

# Supporting Canada's non-timber forest product sector: Lessons from Manitoba's Northern Forest Diversification Centre

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## Abstract

There is increasing interest in non-timber forest product (NTFP) development as a means to improve rural livelihoods in Canada, and a corresponding need to better understand the associated opportunities, constraints, and best practices. To this end, we assessed the experience of the Northern Forest Diversification Centre (the "Centre"), a unique organization dedicated to developing and promoting NTFP trade in northern Manitoba, which operated from 2001 to 2006. Hundreds of harvesters were trained by, and sold products to, the Centre, earning modest incomes that were nevertheless important. Other benefits included increased pride and self-sufficiency, re-connection with the land and community, rediscovery of traditions, and skills development. In 2006, the business aspects of the Centre were privatized, while training and research functions remained with the University College of the North. Activities in both realms have declined since. Lessons learned from the intervention include the importance of a clear vision amidst diverse expectations; that support for NTFP harvesters must be long term and expectations realistic; that local champions are essential and must be supported; that all elements of the market chain must be integrated; and that the social, environmental, and cultural benefits associated with NTFP development, as well as the economic ones, must be valued.

**KEYWORDS:** *community economic development; natural resource management; non-timber forest products; Northern Forest Diversification Centre; rural livelihoods; The Pas, Manitoba.*

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## Introduction

The use of non-timber forest products (NTFPs) as a base to support rural development has captured the attention of researchers and practitioners nationally (Mohammed 1999; Duchesne et al. 2001) and internationally (Neumann and Hirsch 2000; Alexander et al. 2001; Belcher et al. 2005). Experience gained in numerous research and rural development projects, primarily in the international context, has highlighted that some of the most important constraints to such development exist within the market systems, and recent efforts have focussed, accordingly, on supporting market development (Belcher and Schreckenber 2007). More specific analysis of experience in the Canadian context is required to guide regional and national policy and investment in the sector.

Despite the interweaving of Canadian culture with the use of forest products—including the extensive use of these resources by Aboriginal peoples for thousands of years—the NTFP sector in Canada is still relatively immature. Its development has been driven primarily by small- and medium-sized businesses (Centre for Non-Timber Resources 2006; LeGal 2007) with some limited support from governments, forestry companies, First Nations associations, non-governmental organizations, and research institutes. Though there is growing interest in the economic and ecological sustainability of some species (e.g., wild mushroom harvests in British Columbia [Berch et al. 2007; Ehlers et al. 2008; Bravi and Chapman 2009]) and in collaborative NTFP development with Aboriginal communities (Charnley et al. 2007; Peloquin and Berkes 2009; Royal Roads University et al. 2010), the sector remains under-researched.

Nevertheless, there is a growing base of experience to build upon. Most provincial and territorial governments now have individuals, departments or, as in British Columbia, inter-agency committees<sup>1</sup> with responsibility for NTFP issues. Regional and national alliances are being developed to facilitate communication amongst those with an interest in NTFPs (Centre for Non-Timber Resources 2006;

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Smith et al. 2007).<sup>2</sup> There have also been a small number of NTFP demonstration projects implemented across Canada, such as those of the Falls Brook Centre in rural New Brunswick<sup>3</sup> or the North Island NTFP Demonstration Project in British Columbia.<sup>4</sup> In Quebec, organizations such as Les artisans des forêts, l'Association pour la commercialization des champignons forestiers, and Syndicat des producteurs de bleuets du Québec have facilitated NTFP development by bringing together isolated businesses, influencing government ministries to take leadership for the NTFP sector, and obtaining leases on Crown land to be used by members for blueberry production (Albert 2007; LeGal 2007).

This study focusses on the experience of the Northern Forest Diversification Centre (referred to here as the “Centre”) in northern Manitoba. Created in 2000 by Keewatin Community College (now University College of the North) in The Pas, the Centre was established to enhance local livelihoods by developing and promoting trade in NTFPs in northern Manitoba. The major employers in the region are in natural resource industries (mining, forestry, and hydro-electric development); being far from major centres, there is little opportunity for secondary or tertiary economic development. The population is split between an urban cohort that is predominantly white and employed, and an Aboriginal population living predominantly in more remote First Nations communities with high levels of unemployment and poverty. Even entry-level jobs with the main employers

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<sup>1</sup> The B.C. Ministry of Forests and Range and the B.C. Ministry of Agriculture and Lands have co-chaired a committee with representatives from several ministries, the First Nations Forestry Council, and the Centre for Non-Timber Resources.

<sup>2</sup> Examples of this include the NTFP Network of Canada (<http://www.ntfpnetwork.ca/>) and the NTFP Information Exchange in the United States (<http://www.ifcae.org/ntfp/>).

<sup>3</sup> <http://www.fallsbrookcentre.ca>

<sup>4</sup> Centre for Non-timber Resources. 2003. Integrated demonstration project for non-timber products: Final report 2002–2003. Royal Roads University, Victoria, B.C. Unpublished data.

in the region require a high school diploma, which excludes the majority of the Indigenous population.<sup>5</sup> Economic development is a high priority for northern Manitoba, and while Aboriginal communities are exploring avenues to increase their material wealth, they are generally seeking to balance emerging opportunities with a desire to maintain a traditional lifestyle deeply connected to the land.<sup>6</sup>

As one response to these issues, the Centre set out to strengthen and diversify the economy through NTFP development. The Centre:

- trained local people in harvesting, resource-management, post-harvest processing, and trade;
- co-ordinated the collection of products from widely dispersed producers;
- processed and packaged products; and
- developed markets in which to sell them.

By performing this range of functions, the Centre created and built new markets for products from the local forests and marshes and provided new opportunities for local, primarily Aboriginal, people; however, as with any pioneering effort, the Centre model had flaws and was not able to continue in its original form. In 2006, the marketing function was privatized and is no longer operating. The University College of the North is also not currently providing any training or outreach services.

The experience of the Centre provides a valuable learning opportunity for those concerned with the potential for NTFP development in Canada and elsewhere. To better understand the benefits, challenges, and lessons learned from such an initiative, and to formulate recommendations for future NTFP-based interventions in rural Canada, we investigated the development, operation, and eventual closure of the Centre. We interviewed officials, trainees, harvesters, and others who engaged with the Centre, and reviewed the centre's records and the grey literature to document its history. We then made a qualitative assessment of the benefits generated and problems encountered by the Centre, and summarized the lessons learned from this experience in terms of institutional support and resulting benefits.

## Methods

### Review of records and grey literature

We reviewed business plans, discussion papers, activity reports, funding proposals, and assorted e-mails from the Centre records to better understand the social and political context of the initiative and to examine the objectives, activities, and outcomes of the Centre. In addition, the University College of the North provided us with business records including a list of all products traded by the Centre (which varied by year; see References section for details); the total sales per year; and the quantities, average price, and gross profits by product. This allowed an assessment of the Centre's total annual sales and profits, volumes sold and profits earned per product, and the relative proportion of products sold over time that were value-added compared to those that were only minimally processed.

### Key informant surveys

We used a semi-structured interview format (see survey questionnaires at end of the article) administered in person with purposively selected respondents in two main categories:

1. Government officials, university staff, and others with overview knowledge of the NTFP sector and of the Centre; and
2. NTFP harvesters, traders and others with direct experience and involvement in the sector, and, in most cases, with the Centre.

Using the "snowball" method, informants were identified through the connections of partners and recommendations of local people.

The survey of officials ( $n = 10$ ) asked about NTFP harvest, use and trade in the area, the history of local interventions including (but not limited to) the Centre, and the perceived impacts of those interventions. The survey of harvesters and traders ( $n = 14$ ) asked about basic household demography, natural resource use patterns and history, experience and opinions on NTFP trade and on the role and influence of the Centre, and values and expectations pertaining to NTFP use and trade. Surveys were completed in five communities between July and September 2008, and included participants from a total of eight communities (Figure 1).

<sup>5</sup> Lauvstad, D. 2001. Northern Forest Diversification Centre five-year business plan: Economic development for Northern Manitoba. Keewatin Community College, The Pas, Man. Unpublished data.

<sup>6</sup> Ibid.



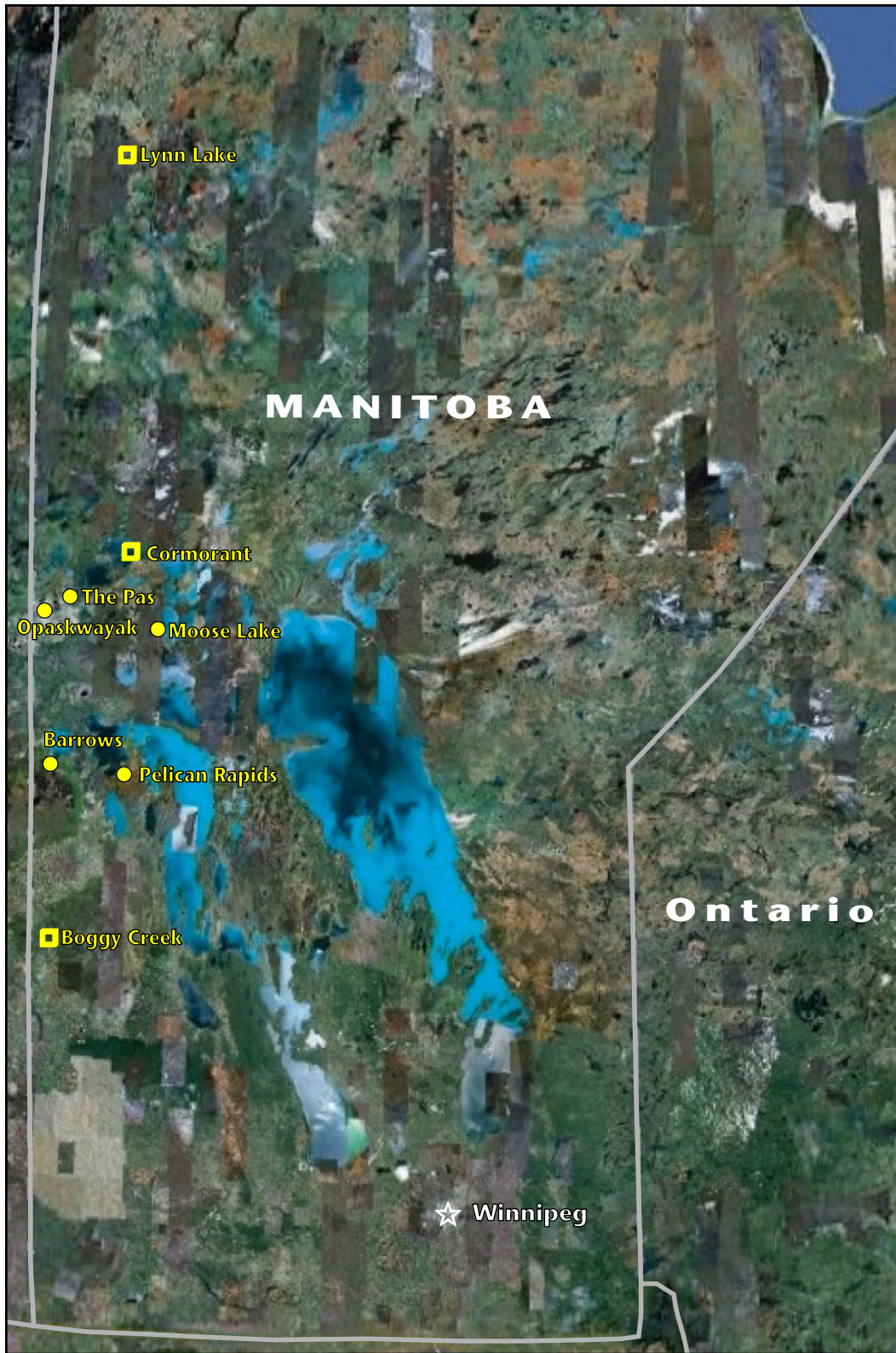


FIGURE 1. Study area showing survey locations (yellow circles) and other home communities (yellow squares) of survey respondents (map courtesy GoogleEarth 2010).

## Results

### Development of the non-timber forest product sector prior to the Northern Forest Diversification Centre

The study area has a long history of primary resource extraction activities related to the fur trade, lumbering, pulp and paper production, and mineral extraction (Allen [editor] 1983). It has been suggested that the traditions and culture of northern residents align better with those of entrepreneur/harvester than with those of available industry and factory jobs.<sup>7</sup> Various NTFPs have been produced in the region. Sweetgrass (*Hierochloe odorata*) and sweet flag (*Acorus* sp.) have been harvested and traded with other Aboriginal groups in North America for hundreds, if not thousands, of years. Sweetgrass has been commercialized in the past few decades with buyers (mainly from the United States) using it for traditional cleansing and other ceremonial purposes (D. Buck, NTFP Project Manager, pers. comm., August 2009). Seneca root (*Polygala senega*) has been commercially harvested in Manitoba since the early 1900s (Tough 1996), with a maximum production of over 330 000 kg of dried root in 1930, declining to about 68 000 kg by the mid-1950s, at which point 75% of the world's supply was from Manitoba (Shipley 1956). It is still harvested and exported today. Buyers and brokers for these products were mainly based outside the region. One exception was a sweetgrass buyer located just south of The Pas who shipped large quantities to a U.S.-based broker from the 1970s to his death in the early 1980s. Other small-scale regional buyers then entered. In the early 1990s, a buyer based in The Pas began producing and marketing wild crafts, wreaths, and sweet-grass, and began trading in seneca root at the request of residents of Moose Lake. During that period, he reported purchasing and re-selling over 3600 kg of dried seneca worth \$130 000 (D. Buck, NTFP Project Manager, pers. comm., January 2009).

Wild rice (*Zizania palustris*) was introduced to the region in the early 1980s and a small processing plant was built near The Pas. Annual production reached 360 000 kg in the early 1990s. Despite attempts to engage Aboriginal producers in the wild rice industry, it provided little benefit to Aboriginal communities as the majority of the rice leases were controlled by non-Aboriginal entrepreneurs (Lavergne 2006). The Manitoba Indian

Agricultural Development Corporation (MIADC) made some efforts to encourage Aboriginal involvement, but the wild rice crop failed in 1993 and funding issues with the MIADC led to the processing plant being sold to a private operator (Lavergne 2006).

### The development of the Northern Forest Diversification Centre

In 1999, a group at Keewatin Community College in The Pas proposed the establishment of a centre to foster local economic development through the harvest and trade of NTFPs. In 2000, the college received federal funding from Western Economic Diversification to study the feasibility of such a program, and an external consultant was engaged to develop a harvester training program and deliver three pilot training sessions in nearby communities. The original intent was not to create a new industry from the development and sale of NTFPs. Rather, NTFPs were seen as a tool to pursue larger socio-economic change within marginalized communities of northern Manitoba.<sup>8</sup> The Northern Forest Diversification Centre was established as a special demonstration project under the authority of the college, with a mission to “promote innovative economic opportunities for indigenous populations based on the sustainable use of local resources for the benefit of local residents.”<sup>9</sup>

Starting in 2001, Western Economic Diversification and the provincial government provided single-year grants (approximately \$225 000 in 2001–2002 and \$410 000 in 2002–03) that enabled the Centre to undertake NTFP harvester training and support, and product development and research. Longer-term funding was realized in 2003 (approximately \$360 000 in 2003–2004, and \$500 000 in both 2004–2005 and 2005–2006) that enabled the Centre to further develop these core activities while also developing critical components within the industry, including quality control and certification protocols, more extensive product and market research and development, and organization of the fledgling industry into harvester's associations.

#### Northern Forest Diversification Centre operations

The Centre operated as an arms-length entity with its own management board (which acted as an advisory committee) under the umbrella of the college. In 2000, the Centre had 4.25 full-time equivalent (FTE) personnel

<sup>7</sup> Luvstad, 2001.

<sup>8</sup> Northern Forest Diversification Centre. 2003. A business plan for the incorporation of the Centre as a non-profit corporation under the *Companies Act of Manitoba*. The Pas, Man. Unpublished data.

<sup>9</sup> Luvstad, 2001.

including a managing director (0.5 FTE), business/office manager (1 FTE), ecotourism project manager (0.5 FTE), NTFP project manager (1 FTE), NTFP project assistant (1 FTE), and an elder (0.25 FTE). The college provided funding for 1.25 FTE; the rest of the personnel was supported through grant funding but were technically University College of the North employees. By 2003, the staff complement grew to 7.25 FTE including a full-time marketing manager and warehouse personnel. The staff remained at that size into 2005, with some employee turnover and changes in duties as required.

**Key activities of the Northern Forest**

**Diversification Centre**

Because it was attempting to establish an industry in an area in which commercialization of NTFP harvesting was largely unknown, the Centre needed to provide a range of services including training, harvester support, development of new products and markets, and industry advancement.

**Training** – One of the primary services of the Centre was to provide community-based harvester training. The main vehicle was an entry-level 10-day program offering an overview of the NTFP industry and instruction in harvesting, processing, and selling products; environmental, social, and cultural ethics and sustainability; business development; and standards and quality control. With no educational prerequisites required, participation in the training program was accessible to the majority of residents. A certificate was

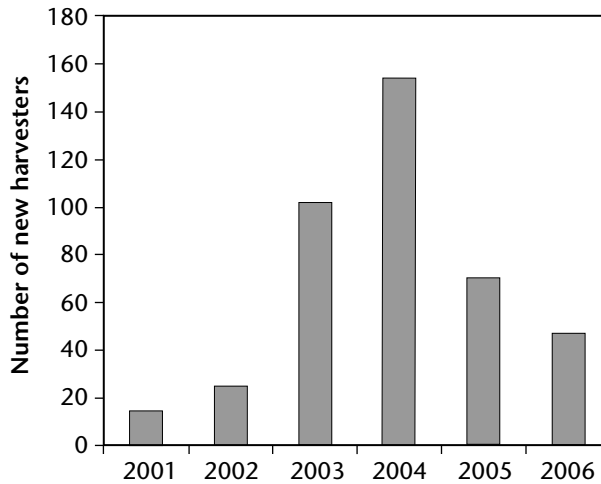
provided upon completion. Trainees generally self-selected or were identified by community development officers and (or) course funders (e.g., First Nations Forestry Program, Manitoba Employment and Training, and local educational authorities). In some cases, funders imposed selection criteria such as First Nations status or band membership. Organizers noted that lenient selection and imposed training (i.e., as a requisite for receipt of employment insurance) sometimes resulted in having less-motivated participants attending training sessions (D. Buck, NTFP Project Manager, pers. comm., January 2009).

Training was delivered by two or more Centre staff as a blend of classroom sessions, field trips, and hands-on activities. The Centre provided harvesting and processing tools including brush saws, pruning shears, and wreath-making machines; in later sessions, toolkits worth approximately \$200 were provided to each course graduate. This increased the cost but ensured that participants had the necessary equipment to use their training. In some cases, the Centre began purchasing products from trainee harvesters after only the first week of training (D. Buck, NTFP Project Manager, pers. comm., August 2009). By the peak of its operations (2005–2006), the Centre had trained over 100 participants in nine communities (Table 1).

**Harvester support** – While the training courses ensured knowledge and equipment remained in the community after the course, the Centre also provided support for

**TABLE 1.** Communities in northern Manitoba where harvester training was provided by the Northern Forest Diversification Centre, 2000–2006

| Community  | Year          |
|--|---------------|
| Moose Lake   | 2000 and 2006 |
| Cormorant  | 2001          |
| Cranberry Portage  | 2001          |
| National Mills (included participants from Barrows, Baden, and Red Deer Lake)              | 2002          |
| Sherridon  | 2003          |
| Wellman Lake (included participants from Minitonas, Birch River, Duck Bay, and Swan River) | 2003          |
| Opaskwayak Cree Nation   | 2003          |
| Lynn Lake  | 2003          |
| Camperville  | 2005          |



**FIGURE 2.** Number of new harvesters selling product to the Centre during the years of operation (2001–2006). New harvesters are defined as those that did not sell product to the Centre in any of the previous years.

new harvesters. The Centre engaged with approximately 400 harvesters from at least 25 communities (Figure 2) over the period it operated. Support included providing information on market trends, assisting with packaging, problem solving on transportation issues, and other advice and information for harvesters and traders.

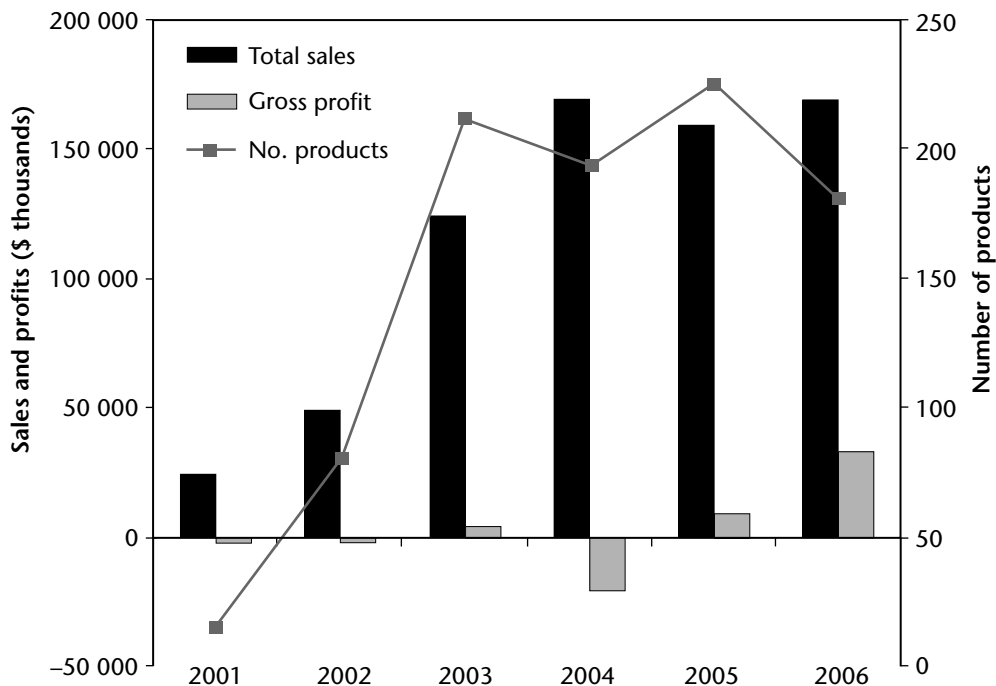
In some cases, simply making an effort to stay in touch with new harvesters was the critical function. As one harvester stated:

*I probably wouldn't have continued to work on this if someone from the Centre hadn't kept on calling me and asking me what I was doing with the information that I learned at the training.*

The Centre became an important conduit between the harvesters and other participants in the NTFP industry. It was a point of contact for buyers, as orders would be placed with the Centre and directed to harvesters. When orders exceeded the production capacity of a single harvester, the Centre co-ordinated production from multiple harvesters and organized product shipping.

**Product research and market development –**

Developing products and markets was a critical need in this fledgling sector and the Centre was prolific in this area. By 2004, the Centre was marketing more than 200 different products (Figure 3). Over 400 different products were marketed over the life of the project. Some products, such as sweetgrass and seneca root, already had markets and formed the majority of sales volume. Others were developed based on perceived prospects and the need to provide opportunities for newly trained harvesters. In addition to testing new



**FIGURE 3.** Total sales, gross profits, and number of products sold annually by the Northern Forest Diversification Centre.



products developed by harvesters, the Centre also initiated product research. For example, the Centre worked in conjunction with the Food Development Centre in Manitoba to develop wild-berry fruit leather, which showed promise but did not reach the market before the Centre ceased operations. Some product development ideas were brought to the centre by the Centre NTFP program manager and others originated from participation in trade shows and other events by Centre staff. Product development was to some degree an ad hoc process, leading to some “winning” products, such as “talking sticks,”<sup>10</sup> smudge pouches,<sup>11</sup> and tea blends which are still being sold by Centre-trained harvesters; others were less successful, such as festive stars or craft kits made of birch. By testing the marketability of products, the Centre was able to reduce the risk for harvesters exploring new product ideas.

As the level of activities and the number of communities involved continued to grow, a marketing manager was hired to lead product and market development. Working with harvesters who proposed new products, she would research their idea, help develop the product, market it for a year, and based on its success would either add it to the Centre catalogue or return it to the harvester. If a product was successful enough that its demand exceeded the harvester’s ability to supply it, additional product would be purchased in the community and, if necessary, in other communities (D. Buck, NTFP Project Manager, pers. comm., August 2009). The marketing manager also developed new packaging and branding for Centre products. (D. Buck, NTFP Project Manager, pers. comm., January 2009). A website with product listings launched in 2001 further helped develop new market contacts, as did participation in trade shows in central and western Canada.

Wreath production demonstrates the role of the Centre in identifying and developing new market opportunities. Competition from low-cost imported wreaths forced the Centre to develop markets outside the region, such as in the fundraising sector (i.e., for sale by hockey clubs) where producers could realize a reasonable return. Once the program was underway, up to 12 women were kept busy producing up to 800 wreaths during the pre-Christmas season for

organizations in western Canada (D. Buck, NTFP Project Manager, pers. comm., January 2009).

**Industry advancement** – The Centre took on a range of initiatives aimed at promoting the NTFP industry in Manitoba and beyond. It developed sustainable harvest certification protocols, a harvester’s code of ethics,<sup>12</sup> product traceability, and organic certification, and established the Manitoba Wild Harvesters Association. In the period following the end of the project (i.e., post-2006) much of the momentum was lost on these initiatives, though their impacts and current status are mixed.

Sustainable harvesting practices and quality control requirements were developed for products such as highbush cranberry bark (*Viburnum trilobum*) and balsam poplar buds (*Populus balsamifera*). Individual harvesters were then trained and “certified” as having the knowledge needed to sustainably harvest the target species to required quality levels. In its final stages, the Centre was moving towards a system of only purchasing product from certified harvesters. The code of ethics developed by the Centre received positive reviews from other groups and organizations concerned with sustainable harvesting, and has informed similar codes under development elsewhere in Canada and the United States (D. Buck, NTFP Project Manager, pers. comm., January 2009).

The Centre effort to ensure product safety and enhance product traceability evolved into a system of identification numbers applied to product packages that could be cross-referenced to the harvester, date, and location of collection. This approach contributed to the design of the Good Agricultural and Collection Practices Program accepted by the Canadian Food Inspection Agency, which continues to work with NTFP harvesters across Canada (C. Kehler, pers. comm., July 2009). The organic certification standards program for wild-harvested products was not finalized before the Centre ceased operations. Based on preliminary work of the Centre and the Organic Producers Association of Manitoba, there appears to be potential to develop a certification model for small-scale harvesters that would address the growing demand of some market segments for certified organic products (D. Buck, NTFP Project Manager, pers. comm., January 2009).

<sup>10</sup> A ceremonial item used historically by Aboriginal communities (now more widespread) denoting the speaker at meetings, who should not be interrupted as long as they hold the stick.

<sup>11</sup> A collection of sacred plant material such as sage, sweet-grass, and cedar generally used in cleansing ceremonies.

<sup>12</sup> Available at Manitoba’s Wild Harvesters Association Code of Ethics: <http://cntr.royalroads.ca/node/192>



The challenge of communicating with a growing number of independent harvesters was recognized early on, prompting the organization of harvesters into local associations that could act as focal points for two-way communications between the centre and individual harvesters. Training course participants were asked to form local harvesters associations as chapters of the Manitoba Wild Harvesters Association. These local associations were a work in progress, and not all functioned as intended. In some cases, contact people were designated to relay information to and from members of the association, but the system failed and communications with multiple harvesters (i.e., on pending orders) reverted to Centre's limited staff (D. Buck, NTFP Project Manager, pers. comm., January 2009).

The Centre also engaged in extensive outreach and networking. It was a member of several national NTFP-related organizations, hosted visits from agencies inside and outside of Canada that were interested in the Centre model, and presented at conferences and meetings in Canada, the United States, and Russia. Although these developments added additional costs to centre activities, the Centre was attempting to position itself as a premier supplier of ethically and sustainably produced NTFPs in North America (D. Buck, NTFP Project Manager, pers. comm., January 2009).

### Northern Forest Diversification Centre finances

#### Northern Forest Diversification Centre sales and profits

Over the full term of its operations, the Centre made a gross profit (i.e., the revenue from product sales minus production costs) of \$28 000. There was a sharp increase in the total sales and the number of products sold by the Centre in its first three years, followed by fairly stable profits for the next 3 years (Figure 3).

Sweetgrass was the top seller with between 4600 and 9000 braids sold annually from 2003 to 2006. Other high-volume products included seneca root and highbush cranberry bark. The most profitable products were seneca root, poplar buds, cranberry bark, smudge pouches, sweetgrass, balsam wreathes, mint tea, birch bark cup and tea bags, kinnikinnick (*Arctostaphylos uva-ursi*), and diamond willow walking sticks (Table 2). The production costs of the first three products were not calculated in 2001–2002, and were extrapolated from those of subsequent years. They indicate that in 2001 sales of poplar buds and cranberry bark resulted in a loss. The unit prices of both of these products increased in 2002 (from \$8 to \$11.50, and \$6.80 to \$11.20 for poplar and cranberry, respectively), as did their profits (Table 2).

TABLE 2. Gross earnings (\$) of the 10 most profitable products sold by the Centre, grouped by year

| Product                      | 2001  | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------------|-------|------|------|------|------|------|
| Seneca                       | 57    | 929  | 3106 | 1796 | 797  | 5708 |
| Poplar buds                  | -20   | 237  | 444  | 3279 | 1203 | 4971 |
| Cranberry bark               | -1511 | 1131 | 1709 | 2342 | 2188 | 4143 |
| Smudge pouch                 |       | 1240 | 2459 | 2669 | 1867 | 1705 |
| Sweetgrass                   |       | 964  | 2505 | 2591 | 1629 | 1686 |
| Balsam wreath                |       | 464  | 2439 | 1670 | 2485 | 1788 |
| Mint tea                     | 120   | 1134 | 186  | 282  | 191  | 112  |
| Birch bark cup and tea bags  |       |      | 349  | 603  | 197  | 186  |
| Kinnikinnick                 |       | 33   | 93   | 264  | 271  | 107  |
| Diamond willow walking stick |       | 134  | 418  | -66  | 2    | 136  |

High-selling products included those that were minimally processed (e.g., bulk poplar buds and dried kinnikinnick) and those with value-added processing (e.g., balsam wreaths, smudge pouches, and artisan crafts). Of the 435 products sold by the Centre, 103 (24%) could be considered unprocessed. Over time, the proportion of value-added production rose (Figure 4), allowing for greater returns.

**Northern Forest Diversification Centre revenue and expenses**

Over the course of its existence, the Centre struggled with financial challenges. Substantial funding was provided by federal and provincial governments (approximately \$2 million over the life of the project) as well as in-kind contributions from the Keewatin Community College and the University College of the North. The majority of this funding (approximately 60%) was used for staff salaries.<sup>13</sup> Other major expenditures included travel, space rental, and utilities for the office, warehouse, and workshop.

**Closure of the Northern Forest Diversification Centre**

Provincial and federal funding for the project ended in 2006. At the same time, there was a change of personnel in the University College of the North's administration, the Executive Director of the Centre was taking on new roles, and the manager primarily responsible for many

Centre activities retired. The marketing manager had been laid off 2 years previously, with a resulting negative impact on market development for Centre products. These factors prompted the Centre's management board to recommend a change toward a more traditional model for managing the different functions of the Centre. It proposed that the University College of the North take on the training and research functions, and that the business aspects and the Centre's legal name be turned over to a local entrepreneur involved in processing and marketing wild rice in The Pas. Recognizing that the established practice of emphasizing high returns to harvesters rather than profits for the Centre left the business vulnerable, it was proposed that 3 years of provincial funding be provided to the entrepreneur to aid in the transition to a for-profit model. This funding, considered critical for a smooth transition from a publicly funded social development project to a sustainable for-profit venture, did not materialize (M. Harvey, pers. comm., July 2009), and left the Centre without a cogent plan for the transition.

The new owner invested considerable effort and funds into market development, but for a number of reasons, including a lack of direct links with the harvester community, the NTFP trade slowed dramatically. External factors also had an impact, such as a slump in the market for seneca root, and an increase in the value of the Canadian dollar relative to the U.S. dollar. The new owner naturally tried to

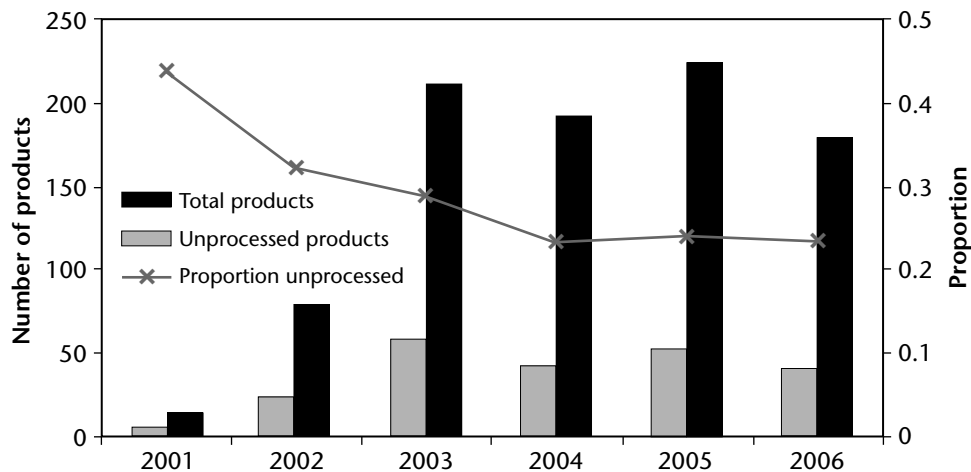


FIGURE 4. Number and proportion of unprocessed products as compared to total products sold by the Centre over its years of operation.

<sup>13</sup> University College of the North. 2005. UCN 2004/2005 Annual Report. Unpublished data.

shift the business to profitability. Reduced prices and demand for products strained the relationship between the buyer and harvesters. This was exacerbated by the poor understanding by many harvesters about downstream markets and prices. For many harvesters, the Centre had been the sole outlet for selling products. The change in ownership changed established relationships. Some survey respondents commented that the newly privatized Centre treated the products as commodities rather than products with cultural and spiritual value, as emphasized in the original Centre.

Since the Centre closed in 2006, no additional harvester training has been conducted. The University College of the North no longer has qualified trainers, and only recently (2008–09) has new funding been received to partially support a revitalization and updating of the NTFP training program. Furthermore, while training can be delivered on a cost-recovery basis, the merit of such training, given the absence of a mechanism for ongoing community support (one of the services considered critical to the success of the Centre), is questionable.

## The harvesters

### *Harvester characteristics*

Most informants were 45–60 years of age, with the median age closer to 60. Many lived in households of two people, but reportedly harvested in larger groups with extended family and friends. All were Aboriginal (First Nations or Métis). The households had mixed income sources, with high levels of unemployment or under-employment, and often social assistance as the main income source. Perceptions of how many people or households in a community were active NTFP harvesters varied widely. Some respondents reported that few others from their community were involved, whereas others from the same community reported that many harvested.

Non-timber forest products were collected for both trade and home use. Seneca root and poplar buds were the commercial products most often referred to by respondents, while fish and game and the medicinal sweet flag were primarily harvested for home use. A range of other products was harvested for both trade and home use, including:

- berries: blueberry (*Vaccinium angustifolium*), strawberry (*Fragaria virginiana*), and raspberry (*Rubus pubescens*);
- mushrooms;
- teas: Labrador tea (*Ledum groenlandicum*), hyssop (*Agastache foeniculum*), and mint (*Mentha arvensis*); and
- ceremonial products: sweetgrass, and sage (*Artemisia ludoviciana*).

Some harvesters gathered on a regular basis whereas others harvested sporadically and opportunistically. One harvester estimated that their family earned approximately 20% of its income by selling NTFPs.

Harvesters were mostly unaware of what was done with the products after they were sold. Seneca root, for example, was harvested in large amounts, but few harvesters knew how consumers actually used it.<sup>14</sup> The products that harvesters listed as being most important were those that were purchased most often by the Centre. Many expressed the view that if there was more demand, they and others could and would respond by harvesting more. The marketing function, however, was considered external to their role as harvesters. They generally saw this as something that was needed, but not something they could do for themselves. They typically sold their harvest to local buyers (primarily the Centre), and in most cases the purchasers set the price and indicated the quantity of product required.

Not all harvesters remained dependent on the Centre. Those who set their own prices, had their own business, and (or) had personal brokers tended to have a higher level of awareness about markets and demands for products, and were aware of shifting societal values (i.e., that people were increasingly interested in natural and local products, were more health conscious, and were looking for alternative medicines). These harvesters generally set the price according to the cost of raw materials, labour, travel costs, and a small profit margin.

Harvesting activity after the closure of the Centre varied, but there is general agreement that the commercial harvest of previously important trade species, such as seneca root, decreased substantially. Subsistence use of moose (*Alces alces*), fish, and berries was reported as stable before, during, and after the time of the Centre. One harvester said that communities differed in the

<sup>14</sup> Seneca snakeroot is most commonly used today as an expectorant and emetic to treat colds, asthma and bronchitis. See C. Turcotte and N. Kenkel. Seneca snakeroot (*Polygala senega*): History and use. University of Manitoba, Winnipeg, Man. Unpublished data. [http://www.umanitoba.ca/faculties/science/biological\\_sciences/botany\\_lab/pubs/seneca.pdf](http://www.umanitoba.ca/faculties/science/biological_sciences/botany_lab/pubs/seneca.pdf) (Accessed March 15, 2009).

types of NTFPs they harvested. For example, one community mainly hunted, whereas another nearby was “still traditional.” Approximately half of the population harvested Labrador tea, berries, wild meat, fish, and medicines. This harvester also said that many people still hunted for wakes and weddings, suggesting a cultural importance associated with this activity.

***The harvesters’ experience of the Northern Forest Diversification Centre***

The harvest and trading of forest products stimulated by the Centre offered a wide range of benefits as reported by harvesters. Many acknowledged the Centre’s role in reintroducing NTFP harvesting into their lives and helping them to recognize the values present in the forest. Some attributed the training and engagement in wild-crafting as motivating them to eat more naturally, to be more active, and to access medicines from the woods. Many expressed appreciation for the opportunities to reconnect with the land, with the north, with their spirituality, with their families, and with the youth. The following section summarizes these perceived benefits.

***Income earning opportunities*** – The most common tangible benefit reported was that the Centre provided an outlet to sell products. One estimate of the initial economic benefits for harvesters was that the first three training sessions gave rise to total harvester earnings conservatively estimated at \$50 000 over a 4-month period.<sup>15</sup> The income was seen by many as an important supplement to household incomes. One respondent related that:

*There was an elderly woman... with a small pension who was behind in her bills... Her son in-law brought her [poplar] limbs and she would pick the buds off... she got a cheque for \$1000 and she started crying because she could pay her bills... \$30 is critical in a lot of people’s lives.*

Another expressed:

*It’s important because we hardly have money. It’s good because we can go into the bush and make some money and it’s good ‘cause you need grade 12 or university to get a job, even for fighting fires you need a paper [certificate].*

Several harvesters pointed out that the Centre was not a typical 9:00–5:00 operation. Extra effort was made to place orders and inform harvesters of demand for

particular products, and unsolicited deliveries were often accepted outside of regular operating hours.

***Awareness building/skill development*** – Harvesters acknowledged that the Centre helped people become interested in harvesting NTFPs and recognize the values present in the forest, and offered an entry point and primary motivation for getting involved in NTFP harvesting and sales. For some, the training was integral to their success as harvesters, with success encompassing economic values as well as those related to educating themselves and others about the forest and their traditions. Most people had been unaware of the market opportunities for NTFPs. One harvester said:

*The training was just the start. I changed my whole lifestyle. I see money all around.*

Harvesters also became more aware of the value placed on the resources around them and, in some cases, became markedly more active in resource management issues. For example, one respondent told of how several Centre-trained women became vocal participants in community consultations involving the local forest licence holder and the responsible government ministry. Such participation was rare before the work of the Centre.

***Validation/personal worth*** – The importance of having an opportunity for gainful employment should not be underestimated. Many respondents conveyed a strong sense of pride and appreciation for new-found capacities and opportunities to earn income through comments such as:

*You’re telling me what I know has value!*

Another responded that:

*This was the first time that my children saw me working.*

Such statements indicate the impact that this intervention had not only on the individual harvesters but also on other generations within their households.

***Stimulating entrepreneurship*** – Although most harvesters did not expand their activities beyond the harvest-and-sell arrangement they had with the Centre, the Centre encouraged harvesters to seek out their own local markets. No harvesters became completely dissociated from the Centre during its lifespan, but several were able to fill Centre orders while also developing their own markets. It was understood that, outside of Manitoba, these harvesters would not compete with

<sup>15</sup> Northern Forest Diversification Centre. 2004. Centre Demonstration Project Phase 2 Progress Report. Unpublished data.



markets already established by the Centre, and likewise, if harvesters developed their own markets, the Centre would not compete with them (D. Buck, NTFP Project Manager, pers. comm., August 2009). These harvesters/entrepreneurs sold the majority of their products through a broker but also did business through local stores, craft sales, and directly from their homes. One harvester said that she sold her products to 10 stores and that her broker also supplied to a number of stores in addition to attending large trade shows. These harvesters saw the Centre as being integral to their success, helping them to realize the opportunities that existed and to appreciate their own individual abilities and talents.

**Revitalizing traditions and reconnecting** – Several harvesters remarked that their involvement in the NTFP sector helped them to reconnect with the land, the youth, their families, their communities, and their cultural and spiritual beliefs. One harvester described how the activity provided a chance to connect with youth:

*When I took them out in the bush I tried to show them how to work in the bush, how to survive in the bush, showed them how not to get lost and showed them how to watch the weather. Showed them to watch when the wind changes direction.*

The Centre served as a meeting place and extension service. Respondents described it as a place to learn, to teach, and to connect with people (including from neighbouring bands) and their spirituality.

*The Centre was a nice place to come, the sister bands were there, it was like reconnecting with your extended family, that's the way I looked at it.*

**Pride and respect for the gift** – Some harvesters expressed that the value of the medicine they supply is in the harvesting and the preparation, and conveyed that such medicine is a gift from the land, something that they and their forests had to offer people from elsewhere. As one harvester said:

*It's hard work in the bush, you're giving up one thing and providing another... I'm thanking the provider and praying for the person who will receive it [the sweetgrass].*

Along the same lines, some harvesters indicated that they would not collect medicines now because the current trade system does not respect the medicine as the former Centre did.

## **Obstacles and recommendations communicated by harvesters and officials**

Although the perceptions of most harvesters and officials about the Centre were positive overall, they provided useful criticisms and recommendations. Common feedback from both groups was that while there was follow-up with most harvesters post-training, this needed to be more consistent. Many of the inexperienced harvesters required more support than the limited staff of the Centre could provide, particularly in more remote communities. In some cases, all harvesting activity ended within a year of the training (D. Buck, NTFP Project Manager, pers. comm., January 2009). One official advised that having community-based development officers focussed on follow-up would have a positive impact by improving communications between harvesters in the field and the marketing/training organization.

There was appreciation for the co-ordination of the Centre in buying products from the various harvesters and communities in a manner that was generally equitable. Some suggested that having local buying stations in each community would enable better access to buyers. Competition amongst harvesters was not usually cited as problematic, but reference to competition from forestry operations was made, with one official claiming that they were logging in the best NTFP spots. Having a tenure system for NTFP harvesters, similar to that which exists for trapping, was recommended as a possible way to mitigate these land use conflicts.

Some harvesters took issue with aspects of the harvesting work, such as the low and inconsistent pay earned for hard physical labour done in potentially unsafe conditions. Some harvesters were overwhelmed by high demand for products that they could not accommodate, and so ceased production altogether. Some harvesters were uninterested or unwilling to follow certain protocols, such as geo-referencing private harvesting locations or doing what was considered excessive amounts of paperwork. Several respondents noted that earnings from harvesting were subtracted from their social assistance benefits without compensating for money invested in their work (i.e., for gas or childcare), making it a money-losing venture.

## Discussion and conclusions

The Centre did many things right. It was innovative in its approach to working with communities and identified an opportunity to use local human and natural resources as an entry point to support rural development. There was limited knowledge about some products, so the Centre provided training and extension services. In the absence of product standards and harvester certification, it developed processes and procedures. Recognizing the need for local control of resource management and decision making, it helped create the embryonic Wild Harvesters Association. The Centre took on the role of trader/wholesaler, did product development work, researched new products, developed packaging, and provided a range of services tailored to the needs of harvesters. Perhaps most importantly, the work of the Centre tapped into the cultural, spiritual, and livelihood connections held by these harvesters to the land.

### Lessons about organizational focus

The Centre took on a diverse range of activities and this may have been one of its shortcomings. By trying to cover everything from training to market support to industry development, Centre capacity was stretched to the limit and beyond. Without other organizations to take on part of the responsibility, however, it is difficult to imagine an alternative. For any NTFP development to be successful, all aspects of business development and promotion needed to be done in a co-ordinated manner. Having a more limited product focus might have helped. Over its short life, the Centre traded in no fewer than 435 different products. The same effort invested in fewer products might have been more profitable, but of course this is speculative.

The success of the Centre may have been part of its undoing. Effective community engagement resulted in more communities wishing to become part of the project, resulting in more commitment on the part of Centre and, consequently, fewer resources and less time for the previously engaged communities. As word of the successes spread, calls for national and international presentation and projects blossomed and time and energy became even more stretched.

### Lessons about leadership and governance

The Centre was an unusual organization with an unusual institutional home. The Keewatin Community College gave a solid base, providing administrative support and the legal personality that made it possible for the

Centre to operate. But the Centre was autonomous, with its own management board. It was inhibited in some ways because it lacked a clear and consistent vision, perhaps because it tried to meet different and changing expectations. The Centre was well outside the Keewatin Community College's main business of education and training. There was a training component, but the trainees were not typical college students, and this was only one of the Centre's many functions. These factors combined to confuse the Centre mandate. Some felt that its primary focus should have been supporting economic development, with success measured in terms of income and full-time employment generated by the training. Others recognized the non-monetary benefits that could be realized and wanted to ensure that those values were given adequate attention. And others realized that for any part of the operation to be successful, the whole NTFP market, from raw material production to downstream market, needed development and support. Within the Keewatin Community College, there were legitimate concerns that their control over operations at the Centre were not in balance with their accountability.

The Centre was fortunate to harness the energies of a visionary that championed the cause of social development through judicious use of local natural resources. This experience clearly demonstrated the need to have champions when trying to establish novel approaches to social development interventions. But, as often happens in such situations, longevity and succession need to be considered and planned for. Fatigue can plague an organization with limited personnel, and the departure of key individuals can leave an organization struggling. The lessons learned clearly show that not only are champions needed, they must be refreshed on a regular basis.

### Lessons about harvester support

Harvester support needs to be long term, and expectations must be realistic. Creating a cadre of new entrepreneur-harvesters is, at this time, improbable in most communities. The majority of harvesters trained by the Centre came with a background of social assistance and from communities where there was little opportunity for even part-time work. Many were enthusiastic about the training and harvesting however, and hundreds began selling products to the Centre. This passion could not be sustained without regular meetings between Centre staff and the harvesters to provide markets for their products and assistance for the many overwhelming challenges inexperienced harvesters in remote communities faced.

Maintaining hands-on community support was very demanding on the Centre's limited staff resources. Given these challenges, the Centre did well in providing the support it did to harvesters. The lessons learned through this experience suggest improvements are needed in consistent follow-up and strengthened communications, but significant resources are required if widespread and equitable impacts (i.e., involving large numbers of harvesters in widely spread communities) are expected.

### **Lessons about privatization**

The sizeable cost of the Centre reflects the intensive hands-on nature of establishing an industry where virtually none had previously existed. Given the narrow profit margins between NTFP purchases and sales, the idea of financing an organization such as the Centre solely on profits generated by sales may be unrealistic. Moreover, the Centre often sought to maximize returns to the harvesters rather than profit for the organization, allowing harvesters to sell at a price largely established by the Centre, softening the sometimes erratic fluctuations of the marketplace. While such expectations benefitted harvesters, they could create dangerous precedents for any organization which must operate in a for-profit position.

Although the division of duties between the privatized Centre and the University College of the North meant that functions were assigned to those that, on the surface at least, were most able to support each of them, a critical service of the Centre was lost when the marketing arm was privatized. The Centre was successful in part because of its "vertical integration" of services across the market chain. With the division of duties that occurred in late 2006, the functions were no longer integrated, with a subsequent reduction in trade volume. Although more analysis of the situation is required, the experience of the new owner suggests that a focussed program of outreach and support (not in place at this time and likely needing to be subsidized) is required to attract and retain harvesters under the conditions found in many northern communities.

### **Lessons about non-timber forest product commercialization as a tool for rural development**

The Centre provides an interesting case study of a home-grown experiment in community economic development. It was successful in many ways and clearly had a profound impact on the NTFP industry in the

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*Although demand is increasing nationally and internationally for a wide range of non-timber forest products, focussed support is needed to assist potential and actual harvesters to access those markets and to operate their businesses within them.*

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region and beyond, as well as on the harvesters. The Centre successfully provided skills and opportunities for hundreds of people to engage in harvesting and trading NTFPs, and stimulated some to create their own businesses. While the start-up and running of the Centre cost around \$2 million for the period 2001–2006, the trade was relatively small, with total sales of around \$160 000 per year in the highest years. Nevertheless, that trade was important in households with limited incomes and poor access to employment opportunities. In addition to monetary benefits, participants gained a great deal in ways that cannot be easily measured but were nonetheless highly appreciated: individual pride; self-sufficiency; re-connection with the land, with family, and with youth; and rediscovery/appreciation of traditions and traditional knowledge. Although the methods used in this study do not quantify these benefits, the findings indicate a need for more careful attention to the social, cultural, and environmental benefits of use interventions for less-utilized natural resources.

Many harvesters want the flexibility to incorporate their harvesting and trading activities within a portfolio of activities. For most, NTFP harvesting and trade will not be a mainstay but one of several income sources. As the survey clearly showed, there are many benefits to be gained by individual harvesters, their families, and their communities. Moreover, the skills transfer and development that is part of the development of the sector easily translates to other aspects of life and other economic sectors.

At the conclusion of this "experiment," it is clear that the Centre had a positive impact on the development of the NTFP industry in northern Manitoba and in the lives of harvesters. In light of the urgent need for effective support to marginalized and remote communities, particularly Aboriginal communities,

the Centre model is promising. Demand is increasing nationally and internationally for a wide range of non-timber forest products, but focussed support is needed to assist potential and actual harvesters to access those markets and to operate their businesses within them.

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## Questionnaire—Officials

1. What is your current position?
2. What is your experience with local communities' resource use?
3. How many people (%) in local communities harvest natural resources for their own use?
4. How many people (%) in local communities harvest natural resources for sale?
5. What are the most important products?
6. How important is this income (cash and in-kind) in local households?
7. How do people organize sales?
8. How many traders work in the area?
9. Who sets prices and how?
10. Have there been any change in the amount of forest products people collect and sell in the past 10 years?
11. Are there important opportunities for growth in this sector? Please explain.
12. Are there important problems preventing growth in this sector? Please explain.
13. Are there laws, regulations, or other rules that affect the sector? Please explain.
14. Do you know about the Northern Forest Diversification Centre?
15. Has it made any difference to you or to others in the community? If yes, please explain.
16. Are there any lessons from the fur trade, Freshwater Fish Marketing Board, or other experiences that could apply to forest products trade?
17. What do you think could be done to encourage this sector?

## Questionnaire—Harvesters

1. Did you or anyone from your household harvest any fish, meat, berries, or other forest products for home use in the last 12 months? (Record: species, number of times, quantity, and where harvested)
2. Did you or anyone from your household harvest any fish, meat, berries, or other forest products for sale or trade in the last 12 months? (Record: species, number of times, quantity, where harvested, and selling price)
3. How many people are usually involved in the harvest?
4. Do you usually harvest with family?
5. Do you do any processing of the products you harvest?
6. Where do you sell your products (each species sold)?
7. How do you find out about the demand and the price?
8. Do you know what customers do with it?
9. How many other people in this community harvest forest products for their own use?
10. How many other people in this community harvest forest products for sale?
11. What are the most important species harvested?
12. Why don't you or other people harvest and sell more forest products? Please explain.
13. Do you know of any conflicts that have happened over access to resources?
14. Have there been any changes in the amount of forest products people collect and sell in the past 10 years? If yes, please explain.
15. Is it very different now than in the experience of your grandparents? If yes, please explain.
16. Do you know about the Northern Forest Diversification Centre?
17. Has it made any difference to you or to others in the community? If yes, please explain.
18. Is harvesting important to you and your family? Why?
19. What do you think could be done to encourage these activities in your community?

## Test Your Knowledge . . .

### *Supporting Canada's non-timber forest product sector: Lessons from Manitoba's Northern Forest Diversification Centre*

How well can you recall some of the main messages in the preceding Research Report?

Test your knowledge by answering the following questions. Answers are at the bottom of the page.

1. Which of the following products was not commercially produced in northern Manitoba before 1980?
  - A) Sweet-grass (*Hierochloe odorata*)
  - B) Wild rice (*Zizania palustris*)
  - C) Seneca root (*Polygala senega*)
  
2. What was the most common tangible benefit of the Centre reported by harvesters?
  - A) Awareness building of NTFP opportunities and skill development
  - B) Revitalizing and reconnecting with traditional knowledge
  - C) The creation of income earning opportunities
  
3. Which of the following are key lessons of the Centre experience?
  - A) On-going support to communities is essential but demanding in terms of resources
  - B) The Centre was successful in part because of its “vertical integration” of services across the market chain
  - C) Residents of northern communities are not interested in harvesting NTFPs for the market
  - D) A and C
  - E) A and B

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### **ANSWERS**

1. B 2. C 3. E