common themes. Typically qualitative data collection continues until saturation, or data adequacy, is achieved; i.e., information is repeated and no new ideas/themes emerge (Marshall 1996).

iv) Participant interviews regarding food activities were carried out in the fourteen communities. The interviews asked questions about: 1) School food and gardening programs; 2) Greenhouses; 3) Community gardeners; 4) Freezer loan program/cold cellar; 5) Community Education Programs; 6) Chicken production program; and, 7) Country foods.

v) Community Food Assessments [CFA] were initiated in seven communities with initial meetings at South Indian Lake, Berens River, Wabowden, and with meetings in Thompson and Winnipeg with several representatives from each of the four Island Lake communities and FARHA. A CFA is a collaborative and participatory process that may require one or more meetings to systematically examine a broad range of community food issues and assets, so as to inform and build capacity for collaborative change actions to make the community more food secure (Cohen, 2002). This CFA initiated a process to examine resources as well as needs, and involve diverse and key participants (e.g., principal, health worker, councilors, chief or mayor).

vi) National Nutritious Food Basket (NNFB) (Health Canada 2009) survey was carried out in all the food and convenience stores in 14 communities in 2008/2009. The NNFB describes the quantity (and purchase units) of approximately 60 foods that represent a nutritious diet for individuals in various age and gender groups. The National Nutritious Food Basket was revised in 2008 and is based on the latest dietary guide, as well as food consumption. The lowest price for these items was determined for each category of food store in each community. These food baskets were compared to surveys in stores in southern communities taken in 2008/09.

vii) Household food security survey was carried out with 534 people in 14 communities using a simple and scientifically grounded measurement tool that was modified from the US Food Security Survey Module (Bickell, Nord, Price et al. 2000) by Health Canada (2007: 45-49), known as CCHS 2.2. **This validated instrument provides an estimate both of the prevalence of food insecurity and its severity (Health Canada 2007).** Our final survey numbers exceeded our proposal goal of 240 randomly chosen households from at least eight NHFI communities (30 households in each community), which greatly improves the accuracy and representativeness of the survey. This survey was analyzed following procedures recommended by Health Canada (2007). This validated instrument provides an estimate both of the prevalence of food insecurity and its severity (Health Canada, 2007). **The quantitative data sample is sufficient to allow analysis based on geographical area.** These survey findings were compared to the Canadian national rates (Health Canada 2007).

viii) Participatory video (PV) constitutes a set of techniques intended to involve a group or community in shaping and creating their own film. Thompson (2008, 2009) and students engaged in this process with northern community members and school classes and have posted short videos on her website at <http://home.cc.umanitoba.ca/~thomps4/> and provided 20+ disks to community members. The process is easy, accessible, empowering and provides a mechanism for involved persons to explore issues, demonstrate creativity, communicate needs, problem solve, and express concern to decision makers. PV provides an exceptional tool for engaging and mobilizing marginalized populations in developing solutions to meet local needs, utilizing local resources. PV is credited with enhancing individual and community confidence, self-esteem, creativity, and capacity to communicate with others: “Participatory video is predominantly used for those who are disadvantaged by physical, attitudinal, social, economical and educational factors, breaking the culture of silence and establishing rights in the community” (SPEED 2008: 2). Multimedia technology can overcome the obstacle of geographic distance, extending education across the country (Wilcox and Cameron, 2009). For example, the video trailer was found by Intercontinental Cry and has been viewed by 2000+ people. Thompson (2008, 2009) and students engaged in this process with northern community members and school classes with all videos on my websites, including an eight minute trailer as well as posting a 22 minute video at <http://www.vimeo.com/8114019>

We have been able to show the video at conferences at St. Theresa Point, the Growing Local conference and University of Manitoba to more than 300 people.

3 HOW PEOPLE DESCRIBE THE CONTEXT OF NHFI

In northern Manitoba, Elders talk about how all food was taken locally from the land. “We were poor but ate good and were healthy” according to an Elder in northern Manitoba. So, what happened? A comment from the NHFI-team focus group noted that the ability of northern people to live off the land was compromised by development and natural food sources and that these needed protection and support:

Historically people lived off the land but with development, the ability of land to support a livelihood has been altered. For example, commercial fishing is less economically viable than it used to be. People are looking at ways to protect their natural food sources.

Many people in South Indian Lake (SIL) First Nation (FN) and other communities discussed the changing environment due to flooding with much higher water levels. The water now flows faster and the opposite way due to damming:

The flooding of the lake really affected us. It affects our food chain and everything that we get off the land. It really damaged a lot of our hunting areas and our fishing areas and even our berry picking areas. It’s a terrible thing to live with on a day-to-day basis.

Many fishermen from SIL told how ten or more nets were now needed to get the same amount of fish as with one net, prior to the Manitoba Hydro damming. The quality of the fish was downgraded which reduced their value – the fish were no longer considered the highest grade, which get the best price. Extra costs were incurred from boats being damaged due to faster water and more logs.

Fisherman from SIL, Brochet, Barrenland, the four Island Lake communities and Berens River FN complained about the difficulty to make a living as a commercial fisherman now compared to the past. Many complained about the monopoly of the Freshwater Fish Marketing Corporation, as only the prices for pickerel were high enough to make it profitable to send to the south with the high freight costs. According to regulations all fish had to be sent to the south to be graded before sale, even if they were returning to the north for sale in restaurants, stores and health centres. To make an income Island Lakes fisherman reported that they had to dump all fish other than pickerel, as otherwise they would lose money, with the high freight costs and low prices.

Fishermen discussed the lack of infrastructure and lack of habitat programs to support the fisheries. A fisherman from Berens River commented about the lack of habitat programming in the north: “We don’t have northern pike anymore in Lake Winnipeg. We don’t have the jumbo white fish anymore. There are no habitat programs. Nothing at all in the north.” He went on to comment that most infrastructure dollars and habitat programming is south of Thompson with little infrastructure north of Thompson except for the Northern Affairs communities that were mining or fishing centres.

Community people complained about the high cost of getting country foods, when trap lines are so far away from their residence that they require air transportation. For example, some trap lines of

First Nations members in the Island Lakes communities are in Ontario, thousands of miles away from their home reserve and home. One NGO member stated: “High unemployment and corresponding rates of poverty not only make it more difficult to purchase nutritious foods, it also makes it much more difficult to get out on the land to harvest wild foods.” The rate of employment in northern Manitoba is low, at 24% in Garden Hill for example (Statistics Canada 2006), making structural unemployment and poverty a chronic problem. As the rates of unemployment in northern Manitoba is a chronic problem, this living wage recommendation should include social assistance rates and EIA.

An interview with a NHFI team member noted that First Nation peoples in Northern Manitoba were very independent eating traditional foods off the land but rapid diet change to store-bought food requires an intervention, such as NHFI, to create positive healthy outcomes:

There is an opportunity to create better lifestyles and health outcomes. People evolved over millennia. Aboriginal people are suffering [from] chronic diabetes and other ailments. It’s an opportunity to prevent and address concerns now. Island Lakes were an untouched community until 40 or 50 years ago. They were very independent and ate traditional foods off the land. Then they switched their diet in less than a generation. Bodies cannot adapt that quickly.

This reference to traditional foods off the land is not referring to European gardening methods but about fishing, hunting and trapping as well as medicine and berry picking. All the families reported how involved the entire family was in hunting, fishing and meal preparation: “We would have the involvement of children being taught how to cut the meat to prepare the fish. It was a total family involvement.”

Seasonal calendars were carried out by 25 people from 14 communities showing that many local foods are still harvested. Harvested foods include muskrat, geese, duck, moose, beaver, medicines, ginger, bulrushes, berries (blueberries, raspberries, and strawberries), and fish. All of the five seasonal calendars produced by the groups had moose, ducks, geese, ice-fishing, muskrats, raspberries, blueberries, strawberries, sturgeon, fishing, and rabbits. More than one calendar listed collecting medicinal herbs, geese, caribou, bear and cranberries. Garden foods harvested included: potatoes, corn, pumpkins, cucumber, and squash. No community reported that wild rice was harvested in any seasonal calendar. However, people noted that a few people seed and gather wild rice in the north, including airplane pilots from Winnipeg near The Pas, As wild rice isn’t native to Northern Manitoba – some people were uncertain about its seeding. However, First Nations in Saskatchewan make millions from harvesting wild rice, according to participants. The seasonal calendar done by Red Sucker Lake First Nation communities (Figure 3-1) included when the winter road opened in January or February with mention of Kentucky Fried Chicken, pizza and shopping in Thompson and Norway House.

According to a door-to-door survey and a focus group 20% to 80% of the families in communities fish and/or hunt, depending on the community. All members stated that their parents hunted, fished and/or gardened. A female Elder compared the food of her youth to that of children today, stating the need to pass on healthy food habits: “Growing up as a child, my father and mother did a lot of

gardening, and so did my grandparents... Dad did a lot of fishing and trapping and hunting, it was the way to feed the family... muskrat, beaver, ducks, chickens, moose, whatever he could get, and that's what we grew up on, and we were healthy!" A male Elder stated that they grew up on the trap line and "would have starved had it not been for hunting and gardening when growing up"

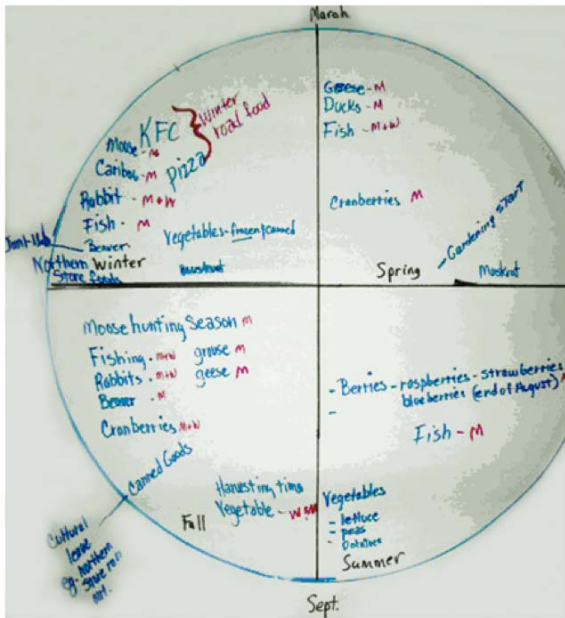


Figure 3-1: Seasonal Calendar of community members from Red Sucker Lake



Figure 3-2: Seasonal Calendar of community members from Camperville, Thicket-Portage, Wabowden and Leaf Rapids

Not only Elders lived a subsistence diet, but many middle age people did as children. One male of forty years old told us his story of growing up on the trap line:

I lived most of the time on the trap line --six months out of the year we were taken to the trap line. My mother and father had their garden on the trap line. Majority of the time [we] didn't buy anything from the store, just flour and salt and little odd items that she [my mother] needed... Most of the things she grew in her own, in our garden. We ate muskrat, we ate beaver, we ate moose meat and fish. At lunch and at dinner – it varied from one wild produce to another... My generation is going to take the onus – to help pass on the traditional ways of living.

The Nelson House Country Food Program is an innovative project that provides people with access to healthy foods, while creating jobs and building community. With financial support from the Nelson House Trust office through the Northern Flood Implementation Agreement, a wild food distribution program was started on the Nelson House reserve called the "Country Food Program". The program employs seven local people including a program coordinator, a technician, and five workers who hunt and fish year-round. The food brought in by the workers is distributed for free amongst community members. The food program prioritizes sharing the food with elders, the sick, and low-income, single-parent families. Charlie Hart, the Program Co-ordinator for the Nelson House Country foods program describes what a great success the country foods program is:

We are providing food to 1500 people out of 2500 and all of them are happy getting fresh meat and fish. It's a good way to maintain traditional culture in a healthy manner and others should try to implement that too.

People still like moose and fish and would like to use it to save money in their community events, however, local wild meat cannot be used in public events due to regulation. Public health regulations requires that all fish and meat be shipped south to Winnipeg to be graded and/or processed in a federal food processing facility before being sold or used in the school program or health centre or a public event at the band office. The people serving lunches at schools are very limited by funds but cannot use local resources due to the public health inspector, who provides surprise visits twice a month and would shut them down for using wild meat.

Almost every community member from Brochet to Garden Hill to SIL to Cormorant remarked that many people used to garden and hunt. An Elder from Cormorant stated: "We were poor, but we ate healthy food because we ate from the garden, we got meat from the bush. Long ago in my younger days I think most people had a garden...My grandfather used to have a big garden. He used to trade things for fish and wild food." A NHFI team member mentioned hearing the same stories: "Every community said that we used to do that [gardening]. Since we got social assistance we stopped doing it [gardening] and then we saw the rise in diabetes". A NHFI member acknowledged that indigenous agriculture is different than the European agriculture which is what has recently been practiced and is currently promoted: "There were pockets of families that gardened; however, the general lack of knowledge about how to grow your own vegetables, what will grow, and the nutritional value of food is a barrier." Another NHFI member also remarked that food from the garden was an important source of nutrients but would never account for a large part of the diet of most northerners.

3.1 THE HIGH PRICE OF A BOTTLE OF MILK COMPARED TO A BOTTLE OF WHISKEY

A number of NHFI team-members in interviews stated that the impetus for the NHFI arose from the outcry of the high price of "a bottle of milk compared to a bottle of whiskey". This news resulted in a public outcry in the south but misrepresented the larger problem of high prices for all healthy foods and cheap availability of unhealthy food in northern Manitoba. This narrow construction of the problem resonated with southern Canadians that are mainly non-Aboriginals but not with Northern Aboriginals, according to the two quotes below from NHFI team members:

The initial issue appeared to be the cost of a bottle of milk compared to a bottle of whiskey. In remote communities, the cost was relatively similar. In Winnipeg, the prices were different. The high cost of milk was because of transportation fees. However, it turned out that the price of milk wasn't the issue. The issue was the overall cost and quality of food.

It seemed that milk prices were the priority at first, but talking to other northern people we found that was not a priority. I'm an Aboriginal person and milk was never a staple. It was never seen as necessity beyond infancy.

The statements of these two people that prices were high for all healthy food not just milk concurred with sentiments expressed by the NHFI focus group about why the Northern Food Prices Report process was undertaken:

The study was sparked by questions at the legislature: “Why is alcohol priced the same at Churchill as in Winnipeg but milk is much more expensive?” The question got changed to “Why are healthy foods very expensive in the North?”, as milk is only a small part of the higher costs of food in the north.

To investigate these concerns of high prices of milk and other food, the Northern Food Prices Report process engaged in twelve months of consultative enquiry with the public and experts.

The Northern Food Prices Report (2003) was the result of 12 months of consultative enquiry. This report acknowledged that: 1) “there is an appreciable level of food insecurity in many northern Manitoba communities”; 2) “a broad range of strategic options are needed to address the problem of high costs and improve nutritional health in northern Manitoba”; and 3) “community capacity building and holistic solutions are essential to the success of any strategic option” (ibid 2003:25), among other things. The NHFI programming was shaped by this report, according to comments from the NHFI team focus group:

The Northern Food Prices Report set the tone for the NHFI programming. It also helped to have the multi-stakeholder group involving various departments, and academics in the report. The report was made available to people to create awareness and readiness at the service delivery level.

This process resulted in better problem identification and practical suggestions to “put food on the table” through seven recommendations. A report produced for the NHFI management team noted: “The Milk Pricing Review Commission has no mandate in the north. We need to know from the end users, what products are needed, what products are priorities and what products will be used in the north” (Racher and Annis, 2007). A NHFI management team member stated:

The right approach to take was to consult first, and then the program was based on that consultation and the program evolved with the participation of people....They ended up coming up with seven recommendations. Food self-sufficiency that takes a look at gardening and greenhouse projects.

4 THE NORTHERN HEALTHY FOODS INITIATIVE

The Northern Healthy Foods Initiative (NHFI) was a pilot project initiated in 2005 at the request of a cabinet committee to the Provincial Ministers of Healthy Living, Agriculture, Food & Rural Initiatives and Aboriginal and Northern Affairs, to implement recommendations from the Northern Food Prices Report (2003). The current NHFI pamphlet (2009) states “mandated by the Healthy Child Committee of Cabinet the Northern Food Prices Report 2003 recommended ways to reduce the cost of obtaining nutritious foods in northern and remote Manitoba communities”. The focus of NHFI was to improve food access quoting Minister of ANA, at the time, Honorable Oscar Lathlin as saying he wanted projects that “put food on the table”, rather than an expensive program like a milk review commission which would not contribute greatly to improve nutrition, reduce diabetes and improve health. This idea that NHFI should improve the lives of Northern Manitoba people is reflected in the purpose and objective listed by the NHFI terms of reference include:

1. Develop and implement a viable and sustainable program that responds to the **food self-sufficiency needs** of Northern communities while ensuring tangible, positive results.
2. Bring together the resources of participating departments and governments to support the implementation of **food self-sufficiency** programs in Northern communities as described in the recommendations of the Northern Food Prices Report 2003 in general, and more specifically, the strategic priorities identified and endorsed by Cabinet.... (Province of Manitoba, 2005).

Food self-sufficiency is highlighted to show how it appears to be the organizing principle of the NHFI terms of reference. The NHFI objective of food self-sufficiency is acknowledged to have existed in the recent past in government documents: “As late as the 1950s, northern communities were relatively self-sufficient, except for flour, sugar and similar products. It was not uncommon to have had market gardens, canning and other locally produced foods” (NFP, 2003: 19). This locally produced food would have mainly been traditional food of fish, wildlife, medicinal plants, berries, etc. for most northern communities with gardening taking an important but smaller role. During this research project, the H1N1 outbreak occurred in a number of Northern Manitoba communities with several people dying in these communities as a result. In response and as a preventative measure to the H1N1 virus people organized medicine picking and spoke of the “need to pass on these skills to protect our people”. Even those people that said they didn’t use traditional medicine – swore the benefits of at least one common traditional medicine that seemed to be widely used in the North.

The description of NHFI is similar in most documents. The NHFI management committee terms of reference states:

The NHFI exists for the purpose of increasing nutritional options and allowing for informed healthy food choices for Northern Manitobans. The NHFI assists Northern communities to develop their capacity to increase the local production of food for local consumption, increase the availability of nutritional foods, implement strategies to lower

the cost for healthy foods, increase awareness of healthy eating, leverage funding for projects and create food based economic development opportunities where feasible.

The Provincial Cabinet has targeted the following four strategic priorities for early implementation, using the dedicated NHFI financial resources provided through Manitoba Aboriginal and Northern Affairs: community gardens/local foods; greenhouse pilot projects; food focused businesses; and nutritional awareness (ANA 2005 in Racher and Annis 2007).

The ANA Grow North Fact Sheet covers the same ground in describing the NHFI goals as:

- To take greater control over the northern local food system;
- To increase local food security; and
- To promote better nutritional choices among community residents (Gov. of Manitoba, 2007).

The current ANA pamphlet on NHFI lists five “priority areas” for NHFI, specifically: northern food self-sufficiency; northern food business development; northern community food program; northern greenhouse pilot projects; and, northern gardens initiatives. In contrast, a PowerPoint to Assembly of Manitoba Chiefs had a broader list of “Cabinet approved priorities” that included: 1) Food Self-Sufficiency Initiative to include community programs, northern gardens and food business development; 2) Milk Price Review in northern communities; and, 3) Northern Food Prices Survey Program (Gov. of Manitoba 2009).

The NHFI team stated in the focus group that they couldn’t do all the recommendations but have focused on four areas: “The NHFI program started initiatives that were focused on four or five recommendations instead of trying to complete all the many recommendations in the Northern Food Prices Report, which would have been a massive undertaking. These four theme areas of the recommendations include seven different recommendations. Healthy Child Committee of Cabinet proposed the implementation of the 1) Northern Food Price Survey, 2) Milk Price Review, 3) Food Self Sufficiency (gardening Initiatives, greenhouse pilot and community foods programs) and 4) Growing northern food businesses”. However, the progress on each of these areas differ. The NHFI team reviewed the progress of the projects at the focus group and summarized that the northern food price survey, food business strategies are just being formulated, whereas the gardening projects are well underway and milk prices do not fall under the NHFI scope. Regarding the Northern Food Price Survey the NHFI team stated: “the government is just beginning discussions regarding food costing to determine who are the stakeholders.... They are talking about what is really needed in the healthy food basket and looking at the different options”. With respect to the Milk Price Review, the NHFI team stated: “The NHFI Committee does not look at the price of milk. This falls under the Milk Price Review Commission. A lot of community members don’t use a lot of milk so they wanted to look at other foods.” Regarding gardening, the NHFI team mentioned: “Now the communities are buying into the program. There is a lot of community pride and ownership in the food initiatives in each community.” Regarding growing northern food businesses, “We are looking at local food sources such as having local bakeries instead of simply selling the Northern Store bread that all originates from their bakery in Edmonton.”

In the recommendations section of the Northern Food Prices Report, the “Northern Food Self-Sufficiency Initiative” includes a rediscovery project and an awareness campaign. For the rediscovery project, specific activities include: “A Northern Food Project manager to gather research and information about producing food in the north, including a series of self-sufficiency conferences and develop best practices guidelines for increasing local food provision in northern Manitoba with community participation and input.” This has not been done. Regarding awareness, the report states that: “for a period of five years, a conference, event and/or sharing of community capacity building activities will be organized to share, showcase, build capacity and plan next steps to be taken by participants (community, private sector, non-government agencies, government) to reduce the cost of food and increase nutritional health in the north”.

The meeting notes from Racher and Annis (2007) of the Rural Development Institute (RDI) had a list of stories and visions from the NHFI team. The stories reflected the diverse perspectives of the team from “sustaining green” to “improve the nutrition of people of the north” and a few mentioned the challenge of mandate and tight timelines. One quote showed how positive and important some NHFI committee members thought this project was: “I would like to be doing this fulltime: I envy those who go into the communities. In the south our work focuses on agriculture to generate more profit. In the north it is about healthy food and food access.”

4.1 GRAND VISION 2010 FOR NHFI

Since this year is 2010, the Grand Vision 2010 for the NHFI developed in 2007 and reported by Racher and Annis (2007) deserves revisiting. The NHFI team member’s vision varied from the organization “running like a clock” with a “proper foundation” to community goals of “healthy meals’ and “creating own food sources” include:

- “We will build a proper foundation and will not be struggling to fix problems”.
- “We will be thinking globally but acting locally. The community will be engaged and working together. Community will be engaged from a bottom-up approach, working creating their own food sources building from within and relying upon themselves”.
- “Northern people will be making healthy meals, know how to grow healthy food and enjoy it. We have a book of success stories on how to make it work”.
- “I hope the program has substance and drive, sustainability and is not extinct”.

Many strengths of NHFI were recognized in both the 2007 team notes and the 2009 focus group including that food systems, gardening and food issues are engaging. Weaknesses that were identified included: lack of community capacity, lack of clearly articulated strategy, geography, distance, logistics, time and labour intensive approach can stretch human resources and reduce capacity to support the projects. One NHFI team member stated “While the involved departments are working diligently, overall the initiative is not adequately resourced and requires additional financial and human resources to ensure basic needs are met to support the work of communities effectively.” The diversity of visions and other indicators suggest that (e.g., our research team had

to reschedule its focus group after starting it, as there was disagreement within the group as to whether the NHFI team should be part of the evaluation or just the communities).

A NHFI team member stated that the focus on working with community members is the key:

Focusing on the local health of the people is the right way to go.... What is needed is focus on the communities and working with community people. I support that kind of initiative.... You have to get an idea and concept that people buy into and within government departments. This work for the Healthy Living and Department of Agriculture staff have been the highlight of their career or day and I can really see the benefit and results of their work. Public servants are very proud of their work in this program.

Conclusion: A focus on gardens, greenhouses and food focused businesses for the NHFI is clear in all the NHFI documentation. The term, nutritional awareness is sometimes interchanged with community food programming, which is a broader term than nutritional awareness. Sometimes food self-sufficiency is used in a list as a separate item than gardening and greenhouses and sometimes food self-sufficiency is referred to as gardening and greenhouses. The lack of support for traditional foods in programming or any NHFI literature seems problematic if food self-sufficiency is the priority, which shows a bias of the NHFI-team towards European-style Agriculture rather than indigenous agriculture based usually on intercropping and native plants. The agriculture capacity in communities to build self-sufficiency is limited by local conditions such as poor soil and by resources available through MAFRI and NHFI. Other areas recommended by the Northern Food Prices Report (2003), such as the milk prices review, have been identified as being important for infants, although generally not for others. The focus and review of only milk is seen as problematic as milk is only part of the larger issue of high prices for all healthy foods.

Recommendation: 1) Clarify literature on NHFI to reflect its focus on food self-sufficiency, gardening, greenhouses and other (price survey and growing food businesses). If the milk review commission is not part of this initiative as mentioned by the NHFI team and is not a mandate of northern Aboriginal people as mentioned by many NHFI team members and community people in interviews it should not be listed as a NHFI mandate in NFHI outreach material; 2) A mandate to develop food self-sufficiency requires that supports for hunting, fishing and traditional gathering of medicines and berries be considered and requires consultation and research with northern people, as dictated by the Northern Food Prices Report (2003); and, 3) Local food focused businesses should include promoting, training, local marketing, supports for country foods, as well as community development enterprise to provide country and other food to people in need (e.g., Nelson House Country Foods Program model).

4.2 NHFI MODEL AND ADMINISTRATION

NHFI is managed by Aboriginal and Northern Affairs [ANA] supported by an interdepartmental management team that includes Manitoba Agriculture Food and Rural Initiatives (MAFRI), Manitoba Conservation, Manitoba Health and Healthy Living and Healthy Child Manitoba. As of 2010 Manitoba Health and Manitoba Healthy Living, Youth & Seniors are discrete departments with representation at NHFI. The interdepartmental model of the NHFI is a novel way to build

partnerships across departments and increase resources. The role of ANA is described by one NHFI-team member in an interview:

Our role has been to chair the interdepartmental working group attached to the NHFI. We received proposals, identified the issues, and provided funding. The department made a decision for Local Government Development (LGD) to deliver the program so we decided to transfer the money and position. Our line of work is more policy/program development, while the LGD is for delivering programs.

Moving NHFI project responsibility from ANA's Policy Branch to Local Government Development was seen as a natural step from policy to programming that enlisted community engagement, according to NHFI team members: "At the beginning [we] needed to develop those policy links in Winnipeg but for programming local government branch has an office in those communities. This added a much more pragmatic arm – people who had experience delivering programs". This move from policy to government involvement in local programming was seen as a necessary step. Also, collaboration was viewed positively. When NHFI team members were asked what was working the NHFI multidepartment team was frequently mentioned: "There is good cooperation between departments because of support from the top of departments. Northerners put their different mandates aside and partnered. Government contributions were important."

The people in the NHFI-team are able to bring their expertise and connections to the table. The NHFI-team focus group stated:

Having several departments involved in the Northern Healthy Foods Initiative (NHFI) team is beneficial (e.g., Healthy Child, Healthy Living, Conservation and Manitoba Agriculture, Food and Rural Initiatives [MAFRI]) and working. At first the Province tried to determine who should manage the program and selected ANA which was a good choice. Family Services would also have been good to have at the table.

MAFRI has had a large involvement in NHFI sending extension workers on-site to a number of communities. A NHFI team member explains the role of MAFRI extension workers onsite in six communities and how their successes were not obtained from a "drop dollars and books approach" but from a "hands-on" "train-the-trainer" approach where somebody in the community was left the "skills and confidence for growing and harvesting":

One of the biggest reasons there was some successes was because of opportunity for workers to be onsite in the community and show that they care. It was on the ground. MAFRI went back four to five times to harvest and plant. Participants felt some growth in their worth and in the worth of their families. Early on there were 18 communities active across the three [non-government organizations] NGOs. They wanted MAFRI in every community but we don't have the resources to deliver. MAFRI took on six communities: Garden Hill, Oxford House, Berens River, Sherridon, Cormorant, and Little Grand Rapids.

This program is a very hands-on, very individual approach. MAFRI then provided other services by contract. We provided contract support, delivered different materials, grew potatoes, and provided material to be left in the community. Travel costs were covered by

MAFRI for the six communities. There was a desire to use a “train the trainer” approach. MAFRI used this style in the rest of province and it was reinforced by regional coordinators. There was concern that this program would be a drop dollars and books approach, and then see you next year. But somebody was left in the communities with skills and confidence for growing and harvesting. This fit for us. Each community needed some hand holding, not just telling somebody. They needed contact and to see what was required”.

MAFRI’s role is described by a NHFI team member as changing to have a presence in the north. Setting up a Growing Opportunities team in Thompson for Northern Manitoba indicates that they will soon have more capacity in the North.

There have been changes in activities....MAFRI now has staff working in northern Manitoba....Ultimately there is other work to do for food-related stuff, for food development and food processing....MAFRI went through an organizational review recently. They located a representative in The Pas. Now they have a representative located in Thompson as well I believe. It is important that MAFRI provide technical support in the communities.

MAFRI is setting up a Growing Opportunities team, as they do in the rest of the province. We will soon have a growing opportunities team up north. There are some pressures so that that team will not have enough resources for each community and one-on-one time with gardeners. There’s nothing better than someone coming to the house and demonstrating weeding, planting, etc. There are insufficient resources [in the North] to give the same treatment [as] in southern Manitoba regarding services and education”.

A MAFRI office based in Thompson is a big shift from having very limited or no MAFRI service in the north. However, success in providing educational and capacity building opportunities will require adequate resources for the future.

This larger NHFI team has resulted in partner funding, according to a past NHFI team member stating: “\$250,000 in funding has come from partner departments”. For example, according to a PowerPoint presentation NHFI-ANA has a three year agreement with Climate Change Action Fund supporting a broad range of food self sufficiency projects in remote communities to effectively decrease greenhouse gas emissions by providing materials for gardens, tools/equipment, administration, and expertise. A NHFI team member had great hope for Manitoba Conservation providing some funding through their Sustainable Development Initiatives Fund (SDIF): “SDIF grants could develop synergies.” Whether this has resulted in SDIF grants or a focus on habitat preservation for fish and wildlife is uncertain. As well, synergies exist with the Chronic Disease Prevention Initiative (CDPI) of Healthy Living, but the NHFI team has not successfully leveraged these. An internet search could not find any literature from Manitoba Health and Healthy Living that refers to its contribution to NHFI.

4.2.1 Policy shifts due to NHFI

The focus group of the NHFI-team discussed the role of NHFI in the larger food security movement and health prevention work. They saw government working on food security within a health framework and with communities as a policy shift:

The NHFI is part of a larger movement on access to healthy food and food security across Canada and the province.... The province is encouraging communities and health departments to work together on food security issues....Healthy food was not so prevalent in public health and disease prevention work in communities five years ago, but is now – that is a very positive shift. It should be noted that food security always formed part of the Chronic Disease Prevention Initiative (CDPI).

Several people in the NHFI team were proud of NHFI working with all the communities including Northern Affairs communities and First Nations: “The province was able to think outside of its jurisdiction to provide programs both on and off reserve.”

Other accomplishments are policy considerations of food costs in Northern Manitoba, according to one NHFI team member: NHFI provided support to Manitoba Bureau of Statistics (MBS) to assist in collecting prices in additional northern communities. MBS methodology uses a cost-of-living index and is not based on the National Nutritious Food Basket (NNFB). Other provincial jurisdictions in Canada including British Columbia, Saskatchewan, Ontario, Nova Scotia, and Newfoundland and Labrador do annually fund the NNFB (FMM, 2008).

Conclusion: The NHFI team has built further government capacity to gear up to address the issue of sustainable food systems in northern Manitoba. The interdepartmental team brings a variety of perspectives, expertise, programming and budgets to the table, allowing for synergies. However, many of these synergies, such as CDPI, are not yet realized. That the Growing Opportunities team has an office in Thompson shows MAFRI is committed to providing manpower and resources to Northern Manitoba. The MBS uses a cost-of-living index to estimate food costs in the North, which appear insufficient to build alternative food systems.

Recommendation: 1) Clarify the role, responsibilities and accomplishments of the different departments in the NHFI team; 2) Additional synergies should be explored with many departments, including Health and Conservation, to consider CDPI and SDIF funding synergies; and 3) Fund MBS or other organization (FSD students, university, NGOs) to carry out an annual NNFB survey in northern Manitoba communities, particularly fly-in communities.

4.3 ADMINISTRATION AND NHFI PROMOTION/COMMUNICATION

At the programming level, the NHFI-team has shown some leadership by leveraging its NHFI funding to focus other programming but has not done so in a few key areas. Government could match NHFI funding with CDPI dollars and in-kind work of health workers to ensure that each CDPI worker has a strong nutrition and gardening commitment. They could also leverage agriculture technology dollars to enable schools with feeding or gardening programs to hire part-

time nutrition and gardening Coordinators. For example, councils and schools could be encouraged to buy local to whatever extent possible by having some matching NHFI funds or program. For example, a school in Lynn Lake buys local berries from a local co-operative and makes all their juice.

There is a lack of documentation of NHFI, including a lack of explicit criteria for funding. Without clear written criteria for funding projects and evaluation of projects, the NHFI team funding decisions appear to be ad hoc. It is unclear to more than one NGO why some submitted proposals for certain projects were funded and others were not. One NGO worker complained of NHFI's: "lack of consistency, and absence of criteria/program description/program guidelines with ongoing projects are dealt with on a grant-by-grant basis with the regional projects never knowing from one month to the next if, when, and how much". Another NGO worker stated:

To my knowledge the NHFI does not have program descriptions (Regional project, Grow North, Freezers, etc.) nor does it provide a funding guide or criteria to applicants. Applicants need to guess the mind of the Committee when preparing proposals.

The criteria for funding are not the only missing material. Generally, there is a lack of documentation of the program other than two pamphlets, one of which is out of print, and a few PowerPoint conference available on the web. This lack of documentation makes finding out about the NHFI difficult and generally indicates it is in its formation stage. There is no NHFI website or application forms that state the program goals and the amount of project funding available. As well, there is no publicly available listing of the projects funded and approved to date. This research was conducted with limited printed material to work with, and without access to government briefs. MAFRI developed a number of booklets to support northern gardening in partnership with the NHFI. These booklets provide great information but would benefit from a cultural consultant considering Indigenous history of agriculture, linking planting to eating and more knowledge of northern agriculture. The review of administrative elements of NHFI was limited to interview findings mainly, although the limited material publicly available was reviewed. An explanation for the limited material available was that: "The Department of ANA has not done a lot of advertising, as they wanted the program to grow slowly." As a pilot project, NHFI was not positioned to engage with the potentially large response to more high-profile publicity.

When the communities were visited most people were not aware of NHFI resources. As part of this research we provided a poster with a list of contacts and available program, as this was missing. It was not available in any form, website, poster, brochure, etc in any Northern community office or school visited, although a NHFI brochure was produced in 2008/2009.

The Rural Development Institute started the NHFI team moving towards a strategic plan in 2007 itemizing a work plan for the NHFI team to:

1. Clarify roles and responsibilities of members of NHFI committees.
2. Clarify and document decision-making processes.
3. Develop and document communication and reporting practices.

4. Develop a plan for evaluation of the NHFI.
5. Clarify NHFI projects and activities, programs and policy development and cross-departmental development.

Although the action plan was identified it was not fully carried out according to a NHFI team member: “The Committee had the Rural Development Institute (Brandon University) facilitate a series of strategic planning sessions. An excellent document resulted however, [they],,...chose not to allocate any resources towards implementing the plan.” At present NHFI does not have any on-going evaluation program in place, although the NHFI team has toured at least one NHFI community each year.

The roles and responsibilities of staff are unclear in relation to community, NGO service or developing programming. ANA staff are attendees or presenters at NHFI and Chronic Disease Prevention Initiative (CDPI) events and workshops along with community members involved in food security and potential NGOs. ANA staff could be a dynamic positive force for food security, as no NGO worker is able to work full-time with their limited budget. At the 2008 Focus group community members were very happy to have a senior ANA person to answer questions of community members. As well, ANA’s planning and dialogue with people at the end of the FSD’s Veggie Adventure provided meaningful two-way dialogue. More dialogue like this is needed to open up opportunities with communities and create meaningful dialogue.

ANA and NHFI team members have expertise that would benefit the community and NGO level and vice versa. Regular meetings from government with the NGOs have occurred but should be more collaborative to work with communities and NGOs. For example, as part of this action research, researchers from the NRI at University of Manitoba provided administrative support to the NGO workers and community members that do the bulk of the hands-on community organizing work. The assistance required included documenting their activities, developing presentations, programming and proposals. Some of the NGO workers who provide hands-on training and change have great expertise in gardening and community outreach, but need help in documentation work not offered by government or other agency. However, an ANA junior staff offered to do part of this evaluation on contract at the beginning stages of this research. This staffer may see herself as knowledgeable in community and food issues with ANA and having worked for a NGO on NHFI but this was a clear conflict of interest.

Conclusion: NHFI is an initiative and not a program and as such does not have much of the administrative material in place. The lack of a webpage or other documentation, which are easily managed, seems to indicate a lack of profile and strategic plan.

Recommendations: 1) NHFI should post a description, contacts and criteria for funding and/or what is funded (e.g., chicken production, freezer loan, etc) on the government of Manitoba website; 2) More transparency regarding funded projects and amount awarded is needed; 3) The NHFI should complete its strategic action plan to become a program including clarifying roles and responsibilities of members of NHFI committees and the other recommendations of the RDI; and, 4) NHFI administration should include a thorough measure of evaluation of the NGO projects including matching to regular food security surveys to determine need and impact of NHFI.

4.4 NHFI FUNDING

Overall funding for NHFI has steadily risen over the four years of the program's existence, as shown in Table 4.1. Budgets for regional projects that provide the NGOs with staff funding and operational support more than doubled from \$66,000 to \$140,000 with the increase in partners from the three original regional partners (FARHA, NACC and BRRT) to include FSD and now Food Matters Manitoba. The budget items for Grow North and Agricultural support grew until 2007/08 but were reduced in 2008/09 to initial levels or below. For example, agricultural support, after almost tripling from \$30 thousand in 2005/06 to \$88.4 thousand in 2007/08, was reduced to below initial levels, although the need for agricultural support is still large. A very strong indicator of resource shortfalls was the statement by the NHFI team member that "communities don't have the equipment they need..., sharing hoes between three or four families". This NHFI member's statement clearly shows how the lack of funding for gardening materials impacts communities:

Through sharing there would be enough hoes, rakes and wheelbarrows.... It becomes a bit of a cumbersome way to look after your garden. Communities generally don't have funding to help folks to do the project.

The NHFI also mentioned the potential of the GO team and the concern that the agricultural support in northern Manitoba was a poor relative compared to the southern services.

There are some pressures so that that team will not have enough resources for each community and one-on-one time with gardeners. There's nothing better than someone coming to the house and demonstrating weeding, planting, etc. There are insufficient resources [in the North] to give the same treatment [as] in southern Manitoba regarding services and education".

Educational grants have expanded from \$9 thousand to the much higher levels in subsequent years of \$90 thousand in 2006/07, \$63.3 in 2007/08 and \$82.2 thousand in 2008/09 with FSD's increased commitment to be part of the NHFI. Program administration for ANA has remained the same from 2006/07 to 2008/09 at \$30 thousand.

Table 4-1: NHFI Budget (All figures are in thousands of dollars).

Funded Items	2005/06	2006/07	2007/08	2008/09
Regional Projects	66	135	120	140
"Grow North" grants	47	67	67	47.4
Agricultural Support	30	67	88.4	28.0
Educational Grants	9	90	63.3	82.2
Special Community Projects	5	90	265.3	287.2
Program Administration	22	30	30	30
TOTAL	179	479	634	614.8

Source: ANA (2009).

Based on the partial information obtained from interviews, the category name did not reflect the true nature of this category, as these are not community projects but largely product development and education. Communities cannot apply directly to NHFI and are asked to go through a NGO to receive any funding for a special project. Not as a criticism of the funded products, many of which seem very useful, but to reflect the projects funded this category would be better titled special projects, as this category is not community focused. Special community projects have included a 13-part DVD Vitality Garden series with an independent producer, which has been aired on Aboriginal Peoples Television Network (APTN), travel to conferences/forums and on banners produced by Food Matters Manitoba. These products were not judged for the effectiveness or utility but seemed mostly to be of good quality.

The NHFI team recognized that more money was needed to implement all the findings of the Northern Food Prices Report but that “tangible food programs” and “grass roots involvement” have resulted:

If they would have received the six million required to cover all recommendations it would have been more complicated to implement and would have resulted in less grassroots involvement. Larger scale funding would have implemented other recommendations such as utilizing the milk rate and the food pricing initiative, rather than tangible food programs working with regional partners. Incremental work has resulted in getting things done.

The NHFI team has accomplished a lot with a little funding according to most interviews with the NHFI team. Almost all NHFI team members in interviews and focus groups commented on its initial “small” or “shoe-string” NHFI budget and its steady growth year to year with comments that included: “Despite its small size, NHFI has been effective at making change. Its budget is pretty modest at \$750,000, which is small in government terms. Proud of the difference it is making. We took this \$750,000 and multiplied it with in-kind investment”. Even at \$750,000 per annum budget the NHFI budget is considered modest but effective. Similarly a NHFI team member stated:

Just a small plot or a tiny shed and small scale changes, and people are starting to think. It’s such a treat that such modest funding demonstrates so much success. Everyone wants reports and status and it’s kudos all around. The budget increase is a reflection that we are able to increase without too much resistance.

But is the funding sufficient to grow a program or meet the needs of communities? The need for NHFI programming is large with the “food access crisis” finding of a 75% food insecurity rate across Northern Manitoba and even higher rates in communities without road access. Does this funding meet this challenge?

Another comments from a NHFI team member was that there was lots of good ideas but a limited budget which required that current projects be altered to support the initiation of this project: “NHFI had a shoe-string budget in the beginning with more ideas than money. We altered our then current projects and budgets to initiate programs. Then NHFI received a quarter of a million dollars as seed funding, along with additional funding”. Similarly, a NHFI team member commented about the use of existing resources to help NHFI programming and its effectiveness

but noted the uncertainty of funding growth from year to year: “The program is growing incrementally which is allowing them to build on their existing resources. The NHFI are getting results and the funding has been growing each year. However... there is uncertainty of funding growth from year to year”.

One NGO member commented that the funding was too thinly spread rather than part of a strategic and sustainable plan to achieve short, medium and long-term objectives:

Province tends towards taking the “pixie dust magic” approach to providing grants. Sprinkling small grants perhaps \$5,000 to \$10,000 across many communities. This does not work well in First Nations for two reasons – continuity of effort and therefore continuity of funding is essential to slowly implement change and insufficiency of funding considering the high prices and lack of volunteerism in FN communities – perfectly understandable by the way with high unemployment. The upside to the pixie dust approach is that it is easy to administer – does not require sustained engagement with an applicant... and can be handed out at a moment’s notice whenever a Minister needs to show up with something in hand when visiting.

This criticism was echoed by one other NGO. The lack of multiple year funding creates uncertainty, as the NHFI team, NGOs and communities must plan year to year and cannot devise long term plans. The funding announcement at the end of March limits the time for NGOs to prepare for the gardening season in May/June and no opportunity to use winter roads to ship up materials to reduce costs. One NGO member stated: “Sustainability is a concern at the community level ... NGOs don’t know how long the funding will continue but NGOs are starting to look at plans for sustainability”. Sustainability of funding is essential to retain staff, which is needed to build expertise and trust in communities. In the words of another NGO representative: “Unstable funding, a lack of continuity, etc. has led to a great deal of turnover of good staff at the regional project level.” Ensuring continuity of funding for NGOs or alternatively at the community level would allow better programming and allow NGOs to build relationships with communities.

Conclusion: After the success of the NHFI projects, there are grounds to request increased and multi-year funding from the provincial government and in turn provide NGOs or communities with multi-year agreements with on-going evaluation.

Recommendation: 1) Increased, steady and multi-year funding from the provincial government for NHFI is recommended; 2) The true cost of building a sustainable program that deals with the large problem of food security should be considered including the NHFI administrative requirements for a website and positive outreach; and, 3) Investments that result in long-term structural change in northern food system should be prioritized.

4.5 THE ORIGINAL COMMUNITIES SELECTED FOR NHFI

Whether this research focused on the original NHFI pilot communities is unclear as the NHFI original communities are uncertain, according to the NHFI team:

As the program has grown it has developed in the north. The program has expanded from 17 to 28 communities. However, there is some disagreement among the group about where the 17 communities originally came from that the evaluation is studying, as there has been turnover in the communities.

What is certain is that MAFRI originally provided services to five communities, namely Garden Hill, Oxford House, Berens River, Sherridon and Cormorant. NACC lists its five pilot projects as: South Indian Lake, Brochet, Sherridon, Granville Lake/Leaf Rapids and Berens River. BRRT according to its 2007/2008 report focused on Cormorant, Wabowden, Thicket Portage, Pikwitonei, Oxford House and Ilford/War Lake First Nation. FARHA looked at its four communities, which includes MAFRI's Garden Hill. This documentation of 19 communities should allow these to be accepted as the original communities. Most of these original communities except for five (SIL, Sheridan, Leaf Rapids, Cormorant and Wabowden) are roadless. A NHFI team member explains the focus of NHFI on those lacking road access:

Initially the focus was on the northern most communities, the ones lacking road access like Bayline and Island Lakes [communities]. They were the first communities on board. The high cost of food in these communities is primarily because of the transportation costs by air or limited times of train access. Access of food is most critical to those people in isolated communities.

Similarly, the NHFI team focus group stated that the NHFI was directed to focus on isolated communities not served by all weather road:

NHFI was given a direction from the Minister of Aboriginal and Northern Affairs (ANA) to focus on isolated communities. They were given direction to work with the remote communities that are not served by all weather roads. The communities may have changed with time as the geographical scope has broadened. NHFI was given the ANA boundaries.

A NHFI team member stated: "What is known is that remote communities have great challenges in regards to food security, that hunger and malnutrition are ongoing problems, and that these food issues are as good as place as any to start." These isolated and most needy remote communities may not be the best candidates for gardening, according to a NHFI team member, as they are the poorest and most difficult to provide external resources to:

Focusing on remote communities has barriers. Some communities do not have the same capacity or the resources as other communities. They do not have the expertise, funding, time or technical knowledge to address the greater needs of these communities.

As these remote and needy communities are largely First Nation communities, politicians and cabinet ministers saw the need to serve First Nation remote communities as the priority due to higher levels of food security there.

Due to the level of food insecurity in Manitoba's remote First Nation communities, Oscar Lathlin made sure that the NHFI was "jurisdiction blind" (ignored reserve boundaries).

...Eric Robinson is the MLA replacing Oscar. He is completely supportive of NHFI and giving to both First Nation and Northern affairs [communities].

One NHFI team member was concerned about inequitable funding to remote First Nation communities:

The NHFI funding model is not representative of population, high cost of remote communities, etc. ... There is no systematic look, and funding formulas, for Northern Manitoba based on distinct population groupings. There are three [distinct population groups]- people living in remote communities (about 25,000 people), people living in rural road access (about 35,000 - I'm guessing) and people living in the somewhat urban centres of Thompson, the Pas, and Flin Flon (about 30,000 I'm guessing). It would seem by this analysis that about 40% of NHFI funding should be going to remote Manitoba communities... However, this is not the case. Four Arrows has received \$100K per year while the Bayline does a modest project in Bunabonibee Cree Nation (Oxford House) perhaps \$10,000 per year while NACC does a very small gardening project in Berens River (maybe \$4,000 per year). So in total the eastside is getting about \$115,000 annually from NHFI while, based on the population sector analysis, should be receiving double that amount.

Table 4-2: Remote Manitoba First Nation populations

Tribal Council	Community	Population				
		Total	Eastside	Island Lake	KTC	SERDC
ILTC	Garden Hill	3,362	3,362	3,362		
ILTC	Red Sucker Lake	797	797	797		
ILTC	St. Theresa Point	3,012	3,012	3,012		
ILTC	Waasagomach	1,541	1,541	1,541		
KTC	Barrenland	449			449	
KTC	Bunibonibee	2,111	2,111		2,111	
KTC	Gods Lake Narrows	1,393	1,393		1,393	
KTC	Manto Sipi FN	592	592		592	
KTC	Northlands	802			802	
KTC	O-Pipon-Na-Piwin	818			818	
KTC	Sayisi Dene	346	346		346	
KTC	Shamattawa	1,166	1,166		1,166	
KTC	York Landing	395	395		395	
SERDC	Berens River	1,729	1,729			1,729
SERDC	Bloodvein	908	908			908
SERDC	Little Grand Rapids	1,099	1,099			1,099
SERDC	Pauingassi	530	530			530
SERDC	Poplar River	1,041	1,041			1,041
	Total	22,091	20,022	8,712	8,072	5,307
	As a percent	100%	91%	39%	37%	24%
	Percent on east side		100%	44%	30%	27%

Source: INAC supplied band registration – February 2008

The number of communities has grown – mostly to non-remote communities, such as Nelson House, Lynn Lake, The Pas, etc. This change of focus appears to be slippage from the goal of providing to the most needy communities, the remote communities. The Keewatin Tribal Council (KTC) consists of the following member First Nations: Barren Lands (Brochet), Fox Lake, God's Lake, God's River, Northlands (Lac Brochet), Oxford House, Sayisi Dene (Tadoules Lake), Shamattawa, Split Lake, War Lake and York Factory. Approximately 10,000 people live in these communities. As the Keewatin Tribal Council (KTC) Health Department provides advisory and advocacy services to the eleven KTC First Nations it appears a good candidate to become a NHFI NGO. KTC health department assists in the planning, development and implementation of those health programs and services that KTC First Nations deem necessary to attain, maintain and sustain their well-being. Southeast Resource and Development Council (SERDC) represents nine member First Nation communities including: Bloodvein River, Brokenhead Ojibway Nation, Buffalo Point, Hollow Water, Black River, Little Grand Rapids, Pauingassi First Nation, Poplar River First Nation.

Conclusion: Clearly, the NHFI was given a mandate to focus on remote communities. Many of these remote communities have benefited from the freezer programs, freezer containers at airports and several others have benefited from other food programming (i.e., Brochet, Berens, Garden Hill, FARHA communities, Pikwotonei, Thicket-Portage and Oxford House). Some of the most extensive investments in infrastructure are in non-remote locations of Wabowden, Leaf Rapids and Lynn Lake, where people have shown strong leadership in gardening and have political voice. The southern point of northern hubs, such as Leaf Rapids and Wabowden, could service roadless communities with gardening materials and produce to be more strategic.

Recommendation: 1) An equitable funding distribution plan should be developed that considers that the communities not served by all weather roads have the highest food insecurity; and, 2) The health authorities of KTC and SERDC should be approached to be NGOs to allow better representation and services of their communities.

4.6 COMPLEMENTARY FEDERAL PROGRAMS

In this section the need for federal funding is discussed, as a funding partnership would allow additional food projects programming in northern Manitoba. Early discussions between NHFI and the Public Health Agency of Canada (PHAC) did identify a potential for matching of provincial and federal funds by supplying process dollars for the NHFI project funding. The federal government funding did not materialize for NHFI programming directly, but is an important opportunity that could potentially be revisited, when funding becomes available.

A NHFI team member stated: “We tried to partner with Canada...We were trying to get programs going on the ground like gardening. Canada was more concerned with promoting healthy living through education.” Another NHFI team member stated that the federal government should join NHFI to put the health in disease prevention:

I would like to see the federal government involved. Not at the official level, but individuals (field and middle level) have only been involved thus far. See this as important. They should be prepared to devote their budget and program. I don't detect this to be a priority. Health Canada, FNIB [First Nations and Inuit Branch] or public health should say we are going to put the health in disease prevention.

The federal government, through PHAC, has contributed to food security process by funding Food Matters Manitoba (FMM) and BRRT but not northern communities directly or the NHFI program. PHAC felt that this built capacity where it was needed most – at the NGO level, which would filter through to communities. PHAC funding provided benefit to a small number of northern communities through BRRT, which works with seven communities. BRRT developed a poultry manual, freezer loan program and developed a train the trainer approach. When a PHAC employee was asked about community level change she considered NGOs' much easier to administer, stating: “northern communities were too dysfunctional to directly work with”. It should be noted that CDPI works at the community level using community liaisons and community councils very successfully and has won accolades and awards for doing so.

Although PHAC funds FMM when asked to be part of this evaluation in the fall of 2008 Food Matters Manitoba noted that it had little or no capacity in Northern Manitoba. However, this situation is likely to change with the new partnership status of FMM in NHFI.

The FMM recommended that the province address food security: “by increasing EIA [Employment Insurance Assistance] rates to ensure that all people have an adequate living wage” and “indexing EIA allowances for food to the actual cost of food to ensure that the food purchasing power of low-income Manitobans does not decrease as food prices rise.” As the rate of employment in northern Manitoba is low, at 24% in Garden Hill for example (Statistics Canada, 2006) and chronic employment is a structural problem, this living wage recommendation should include social assistance rates as well as EIA. EIA rates would only help a few people, as few people are eligible.

Conclusion: PHAC has contributed to a few NHFI NGOs but not NHFI. This has benefited a small number of northern communities. That PHAC does not understand the larger barrier between communities and NGOs, so that training NGOs may not result in capacity building at the community level as they are not the community people making changes in the community. Like governments, NGOs are often distant partners in food security that do not speak for communities or have good networks in communities and rarely visit communities.

Recommendations: 1) NHFI should invite PHAC and Health Canada to define a role in NHFI or at least some partnership where NHFI could leverage further funds.

4.6.1 Food Mail Program

One of the long-established programs to increase access to healthy food in the north is the Food Mail Program, which subsidizes the costs of shipping nutritious food to isolated northern communities. A review of this program is currently underway that is examining different aspects of purchases, transportation, logistics and economic impacts, according to review team director, Marc-Andre Poisson. Poisson added that the team is also evaluating options such as the

distribution of traditional "country" foods and community greenhouses. The local stores use this program to ship up foods. In addition, some families use it. Social assistance workers order a bulk food package in a number of communities, including the four Island Lake First Nation communities, to ensure healthier foods and better prices for their clients. For example, in St. Theresa Point First Nation the social assistance worker reported ordering about \$60,000/month of mainly meat packs, which comes off as a deduction from the client's next social assistance cheque. The social assistance office takes a financial risk as sometimes the person receiving the meat pack but has been cut off social assistance and cannot recoup the expense. However, they see the need to stretch the small food budget that is reduced by freight charges, despite this risk.

It would be interesting to see how this bulk-buying program of social assistance could be expanded from mainly meat to healthy vegetables, fruit and milk. For example, the principal of the school at Garden Hill orders in bulk (\$1200/month) through the food mail program to provide a healthy lunch and snack program that the students each pay \$15.00 per month for. This meal program is very popular and affordable with almost all parents buying this food plan for their children. Although this is the only school in the Island Lakes that uses food mail to provide a healthy lunch and snack program it is uncertain whether other schools in Northern Manitoba have organized this program. St. Theresa reports that they use the food mail program sometimes but typically don't have funding far enough in advance and it takes time to get the food.

Collaboration between INAC and the NHFI could realize the maximum benefits possible for the federal Food Mail Program to allow social assistance and schools to order food choices to fruits, vegetables, meat and dairy products.

Conclusion: Funding from the federal government has not been available for Northern food projects through the NHFI. Canada is a signatory to the United Nations Declaration that includes right to food and so is required to intervene when the right to food is not being met when 75% of households are food insecure (Thompson et al, 2009).

Recommendations: 1) Federal partnerships with PHAC, FNIB or Health Canada should allow NHFI to reach more communities and deliver better food production and storage infrastructure in northern communities; and, 2) NFHI should investigate how INAC's federal food mail program benefit could be maximized to expand the innovative programming already occurring with bulk buying at many social assistance offices for clients and a few schools.

4.7 COMPLEMENTARY PROVINCIAL PROGRAMS: CHRONIC DISEASE PREVENTION INITIATIVE (CDPI)

Chronic Disease Prevention Initiative (CDPI) started as a five-year community-based chronic disease prevention model where activities and programs are planned and delivered at the community level. CDPI will continue as an on-going Manitoba program. The CDPI delivery structure is government supported (Manitoba Health) and regionally coordinated in the north mainly by Burntwood Regional Health Authority (RHA) but also NOR-MAN, North Eastman (e.g., Berens River) and Churchill RHA. However, the programs are community planned and

delivered (by participating communities). Health authorities have skilled workers at the local health centres to carry out programming and an excellent training and education network that works to empower community liaisons through regional and provincial workshops. The chronic disease prevention worker or diabetes worker often carries out the CDPI programming. The stated project goals of CDPI include to: add value to existing services for the public by incorporating CDPI into what RHAs do every day.

The healthy eating pathway of CDPI nicely complements NHFI projects (e.g., tools, rototillers, greenhouses, freezers and poultry production to communities). RHAs typically have nutrition experts but do not always have agricultural or greenhouse experts that NHFI can provide through MAFRI or local agricultural technicians for the CDPI programs. Each CDPI community chooses their own CDPI programming in their annual plan and although most include gardening and offer free seeds and gardening workshops, some do not with their liaisons and community members. Community liaisons are supported by the RHA to provide nutrition, canning workshops, and gardening workshops. These community liaisons and health centres are in a much better position than NGOs to organize workshops, as they are located in each community.

There is leeway in how CDPI funding can be used, so that community action plans often include feasts, canning and gardening workshops and other community programming. For example, an effective CDPI funded food program in Garden Hill is the purchase of ice fishing nets for community members and competitions between band office, school and regional health authority for fish with a feast to celebrate. As well they loan out these 22 nets to community members and estimate that the fish reach 200 families through sharing to provide enough fish for the season. This results in the teaching of ice fishing to all school children and many community members, as well as community food provisioning. In addition, people from the community borrow the nets for sustenance use. This country foods programming benefits from the NHFI's freezer loan and walk-in freezers projects.

A clear delineation of what CDPI provides to communities and what communities are responsible for is made. The responsibilities and rights are different for NHFI but provide a template for NGO and community engagement it could adopt. The CDPI support to communities includes: sponsorship to travel to annual CDPI Conference in Thompson; support from BRHA Liaisons; training and education opportunities; and, access to Manitoba Healthy Living Resource Clearinghouse. Communities responsibilities include: bring interested people together to form a Community CDPI Committee; address all four pathways (modifiable risk factor areas) of physical activity, healthy eating, tobacco use, mental well-being by 2010 through local actions, proven approaches and supportive environments; and, submit an annual plan to receive funding. Funding for CDPI is: \$2 per capita, per community, per year, upon completion and approval of annual action plan; and, \$1 per capita, per community for facilitation of local action plans (honorariums or contracts provided to a person(s) as determined by community to help plan and implement community plans). This CDPI funding is small and insufficient to provide NHFI project funds for greenhouses, freezer loans or other capital projects.



Figure 4-1: CDPI programming, Source: Loretta Thompson, CDPI in Duck Bay Community. Source: Loretta Thompson

Community members are trying to bridge the two programs to build a better gardening, canning and nutrition program in their community. Some minor collaborations have occurred between the CDPI organizers and the NHFI team. For example, the CDPI evaluation in 2008 was co-ordinated with the NHFI Northern Harvest Forum, to share the travel costs of CDPI liaisons, which are also NHFI community representatives at the Northern Harvest Forum. The timing of the CDPI BRRT conference in early spring allows transportation of gardening equipment and materials using the winter roads. See figure 4-1 to show Duck Bay’s programming and promotion of gardening, healthy food and canning country foods, which the CDPI organizers attribute entirely to CDPI funding.

Conclusion: As CDPI provides mostly programming dollars and NHFI provides mainly project dollars, these programs are complementary around gardening, canning and nutrition.

Recommendation: NHFI should leverage CDPI dollars by promising a rototiller, greenhouse and tools to communities that use their CDPI dollars and organize RHA support to provide free garden seeds, canning workshops, and gardening workshops. These health centres are in a much better position than NGOs to organize community workshops as health centres are located in each community and their workers typically live in those communities and have good networks. Similarly, NHFI could leverage some CDPI dollars to support country foods by providing a community freezer loan if the community had community country food feasts or help with providing ice fishing nets, etc to increase food security.

5 PROGRAMMING AND PROGRAM DELIVERY

NHFI has partnered to deliver programming with organizations through what it calls “regional partners” namely: Bayline Regional Roundtable (BRRT), Four Arrows Regional Health Authority (FARHA), and Northern Association of Community Council (NACC), as well as Frontier School Division (FSD) and Food Matters Manitoba (FMM). FSD was mainly involved at the school level but its work in the community has been recognized. FMM coordinates the Northern Harvest Forum with BRRT organizing the conference and has only recently in 2009 become a NHFI regional partner. In this report, we call these organizations NGOs because these regional partners are based in Winnipeg and there are not clear regions delineated, except for FARHA. Each of these NGOs either represents communities (e.g., FARHA represents the four Island Lakes communities) or are assigned communities to provide materials, projects and training. One NHFI team member explains the important role that NGOs play in defining priorities and implementing them:

Regional partners on the ground are the lifeblood of this program and are very innovative. NHFI is a work in progress and regional groups identify their priorities. Bayline Regional Roundtable (BRRT) and NACC [Northern Association of Community Councils] (50 communities) and Four Arrows (Four Island Lakes communities). They organize themselves. It’s not a provincial health authority and not regional health authority.

Some NGOs have more expertise and provide a broader range of services than others. Ideally each northern community, particularly fly-in communities, that wanted a NHFI project would be eligible to receive the projects they wanted. In actuality, the programming is limited by the service capacity and available expertise of the NGO associated with each community. All NGOs provide gardening tools and seeds or plants and deliver conference presentations as outlined in Table 5.1. Some NGOs have the expertise to deliver gardening workshops but others do not and invite either MAFRI staff, RHA staff or the local northern garden and the greenhouse expert/consultant in Thompson. Where NGOs do not have strong relationships in a community to bring out people to an event, a community workshop often has poor turnout. After organizing a number of northern food workshops the NRI researchers have found the turnout to workshops can be high but requires visiting key people and asking them personally to participate and bring their constituency. We invited the health staff, chief or mayor, relevant councilor, principal and a few key teachers as well as postering to invite community members and usually they came. These invitations takes time and community relations. NGOs and ANA do not always take the time or have the community relations to plan these events well or know the local timetable to piggy-back on events.

Another factor limiting programming is the availability of funding for staff and travel as NGOs receive approximately \$30,000 per year for both. When the NGO is based in Winnipeg funding severely limits the hands-on activities these NGOs do in communities. This may explain why in a number of communities the local people see the NGOs as distant government rather than their community representatives, due to a lack of NGO involvement at the community level. For example, some community members called NGOs “paper shufflers in Winnipeg who come to the North for photo opportunities rather than to help, and leave the same day”. NRI researchers had to

identify to community members that they were not NGO representatives to get community members in a few communities (e.g., SIL, Leaf Rapids and Lynn Lake) after these communities had bad experiences working with NGO representatives for NHFI when the program was starting.

5.1 BAYLINE REGIONAL ROUNDTABLE

The Bayline Regional Roundtable (BRRT) was formed in 2001 by six communities located along the Hudson Bay Railway line: Cormorant, Wabowden, Thicket Portage, Pikwitonei, Ilford, and War Lake First Nation (BRRT, 2005) and has its office in Wabowden. BRRT identified accessibility to food and food security as a primary concern within their communities. The goal of BRRT's Food Security Partnership Initiative Project, with its office in Wabowden, is to build partnerships with specific stakeholders to examine and address issues related to food security in Northern Manitoba. The Bayline runs from The Pas to the Port of Churchill and is a major transportation and communication link in the north of Manitoba. According to their 2008-2009 evaluation:

BRRT increases northern food self-sufficiency through promoting gardening and greenhouse operation, poultry production and food processing and preservation within the Bayline communities and Oxford House and Nelson House. Each community has selected a volunteer local "Food Champion" and an hourly contracted Ag Tech [Agriculture Technician Advisor], to oversee the work of the garden starts and the care and maintenance of the garden equipment. This year we made a significant first step toward improving the availability of nutritious food in the local convenience stores in our communities. BRRT works with the communities to develop food self-sufficiency and garden plans to be submitted to the Northern Healthy Food Initiative (NHFI). With PHAC, MAFRI and NHFI funding BRRT has:

- repaired (3), salvaged and re-profiled (4) or purchased (4) greenhouses. Four of these have or are being placed adjacent to schools (Wabowden, Pikwitonei, Oxford House, and Thicket Portage).
- supplied in 2008 the chicks, poultry feed, feeders, and heat lamps for 370 birds: 310 broilers (meat), 50 laying hens, and 10 turkeys in five communities, supporting, advising and assisting the producer families on slaughter day. In the last three years BRRT supplied 730 broilers, 80 layers, and 10 turkeys.
- purchased "quadivators", rototillers, seeds, fertilizer, and lumber for raised bed gardens, resulting in approximately 142 new garden starts in four years.
- purchased 14 freezers in March 2008 which were placed with families in rail-only BRRT communities. Half are paid off in full and the remainder are being paid back over time.... This March 2008 we purchased 56 more for purchase by families in BRRT road accessible communities. We also purchased the financial program from our bank to allow us to make collections directly through a pre-authorized debiting process to improve both the ease and success of repayments.

- offered workshops on canning, dehydrating, freezing, baby-food making, poultry production, soil fertility and greenhouse construction, freezer purchase programs, and community mobilization and strategic planning.
- helped convene a meeting of northern grocers to discuss their issues, concerns, and challenges in making nutritious foods available at affordable prices in their communities.
- assisted organizing the Northern Harvest Forum hosted by FMM. BRRT hosted the Forum for the first two years, and for the last two years have assisted the FMM to run the event (BRRT, 2009, p. 2).

Having received substantial funding from PHAC in addition to NHFI funding, BRRT has been able to develop a strong program and regularly evaluate it, which has resulted in excellent capacity building at the NGO level and in a number of its nearby communities. BRRT has expertise in: poultry production, administrating the freezer loan program and developing a train-the-trainer program for agricultural technicians in each of the BRRT communities. The previous Bayline Community Animator was an experienced gardener and poultry producer, and was able to provide mentoring and technical advice to the communities. People in communities nearby Wabowden provided accolades to BRRT, while those people in communities farther away were less enthusiastic.

BRRT provides agricultural technician training and part-time employment to a community person to ensure each BRRT community has assistance with gardens, organizes workshops and takes care of the rototiller and gardening equipment. Where BRRT has really excelled is when it is working with the school, which it does in Cormorant and Wabowden. BRRT works with FSD schoolteachers to deliver garden boxes to each student in the gardening club but could provide more expertise and other assistance to a teacher that has volunteered so much. This collaboration, initiated by a very energetic teacher and a principal, has been the most successful of all their outreach. A video called “this is my garden” featuring the school teachers is being released spring of 2010. People interviewed in the more remote communities visited (War Lake/Ilford and Thicket Portage) were less positive about NHFI and BRRT.

5.2 FRONTIER SCHOOL DIVISION

In 2009 Frontier School Division had an operational budget of \$103,000,000 with an educational staff of 475 teachers and 905 support staff providing services to 5,813 students in 41 schools in 39 communities. With this vast network, any new curriculum, science fair programming and workshops on gardens and nutrition has great potential for a large reverberation. Their website (2010) states:

The unique characteristics of the Frontier School Division (FSD) are its massive geographical expanse, the community based, three-tiered governance system, the communities and people with their diverse cultures, languages and economies, the partnerships developed with First Nations, local and government groups, and the complex and unique funding system. Frontier School Division was created in 1965 by a Ministerial order under an act of the provincial legislature which provided for the establishment of a

“Northern School Division” for approximately 170,000 square miles and was spread over two-thirds of the province.... These communities were generally small, relatively isolated and economically poor. By far, the majority of the residents were of aboriginal background... The mandate of this new school division was to provide education services to Metis and northern students in the designated communities and lands. The education services would be based on the provincial curriculum. In addition to formally establishing a school board in Frontier School Division, in 1991 the provincial legislation also established the unique three-tiered governance structure with local school committees and area committees’ responsibilities now legally recognized (FSD, 2009).

Frontier School Division (FSD) is uniquely positioned to provide youth and children’s education related to gardening and nutrition, with outreach to the entire community for gardening. The facilities and staff in schools provide opportunities for greenhouse production. At least seven greenhouses are placed (or planned to be placed) adjacent to schools (Wabowden, Pikwitonei, Oxford House, Lynn Lake, Leaf Rapids, Stevenson Island (part of the Island Lakes) and Thicket Portage).

A gardening coordinator was hired in 2009 for FSD to do research, start plants for community and school gardens, oversee the commissioning and operation of greenhouses at Leaf Rapids and Lynn Lake, and provide hands-on gardening workshops with children in school and with community members across the north. The FSD gardening co-ordinator is a retired music and grade school teacher who taught all over the north and so can outreach easily to numerous northern schools to teach children and teachers. His visits to schools typically include hands-on gardening and teaching at each grade level, reaching out to all teachers and school children. He has held workshops in numerous communities (South Indian Lake, Leaf Rapids, Granville Lake, Grand Rapids, Norway House, Brochet as well as the Northern Harvest). He is promoting his Leaf Rapids base as a northern workshop to run a train-the-trainer or teacher-in-service program assisted by MAFRI, ANA, the many northern garden experts and the University of Manitoba.

Many teachers and community facilitators from northern communities have attended at least one of the three annual in-services promoting the Veggie Adventures in Growing Curriculum. About twenty schools have been given support materials and grow light systems to start bedding plants in the classroom as a result of NHFI. Uptake on these in-services has been variable in the past but with the outreach over the last year to different schools by the new FSD gardening/greenhouse coordinator should help grow this in-service and the outcomes that result in schools. Students attending the in-service suggested that a FSD credit course on gardening, food preservation and/or traditional foods be developed. Resources would have to be developed for this course or the present FSD trapping optional course could be expanded to include both country foods and agriculture foods.

A NHFI team member described FSD as very innovative:

To kickoff events, Frontier School Division has been innovative in bringing this into schools at Leaf Rapids, Brochet, Moose Lake, Flin Flon and to regional partners. The emphasis is on getting the kids involved and planting seeds. Some teachers have

volunteered, and they plant and tend to the gardens. It's very much an integrated activity, and it's done with enthusiasm. Funding had been available for some things. \$20,000 was provided last year for Veggie Adventures and to developed science curriculum. They used the money for a workshop and to take teaching to educators and resources and to have a complete curriculum binder with a complete kit for germination. These people get known and recognized in their community.

5.3 NORTHERN ASSOCIATION OF COMMUNITY COUNCILS (NACC)

The Northern Association of Community Councils (NACC) was incorporated in 1971, representing the interests of 52 northern and remote community councils as a non-profit advocacy group, to promote and facilitate sustainable community development. NACC has a quarterly newsletter, website and an annual NACC conference at the end of August to outreach to its communities to promote NHFI programming. Since the NACC annual conference is just prior to harvest time it may be the ideal opportunity to discuss harvest and canning for the Aboriginal and Northern Affairs communities.

NACC has limited its programming to two areas, namely gardening and greenhouses. To help with gardens and greenhouses it purchases and supplies gardening tools and rototillers and ready-made greenhouses with NHFI funding. NACC website profiles its pilot NHFI project that:

The main objective of the project is to increase healthy living, promote diabetes awareness and increase community involvement. One phase of the project is to create community gardens in order to increase accessibility to healthy foods, increase physical activity and involvement within the community. The main role of NACC is to readily provide and obtain resources according to the needs voiced by the communities. Such as expertise, tools, soil, frames, seeds etc.... NACC will incorporate community visits, to and from communities, including costs for community leaders, and facilitate workshops with fellow community members to map a success route particular to each community. The goals of this project are to decrease the epidemic of preventable disease such as type 2 diabetes, decrease the cost of healthy living, involving Elders and Traditional Healers in order to integrate old and new ways of healthy living (NACC, 2010).

There has been a lot of turnover of NACC staff in this position for the last few years. With the NHFI person based in Winnipeg, much of the funding must go towards travel expenses if community work is done, as its communities are widely spread out. NACC's website in 2010 stated that NACC chose its communities randomly including west-side and east-side (South Indian Lake, Brochet/Barrensland First Nation, Sherridon, Granville Lake/Leaf Rapids and Berens River First Nation and northern affairs community) (NACC, 2010). As well, in 2009 their communities expanded to Duck Bay, Camperville and Barrows/Baden/Pelican (STEM, 2009), which are all within a few hours of Swann River. The random communities means that there is not a nucleus or region where NACC could set up a regional trip to visit most of its communities. Since NACC's main job is to ensure communities have materials and equipment this assignment poses logistical difficulties to send equipment, some by boat (Granville Lake), others by

bus/car/transport truck and others by plane. A number of people in communities (SIL, Granville Lake, Leaf Rapids) reported negative experiences working with the first NACC co-ordinator of NHFI. These communities have since shifted to another NGO.

The NACC organizational network is the mayor and council. As the greenhouse and outreach centre is the nursing station and the mayors' office in the northern affairs community of Brochet, NACC effectively uses its network. However, the NACC network in Berens River is less effective as the Berens River First Nation health centre is the nucleus of gardening activities. Berens River First Nation community has a much larger population than the northern affairs community (Statistics Canada, 2006). Similar to Berens River, most communities have the health centre and school as the sites that support NHFI champions.

5.4 FOUR ARROWS REGIONAL HEALTH AUTHORITY (FARHA)

Four Arrows Regional Health Authority (FARHA) is a regional organization created and governed by the four Island Lake First Nations that works cooperatively with their community health services, striving to improve health conditions and health services in the Island Lake region (FARHA, 2009). FARHA has a supportive network with the four Island Lake communities health centres, including Garden Hill First Nation, St. Theresa Point First Nation, Red Sucker Lake First Nation and Wasagamack First Nation. The local wellness workers in these communities carry out NHFI programming and promote gardening. They outreach to the community members through the radio to ask each year what kind of programming they want including the types of plants (Focus group, 2009). This community outreach has resulted in a lot of education and enthusiasm for the NHFI program at the community level. Initially, health centres started community gardens, which popularized household gardens. A number of local gardeners are keen to build greenhouses. FARHA applies its agriculture technology dollars to get a Northern Manitoba greenhouse and gardening expert located in Thompson to visit each community in the spring to improve the soil and maintain the rototillers to ensure that they make the best use of existing resources and enlists the health centre staff to support this work. FARHA has developed expertise on building soil with local materials like peat or flying in "turkey trot" [soil enricher] rather than flying in bags of soil to remote communities at high freight rates, as done in Brochet by another NGO.

FARHA has administrated NHFI freezer loans to two communities and work to fill those freezers with healthy, affordable food. As mentioned previously, people in the Island lake communities heavily depend on the federal food mail program with social assistance workers bulk-buying meat packs for their clients out of their monthly social assistance cheque. The walk-in freezer modules that they have set up in three communities ensures the food does not go bad in transit and allows them to best use the food mail program. FARHA tries to leverage funding for NHFI by applying to federal funding for evaluation and working with University of Manitoba researchers.

An NHFI team member praised the workers and programming of FARHA for having NHFI champions compared to other NGOs who were not always able to identify a food champion:

[person] from Four Arrows and is the garden champion in Garden Hill. Four Arrows enabled him a certain amount of time to devote to diabetes work and lead the garden initiative in Garden Hill..... The goal is to provide more healthy food for families. The problem is that we are dependent on people with good people skills and leadership skills and the ability to help families

and groups develop plans and implement them once funding is provided. The limitations are to identify a community champion....[person] was awesome. Not everyone [NGO] identified a champion. A champion provides effective leadership.

Table 5-1: What Non-government organizations (NGOs) provide.

Non-government organizations (NGOs)	Bayline Regional Roundtable	Northern Association of Community Council	Frontier School Division	Four Arrows Regional Health Authority	Food Matters Manitoba
Northern Programming					
Gardening Programs for Youth			+		
Supportive Programs for Hunting					
Train the Trainer Workshop for Agriculture Technician Advisors	+				
Newsletters		+	+		+
Conference Presentations	+	+	+	+	+
Walk-In Community Refrigerator				+	
Poultry Production Kits	+				
Paid Local Agriculture Technician	+				
Provide Plastic for Greenhouse	+				
Strong network in all its northern communities around food	+		+	+	
Organize Northern Harvest Forum	+				+
Freezer Loans	+			+	
Provide Gardening Materials	+	+	+	+	+
Gardening or canning workshops	+	+	+	+	
Provide Ready-Made Community Greenhouse	+	+	+	+	
Seeds & greenhouse design research			+		
Build Northern Greenhouses with local northern labour	+		+	+	

+ Provide materials or expertise, assistance in this area.

* as of 2008 and 2009.

5.5 FOOD MATTERS MANITOBA

Food Matters Manitoba (FMM) is the home of the Manitoba Food Charter and endeavors to “engage Manitobans towards healthy, fair, sustainable food for all” (MFC, 2009). Food Matters Manitoba is a province wide organization based in Winnipeg and has expertise in organizing conferences, writing proposals for funding (e.g., Rural Secretariat, PHAC, etc) and product development, such as calendars, banners, shopping bags and communications through newsletters and website. FMM also engages in policy, advocacy and network development. Northern community members see their strength in “public relations” and proposal writing. FMM has co-ordinated with BRRT to both organize the Northern Harvest for the past two years and a grocer’s forum. As a primarily Winnipeg based organization with members in the North it has limited ability to do hands-on work in the North and delivering programming. With a limited travel budget and high turnover of northern staff, FMM cannot accomplish its tasks without setting up a northern base to enable hands-on programming. FMM has recently been assigned the following communities that are all over the North: The Pas, Flin Flon, Shamattawa, Crane River, Split Lake, Snow Lake/Herb Lake Landing and York Factory. FMM has made some connections in the north and funded a container garden workshop in Flin Flon that was organized and run by NorMan RHA. However, networks in the north are very limited for many reasons including FMMs lack of involvement in CDPI or FMM activities.

5.6 CAPACITY AND EXPERTS IN THE NORTH

A number of NHFI members recognized the success of BRRT, FSD and FARHA to provide hands-on programming in the north; these organizations have expert Northern gardeners who have strong outreach capability to Northern community members. BRRT has developed poultry production and gardening expertise that would be of great benefit to all communities. Retired FSD school teachers in Wabowden and Leaf Rapids have experience running large greenhouses and gardens, developing curriculum, building community capacity and doing educational workshops for children and adults. FARHA’s NHFI champions have received accolades as well. A local resident in Thompson provides expert consulting in building low-cost greenhouses by recycling old greenhouses and provides teaching, soil building and agriculture consultation to BRRT, FARHA and FSD. He is recognized by local community members as the expert but due to funding limitation to NHFI is only hired for a short period of time. The importance of experts in the unique requirements of northern Manitoba agriculture and culturally relevant information in this low income area are beginning to be recognized.

Some NGOs have less expertise and do limited community hands-on work. As a result, some NHFI communities receive limited or no NHFI projects and others receive lots of attention and projects that include poultry kits, greenhouses, gardens, technical expertise and workshops. For example, although Granville Lake was a NHFI pilot project since day one it only received materials and tools in the summer of 2009 through the hands-on assistance of FSD and University of Manitoba with materials sent up by NACC. In a number of communities NGOs network well with health centres and schools to maximize educational opportunities and solicit local leadership but in many communities the NGOs have not made these contacts and synergies. When the communities were visited, most people were not aware of any gardening or NHFI resources.

People should know more about the resource persons/resources provided/offered by NHFI and the NGOs (for example, contact person to ask for gardening materials, provide training on healthy food and gardening and other things as per requirement of the community development). Some NGOs have events, newsletters and policy networks but seem limited in their ability to do Northern community outreach and provide agricultural expertise to communities in the north on gardening. Where NGOs have limited networks, the NGO annual or biannual visit is less productive, limited to evaluation or attendance at a workshop hosted by the health centre, with little or no NGO/community engagement. A NHFI team member explains why some organizations are challenged to provide hands-on service:

The BRRT continues to benefit from co-funding on food security with the Public Health Agency of Canada (PHAC) while Frontier School Division (FSD) and FARHA, not having a co-funder, have significant support within their organizations and from their community constituents. NACC has the greatest challenge as it has no co-funding and does not have a substantial service-oriented organizational infrastructure.

The logistics of servicing the north with materials and NGO visits is difficult and expensive. Some communities are only accessible by boat and other communities require you fly-in from Winnipeg, while others are only accessible by car with large distances between communities. The Bayline Rail and Greyhound running through Wabowden provides an excellent means of transporting supplies and people to the BRRT communities. Similarly, Island Lake communities are nearby remote communities connected by short flights and are all serviced by FARHA. FSD has also been able to set up regional centres that facilitate logistical arrangements. In most cases, this research found that the farther away the NGO to a community is the fewer projects and gardening results. Most of the projects occurred near the NGO centres of Leaf Rapids and Wabowden. However, FARHA and FSD, due to their strong organizational networks and base in each of their communities had more disbursed outcomes with positive impacts in farther flung communities. The northern NGOs were most effective in a small radius from their base because this allowed the NGO worker to disseminate materials and projects more easily, have a greater number of visits and more relationships or networks with the community. With the vast distance across the north, each NGO ideally would have a regional base in the north and service the surrounding communities to allow more community engagement. However, this is far from the case with The Pas assigned to one NGO and Sherridon to another NGO has NGOs circling each other.

The role of the NGO needs to be discussed in NHFI's role in community development of food security. At the moment the NGO represents the voice of communities to government but is this representative? NGOs vary greatly with some NGOs being responsive to communities needs and others are not very responsive. Neuderhoffer et al (2001) highlight the need for communities to be viewed as partners in the development process and that NGO and government is required to play an active role in the beginning but that they should play a facilitator role later on in the process.

Local communities should not be viewed as merely 'targeted beneficiaries', but as partners in the development process. When the local community is actively involved in programme planning, they are provided with an opportunity to articulate not only their felt needs, but also their willingness to participate and the level and type of benefit they require to ensure

'buy-in' and commitment. In this case, the implementation evolves into a process of realising a goal that has emerged as a genuine response to a felt need. The evolution of a central role for the community is not intended to imply that no inputs or support should come from knowledgeable and interested 'outsiders'. In the early phases of the transition to a decentralized participatory model, NGOs and the government will need to play a more active role. Mechanisms need to be put in place to ensure that as the community's capacity increases, the external groups will withdraw from their active role and finally assume the role of a facilitator, offering information or guidance where requested or required.

At this stage most communities are not involved as partners in the NHFI process but are willing to engage if there is a community development process that allows community to actively be involved in program planning.

There is not enough steady and effective youth involvement program provided through any of the NGOs. Although FSD has effective programs with schools on gardening, course options, afterschool clubs, 4-H clubs and other programming for youth should contain traditional food opportunities and gardening opportunities for youth.

Conclusion: Communities receive different levels of programming based on which NGO they are assigned and their location relative to the NGO base. Community engagement works best with nearby communities to the NGO base. When the NGOs' communities are proximate geographically the NGOs northern base provides more community engagement. For those NGOs working from Winnipeg this is more difficult, particularly considering the limited NHFI funding for NGO travel and staff, but should allow for regional grouping. Ideally, there would be new NGOs that are representative organizations, such as KTC health authority, as it has health centres in each community to provide leadership. As well, some NGOs lack expertise in northern outreach/networks, gardening, cultural awareness and food production, which limits both quality and quantity of interaction.

Recommendations: 1) NHFI should build funding strategies to ensure the retention of key people that have unique abilities to build capacity in the north on gardening and greenhouse projects, outreach and chicken production; 2) Assignment of communities to NGOs should consider the logistical aspects of shipping equipment and supplies, as well as conducting programming activities and visits; 3) To have the same level of programming across all northern communities, some NGOs have to develop greater capacity or focus on their current strengths to deliver newsletters and conferences; and 4) To be strategic NGOs and the NHFI team should engage with health centres, schools or other networks to solicit local leadership and distribution networks for education, nutrition and gardening programs.

6 NHFI PROGRAMS

6.1 GARDENING AND GREENHOUSE PROGRAMS

Gardening has a long history in northern Manitoba and has played an important role in food security in the north. One community member described how gardening spearheaded community feasts: “The program is really popular in the communities, a lot of community interest. I think that it brings a lot of community togetherness in the program because they’ve developed their own kinds of programs based on gardening.” Many people had stories to share about what gardening in their communities used to look like, from gardens at every trap line a mere generation ago, to market gardens along the Bayline Rail, south of Thompson.

Table 6-1 enumerates the garden and greenhouse projects in each community studied. By promoting gardening activities, NHFI is improving access to healthy, fresh and affordable food. Increased food security, however, is not the only benefit of the gardening programs. What was repeatedly mentioned, and what contributes to the popularity of these programs, is the community-building and active living aspects of the gardening projects. Both community members and NHFI team members held the same sentiment about the important role that gardening plays in community development. A NHFI team member commented on the role that the gardening programs played in community capacity building:

I think success breeds success. To the degree that the people can do something instantly practical, and something that they can implement and see the results of their learning and work, is successful. It is a powerful motivator and can be seen as small success, but it builds capacity. Problems faced are not insurmountable and communities are working to solve these problems.

A NHFI team member discussed the need for greenhouses to extend the growing season:

Greenhouses were provided because the growing season is short in that climate. They are not commercial greenhouses but structures that would allow you to extend the growing season. They consist of a cold frame to stretch over plants and this may keep them from freezing. Heat in the greenhouses is only from the sun. Bedding plants were planted in greenhouses. We’re using energy off of generating plants on dams and diesel generators. Looking at large projects is not the focus of NHFI. Our focus was on families producing a portion of their healthy food in the diet. Large greenhouses were not a fit.

Table 6-1: Gardens and greenhouses in Northern Communities studied

Community Name	Number of Gardens and Greenhouses in 2008			Number of Gardens and Greenhouses in 2009			Supportive NGOs
	Home Gardens	Community Gardens	Greenhouse	Home Gardens	Community Gardens	Greenhouse	
Barrenland & Brochet	5	1	1 C	25	1	1	NACC, FSD
Garden Hill	54	0	1 (P)	30	0	1 (P)	FARHA,
Granville Lake	0	0	0	5	1	0	NACC, FSD
Lynn Lake	15	1	4	17	0	5(4P+1C)	FSD
Leaf Rapids	15	1	3(2P+1C)	25	1	4 (2P+2C)	NACC, FSD
Nelson House	8	0	0	3	0	0	BRRT
Red Sucker Lake	0	0	0	10	0	1 (C)	FARHA
St. Theresa Point	10	1 (C)	1 (C)	12	1 (C)	1 (C)	FARHA
South Indian Lake	5	0	0	5	0	1P	FSD, NACC
Wasagamack	10	0	0	15	1 (C)	0	FARHA
Berens River	9	1	0	14	1	0	NACC
Cormorant	10	0	0	15	0	1 (P)	NACC
Ilford	0	0	0	0	0	0	BRRT
Thicket Portage	5	0	0	5	0	0	BRRT
War Lake	0	0	1 (P)	0	0	1 (P)	BRRT
TOTAL	146	5	10	181	6	16	

Note: These numbers were gleaned by touring communities and discussions with community members and NGOs in 2009. Legend: P=personally owned, C=Run by School/Nursing Station or other community institute.

Some of the gardening initiatives that NHFI funding and community support have made possible include:

- A “veggie curriculum” and gardening workshops developed and offered by Frontier School Division. This programming supports youth and community interest and involvement in gardening and increases awareness of healthy food options.
- The purchase of gardening tools and supplies for community members to share, including rototillers, small greenhouses, ploughs and grow lights for at least 20 schools.
- Training and expertise to help communities with gardening and to establish a greenhouse.

These include many success stories.

Success Story #1: Granville Lake Garden Work Party

In the summer of 2009 most of the community participated with FSD's regional gardening coordinator and University of Manitoba student researcher to create a new community garden. All the community children and the elders participated in the gardening work party and thoroughly enjoyed the event. The spontaneous participation of most of the people from the community shows the importance of having traditional feasts and gatherings together with hands-on gardening activities. All participants had fun, learned a lot and one large community garden and five household gardens were created.



The two-day work party started with music, songs, and stories about gardening before tilling and planting gardens. A large community garden was tilled using a community-owned backhoe, and a rototiller brought in by the workshop facilitators, as one was not available in the community previously. The soil was improved using local manure, and the garden was then weeded, planted and watered. The workshop concluded with the participants and facilitators going fishing for an unplanned "after-gardening feast". Imagine if a community garden party was sponsored in each community?



Success Story #2: The BRRT Agriculture-Technician Advisor Model for Developing Local Expertise

The BRRT Agriculture Technician Advisor Model hires and trains a local person in each community has been successful in a number of communities including Wabowden and Cormorant. Training and equipment has allowed gardeners to increase their food production capabilities. The principal idea behind the Agriculture Technician Advisor (Ag-Tech) Model is to build capacity at the community level by training local people, rather than bringing in outside experts. The NHFI Ag-Tech funding pays an experienced gardener in each BRRT community to mentor new gardeners. The paid responsibilities assigned to an Ag-Tech are:

1. To visit homeowners and check on garden sites,
2. To advise on garden plot preparation and fencing,
3. To advise on planting of seeds and bedding plants,
4. To advise on garden maintenance (weeding, watering and insects),
5. To teach how to build raised beds, if required,
6. To help promote and celebrate garden efforts (garden competition, harvest feast, etc) and
7. To maintain a journal of activities and completion of required tasks.

Overall the program has been a great success, according to BRRT: “We just have to engage experienced gardeners, offer them some supports and let them teach. That is what we did with our Ag-Tech resources again this year” (BRRT Evaluation Report 2007-2008).

Success Story #3: Wabowden School Greenhouse

The greenhouse at the Wabowden School is funded through MAFRI's "Covering New Ground" project (CNG), through BRRT. The school had access to an existing frame for a greenhouse, and needed only \$3,000 to purchase plastic and other materials to make the greenhouse operational. This project was used as a business venture for a course at the same school. The course involved students creating a business plan, promoting the business and selling bedding plants. In the first year the project earned more than \$2,000, which helped to cover the heating costs of the greenhouse, seeds, soils and other gardening club expenses.

Conclusion: Community members really enjoy gardening. They have benefited from new access to community tools and a rototillor, as these typically communities lacked these necessary pieces of equipment. Although communities have benefited from tools and capacity is building – community developments on gardening and greenhouses are slow due to the NHFI's limited funding and NGO's limited community networks, which often means a drop seeds and tools approach in most communities. Communities need someone local to ask help from with gardening and hands-on consultation.

Recommendations: 1) The agriculture technician advisor (Ag-tech) model developed by BRRT where a community person is intensively trained and hired to start community development on agriculture and country foods should expand to all communities. This training program should be

done in time for the spring gardening season with at least one person from each NHFI community and the NGO NHFI worker should receive intensive and where possible hands-on training on how to operate and maintain a rototillor, garden, outreach to community and how to use cold-frames and greenhouses immediately to extend gardening season, as well as materials to distribute to community people; 2) Facilitation and funding of community garden parties where people engage communities in a community garden and household gardens and the dissemination of plants could be a more positive role for southern-based NGO assisted by agriculture technician advisors, FSD, CDPI community liaisons and experts from MAFRI than the drop seeds and tools approach currently practiced; 3) All educational events and forums should involve training and organizing with community people's input; and 4) The NHFI team should facilitate an agreement or leverage funding to work with RHAs and schools to provide workshops and programming on canning, gardening and nutrition programs, as well as to facilitate applications for Green Team to facilitate youth involvement and Sustainable Development Innovations Fund (SDIF) to facilitate special projects.

6.2 EDUCATION EVENTS

The two education events funded by NHFI are FSD's Veggie Adventures Workshop and the Northern Harvest Workshop.

6.2.1 Veggie Adventures Workshop

Three annual in-services have occurred to promote the Veggie Adventures in Growing Curriculum of the FSD funded by NHFI. These in-service programs provide teachings for teachers and students on how to use the curriculum and also provide and teach hands-on experiential gardening. The reviews for the 2009 Veggie Adventure workshop included many comments, such as: "Provided great information, useful advice." This 2009 workshop included information on greenhouses/cold frames, germination and seeding and lots of opportunity for group discussion. People really felt the planning sessions were useful, stating in the reviews: "Excellent discussions". Other comments from different people were: "Lots of useful info to take back to the community." "Useful to work from others' experience so we could skip that step knowing whether it worked for them or not." Plants, seeds and other materials were provided which gave a school garden starter kit with the reviews stating: "Thank you for all the plants we are taking back to our school." People identified that meeting resource people was key: "Making contact with resource people very important."

People viewed the inclusion of youth as key to community capacity building. The youth had separate workshops on planting and participated in adult discussion groups. Teachers saw the need for discussion amongst youth to be organized to help in planning:

Next gathering it might be an idea to take the youth and have separate discussion sessions and idea sharing times away from the adults, so they can get together and bond between communities and maybe get to share ideas from their community via phone or email (FSD 2009).

The students enjoyed the workshop and found it life changing, with one student stating:

As a student I enjoyed the workshop. The food was good. Wish there would have been more kids involved. When I am chief of my band, I will try to involve all my people in growing gardens and a healthier lifestyle (FSD 2009).

6.2.2 Northern Harvest Workshop

This NHFI's Northern Harvest workshop provides good education material on gardening, nutrition, traditional food preservation, etc. that are provided as information to the general public. Many of the conference speakers are northern Manitoba speakers and Aboriginal to provide culturally appropriate and climate information. While good information is provided through workshops on canning, soil improvement and other gardening related skills, the timing of the event makes this information inconsequential for any activity that year. The Northern Harvest program takes place in the late fall after all harvesting activities and canning activities are completed and far too early to consider the next season.

The Northern Harvest Forum in its current format provides a conference with good information for the general public but does not provide a forum for discussion and joint-decision making. The Northern Harvest Forum provides speakers on gardening or country food preparation but lacks an organizing aspect for communities. NGOs report back at the Northern Harvest Forum about gardening in their community and other projects, which is informative. However, these talks are seldom directed to the northern community members to engage their ideas and bolster support. For example, after hearing the NGO talks, a few community members expressed resentment of two NGOs for claiming the work of community members as their own. Although the community members do most of the work to bring about change in the communities – the dinner and most of the activities do not celebrate their work or deeply involve them. An Elder complained that there was no meaningful role for him to play at this conference. This lack of meaningful engagement made some other people comment that Northern Harvest Forum was unresponsive to community members. For example, someone mentioned that the conference “organizers don't know how to do community development work”. As well, a number of people in 2009 noted that many speakers and presentations were similar to last year in 2008.

How could education events result in more meaningful engagement with communities? Rather than a list of speakers and workshops some facilitation with community members could occur, where they develop ideas for community plans. Ideally, a break out session with each NGO's NHFI co-ordinator could facilitate a discussion with their NHFI communities regarding their needs and vision. Communities come together with NGOs after travelling great distances for the Northern Harvest Forum but without the opportunity to organize. An example of the demand for organizing was demonstrated when NRI researchers were asked by FARHA to facilitate a workshop to engage its community members about their next NHFI steps after the 2009 Northern Harvest Forum workshop in Thompson. Although untimely, with people shifting their schedules back to drive to Winnipeg in the dark in a snowstorm, and loud, being in a busy restaurant, a meeting was organized following the workshop in Thompson as there was no opportunity to do

this at the Northern Harvest Forum workshop. The communities and NGOs saw facilitation and organizing as a necessary process to build capacity and identify goals.

Is an intensive training program needed for community capacity building on food action?

Northern Harvest Forum is not considered a training program, as mentioned earlier and Veggie Adventures has some training for teachers, which is its target but not is designed currently to be an intensive training program for community outreach. There is lots of expertise in the north that could assist with an intensive training program at the community, NGO level and government level as well as at University College of the North and University of Manitoba. Jacinta Wiebe, Community Development Department, UCN, Dr. Steph McLachlan, Environment and Geography, University of Manitoba, Mr. Don McCaskill, Superintendent, Frontier School, Dr. Marlene Atleo, Department of Education, University of Manitoba and Dr. Thompson expressed an interest in starting a training program with the local experts already identified and developing a curriculum for UCN to deliver food production training and community development. They did this in a recent action research dissemination proposal to a social science and humanities research council grant proposal, as a pilot project. This provides many possibilities for further NHFI collaboration. As well, Mr. Gary Martens, Instructor in Agriculture at University of Manitoba, committed to assisting with training in the North. This proposal may or may not be funded but does demonstrate the willingness of people to participate and the potential for an intensive dynamic food activist training program with agriculture, country food and community development aspects.

Most people from communities mentioned that more training should be provided for youth. The Northern Harvest Forum workshop does not provide any opportunities for youth but the Veggies Adventure workshop does provide good opportunities for youth leadership with hands-on opportunities. Many Elders and parents expressed a desire for youth training in cooking gardening, fishing, hunting and traditional food preservation. Most community people commented that youth programming in their community on food and traditional food was not available for many youth, whose families did not hunt, fish, garden and preserve food. Some jobs and achievement awards were seen as possible ways to encourage youth involvement in food security activities.

Conclusions: A key component of the promotion of gardening by NHFI is to support skill-building workshops and training opportunities for community members. This has included funding Agricultural-Technician Advisors through BRRT, supporting the Northern Harvest and Veggie Adventures and funding NGO and MAFRI workers as educators. However, information about building soil, rototiller care, planting gardens and greenhouse maintenance remains largely unavailable in most communities in Northern Manitoba. Youth focused training and programming should be a focus of education programs.

Recommendations: 1) The Northern Harvest Forum in the fall should be replaced with an annual intensive train the training program for community members prior to spring to prepare for the growing season that distributes plants and materials. 2) Youth training should be provided on cooking, gardening, fishing, hunting and traditional food preservation through funded and supported garden clubs, summer camps and in-school activities; 3) Implement achievement awards for youth in the communities in regards to gardening, hunting and fishing activities; and 4) Some poster and information sheet on NHFI programming and contacts should be made available.

6.3 POULTRY PRODUCTION

With basic training and provision of supplies, poultry can be easily and affordably raised in northern communities. Raising poultry can provide families with fresh meat and eggs and a valuable source of fertilizer for gardening. The local production of poultry is desirable for northern communities as it increases the control they have over their food system. However, BRRT questions the viability of this programming if all the feed is required to be shipped up. However, a person in Berens River has raised chicken and goats without NHFI assistance for years and sees it as beneficial and viable.

Through funding from NHFI, BRRT has made it possible for a number of families in several participating communities to start raising chickens and turkeys as listed in Table 6-2. If a person is interested in participating in the program, they are required to build a chicken coop, but otherwise receives all necessary materials including a poultry production manual, 60 chickens or ten turkeys, grain, feeders and chicken fencing.

Poultry production training and supplies are currently only offered through BRRT to their communities. Many people in other northern communities expressed an interest in poultry production. Many of the communities raised livestock in the past, and a number of individuals were keen to pursue this to the point that NRI researchers were asked to send up some chicks and feed in two communities. People on several occasions asked the researchers if they could provide them with chickens and other livestock. Garden Hill had built a chicken coop last year but reported that their chicken production was halted because the chicken coop was not up to the building code.

Table 6-2: Poultry production project BRRT 2006-2009

Year	Total number and type of bird	Community	Number of Birds	Families involved
2006	60 Chickens	Oxford House	60	1
2007	360 Chickens	Oxford House	60	1
		Wabowden	120	2
		Cormorant	120	2
		Thicket Portage	60	1
2008	360 Chickens	Oxford House	60	1
		Cormorant	60	1
		Nelson House	120	1
		Pikwitonei	120	1
2008	24 Turkeys	Oxford House	4	
		Thompson	10	
		Nelson House	10	
2009	300 Chickens	Oxford House	60	1
		Cormorant	120	1
		Nelson House	120	2
2009	30 Turkeys	Oxford House	10	
		Nelson House	10	
		Wabowden	10	

Conclusion: There is a demand for poultry production programming in the north, and an opportunity to expand the program to include other livestock such as pigs, goats, cows and bison.

Recommendation: NGOs should expand poultry production to more northern communities.

6.4 FREEZER LOAN: OPPORTUNITY TO PROMOTE STORAGE OF COUNTRY FOODS AND BULK PURCHASING

Increasing the capacity of people to preserve and store food allows communities to make greater use of seasonally produced and harvested vegetables, berries, wild meat and fish. NHFI support focuses on freezer distribution and food-preservation training, recognizing that food preservation is an important element in the food system. Health workers often provide the community training on food preservation. This program increased the ability of community members to store country foods, according to many community members including one person who stated, “In the freezer loan program, families were taught how to keep food for winter that they caught in summer”. An NHFI team member emphasized the benefits of this program saying:

These families had no way of storing local production. With this freezer program, people that have freezers have frozen garden food, fish caught locally, moose meat chunks and chicken that they produced.

As an added benefit, freezer distribution enables bulk purchasing of food. As examples of this, FARHA provided bison and worked with Winnipeg Harvest to ship pork to these communities.

In the beginning the freezer loan program received seed funding of about \$700,000 from Science Technology Energy and Mines (STEM). This freezer loan program is set up as a revolving, self-financing fund within each community: after receiving a freezer, participants in the program make small monthly payments to replenish the fund, which allows for additional community members to participate in the program. A social assistant recipient would pay \$250 with the other \$250 covered by special needs funding of social assistance. One of the NHFI-team reviews the history of the freezer loan program and how it expanded.

[The] freezer loan program was developed with Oxford House, with a bit of seed funding, becoming self-financing. BRRT, Keewatin Tribal Council and FARHA were able to do it on a payback system with small monthly payments to pay back the fund. The revolving fund model has been expanded with 271 freezers purchased so far.

At present, the following communities have benefited from the freezer loan program: Oxford House, Nelson House, Brochet, Wabowden, Cormorant, St. Theresa Point, SayisiDene, Northlands FN, Shamattawa and Wasagamack. This program has served a number of remote communities (e.g., Oxford House, Brochet, St. Theresa Point, SayisiDene, Northlands FN, Shamattawa and Wasagamack) where concerns for food security are great. There remain a number of remote communities that have not benefited from loans. NHFI recently moved to ones that are road connected. BRRT writes “purchased 14 freezers in March 2008 which were placed with families in rail-only BRRT communities. Half are paid off in full and the remainder being paid back over

time. This March 2008 we purchased 56 more for purchase by families in BRRT road accessible communities. We also purchased the financial program from our bank to allow us to make collections directly through a pre-authorized debiting process, which should improve both the ease and success of repayments. "(BRRT, 2009, p. 4).

"These freezer loans were linked with teaching about programs of canning and food freezing. ...More than half of those surveyed reported having at least one preservation workshop in their community". Community focus group report – Thompson

Conclusion: Freezer loans have been highly successful, extremely popular and available in a few remote communities. However, there are still communities not benefiting from this program, including Granville Lake, South Indian Lake First Nation, Garden Hill First Nation and Red Sucker Lake First Nation where rates of household food insecurity are 88%, 100%, 88%, and 81%, respectively.

Recommendations: 1) Considering that more remote communities have the greatest concerns for food security the freezer loan program should be expanded to Granville Lake, South Indian Lake, Garden Hill, and Red Sucker Lake; 2) Freezers should be designated an essential appliance in remote communities in Northern Manitoba by the province. This would require the federal government to adopt the same policy for First Nation communities, which are the much larger populations in northern communities. This would leverage ten times the provincial expense and result in real opportunities for country food production; and, 3) The freezer loan program should continue to be paired with community programs that help people fill their freezers. Food-preservation training is a central aspect of this program. As frozen food retains nutrients well, the food system could accommodate frozen commercial foods through food mail and other programs when families can't get fresh produce year-round.

6.5 FOOD SHIPPING AND DISTRIBUTION

The freight costs in remote and Northern communities are very high. In many northern and remote communities few options for purchasing food are available, and prices are significantly higher than in southern communities. According to one community member, the quality and selection of food items in the Island Lake region stores is inadequate: "The existing Northern Stores selection is very limited and costly. After shipping, the produce is often damaged". This situation negatively impacts the ability of many community members to access healthy and affordable food. A food costing was done for stores in 14 communities and is available in another report. With healthy fruit and vegetables being two and three times the price few people can afford healthy food.

To address these barriers, NHFI initiated infrastructure improvements funded by Manitoba Infrastructure and Technology to support the Food Mail Program in the Island Lake region. The food mail program enables individual families to order and ship food to the community, increasing their options when it comes to purchasing food. A key component of this programming was to

install and renovate three intermodal containers into walk-in freezers at local airports, allowing for the temporary storage of bulk food purchases:

A NHFI team member explained the need to handle frozen food mail arrivals at airports that would go bad before they were picked-up in some remote airports without the recently installed walk-in freezers: “Sometimes it takes a day to contact the families, and still more time for them to pick up the food. We contacted Manitoba Infrastructure and Transportation (MIT) and MIT agreed to purchase and install walk-in refrigerators or coolers. This was a very positive outcome.” The walk-in freezer project is an excellent example of finding simple, straightforward initiatives that make a real difference in the lives of northerners.

Success Story #4: Walk-in Freezers at St Theresa Point, Stevenson Island and Red Sucker Lake

The three airport coolers at St. Theresa Point, Stevenson Island, Red Sucker Lake are 20 foot long intermodal containers that have been retrofitted with: 1) Two refrigeration units on each (Zanardi 110 volt), as only 110 volt lines only in these communities and second unit provides back-up if unit went out; 2) Spray foam insulation all around (ceiling, walls, and bottom of the container) all framed in and covered with plywood; 3) Panic exit system (so someone couldn't get accidentally locked in); 4) Quality thermostat; and 5) Clear plastic strips to keep in the cool when the doors are open.

The freezers are leased at a nominal fee to the Food Mail carrier, Perimeter Air, and are coolers (not freezers) for temporary holding of chilled and frozen products along with medical supplies and tests that require refrigeration. The total delivered and set up costs for the three was \$97,000.

6.5.1 Communities on the Bayline Rail without a store

Without a road or any food store, people in Thicket Portage, Ilford, War Lake First Nation and many other Bayline communities have to travel to Thompson by rail to get food. As the train only comes every two or three days, this trip is expensive – for hotels and travel - with little money left over for food. Travel for these trips costs about \$250. Since these communities are small and cannot support a store, how can these BRRT communities get healthy food? Community members remember when the conductor used to sell vegetables from market gardens in Cormorant, Thicket-Portage and other places along the railroad – all the way to Churchill. Community members would like to see a boxcar store again.

6.5.2 Remote communities with and without a store

To serve the many fly-in communities, direct buy food brokering services could link social assistance offices, schools, etc. as well as individuals to wholesale grocers to make better use of the food mail system. According to one NGO person: “The IT and business concepts have only to be adapted to the remote environment considering funding in northern communities is typically through two sources, band agencies (health, education, etc) and social assistance”. Currently the social assistance workers at all the Island Lake communities order meat packs for their clients,

which are delivered by the Federal Food Mail program. As well, the principal at Garden Hill orders in bulk for their snack and lunch program, which students pay for. FARHA is currently undertaking an evaluation of the possibility of bulk purchases expanding to include fruits and vegetables and more schools.

Granville Lake is not on the Bayline Railroad but faces the same problem of having no store and having no road. People from Granville Lake must use winter roads or boat to reach a food store that is more than an hour away. To help residents of Granville Lake get healthy food boxes, members of the Leaf Rapids Co-op are recommending that their store sell healthy food boxes to Granville Lake, and to other communities with unaffordable food prices such as South Indian Lake. Prices at Leaf Rapids Co-op are slightly cheaper than South Indian Lake for many healthy foods.

Conclusion: Walk-in freezers, refrigerated rail cars for food transportation, healthy food boxes and a direct food buying system will improve access to healthy foods in remote communities. A number of NGOs have taken the lead to submit NHFI proposals and other agencies. Although the containers were funded by STEM other projects have yet to be funded by NHFI.

Recommendations: 1) The walk-in freezers at three airports in the Island Lake region should expand to other fly-in communities; 2) A boxcar refrigerated car or store could be set up to sell local food from market gardens and other healthy food (e.g., meat, bread, flour, beans) along the Bayline Rail to allow people to buy healthy and fresh foods on the train or place a custom order in advance; 3) NHFI should assist the implementation on a pilot basis of healthy food boxes to areas of highest food insecurity; and, 4) NHFI should look at programming to expand the use of direct or bulk buying by social assistance workers and schools, which may require IT development to allow on-line purchasing of foods.

6.6 LEARNING FROM NON-NHFI INITIATIVES: SUPPORTING COUNTRY FOODS

Country foods, including caribou, moose meat and fish, are an important component of food security in the north. These traditional foods contribute to a healthy diet and can be supplied independently of southern production, distribution and economic systems. Community people see the revival of hunting, trapping, fishing and gathering activities as greatly needed to improve the food security status of northern communities and to foster community economic development and cultural pride. While some of the NHFI funded projects such as the freezer loan program contribute towards the use of country foods, more infrastructure and regulatory changes, as well as initiatives directly targeted at improving access to country foods are needed, including funding.

There are jurisdictions in Canada that have worked to remove similar barriers to the access and use of country foods in their communities. In the Yukon, licensing changes have improved conditions for the local use of food from trapping, hunting, and fishing. These changes have included provisions to ensure that local food can be served in a hospital setting (NHFP, 2003). Nunavut has assisted hunters through co-ops and through an income assistance program. In Manitoba, the Nisichawayasihk Cree Nation (also known as Nelson House) made a very practical and culture-friendly plan to provide greater access to healthy and traditional wild food to community members.

The replication of programs like these would result in huge benefits for northern communities in terms of food security, economic prosperity and community development. However, the barrier to increased use of country foods in northern Manitoba are many and include: regulations related to the sale of wild foods; lack of infrastructure for the processing of wild foods for local and non-local markets; lack of programs to support the preservation of fish and calving habitat; lack of ports for commercial fishers in northern Manitoba; the high cost of gas in Northern Manitoba due to freight costs; lack of skills in the youth and many families; and, lack of training and education programs on hunting and fishing.

The importance of supporting traditional and wild food programs is mentioned in the Northern Food Price Report (2003): “Manitoba Conservation works with northern citizens in sustainable use of fish supplies and wild game. This option encourages and supports these kinds of activities with the focus on providing food to local citizens. After this local need is satisfied, there might be additional market opportunities that can provide a source of income and economic development.” Unfortunately, little infrastructure or funding exists to support these economic development opportunities.

Public health restrictions currently do not allow wild fish or meat to be sold in local restaurants or stores or even provided free to public facilities (hospital, health centre, schools, band) for institutional or public use. Community members report that the public health inspector visits once or twice a month remote communities and would shut down their lunch and home economics kitchen program if wild meat or ungraded fish are found. Despite the food safety risks that exist with traditional food there are clear benefits for their use that appear to outweigh the risks from prions and other factors. Traditional food practices are proven practice in contrast to public health, which is science based. To address the safety of traditional food preparation has been processed in an approved facility for a head start program in BC and Kivaliq Arctic Foods Ltd which distributes traditional food using retail, whole sale and online stores. However, in Northern Manitoba there are no approved processing facilities for meat or fish. Nelson House country foods program provides a program for sharing country foods, which has resulted in better food security rates.



Figure 6-1: Nelson House First Nation country food program provides wild meat and fish for the community people.

Community members have expressed interest in the creation of cooperatives to process and sell fish locally at fair prices. According to one Elder fisherman, the Freshwater Crown Corporation system is flawed: “The Freshwater Crown Corporation have a monopoly on fish – we can’t sell our fish locally or export – they set a very low price”.

A lack of fish habitat conservation programming was also identified as a major concern for northern fisheries. Many northerners depend upon fishing both for sustenance and for their livelihoods, but without improved conservation programs, fishing in the north is at risk. A Fisherman connected the lack of habitat programs with the demise of many fisheries:

We used to have jumbos [northern pike] that big [three feet long]. We don’t have those no more. There’s no programs to back habitat up. Not at all. You have some at the south end of Lake Winnipeg, but nothing in the north. It’s like they forgot about us people in the north. That would kill our people. No matter what colour we are.

Success Story: Ki-wi-ka-pa-we-tan Traditional Gathering

For the past several years the community elders at South Indian Lake (SIL) have arranged a traditional camp out gathering called Ki-wi-ka-pa-we-tan to teach youth how to harvest traditional country foods and build community cohesion. Elders participating in the camp teach the youth how to catch and clean fish, how to hunt and trap, how to process animal hides, how to cook traditionally as well as the importance of growing root vegetables. The entire gathering runs in a very traditional way and all the food and drinks for the feast are local country foods. The community looks forward to this week each year and the children and youth learn a lot from the event. The Ki-wi-ka-pa-we-tan gathering is funded by the Nelson House First Nation Band and is a non-NHFI. Project

Conclusions: To revive access and use of country foods in communities, infrastructure and regulatory changes are required, as well as initiatives directly targeted at improving access to country food. Infrastructure for the processing of wild foods for local and non-local markets is required in the form of supplies and supports for hunting and fishing, fishing ports, fish processing plants, and butchering facilities. Regulations related to the sale of wild foods and serving local foods in hospitals needs to be implemented, and the monopoly on fish prices by Freshwater Crown Corporation needs to be replaced with fair market prices. As well, preservation of existing fish habitat is essential rather than the current model of no net loss of fish habitat.

Recommendations: 1) Support traditional food gatherings where Elders teach the community traditional ways of hunting, fishing and food preservation; 2) Create learning programs for hunting and fishing such as a yearly fishing derby; 3) Preserve existing spawning and calving areas and other habitats in northern communities and create new habitat where habitat has been lost; 4) Provide infrastructure for fishing and fish processing in the north to serve the north and south; 5) Support country food programs; and 6) Support local food markets that include traditional foods and gardening.

7 COMMUNITY FOOD ASSESSMENT

A community food assessment (CFA) is a collaborative and participatory process that may require one or more meetings to systematically examine a broad range of community food issues and assets, so as to inform and build capacity for collaborative change actions to make the community more food secure (Cohen, 2002). A CFA examines resources as well as needs, and involves diverse and key participants (e.g., principal, health worker, councilors, chief or mayor). Yet no community has undertaken a CFA. Typically, a NHFI community doesn't get together to decide what is the priority for food action or the state of food security in the community. Instead, projects are submitted and may get the approval of council on an ad hoc basis.

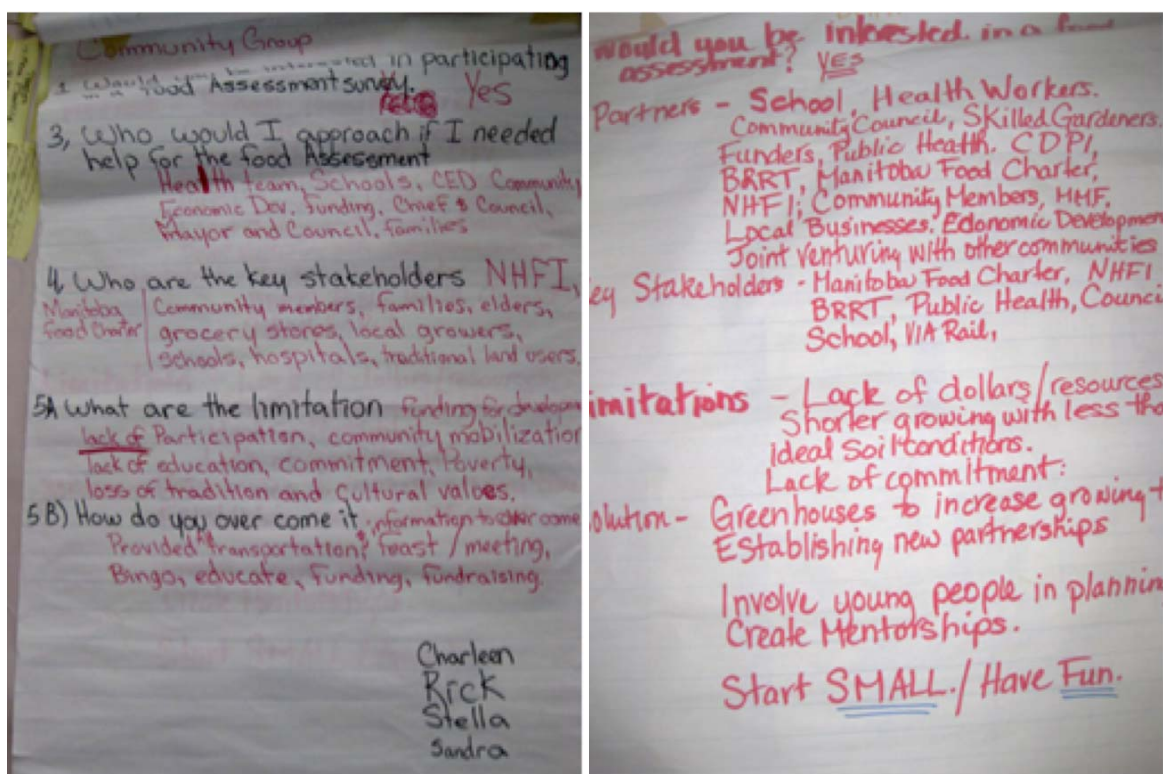


Figure 7-1 and Figure 7-2: Examples of different communities' responses to the community food assessment exercise

The CFA exercise showed that communities were keen to bring key members together to develop a sustainable food plan. When undertaking a CFA, communities indicated they would enlist schools, health authorities, community economic development funding, Chief and Council, and community members as key participants. They typically listed the following key partners to bring in for different projects as required: Elders, local growers, council, health authority, store and the different non-government organizations. VIA Rail was mentioned by the BRR communities. Only one group identified partnerships with provincial or federal government as being key, mentioning First Nation and Inuit Health Branch. The limitations that were listed included a lack of resources and funding, as well as a lack of commitment and support. The solutions communities

identified included establishing new partnerships and involving young people in planning to create mentorship



Figure 7-3: Key things to increase food sustainability and their level of difficulty

Priorities: Priorities for food projects were charted with approximately 80 participants at the Northern Harvest Forum. Most items were rated as being hard to accomplish, on a three point scale of easy (6 items), medium (13 items) and hard (23 items). As well, most people considered their item as extremely important on a three point scale of important, very important and extremely important. This exercise showed that the highest priorities for food projects included: 1) helping people get boats/motors, skidoos or gas for trapping and hunting; 2) starting community gardens; 3) increasing the healthy and affordable food in stores; 4) starting traditional foods preparation classes that included hands-on teachings of cultural food harvesting; 5) getting policy makers and community members to see food security as an overall well-being issue; and 6) having community buying or shopping excursions. The priorities considered the easiest to accomplish were cooking classes and gardening with schools. The items considered the most difficult to accomplish were changing food access at store, getting domestic food support for hunting and trapping, and chicken and livestock production.

8 CONCLUSIONS

The NHFI received its mandate from the well-respected Northern Food Prices Report (2003), which resulted from an extensive community consultation process. The NHFI is well positioned, if strengthened and diversified, to assist communities to build food self-sufficiency to alleviate the food crisis in Northern Manitoba for a number of reasons. This initiative has succeeded in starting a northern healthy food process in the north without extensive funding or administrative supports. The NHFI has achieved some notable successes, including the gardening, greenhouse, poultry and freezer loan projects. With no greenhouses or gardening materials in most remote communities prior to NHFI, NHFI has resulted in noticeable changes and enthusiasm at the community level. However, with no permanent infrastructure change and limited capacity building NHFI's impact could be transitory. Success is largely due to the multidisciplinary NHFI team with diverse expertise from five departments to leverage funds, community-support for this "program people were waiting for" and non-government organizations. People from Northern Manitoba communities enjoy gardening and see greenhouses as necessary to extend the season. The non-government organizations include Frontier School Division, which covers much of the North, Four Arrows Regional Health Authority which works with regional health offices in four remote communities and Bayline Regional Roundtable, that services the communities along the Bayline without roads, among others, as well as the Northern Association of Community Councils, which is a local government network and the provincial Food Matters Manitoba. The most effective projects have occurred when NGOs work with community people in schools or community health centres to build community capacity.

However, to address extremely high rates of household food insecurity, the northern food system needs a major overhaul. To help meet this challenge, NHFI needs to scale up and diversify its projects portfolio to make a significant difference at the population level. Enhanced levels of funding, programming, networks and supports are needed to bring about sustainable change and improve food security on a population level. Areas where NHFI has not made so much headway include provincial/federal collaboration, prioritizing remote communities, documentation, evaluation, access to alternative food purchasing programs and promotion or support of traditional country food. At the government level, this initiative needs clarification and documentation of: responsibilities of NHFI-team members, decision-making processes, strategic plan and on-going evaluation procedures. NHFI funding should be used to leverage other funding, projects and programs on nutrition, community food and gardening from Regional Health Authorities of province and First Nations, Green Team and private sector funding for community or school gardening and nutrition. The mandate to develop food self-sufficiency requires that supports for hunting, fishing and traditional gathering of medicines and berries be funded, considering commercial enterprises and the great for country foods programming to support people in need.

At the community level, people need someone local to provide hands-on training and organize community food programming. At least one person from each NHFI community, particularly remote communities, should receive intensive, hands-on training on how to maintain and

operate a rototiller, plant, weed and harvest northern plants in a garden, outreach effectively to community members and how to use and build cold-frames and greenhouses. Without this train-the-trainer program very limited capacity building and community activities will occur, as hands-on work and organizing of most NGOs and the NHFI team in communities is restricted to one or two day visits due to difficult logistics, limited funding and lack of experience with outreach and agriculture in the north.

9 RECOMMENDATIONS

The recommendations throughout this report are summarized into the 13 recommendations below:

- 1) Increased, steady and multi-year funding from the provincial government for NHFI is recommended. The true cost of building a sustainable NHFI program requires that the large problem of food security be dealt with and the NHFI administrative requirements;
- 2) Communities not served by all weather roads have the highest food insecurity and greatest need for community infrastructure (e.g., walk-in freezers, greenhouses), personal freezers and other food programming and thus require equitable or enhanced NHFI funding, which has not occurred. To enact this, freezers should be designated an essential appliance in remote communities in Northern Manitoba by the province, which would require the federal government adopt and fund the same policy for First Nation communities in Northern Manitoba;
- 3) A mandate to develop food self-sufficiency requires that supports for hunting, fishing and traditional gathering of medicines and berries be considered after consultation and research with northern people;
- 4) Local food focused business development is needed that includes promoting, training, local marketing, supports for country foods, providing country and other food to people in need (e.g., Nelson House Country Foods Program model), and overcoming barriers (grading requirements which can only be done in south and federal meat processing facilities that are only available in the south) that prevent the sale and/or gift of wild meat or fish to schools, health centres and the public in North;
- 5) Administrating NHFI requires clarification and documentation of: responsibilities of NHFI-team members, decision-making processes, strategic plan, on-going evaluation procedures and communication strategy (e.g., website, community posters, brochures, video, northern community radio and television stations) and impact of NHFI through monitoring food security levels and local commercial food prices against income levels;
- 6) Leveraging of programming and/or funds on nutrition, gardening and country foods from the Federal government, provincial departments (e.g., Conservation and Healthy Living), Regional Health Authorities of the province and First Nations, Green Team, schools and/or school boards and the private sector should be pursued. For example, promises of gardening supports, like a plough, permanent greenhouse or community freezer may leverage workshops and programming on canning, gardening, country foods programs and nutrition programs, as well as facilitate youth employment and involvement with applications for Green Team and Sustainable Development Innovations Fund (SDIF) to facilitate special projects by providing plough, permanent greenhouse or community freezer in exchange;
- 7) To reduce high freight costs for healthy food NHFI should assist communities and groups to better access Food Mail. One way to do this is by supporting direct bulk buying by social

assistance workers and by lunch programs in schools for healthy food in remote communities (e.g., providing capabilities for on-line purchasing of foods or supporting healthy food boxes);

8) Assignment of communities to NGOs should consider the logistical aspects of shipping equipment and supplies, as well as conducting programming activities and visits and representation. The health authorities of Keewatin Tribal Council and the Southeast Resource and Development Council should be approached to be NGOs to allow better representation and services to their communities, which are currently underserved;

9) All NHFI communities should receive the same opportunities for the different NHFI programs and for service levels. For example, chicken and other livestock production should be available to all who are interested, rather than just through BRRT communities. To be strategic NGOs and the NHFI team should engage with health centres, schools or other networks to solicit local leadership and distribution networks for education, nutrition and gardening programs where they provide hands on training and assistance (e.g., participate in community garden work parties);

10) To build capacity in food security the Northern Harvest Forum in the fall should be augmented or replaced with an annual spring intensive train the training and planning program, similar to the BRRT agricultural technician advisor approach, for community members to prepare for the growing season and allow the timely distribution of plants and materials;

11) Youth and teacher training should be provided on cooking, gardening, fishing, hunting and traditional food preservation through funded and supported education programs (e.g., Frontier School Division's Veggie Adventures), garden clubs, summer traditional camps, in-school activities, youth employment opportunities (Green Team) and achievement awards;

12) Lack of stores in some communities and the high prices of limited healthy foods in the stores of other communities should be addressed by supporting regular monthly or weekly country foods/farmers markets and mobile food units (e.g., refrigerated rail car along Bayline and refrigerated trucks and airport freezer units) providing healthy food boxes and /or local food; and,

13) Supports, habitat preservation/restoration, education opportunities (traditional weeks where communities live off land and teaching programs by Elders) and infrastructure for hunting, fishing and traditional gathering of medicines and berries should be funded, considering the great potential for commercial enterprises if barriers are overcome (e.g., small quotas available to First Nation fisherman, monopoly of Freshwater Fish Marketing Corporation that does not consider northern freight, requirements for grading and processing in federal facility in southern Manitoba before sale to anyone or donating for public use) and the positive food security impact of the country foods program at Nelson House First Nation.

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