

Reduced Forest Activity at
The Pas, Manitoba:
Attitudes Towards Long-Term
Sustainability

by

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A Thesis
Submitted to the Faculty of Graduate Studies
In Partial Fulfillment of the Requirements
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Of Master of Natural Resources Management (M.N.R.M)

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Abstract

The objective of this project was to study the effects of reduced forest activity on attitudes towards long-term sustainability at The Pas, Manitoba. The forest industry in Canada is in decline because of global economic factors. Mills have closed which has resulted in thousands of forest industry workers laid off in Canada. The focus was on The Pas because its sawmill and paper mill have been threatened by layoffs over the past three years.

This thesis objective was to study the importance of the forest industry on The Pas. Many participants believed The Pas was a single-industry community, which resulted in less spending in the community and people moving to other communities for employment. It was determined The Pas is not a single-industry community but a multi-resource dependent community.

The impacts participants anticipated with the potential forest industry decline were studied. The top three impacts mentioned due to a possible closure in the forest industry included job loss, population decline and economic decline.

Recent initiatives that have taken place or are planned to strengthen and diversify the economy of The Pas outside of commercial forestry were assessed. The University College of the North has expanded the programs it offers. Those initiatives that have not been implemented were not discussed.

Strategies to respond to other forest industry communities were studied. One of the examples included Voikkaa, Finland, where the forest industry company worked with the community to promote industrial growth, re-education and relocation of affected

employees. Another example discussed was Prince Albert, Saskatchewan, a community that became a “commuter-community” for the oil fields in Fort McMurray.

An additional strategy recommended for The Pas was to promote entrepreneurship through the promotion of financial incentives, such as business grants and loans. The community also needs a strategy to adapt to a smaller population and demographic change. More programs need to be directed at Aboriginal education and employment to take advantage of new employment opportunities in the north.

Finally, recommendations for future studies include determining the types of industries that would flourish in The Pas. Another study should look at the number of direct and indirect jobs related to the forest industry to get a fuller understanding of the impacts to the community.

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Chapter 1 – Introduction

Preamble

Forestry and forest-related activities are important for the economy of Canada as forest products account for ten percent of Canada's exports (Yakabuski 2007). Changes in the global market have contributed to the decline in the forest industry within Canada. This had resulted in mill closures effecting communities throughout the country. This study focuses on the effects of reduced forest activity at The Pas, Manitoba and residents attitudes towards long-term sustainability.

Background

This section provides a brief background on the forest industry in Canada, a short history of The Pas and a discussion of its forest industry.

Forest Industry in Canada

The forest industry is an important industry in Canada, with its forest products bought throughout the world. Canada has dominated the global forestry market with various paper and lumber products for decades, but the industry has experienced a downturn in recent years as a result of global economic, social and environmental factors (Yakabuski 2007). Mills have been severely affected, resulting in layoffs and closures across Canada.

Forestry is important on regional, provincial and national scales in Canada, providing employment through primary, secondary and tertiary jobs. It was estimated that in 1988 ten percent of Canada's labour force was employed directly or indirectly in the forest industry with a total of one million jobs (Nagy 1988). In 1996 the estimated

employment was 890,000 jobs (Natural Resources Canada 1996), with 40 percent of jobs being primary, 29 percent secondary and 31 percent tertiary jobs related to the forest industry in Canada. The Canadian Forest Service found that 1.7 jobs were created in other sectors of the economy for every job in the forest industry (CCFM 2005).

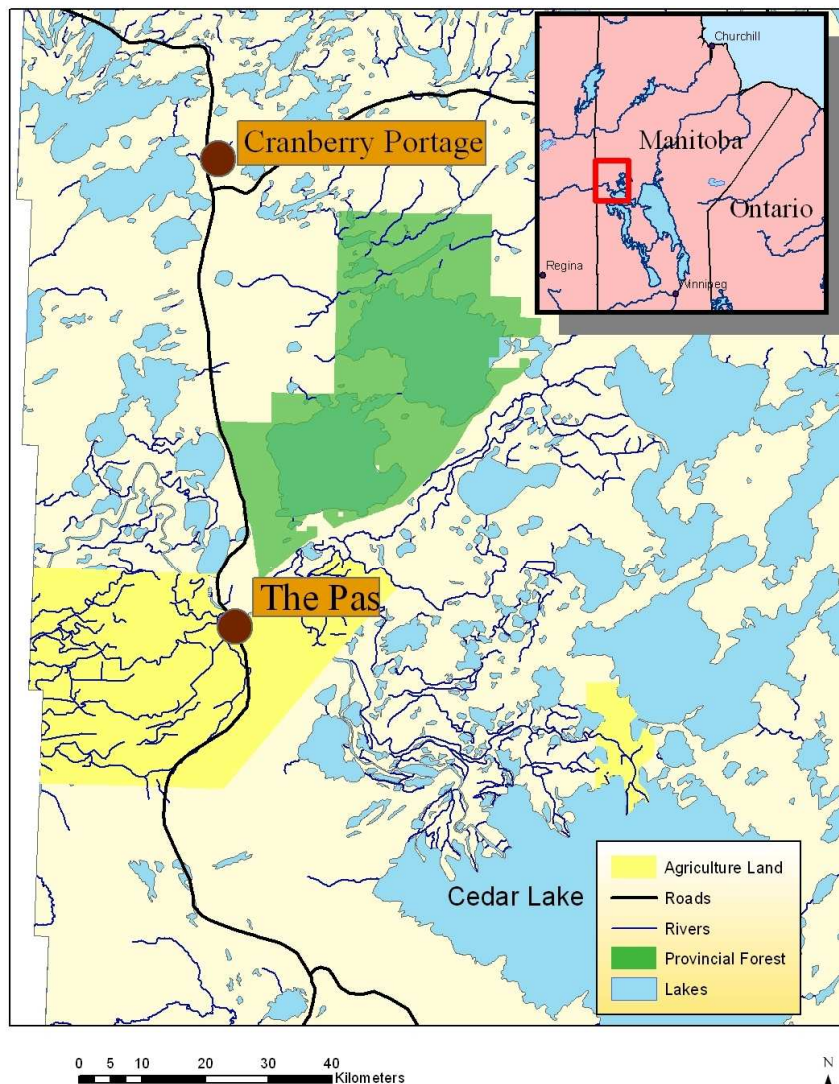
Three hundred and twenty-four communities in Canada were dependent solely on forest activity for their economic and social sustainability (Natural Resources Canada 2007). Thus mill closures and layoffs have affected many communities nationwide. Since 2002, 54 mills have closed across Canada resulting in a loss of 32,000 direct jobs (Maxwell 2007).

Forestry in The Pas

The Pas is a forestry community in northern Manitoba, located 600 km north of Winnipeg (Map 1.1), with a long history as an important economic centre. In the past, Aboriginal people and early explorers used The Pas and surrounding area to trap, fish and trade. Located on three major rivers, the Saskatchewan River, Pasquia River and Carrot River have historically made The Pas a suitable place for trading (The Pas and Area 2006-2007). The development of the railway system north of The Pas in 1910 to 1950 increased its importance as an industrial centre in northern Manitoba (Newman 1976). Two small sawmills, the Finger Lumber Company and The Pas Lumber Company, operated in the town between 1910 and 1958 (McCarthy 1997). In 1966 Premier Dufferin Roblin announced plans to build the sawmill and paper mill industrial complex to further promote economic development in The Pas (Mathias 1971). The forest industry became the largest employer and directly employed ten percent of people in The Pas (The Pas and Area 2006-2007).

The town relies on forest activities, such as logging, woodlands operations, and the production of lumber and paper products for its economic and social sustainability. With mill closures and cutbacks happening in the forest industry throughout Canada, the mills at The Pas have also experienced cutbacks and wage decreases in the past few years. With the downturn in the industry, it is possible that the mills in The Pas could experience indefinite layoffs or closures if the economy does not improve.

Map 1.1: Map of The Pas and Area



Source: Manitoba Land Initiative

Problem Statement

Industrial communities that rely on forest activity have always been vulnerable to boom and bust cycles but recent mill closures and layoffs have occurred because of long-term structural issues due to changes in the market for lumber and paper products.

Structural changes to the forest industry means that impacts to forest industry communities can be long-lasting or permanent (Natural Resources Canada 2008b). The recent economic changes in national and global markets have contributed to the decline in the value of forest products from Canada. Communities reliant on the forest industry should assess potential impacts to their communities due to a decline or permanent closure of forest activity.

Strategies to respond to the potential impact of reduced forest activity on economic, social and environmental sustainability were studied at The Pas, Manitoba. Assessment of the economic importance of forest industry activity was valuable to determine potential impacts to the community and determine possible strategies to respond to the effects.

Primary Purpose and Objectives

The purpose of this thesis was to study the attitudes towards the long-term sustainability of the community with reduced forest activity.

Specific objectives of this study are:

1. to explore the importance of the forest industry on the economy, community and environment at The Pas;
2. to assess economic, social and environmental impacts that may be anticipated with potential forest industry decline;
3. to assess recent and current initiatives to strengthen and diversify The Pas's economy outside of commercial forestry;
4. to examine strategies that have been successfully used to respond to and diversify other forestry-based communities that are/were dependent on forest activities; and,
5. to recommend additional strategies that may be appropriate responses to a decline in forest industry activity at The Pas.

Methods

The methods employed during this research included:

- Literature Review
- A tour of Tolko Industries Ltd. Pulp and Paper Mill
- Interviews with knowledgeable people within the community and government officials
- Surveys of people who work at the Tolko Industries Ltd. Pulp and Paper Mill
- Surveys of people who work at the Tolko Industries Ltd. Sawmill
- Surveys of people who own businesses within the community
- Surveys of the general public who live in The Pas and area
- Participant observation through working at the mill for the annual shutdown in October 1-9, 2008.



Image 1.1: The Pas Trapper

The above methods are discussed in greater detail in Chapter 3.

Project Scope

This scope of this thesis encompasses The Pas and surrounding area, including the Rural Municipality of Kelsey (R.M. of Kelsey) and the Opaskwayak Cree Nation (OCN).

Organization of Research

This thesis is organized into six chapters. The introduction to the project occurs in Chapter 1. Chapter 2 provides a background of the community and reviews related literature related to this project. The forest industry in Canada, single-industry communities and the history of The Pas and its forest industry are also examined. Chapter 3 outlines the methods and tools utilized. Chapter 4 contains the data that was collected and analyzed during the research. Demographics of the participants are presented through discussion and graphs. The results of the data and analysis presented in Chapter 4 are further categorized and discussed in Chapter 5. The findings of this study are then summarized in Chapter 6. Conclusions are presented along with future recommendations.

Chapter 2 – Forest Industry Communities in Canada

Introduction

This chapter reviews related literature on the vulnerability of forest industry communities to fluctuations in world commodity prices and other global factors. The economic importance of forestry in Canada, Manitoba and The Pas are discussed and a history of the forest industry at The Pas. Single-industry forest-based communities are discussed along with global factors that affect the market value of their product. Strategies commonly used to help industry communities become less dependent on the industry and those used to respond to forest industry decline were also examined.

Economic Importance of the Forest Industry

Canada is the number one producer of forest products in the world, making up 20 percent of the \$150 billion global market in 1994 (Luckert and Salkie 1998). Within Canada, the forest industry is the second largest resource-based industry (Cartwright 1999). In 2006 the forest sector's revenue totalled \$78.3 billion and employed 822,400 people through direct and indirect employment (323,600 and 498, 800 persons respectively) (Natural Resources Canada 2008a). The three provinces most involved in the forest industry are Quebec with 104,200 direct jobs, British Columbia with 81,500 direct jobs and Ontario with 81,300 direct jobs (Natural Resources Canada 2008a). Though the forest industry in Manitoba is on a smaller scale relative to these other provinces, it is an important industry accounting for \$418 million of Manitoba's GDP

(Manitoba Conservation Forestry Branch 2000-2003). The forest industry provides employment in many communities in Manitoba, and at The Pas it provides employment to the area through woodlands, paper and lumber production.

Forestry Industry Communities in Canada

Forestry industry communities are numerous throughout Canada, with 324 single-industry forest communities in 2001 (Natural Resources Canada 2007). A single-industry community is defined as having a single resource industry, such as forestry, as the main employer in the community (Clemenson 1992). The census defines single-industry communities as being dependent on an industry for 50 percent or more of their economy (Natural Resources Canada 2007). Industry communities are important for the resources they provide to the country and the revenue generated through the export of the product to other countries. Local and regional economies are linked to industries through both direct and indirect means (Walker 1988). Direct jobs related to forestry include mill employees, lumberjacks felling trees and those hauling product to and from the mill (Image 2.1). Indirect jobs include restaurants, grocery stores, contractors and fuel stations that provide services and employment that otherwise would not be in the community.



Image 2.1: Hauling lumber to southern markets

Commodities from forest industry communities are vulnerable to fluctuations in the global market because communities do not have control over the price of the products (Clemenson 1992). The global market can threaten the future of industry communities because declines in market prices affect the industry more than other factors, such as worker productivity or efficient technology. With globalization and free trade, industry communities become more vulnerable to low-cost producers in other countries (O'Hagen and Cecil 2007). An industry is economical when the industry is efficient, productive and the revenue received covers the cost of production. When the revenue is lower than the cost to produce the product, it becomes uneconomical for an industry to remain in production. When production becomes uneconomical, the company can choose to keep operating and lose money or shut down operation. Industry communities could diversify

their economic base to decrease the potential impacts of a decline or closure in the single dominant industry. The best way for diversification to work is to increase the types of industries and jobs that are brought into the community before a decline occurs (O'Hagen and Cecil 2007).

Forestry in The Pas

The Pas is a northern Manitoban community that lies approximately 600 km north of Winnipeg between the Boreal Plain Ecozone and Mid-Boreal Lowland eco-region (The Pas and Area 2006-2007). Spruce and a mixture of softwoods are harvested to supply raw material for the Tolko sawmill and paper mill.

The Pas is within Census Division 21, consisting of three main communities: The Pas, Opaskwayak Cree Nation (OCN) and Flin Flon (Northern Manitoba Economic Development Commission 1992). The Pas, OCN and the Rural Municipality of Kelsey rely on each other for economic and social support and all three communities depend on Tolko and the forest industry for employment. The population of The Pas is approximately 6,000 people and is close to 10,000 when the populations of OCN and the R.M. of Kelsey are included. Forestry provides both employment and tax revenue for the region.

History of The Pas

The Pas has historically been an important site. It began as a trapping, fishing and trading centre for Aboriginal people and early explorers (The Pas and Area 2006-2007). The economic base increased with the expansion of the railway to The Pas between 1910-1950 (Newman 1976). This increased the importance of the town as it became the only gateway to northern Manitoba for everyone travelling north.

In 1910 the Finger Lumber Company became the first lumber company in The Pas (NMEDC 1992). It was a small sawmill that used logs that were sent down the Saskatchewan River from Carrot Valley and Hudson Bay (McCarthy 1997). The first big sawmill in The Pas was The Pas Lumber Company, which operated from 1918-1958 and employed approximately 1,400 people through its mill and logging operations (Newman 1976). The mill eventually closed permanently when the Saskatchewan government cut the supply of lumber to The Pas to start its own pulp mill (Newman 1976, McCarthy 1997). The unsustainable harvest practices of the forest in Saskatchewan and The Pas, along with the inability of the sawmill at The Pas to keep up with new technologies led to the mill closing in 1958 (McCarthy 1997).



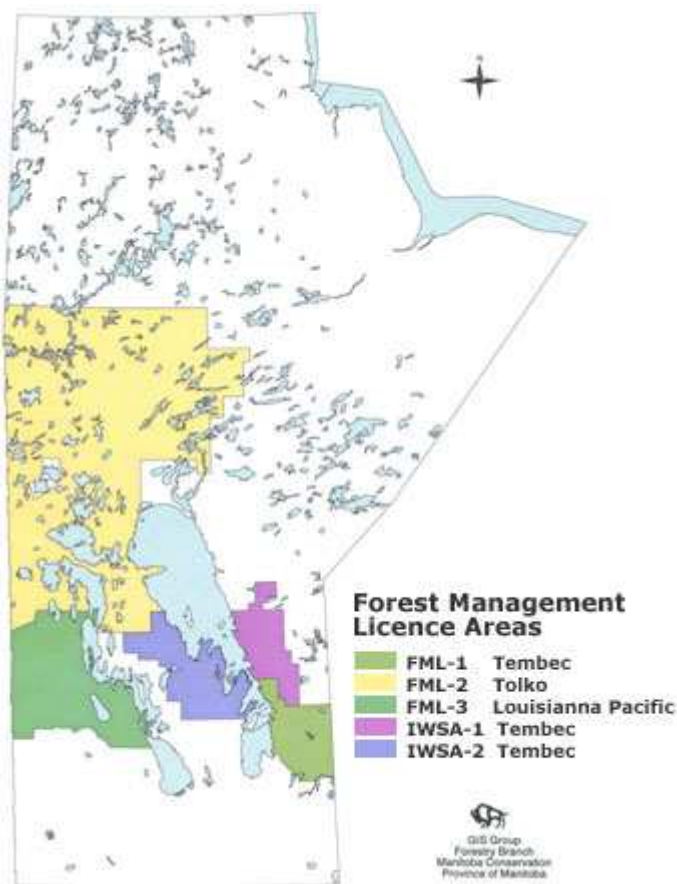
Image 2.2: Paper mill complex at The Pas

The forest industry and railway had helped The Pas become an important economic centre in northern Manitoba. However, the increased mining in Thompson led to a highway built from Winnipeg to Thompson (Mathias 1971). This decreased the importance of The Pas as a trading centre because it was no longer the only access route to northern Manitoba. After the mill closed, people found employment through trapping and agriculture, as well as with government and Crown Corporations such as Manitoba Hydro and the Manitoba Telephone System. Some small companies continued small-scale logging operations during this time (McCarthy 1997). In 1966 Premier Dufferin Roblin announced the development of the sawmill and paper mill (Image 2.2) complex at The Pas to promote economic development in the region. The project had a high start-up cost of \$100 million. It was controversial because of the generous timber concession allocation, which was equal to the size of Portugal (Map 2.1) (Mathias 1971). The area

the mill harvests consists of 11 million hectares and is in the Forest Management Plan agreement area No. 2 (FML-2). This agreement ensures that companies harvest the forest in a sustainable manner, including an annual allowable cut and replanting program to ensure the industry is environmentally sustainable (Geomatics International Inc. 1997).

The sawmill was built on the north side of the Saskatchewan River. Construction was completed in 1971 and the mill complex was in full operation by 1972 (Newman

Map 2.1 Timber Concession for Manitoba Forest Industries



Source: Manitoba Conservation Forestry Branch

1976). The mill complex has gone through numerous owners since it opened, with both private and public ownership (Table 2.1). Tolko Industries Ltd. is a privately owned British Columbia-based operation. Tolko purchased the sawmill and paper mill complex in 1997 and currently owns and operates both facilities. The complex in The Pas is Tolko's only Manitoba-based company.

Table 2.1: Owners of the Sawmill and Paper Mill in The Pas	
Mill Owners	Date received ownership:
Churchill Forest Industries	Opened the mill. First day of operation: March 31, 1971
Manfor	October 1, 1973
Repap	May 4, 1989
Tolko Industries Ltd.	1997



Image 2.3: Truck dropping off wood chips



Image 2.4: Paper ready for shipment at the paper mill

Kraft Paper Process

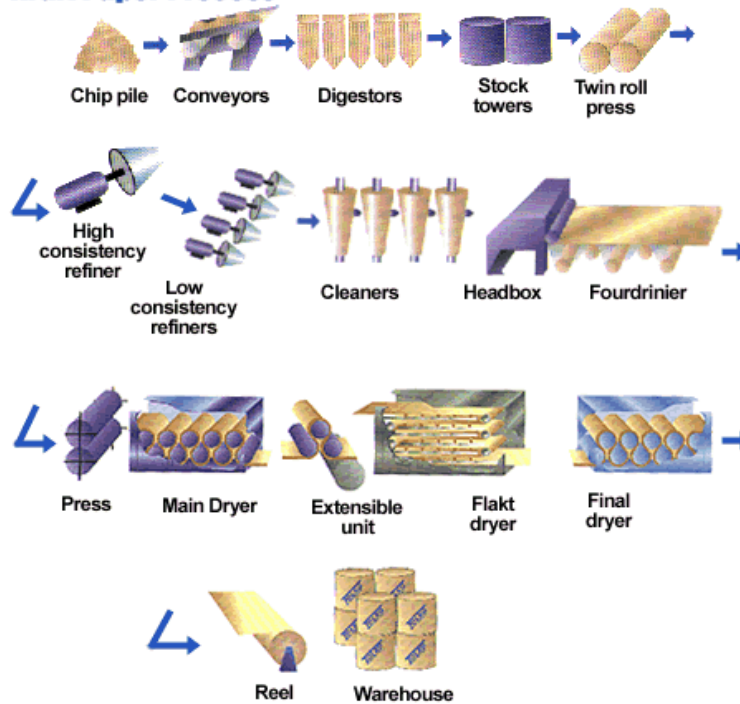


Image 2.5: Manufacturing process of Kraft paper at Tolko
Source: Tolko Industries Ltd., date unknown

The paper mill and sawmill use softwood trees for the production of their products. The paper mill mainly uses chips that have been produced at the sawmill. However, chips (Image 2.3) produced in other communities are also

purchased. The

sawmill and paper mill are linked through the sale and purchase of wood chips. This helps each mill stay economically viable. The paper mill produces SPK, SPX and SPX Vector unbleached Kraft paper (Image 2.4) (Tolko Industries Ltd. 2004), which can be used as bags in the cement and pet food industries (Kusch 2008). SPK paper is a multi-wall paper with the strength (regular and wet-strength) needed for manufacturing bags (Image 2.5). SPX is stronger than SPK, is cost-effective and can be used for severe conditions. SPX Vector is single-ply but strong and air permeable. Consumers can purchase wet-strength, un-sized or laminated paper (Tolko Industries Ltd. 2004). The Tolko sawmill at The Pas produces 2 x 4, 2 x 3, 2 x 6 and 1 x 4 studs, structural light framing and structural joists and planks (Image 2.6) (Kusch 2008; Tolko Industries Ltd 2006). Tolko Industries Ltd. exports 57 percent of its product to the United States, 13 percent overseas and the other 30 percent is purchased within Canada (Tolko Industries Ltd. 2006).



Image 2.6: Lumber produced at the sawmill

Factors Affecting the Forest Industry

Global factors have played a major role in the decline in the forest industry in Canada, which has affected forest industry communities nationwide. Many factors that occurred simultaneously combined to cause the decline in the forest industry, resulting in mill closures in Canada.

One factor that severely affected the forest industry was the increased value of the Canadian dollar, which reached a high of \$1.10 in November 2007 (Jang 2008). Every cent the Canadian dollar gains on the American dollar resulted in a \$528 million decrease in revenue for forest companies (Natural Resources Canada 2006). As the American market is the largest importer of Canadian lumber and paper products, the increased value of the Canadian dollar made Canadian forest products less competitive in the American market. The forest industry is very sensitive to volatile exchange rates.

Another major factor contributing to lower revenue was the decline in the American housing market. This impacted Canada because the majority of Canadian forest product exports, both lumber and paper products, were purchased by the United States (Gilbert 2007) and the sawmill and paper mill in The Pas exported the majority of its products to American markets (Tolko Industries Ltd. date unknown a). The decline in the American housing market will continue to affect Canadian forest producers and forest industry communities until markets are found in other countries (Hessing, Howlett and Summerville 2005).

The softwood lumber agreement was another factor that has played a role in the decline in the forest industry. This agreement caused a dispute between the United States government and Canadian government over financial aid associated with stumpage fees

(Natural Resources Canada 2007). The United States felt the low price of stumpage fees gave Canadian softwood lumber producers an unfair advantage to sell their products at a lower price. The USA imposed penalties in order to raise the price of Canadian forest products so American lumber products could be more competitive (Hessing, Howlett and Summerville 2005). This argument has been to court numerous times. The final result was the American government had to pay back 80 percent of the fines imposed on Canadian forest products.

Global competition has played a major role in the decreasing value of forest products in Canada (Natural Resources 2007). Canada once had the competitive advantage with high quality, cheap raw fibres, but countries in Asia and South America are using new technologies that utilize low quality fibres efficiently and cost-effectively to produce higher quality products (Luckert and Salkie 1998). Mills built in Asian and South American countries have increased the global supply of wood and paper products, which has lowered the price and demand for Canadian products (Mathieson 2007a).

Out-of-date infrastructure has also played a role in Canada's inability to compete on the global forest products market (Natural Resources 2007), as the infrastructure in many Canadian mills is old and outdated. Poor market conditions have decreased the ability of forest companies to invest in updating their infrastructure, so temporary or permanent closures become a cheaper alternative (Mathieson 2007b). The increase of the Canadian dollar has exposed Canada's inefficient forest industry sector that has not been modernized or upgraded in decades (Yakabuski 2007). If Canadian companies had kept up with technology and modernization, forest companies and their communities might not be as affected by the forest industry decline. Asian and South American countries have an advantage because their facilities are new, efficient, cheap to build, their employees'

wages are low and their forests grow much quicker than in Canada (Mathieson 2007a).

The rising cost of production in Canada cannot be recouped by raising the price of the product, thus leaving forest companies with few options (Clapp 1998).

The pine beetle infestation in British Columbia is an environmental factor that has contributed to the lowered price of Canadian forest products. The province has had to increase their harvest on forests killed by the pine beetle (Tutton 2007), and the attempt to salvage destroyed timber stands has created a surplus of forest products on a market that is already saturated (Brethour 2008b). So with supply high and demand low, the price for wood and paper products has dropped (Mathieson 2007a).

Table 2.2 Canadian Mill Closures in the Forest Industry: January 2003 – June 2008

Province	Permanent Closures	Indefinite Closures	Total Closures	Layoffs
Alberta	6	4	10	1,366
British Columbia	20	28	48	10,367
Manitoba	0	0	0	15
New Brunswick	10	3	13	3,046
Newfoundland	1	0	1	485
Nova Scotia	0	2	2	430
Ontario	25	18	43	9,450
Prince Edward Island	0	1	1	35
Quebec	26	54	80	11,668
Saskatchewan	2	7	9	1,566
Totals	90	117	207	38,428

Source: Natural Resources Canada 2008b

Combined, these factors have led to a decline in the forest industry in Canada. Social and economic impacts have been felt in communities that have been affected by layoffs and mill closures. Since 2003 (Table 2.2) many people have already lost their jobs and more will follow with a continuing decline in forest activity.

Manitoba has been lucky and has not experienced a permanent mill closure. Mill managers at Spruce Products in Swan River, Tembec in Pine Falls and Tolko in The Pas have mentioned they have felt the effects of the downturn in the economy. In 2007 Spruce Products cut back on production, Pine Falls was forced to shut down for a week in September along with an extra week in December on top of its Christmas break (Kusch 2007), and workers at Tolko in The Pas accepted a wage decrease to prevent their sawmill and paper mill from closing (Welch 2008). The decline has affected both mills at The Pas, but has had more serious effects on Tolko's sawmill with a temporary closure on January 28, 2008 (Kusch 2008). The majority of workers were laid off until the mill started running again in late-February. This temporary closure affected 110 employees at the Tolko Solid Wood Division but did not affect any employees at the Kraft Paper Mill (Tolko Industries Ltd. 2008a). It was announced shortly after that the sawmill would be reduced from two shifts to one. Seventy-five employees were laid off and production was reduced. The sawmill's production has focused on supplying the paper mill with wood chips and producing more higher value products to obtain a premium price on the market (Tolko Industries Ltd. 2008b).

Strategies to Adapt

With the forest industry in decline, communities nationwide need to assess their vulnerabilities and the potential impacts of a mill closure. Strategies should be identified to respond to these potential impacts.

Diversification of the Economic Base

A commonly used strategy is diversification of a community's economic base. Many communities have been affected by the current decline in the forest industry as well

as by the decline that occurred in the 1980s. Diversification strategies have worked in cases where diversification occurred prior to an industry decline and/or closure in the primary industry in the community (O'Hagen and Cecil 2007).

There are not many success stories of single-industry forest communities that have tried to diversify their economy and been able to thrive. Diversification strategies include bringing industries to the community with jobs that require new skills. These new jobs may have a lower pay than the primary industry (forestry), but they will provide new employment opportunities and a more diversified economic base (O'Hagen and Cecil 2007).

Communities like The Pas have an opportunity to prove that a decline in the forest industry does not mean an economic and social disaster. It is good for the economy to bring new businesses to the community. It is a chance to provide education and retraining to promote more opportunities for community members, which could lead to economic diversification and sustainable development in the town. Comparisons between communities in Canada that have experienced similar problems with the forest industry will be valuable in this study. The Pas held a consultation meeting on January 30, 2006 with the Department of Agriculture, Food and Rural Initiatives to discuss opportunities that could be created in the community (Government of Manitoba 2006). Various opportunities were mentioned, but many were small-scale and would create little employment. One factor preventing people from taking advantage of the opportunities discussed was the uncertainty of Tolko and the forest industry at The Pas. The outcome of these meetings resulted in funding for The Pas's recreation centre, the University College of the North and the Northern Diversification Centre (Government of Manitoba 2006). The purpose of this consultation was to determine types of economic opportunities that

could be taken advantage of in northern Manitoba and addressed diversification strategies that could bring new industries into the community.

Non-Timber Forest Products

Forests can be appreciated for values and products other than timber or paper (Berkes and Davidson-Hunt 2006). To diversify, The Pas could look at the possibility of non-timber forest products and increase the amount of non-timber forest production that already occurs. A non-timber forest product can include food or environmental products, with the exclusion of lumber and paper products, which have the potential for economic development (Boxall, Murray, Unterschultz and Boxall, 2003). Non-timber forest products (NTFPs) include a wide variety of products such as mushrooms and berries, non-edible products used for ceremonial purposes like sweet grass, which is used in smudging ceremonies (Image 2.7), and medicines such as wikis, which can be used instead of Advil (Ascher 2000). Another use for NTFPs is crafts. Beeswax can be used to make candles and pine cones can be used for ornamental purposes (Gaudry 2008). Non-timber forest products have the potential to provide incomes for Aboriginal people in northern Manitoba and many include species that were traditionally harvested and utilized by Aboriginal people (Turner 2001).



Image 2.7: Sweet grass

The Northern Forest Diversification Centre (NFDC) was created in 2001 as a community initiative to provide economic opportunities for local individuals and surrounding communities using local resources (NFDC 2002). Training was provided to individuals that focused on harvesting and marketing techniques. The NFDC sold over 300 various products such as teas, soap, jewellery and dream catchers, and brought in \$203,000 in 2001 (Western Economic Diversification Canada 2004). Although the NFDC offered many opportunities to northern Manitobans, the program ceased to exist after a few years due to some of the main employees retiring.

Alternative Strategies

If the mills close in The Pas, many people are going to leave the community rapidly to find alternative employment. Strategies to adapt to a smaller population size need to be made along with diversification strategies. Diversification strategies may work

in some communities but many communities will still lose their population. Multiple strategies for managing the impacts of a potential decline in the forest industry would increase the economic stability at The Pas.

The Government

During times of downturn, communities rely on the government for support. Premiers from the provinces and territories throughout Canada met with the prime minister on January 10, 2008 to discuss the effects of the global economy on the forest industry (Moore, Walton, Curry et. al 2008). Soon after, the federal government announced a \$1 billion aid package to help single-industry forest communities ease workers into other industries (Brethour 2008a). Manitoba is eligible to receive \$40 million over the next three years for forestry and mining communities that have experienced layoffs, cuts in production and closures. The funding is meant to help single-industry communities develop projects to diversify their economy and promote programs that retrain and educate employees to work at other jobs in the community (Welch 2008). The premiers of each province decide which communities receive this funding. The premier of Manitoba announced that funding for education, particularly aimed at Aboriginals, to gain new skills and trades would be useful for communities in Manitoba (Rabson 2008). The development of new projects and industries, along with job training, could help single-industry communities and their members by providing more opportunities for employment. If eligible for the funding, the mayor of The Pas announced it would be used to train workers in skilled occupations. The sawmill experienced a temporary layoff in February 2008, which affected two-thirds of the people employed at the Tolko Solid Woods division (Rabson 2008).

Conclusion

There is a gap in the literature related to single-industry forest communities. Economic and environmental studies have been done on the effects of forest industry decline on communities. Studies on the social effects were missing. Economic, social and environmental impacts will be felt with a decline or closure in the forest industry at The Pas. In order to fill the gap, this study identifies and proposes strategies, by using surveys and interviews, to respond to the potential impacts of forest activity decline on the community at The Pas. The 2006 community consultation held in the town did not address strategies to respond to the impacts of potential forest industry decline. Consultations with community members should be held to identify potential impacts and identify strategies to respond to the identified impacts.

There have not been many studies done specifically on the forest industry in The Pas. The few studies found did not address the potential impacts of forest activity decline on the community and did not mention potential strategies to respond to those impacts or how to diversify the economy. These studies were historical accounts of the community and mentioned the importance the forest industry had on The Pas over the last century. There was an economic and environmental impact assessment conducted as part of the environmental licensing process for Tolko's forest management activities on the Forest Management Licence Area No 2 (Geomatics International Inc. 1997). There have not been studies that address the social impacts in regards to forest activity decline or closures in The Pas. Instead of conducting an economic or environmental analysis, it was chosen to do a social analysis for this thesis to study participants' attitudes and opinions regarding the future of the community.

Literature about single-industry forest communities and The Pas came from a variety of sources such as books, journals and the Internet. Current literature focused on nationwide forestry-related events came from newspaper articles, mainly The Globe and Mail. Articles about current forest activity at The Pas came from the Winnipeg Free Press, Natural Resources Canada and the Government of Manitoba. Websites were very useful for statistics about forestry in Canada and The Pas. The Tolko Industries Ltd. website was useful for product information and current information about what is happening at The Pas and various other Tolko mills throughout Canada.

Chapter 3 - Methods

Introduction

The research methods used are discussed in this chapter. Studies that have been done on The Pas in the past have focused on economic and environmental analysis. This study used a qualitative research design to determine attitudes of participants towards reduced forest activity at The Pas and how they felt about the future of the community. Social analysis was used to determine trends and place those trends and ideas in context and a temporal time frame.

Qualitative research methods, such as key informant interviews, surveys, participant observation and comparative analysis were used. A regional impact analysis on the economic and social impacts was used to determine the importance of the forest industry on The Pas. A gap analysis was used to examine current response plans and recommend additional strategies for The Pas based on successful strategies used in other communities.

Methodology – Regional Impact Assessment

The regional impact assessment fulfilled the first and second objectives of this study. The methods used included an analysis of regional employment and population, literature and document review, key informant interviews, surveys and participant observation.

Data Base Analysis

The data base analysis was used to fulfil the first objective of this study by providing some baseline data and current population and employment trends. Census

subdivision 21 of the 2006 census was studied to determine the population of The Pas, Opaskwayak Cree Nation and the Rural Municipality of Kelsey. The data base analysis included the number of jobs directly related to Tolko and the number of jobs at The Pas. Charts of total employment for the community are included in Chapter 4.

Literature Review

The literature review was used to meet the first two objectives. The review of related literature in Chapter 2 consisted of relevant information to the study. The forest industry in Canada and The Pas was included in the literature review.

Key Informant Interviews

Key informant interviews were used to fulfill the first and second objectives of this study. Key informants were chosen based on their occupation and the information they held about the forest industry and potential impacts that may occur with a continued decline in the forest industry. Interviews were held at the participant's place of employment.

Surveys

Surveys were used to fulfill the first and second objectives of this study. Participants were separated into two groups: the "Tolko Employee Group" and the "Community Group". Surveys were dropped off at their place of employment or residence, and then picked up by the researcher or mailed back with a stamped and addressed envelope.

Participant Observation

Participant observation was used to fulfil the second objective of this study. Participant observation took place at the Tolko Kraft Paper Mill during the annual shutdown of October 1-9, 2008. During this period, the researcher was able to work at the

mill and converse with employees about the effects the mill closure would have on them and the community.

Methodology – Gap Analysis

The gap analysis was used in the study to fulfill the third, fourth and fifth objectives of this study. Methods included interviews with key informants, a review of the related literature and a comparative analysis. The gap analysis was used to determine gaps with the current plans and used to recommend additional strategies for The Pas to incorporate into its response plans.

Key Informant Interviews

Key informant interviews were used to fulfil the third objective of this project. Interviews were held with key informants regarding current response plans by the local and provincial governments. Interviews were held at the participant's place of employment.

Literature Review

Related literature was reviewed to fulfill the fourth objective of this study. This literature consisted of communities that successfully responded to the decline in the forest industry and used to determine strategies that could potentially be used at The Pas.

Comparative Analysis

The comparative analysis was used to fulfill the fourth objective of this study. Researching another forestry-based community that has been affected by the forest industry decline and had its sawmill or paper mill shut down was valuable to compare to The Pas. This was done to examine strategies successfully used to respond to the impacts

of reduced forest activity on other communities. Successful strategies were then added to the recommendation section in Chapter 6.

Objectives/Methods Link

Table 3.1: Objectives, Methodology and Methods		
Objectives	Methodology	Methods
1. to explore the importance of the forest industry on the economy and community at The Pas, Manitoba	Regional Impact Assessment	<ul style="list-style-type: none"> ▪ Regional Impact Assessment ▪ Literature Review ▪ Key Informant Interviews ▪ Surveys ▪ Participant Observation
2. to assess economic and social impacts that may be anticipated with potential forest industry decline		
3. to assess current response plans for the community in the event of potential forest industry decline	Gap Analysis	<ul style="list-style-type: none"> ▪ Key Informant Interviews
4. to examine strategies that have been successfully used to respond to and diversify other forestry-based communities that are/were dependent on forest activities		<ul style="list-style-type: none"> ▪ Literature Review ▪ Comparative Analysis
5. to recommend additional strategies for The Pas to incorporate into its response plans		<ul style="list-style-type: none"> ▪ Assessment made through what has been learned through previous four objectives

Participants

The “Key Informant Group” included knowledgeable members of the community and government officials. Participants included the Economic Development Officer, Environmental Engineer at Tolko, Business Development Specialist with the Province of Manitoba, Forestry Manager with the Province of Manitoba, RBC Customer Service Representative with the Royal Bank, Special Assistant to the Minister with the Province

of Manitoba, Employment Consultant with the Province of Manitoba, and Treasurer for the Town of The Pas.

The “Tolko Employee Group” included participants employed at the Tolko Industries Ltd. sawmill or paper mill. The criterion for this group was the person must presently or recently have been employed by the mill. Summer students employed by the mill were not included because their employment was limited to the summer term and is not guaranteed each summer. The recruitment procedure included surveying those who had expressed interest, going directly to mill site to complete surveys with employees and through recommendations from participants.

Participants from the “Community Group” included people within the community who would be affected by a mill closure. This included those who owned businesses, houses, worked and/or lived in the community. This group was varied because of the variety of people that could potentially be affected by a closure in the sawmill or paper mill. The recruitment procedure included surveying those who had expressed an interest in the project, recommendations from participants and through dropping surveys off at random businesses.

Data Analysis

The data collected through surveys and interviews were analyzed using content analysis to determine participants’ attitudes. Surveys and interviews were an integral part of this study to study the social aspects of the forest industry decline on The Pas.

The data was analyzed using content analysis. Data from interviews and surveys was searched for recurring words and themes to identify consistencies and patterns (Patton 2002). The category of content analysis used was relational analysis to determine

concepts, relationships and patterns that were articulated by participants in a different manner, with the same meaning (Colorado State University 1993-2008). The sub-category of relational analysis used was proximity analysis. A string of words relating to a similar concept identified trends by grouping and clustering responses (Colorado State University 1993-2008).

Through content analysis, themes and patterns were categorized. It was then noted how many participants mentioned a response that fell into each category. The responses were put into categories and were displayed and discussed throughout Chapters 4 and 5. The census was useful to determine the number of habitants and types of employment in The Pas and area.

Limitations

A limitation to this study is the researcher is originally from The Pas and has worked and lived in the community each summer since starting university. Every effort was made not to be biased during the research process, although being part of the community and having an interest in its future could possibly slant this research. With family and friends of the researcher living in the community, the project could become personal and make it difficult to remain objective. Living in a community for a long period of time could be beneficial on other levels as the researcher might have insights on how or why things happen that others may not understand completely (Patton 2002).

Another limitation was the difficulty in finding people to participate in the study. More people had been contacted but due to time constraints or lack of interest on their part, interviews and/or surveys could not be completed. This difficulty could possibly be

attributed to the fact that it was a beautiful summer and people in the community were outside enjoying the weather and not interested in being a part of a study.

Summary

This chapter focused on the specific methods used in this study. The methods described included the literature review, key informant surveys, surveys and comparative analysis and how each method corresponded to the objectives. The way in which the information was analyzed was also described in this chapter, as were the limitations to this study.

Chapter 4 – Data and Analysis

Introduction

This chapter presents the data that was collected and analyzed in this study. Information on the demographics of the participants, results from the surveys and interviews, and social, economic and environmental impacts and strategies are discussed throughout this chapter.

Subject Demographics and Characteristics

The participants were split into three groups. The Key Informant Group consisted of eight knowledgeable participants in the community. They were chosen because of the job position they held. Age, sex and income did not play a role in being chosen. Specific questions were asked of these individuals and they varied depending on the participants' specialty.

The participants in the Tolko Employee Group and Community Group were asked the same questions. They were chosen on the basis of whether they worked at the mill. The Tolko Employee Group participants worked at either the sawmill or paper mill and were chosen opportunistically and through snowball sampling. The Community Group participants were people who worked in the community and were also chosen randomly. They worked in a variety of occupations, from stay-at-home

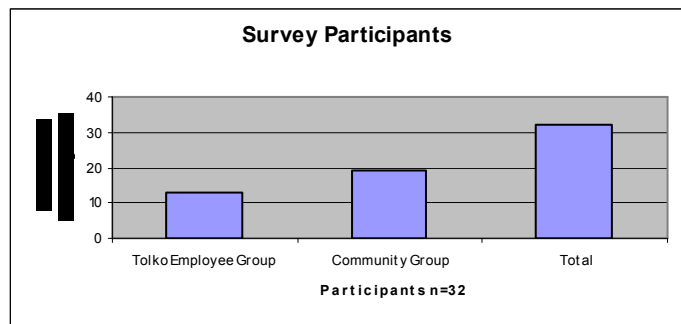


Figure 4.1: Survey Participants

mom to teachers to owners of businesses in the community, pilots, accountants and people who had retired. They did not work at the mill but had a vested interest in the community through employment or ownership of property.

There were thirty-two participants in the Tolko Employee Group and Community Group. Thirteen participants were from the Tolko Employee Group and eighteen were from the Community Group. The categorization of participants is shown in Figure 4.1. Twenty-five of these participants were male and seven were female (Figure 4.2). All the participants from the Tolko Employee Group were male and 12 from the Community Group were male and seven were

female.

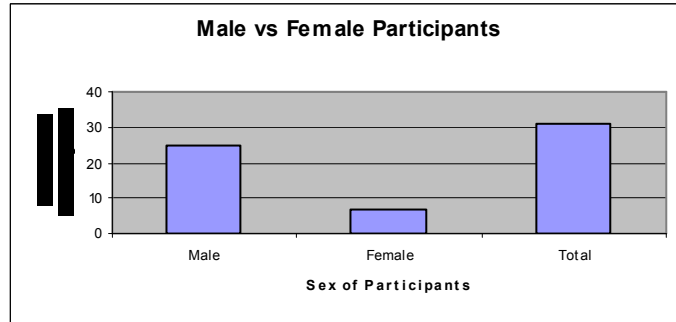


Figure 4.2: Male vs. Female Participants

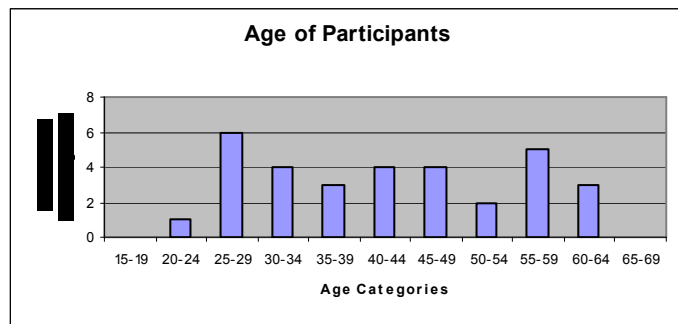


Figure 4.3 Age of Participants

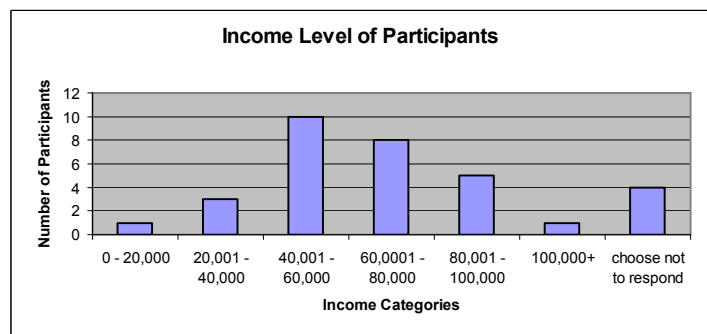


Figure 4.4: Income Level of Participants

The participants from these two groups ranged from 20-64 years in age. The categorization of the numbers of participants that fell into each age group is shown in

Figure 4.3. There were originally categories for ages 70-74, 75-80, 80-84 and 85+ included in the survey. These categories were left off the chart because there were no participants in these age categories.

The income levels of survey participants ranged from the lowest category (\$0-20,000) to the highest category (\$100,000+). Four participants chose not to respond to the question regarding their income level (Figure 4.4). As can be seen in the chart, many participants have high incomes. The participants from the Tolko Employee Group tended to have higher incomes than the Community Group. The lowest income level in the Tolko Employee Group was in the 40,001-60,000 range with five participants, 60,001-80,000 with five participants, 80,001-100,000 with one participant and one participant that chose not to respond. The income levels of the Community Group participants ranged more, from the lowest to the highest income level groups.

Exploration of the Importance of the Forest at The Pas

This section explores the results related to the importance of the forest industry on the community, economy and environment at The Pas and potential impacts of shutdown of the mills on the area.

Community

Participants in the surveys felt The Pas was a single-industry community. This perception can lead to consequences, such as employment, population and services decline when the industry starts to falter and a lowered real-estate market. Many participants from the Tolko Employee Group felt they would not be able to gain employment in the community if they lost their job at the mill.

Table 4.1: Impacts Perceived by Survey Participants	
Primary impacts perceived by survey participants	<ol style="list-style-type: none"> 1. Job loss/unemployment 2. Population decline/relocation of people and families 3. Economic decline 4. Social impacts (low morale, crime, alcoholism, stress, etc.) 5. Uncertainty and fear of the unknown 6. Loss of business and decline in sales

When asked through surveys and interviews what the primary impacts to the community would be if the sawmill and/or paper mill shut down, the most anticipated impacts are seen in Table 4.1. Participants mentioned job loss and unemployment as the number one impact. Participants from both the Tolko Employee Group and Community Group were worried about the future of their employment without the forest industry. Population decline and economic decline in the community were other impacts mentioned often throughout the entire survey as impacts that would be felt by the community.

“There is nowhere to replace 800 jobs, especially good paying jobs. The town can't replace this many jobs, I can't even imagine how to do this... how it could be done.” (Anonymous 2008).

There was a lot of negativity and uncertainty mentioned by participants in the survey. Many were unsure of what could be done to strengthen the community if the mills did close permanently.

“I go into work, come home and hope I get to go back again tomorrow” (Anonymous, August 9, 2008).

Mill workers were especially negative about the future of the community. Many did not want to participate in the project because they would have to think about their future.

“The decline of the forest industry in The Pas has caused me to change my view on starting a family and continuing to work in The Pas. I have now decided to go back to school to further my education and then try to find work in a growing community and not a fading one.” (Anonymous 2008).

Another trend mentioned is that many youth have left for employment elsewhere. It was stressed that more opportunities were needed in order to keep young people in The Pas. Many young people realized they needed to seek out other communities to find education and employment. In this case, one participant realized employment at the paper mill was not stable and left to further their education. This participant realized education and employment had to be found elsewhere to provide for a family. The perception that The Pas was a community that was not growing was common among many people. There are limited work and recreation opportunities for youth, which has led to young people leaving for opportunities in other places.

A major trend that stood out in the surveys was the dislike for Tolko and the mill owner. Participants felt Tolko had taken advantage of the community because it is the main employer. There was a lot of negativity towards the mill owner and Tolko and resentment about how much the community is dependent on the mills. Stress in individuals and the community was also mentioned often throughout the surveys and interviews. People worried about job loss and unemployment, which has made it difficult for many to think about the future.

Although there was a lot of negativity towards the future of The Pas without the forest industry, there were also many participants who felt positive. Many felt that bringing in new industries and expanding the local resource base (such as tourism, hydro and mining) could help diversify the economic base of The Pas. Participants from the community seemed to be much more positive about economic development activities that

could strengthen the economic base of The Pas. Those directly employed at the mill had more of a negative outlook towards their own future and the future of the community.

The content analysis revealed a pattern of participants reporting that people understood the underlying cause of the decline in the forest industry and a dislike for the dependence of the community on a single industry (Table 4.2). Both the Tolko Employee Group and Community Group were knowledgeable about the factors affecting the forest industry. Those from the Tolko Employee Group seemed to have a better idea of the variety of factors causing the industry decline. All thirteen participants from the Tolko Employee Group responded to this question and each participant listed multiple factors contributing to the decline in the forest industry whereas seventeen of the nineteen Community Group participants answered this question and had only listed one to two responses each. The Tolko Employee Group participants were also more specific on which factors contributed to the decline whereas the Community Group participants listed general factors.

Table 4.2: Factors Contributing to the Decline in the Forest Industry	
Tolko Employee Group	Community Group
<ol style="list-style-type: none"> 1. High Canadian Dollar 2. Logging/Over Harvesting 3. Supply/Demand 4. Distance of wood haul 5. Softwood Lumber Agreement 6. Price of Fuel/Increased Energy Costs 	<ol style="list-style-type: none"> 1. High Canadian Dollar 2. Softwood Lumber Agreement 3. Price of Fuel 4. US/world Economy 5. Reliance on One Market

Economic

The economy of The Pas is related to the forest industry. Through employment, employees spend their earnings in the community creating a trickle-down effect

benefiting businesses within the community. The town of The Pas collects taxes from the industry, which benefits the community in terms of municipal services.

Table 4.3: Total Municipal Tax Revenue for The Pas 2007	
Total Revenue for The Pas	
Municipal tax (incl. Tolko taxes)	\$5,105,914.57
▪ Tolko property tax	▪ \$1,200,955.35
School tax	\$3,967,640.00
Other revenue (grants, interest, etc)	\$2,329,148.99
Airport	\$883,350.00
Total tax for The Pas	\$12,286,053.56

The total municipal tax collected by The Pas is \$5,105,914.57, including taxes received from Tolko Industries. The total amount of school tax collected comes to \$3,967,640. This is a total of \$9,073,554.57 in taxes collected for The Pas through municipal and school taxes. Other revenue comes from government grants, interest on loans, business licences, animal licences, etc. for a total of \$2,329,148.99 (found on page 26 of the Financial Plan for The Pas). The airport is also a source of revenue for the community, bringing in a total of \$883,350. This leads to a total of \$12,286,053.56 in taxes that collected by The Pas.

The total tax assessment on all Tolko Industries property at the mill site, including the sawmill, paper mill and surrounding buildings on the mill site is a total of \$1,200,955.35. The portion of property tax from Tolko that goes to the municipal government is \$588,383.94 and \$383,740.04 goes to the local schools (Appendix C for calculations).

Table 4.4: Percent of Municipal Revenue Collected from Tolko 2007		
	Tax Revenue	Tolko Tax
		\$1,200,955.35
Municipal Tax	\$5,105,914.57	23%
Municipal and School Tax	\$9,073,554.57	13%
Total Tax of The Pas	\$12,286,053.56	9%

Since the mill complex was built at The Pas, the forest industry has provided the economic base for the community (NMEDC 1992). Tolko has an annual payroll of \$50 million (The Pas and Area 2006-2007). This number does not include taxation of any kind received from Tolko. The overall GDP contribution to the province as of 1994 was \$85.6 million based on labour, business profits, government revenue and landowners' rent (Geomatics International Inc. 1997). Seventeen percent of The Pas' annual budget comes from business tax received from Tolko (CBC News 2006). In comparison to agriculture with a total revenue of \$11 million per year, commercial fishing with a revenue of \$800,000 per year and trapping with a revenue of \$250,000 per year, forestry is a major natural resource industry at The Pas (Figure 2.1) (The Pas and Area 2006-2007).

Environment

The environment in northern Manitoba is important to the forest industry at The Pas. There is a lot of available forest (Image 4.1) in the province for the forest industry. Tolko's Forest Management Licence Agreement includes enough forest to sustain the sawmill and paper mill in The Pas for hundreds of years (Forestry Manager, Province of

Manitoba 2008: personal communication). The allocation for harvest is 2.2 million m^3 maximum per year. Although this is the maximum allocation for harvest per year, the Forestry



Image 4.1: Boreal forest in northern Manitoba

Manager at the Province of Manitoba said the average

annual cut tended to be between 900,000 and 1,200,000 m^3 per year. The annual cut for this year (2008) will be lower than the average annual cut of previous years because the sawmill had been cut down to one shift from three, resulting in less need for wood because of lower production levels.



Image 4.2: Chips loaded at the sawmill for the paper mill

The Kraft Paper Mill is a residual facility and depends on the sawmill to provide chips. The chips received from the sawmill are of better quality than chips obtained from bush operations and therefore produce higher quality paper (Environmental Engineer at Tolko 2008: personal communication). When the sawmill is prosperous, the paper mill can increase production because through the production of lumber, there is a surplus of wood chips. The increase in wood chips can cause the price of paper to go down because the production of paper increases. When the sawmill is not doing well, the production of lumber decreases, so the production of chips decreases. This can cause the price of paper to increase since quality wood chips become scarce and are required by all paper mills. The Environmental Engineer at Tolko said the joint facility at The Pas was able to keep running because of the relationship between the sawmill and paper mill through the sale

of chips (Image 4.2). Although the two are intertwined through business, the sawmill needs a market for its chips to operate and to avoid closure.

The second shift at the sawmill had been laid off and is likely to remain so for the next two to three years if the sawmill can stay open (Environmental Engineer at Tolko, 2008: personal communication). Most of the laid-off employees have found alternative employment, some within the community and some elsewhere. It has been a surprise to many participants in this project that the sawmill had been reduced to one shift instead of experiencing a total closure.

Currently, the Canadian market is dependent on the United States market. Since the United States is in recession, less lumber products are being purchased leading to a decline in the forest industry in Canada (Forestry Manager, Province of Manitoba 2008: personal communication). The sawmill needs to explore different markets, such as J-Grade lumber, which can be sold to Japan. Other markets that are rapidly expanding should also be explored, such as Asia and India.

Assessment of Impacts Anticipated with Potential Forest Industry Decline

This section explores social, economic and environmental impacts that may be anticipated with the potential forest industry decline at The Pas. This section also provides a baseline population, employment and labour force information.

Social Impacts

An impact to a possible decline in the forest industry is population decline. The past four census terms were explored to determine current population trends of the community. These trends were examined to determine the potential future population

trends along with the potential future population with the possibility of layoffs or mill closures.

Table 4.5: Population of The Pas				
	1991	1996	2001	2006
Total population	6,170	5,945	5,795	5,590
Males	3,025	2,950	2,860	2,665
Females	3,145	2,995	2,935	2,925

Source Statistics Canada 2007

Table 4.6: Population of the Opaskwayak Cree Nation				
	1991	1996	2001	2006
Total	1,213	1,776	2,025	2,187
Males	N/A	N/A	N/A	N/A
Females	N/A	N/A	N/A	N/A

Source Statistics Canada 2007

Table 4.7: Population of the R.M. of Kelsey				
	1991	1996	2001	2006
Total	1,890	1,825	2,520	2,450
Males	985	955	N/A	1,265
Females	905	870	N/A	1,185

Source Statistics Canada 2007 and Government of Manitoba 2007

The total population in 2006 was 5,590 for The Pas, 2,187 for the Opaskwayak Cree Nation and 2,450 for the R.M. of Kelsey, for a total population of 10,227. The best years to compare in the census are 2006 to 2001 and 1996 to 1991. The census boundaries changed slightly after 1996 so the 1996 and 2001 census cannot be directly compared. The four census terms were included so comparisons in population trends could be explored. The general trend is a decrease in population with each census in the town of The Pas and the R.M. of Kelsey, while the population at OCN has increased each census term. Between 1991 and 1996 there was a 225-person decrease in population at The Pas and a 65-person decrease in the R.M. of Kelsey, but a 563-person increase at OCN. Between 2001 and 2006 there was a 205-person decrease in population at The Pas, a 70-

person decrease in population in the R.M. of Kelsey and a 162-person increase at OCN.

In 2006 the sawmill roof collapsed, leaving many workers unemployed for months. Many people ended up leaving the community after re-evaluating their job stability and the viability of the community (The Pas and District Chamber of Commerce 2006).

The total workforce of the community in 2006 was 5,140 people: 2,865 people from The Pas, 1,885 people from the RM of Kelsey and 660 people from OCN. There were 480 people that directly worked at Tolko (there was more when the sawmill was fully operational). That means the work force from the three communities directly related from Tolko was 9 percent. The Pas had less than 10 percent direct employment from Tolko.

Table 4.8: Non-Aboriginal vs. Aboriginal Population 2006				
2006 census:	The Pas	R.M. of Kelsey	Opaskwayak Cree Nation	Total
Total population	5,520	2,480	2,155	10,155
Non-Aboriginal population	3,280	1,425	15	4,720
Aboriginal population	2,240	1,055	2,135	5,430

Source Statistics Canada 2007 and Government of Manitoba 2007

Table 4.9: Unemployment Rate 2006			
2006 Census:	The Pas	R.M. of Kelsey	Opaskwayak Cree Nation
Unemployment Rate	7.3%	12.1%	23.6%
▪ Male	8.4%	12.7%	27.3%
▪ Female	5.8%	11.3%	19.4%

Source Statistics Canada 2007 and Government of Manitoba 2007

Statistics for the populations of The Pas, the R.M. of Kelsey and the Opaskwayak Cree Nation as found in the 2006 census online community profiles is shown in Table 4.8. Non-Aboriginal and Aboriginal populations for each of the three communities are

also shown in this table. Table 4.9 shows the unemployment rate for each community and then is further categorized by male and female unemployment rates.

The total labour force in The Pas over the age of 15 consists of 2,865 people (Table 4.10). As can be seen in this table, labour in the forest industry can fall under a few categories, including the agriculture and other resource-based industries category, manufacturing, and the trade categories. The labour force is quite large for The Pas and includes high employment levels in health care and social services, educational services, retail trade, business services and other services.

Table 4.10: Labour Force by Industry for The Pas 2006	
Industry	Total Work Force
Labour force over 15 years old	2,865
Agriculture and other resource-based industries	105
Construction	60
Manufacturing	285
Wholesale trade	40
Retail trade	350
Finance and real estate	70
Health care and social services	500
Educational services	375
Business services	295
Other services	785

Source: Statistics Canada 2007 and Government of Manitoba 2007

The labour force can also be broken up into occupation rather than by industry (Table 4.11). This table is reflective of occupations that are related to the forest industry, such as trades, transport, equipment operators and related occupations. The labour force by occupation that is directly related (through primary and secondary means) to the forest industry is through management occupations; business, finance and administration occupations; trades, transport, equipment operators and related occupations; occupations unique to the primary industry; and occupations unique to processing, manufacturing and utilities.

Table 4.11: Labour Force by Occupation for The Pas 2006	
Occupation	Total Work Force
Labour force over 15 years old	2,865
Management occupations	215
Business, finance and administration occupations	390
Natural and applied sciences and related occupations	110
Health occupations	270
Occupations in social science; education; government service and religion	370
Occupations in art; culture; recreation and sport	40
Sales and service occupations	930
Trades, transport and equipment operators and related occupations	375
Occupations unique to primary industry	25
Occupations unique to processing; manufacturing and utilities	135

Source: Statistics Canada 2007 and Government of Manitoba 2007

Economic Impacts

Forestry and forest-related activities are economically important for the region surrounding The Pas. Employment is gained in many communities other than The Pas, OCN and the R.M. of Kelsey. These communities include Cranberry Portage, Moose Lake and Wabowden that participate in the forest industry through logging activities, woodlands activities and employment at the mill site (NMEDC 1992). A decrease in the forest industry at The Pas can have a negative economic effect on the region through a loss of employment and tax revenue.

It is important to understand the linkages between one industry and another. For example, a link exists between Tolko and the Hudson Bay Railway because the railway transports products to and from the sawmill and paper mill at The Pas. Forward and backward linkages help to keep employment within the community and region (Nickel, Gillies, Henley and Saunders 1978). Backwards linkages include those such as transportation companies (Hudson Bay Railway) and accountants (Haugen and Morrish), and social sectors such as hospitals (The Pas Health Complex) and schools (Kelsey School Division and the University College of the North) (Hayter 2000).

Business owners within the community who participated in the surveys mentioned the impacts on their businesses would be negative. One participant mentioned that if Tolko closed, the base their revenue is drawn from would decrease, leading to lowered revenues. Another business owner mentioned his target market was not the Tolko employees, but the more people who lived in the community and were employed creates a trickle-down effect for his business. A participant who owned an electronic business in The Pas mentioned there is a slowdown in sales when employees are laid off at the mill. The decrease in sales can be expected to continue to slow down if employment at the mill is insecure and the threat of closure continues. One participant sold his businesses in the past year for more stable employment as a manager at one of the stores in town.

“House properties have fallen from three years ago. I sold a house in 2005 for \$160,000. Today it might sell for \$145,000.” (Anonymous 2008).

Many participants mentioned the decrease in their house value had an impact due to the forest industry decline. They added the resale of their homes was questionable and housing starts had declined.

Environmental Impacts

Environmental impacts will be felt with a decline or closure in the forest industry. In British Columbia, the environment is a contributing factor to the decline in the forest industry. The pine beetles have destroyed the forest resulting in a decrease in the forest industry. Manitoba is free of the pine beetle and other pests that kill trees and reduce the amount of forest available to the forest industry. According to the Environmental Engineer at Tolko, forestry in British Columbia will most likely be finished in the next five to eight years due to the pine beetle infestation that has devastated the forest. If the sawmill in The Pas could hold on long enough for the forest industry in British Columbia to collapse, the supply of lumber would decrease and the demand for lumber from Manitoba would increase. It is not a shortage of forest in northern Manitoba that is affecting the industry; global economic factors and saturation of lumber products on the market have played a role in the decline in the forest industry. The environmental problem that affects the forest industry in Manitoba is forest fires. The forest industry has a vested interest in contributing to controlling forest fires because the resource has a market value. There is an incentive to protect the forest from fires from the economic and social perspectives because many people are dependent on the resource for their livelihood.

An impact associated with harvesting the forest is the creation of roads. Road access allows logging trucks and equipment to the harvest area, and also allows people into remote areas that could not previously be accessed. This outcome allows people into these remote areas to hunt and fish. The Forestry Manager at the Province of Manitoba said that attempts have been made to block roads to reduce the amount of people that go into remote areas to hunt and fish, but people remember where those roads are and either

go around barricades or take them down in order to get past them. A reduction in harvesting the forest would be the decrease in roads created, denying access to people to remote areas for fishing and hunting.

The Forestry Manager also mentioned that if the mills closed and forest activity stopped in The Pas, the forests in northern Manitoba might go back to an unmanaged state because of the expense needed to maintain the red zones (good timber zones) in the forest. It was also mentioned that the management of the forest would depend on the reaction of the province to the decline or closure of the forest industry and whether it thought the industry would return to the area. This would also have social and economic impacts to communities. The tax base of the north would be decreased and jobs in the forest industry associated with harvesting and fire protection would be lost.

Tolko Environmental Impacts

A potential closure in the industry would lead to environmental impacts at the mill site. The Environmental Engineer at Tolko discussed the necessary measures to clean up the site to an environmentally safe standard if the sawmill and paper mill experienced a permanent closure. Many procedures would need to occur before the site could be officially shut down.

The lagoon, as seen in Image 4.3, would need to be continually treated until the risk of contamination no longer existed. The domestic sewage (from showers and toilets) and effluent treatment (processed water through the paper-making process) would need to be treated and taken out of service. The length of time to clean up the contamination from the domestic sewage and effluent could take anywhere between six to twelve months. In the event of a total mill closure with no interested buyers, the water in the lagoon would

be treated last in order to purify the water and effluent received from the mill before being released into the Saskatchewan River.



Image 4.3: Lagoon at Tolko Industries site just outside of The Pas

Another process of site clean-up would involve capping the landfill (Image 4.4).

This process would take much longer than the decontamination of the lagoon and effluent



Image 4.4: Landfill at Tolko Industries site outside of The Pas

treatment plants. The job itself would not be able to commence until a year after the mill had closed. The owners would wait a few years to look for prospective buyers to purchase the complex before starting the decontamination of the landfill. Once it was determined a buyer could not be found, capping the landfill would commence, taking at least a year to finish. A total site closure, clean up and decontamination of the entire site would take place. This could take from six months to six years or more, depending on the possible sale of the company, when treatment began and all the steps involved in the decontamination process.

Assessment of Recent and Current Initiatives to Strengthen the Economy of The Pas

This section explores recent and current initiatives that have been put in place, or are planned for the future, to strengthen the economy of The Pas. Initiatives that survey participants would like to see take place were also included in this section.

North Forks

The North Forks partnership between The Pas, the R.M. of Kelsey and the Opaskwayak Cree Nation is a positive step for all three communities (Image 4.1). It was created to ensure a more diversified economic



Image 4.5: Bridge linking The Pas and OCN

environment and designed to focus on future economic opportunities for the region as a whole. This partnership is positive economically for all three locations because development in one place is positive for the other two places.

Industry and Business

The content analysis revealed a theme of diversification. It was mentioned many times throughout the surveys (73 percent of participants) and interviews that a diversification of industry is to strengthen the economy of The Pas for the present and future. Participants favoured the idea of small to medium-sized businesses over large businesses. Many mentioned they would like a business owner who lived within the

community versus one who lived in another community so that the owner had a stake in the overall viability of The Pas.

It was mentioned in the surveys that the province should own the mills in The Pas and a private owner should not run the sawmill and paper mill. Private owners do not have the same incentive as the government to keep the mills running if they are not making a profit. A participant mentioned it would almost be like welfare for the town. Even if the province lost money through paying wages, workers and families would stay in the community and feel valuable to society. They would be less susceptible to succumb to alcohol and drug problems (Anonymous 2008). Such a vision would have to be considered idealistic and not realistic for the provincial government.

More business and industries in the community would make the community less dependent on Tolko and the forest industry. An interview participant mentioned that beneficial businesses, such as clothing stores, shoe stores and businesses that keep people busy and entertained are needed in The Pas. Businesses that can generate activity or recreation would be economically and socially beneficial. Many participants mentioned that grocery stores, gas stations or businesses that already exist in the community were not needed. It was mentioned The Pas needs new industries (both resource and service-based) and businesses that can add to and improve the community.

“By promoting the success of the local economy more businesses will go up (shopping, etc.) which will attract residents and increase the success of the local economy (education, health)” (Anonymous 2008).

A weakness reported by many survey participants was the lack of businesses and business growth in The Pas and area. Promotion of local business and entrepreneurship activities might increase the number of people willing to open a business in the community. Business grants and loans should be promoted to increase entrepreneurship.

Tourism and Recreation

“More tourism opportunities would encourage more travellers to The Pas and area. These travellers would spend money in The Pas at eating outlets, accommodations and recreational places boosting the economy” (Anonymous, 2008).

The content analysis revealed a pattern of participants reporting that tourism and tourism-related activities could strengthen the economy at The Pas and contribute to its economy in the future.

“Encourage tourism to the area by creating more recreational and tourism businesses” (Anonymous, 2008).

In order to increase tourism participants felt tourist infrastructure and businesses needed to increase. One interview participant mentioned a desire to open a bike rental place near the bike path so people could enjoy the path built a few years ago. The participant also mentioned there is nowhere in town to fix the bikes if they broke and nowhere to buy the supplies (such as workout shoes and workout clothes) to do the activity. Since there are no longer any stores in The Pas that sell workout clothing, it was mentioned that physical activity areas, such as gyms, could start selling these products.

One participant mentioned creating a centre directed at Aboriginal culture, similar to the Polynesian Cultural Center in Hawaii. The idea for this centre would be to promote northern Manitoban Aboriginal culture, including other Aboriginal cultures throughout the province. This would bring more tourists to the community and increase the employment of Aboriginal people. It was thought the promotion of an Aboriginal cultural centre would be beneficial to the north through the creation of new jobs outside of resource industries. Creating employment opportunities for Aboriginal people would be beneficial to the community as there is a high Aboriginal population in the community.

Recreational programs could help the wellness of the people in the community and potentially help promote tourism. One survey participant mentioned winter recreation (other than hockey) was needed in The Pas. A snowboard park was mentioned, as were racquetball and squash courts. By adding recreational activities to the community, health and wellness would be increased, as well as the possibility of holding tournaments that would bring in more people to the town and area.

Location and Transportation

Location was a common theme in the surveys and interviews when asked about the strengths and weaknesses of The Pas. Location was both a positive and negative. Positive factors were the transportation routes and lack of competition for businesses. Location was also a weakness because businesses were not moving into the area due to the perceived instability of the community and the difficulty to get manufacturing companies that are not based on natural resources, such as forestry, mining and hydro, to move up north.

The Pas has traditionally been known as the “Gateway to the North” because of its position in Manitoba. According to the Economic Development Officer, The Pas has the opportunity to take advantage of its location by becoming the link from the port of Churchill when it opens up year-round to the rest of the country. The east-west Keewatin Corridor going through The Pas is being developed. Once operational, goods could move back and forth from Churchill and western Canada. It was mentioned that building another Trans-Canada highway from east to west 600 km north of the #1 highway would be beneficial to those in the north and would promote northern communities throughout Canada, including The Pas. The Business Development Specialist with the Province of Manitoba mentioned the possibility of paving Highway 283 to RTAC standards, the

highest quality of road for truckers going west of The Pas towards Hudson Bay in Saskatchewan. The town could also support Saskatchewan in upgrading their highways 9 and 55 (the rest of the way to Hudson Bay from Manitoba) in order to make east-west transportation safer from The Pas. Heavy loads could then be transported from Alberta and Saskatchewan to ship to Europe (through the port of Churchill). A goal of the Economic Development Officer was to make The Pas a transportation hub to distribute goods going to and from Churchill to the rest of western Canada. The officer said that in 2007 the first train arrived from Churchill to The Pas carrying products.

Another initiative proposed for OCN was a pellet plant. This would make pellets for wood stoves using waste wood residue. This would be an opportunity to increase employment in the community among Aboriginal people. This industry would benefit from the port of Churchill being open year-round as European markets could become more accessible.

The wild rice industry has always been small-scale in northern Manitoba. Another initiative proposed by the Economic Development Officer was to increase the production of wild rice in The Pas for sale worldwide. This initiative would also rely on the port of Churchill to access worldwide markets.

Commuter Community

Both the Economic Development Officer and a survey participant mentioned the idea of a “commuter community”. The idea is for The Pas to become a commuter community for mining and hydro dams in northern Manitoba. The Economic Development Officer thought both mining and hydro opportunities would bring thousands of jobs to the north with The Pas being the base. Residents in The Pas could live in camps to work at the mines or hydro dams and return to the town on their weeks off to spend

with their families. According to the Economic Development Officer, this would increase the number of people who stayed in the community and reduce some of the effects of a decreased forest industry.

Non-Timber Forest Products

Non-timber forest products have always played a part in northern Manitoban life and been a part of Aboriginal culture.

A survey participant mentioned the community

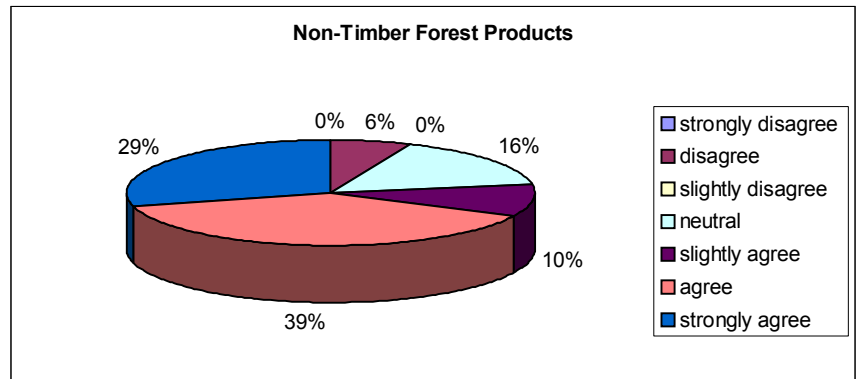


Figure 4.5: Level of Agreement on Non-Timber Forest Products Boosting the Economy of The Pas

should continue to explore new products that could be harvested from the boreal forest, such as birch syrup, birch wine, Aboriginal medicines, etc. In the survey, a Likert scale (ranging from strongly disagree to strongly agree) was used to determine if non-timber forest products had the potential to boost the economy at The Pas. As seen in Figure 4.5, 78 percent of participants agreed (from slightly to strongly) that non-timber forest products could help boost the economy.

The Government

There are many ways in which the government can assist communities reliant on an industry for the majority of their income and economic stability in a downturn. Governments can create short-term bridges until the industry has improved or re-employment has occurred. Assistance can be provided through federal, provincial and/or local governments. This assistance could be directed at the industry or boosting the

economic profile of communities such as The Pas, as well as other communities that are dependent on a single industry. This section is going to focus on efforts made by the three levels of government.

Federal Government

As announced on February 8, 2007, \$127.5 million of the \$400 million allocated to the forest industry was for investment in markets and research. Approximately \$70 million was allocated for innovation in the forest industry and to assist in the future. Forty million dollars was to increase market opportunities for wood products. Another \$5 million went to identify skill sets in the industry along with issues the industry was facing (Winnipeg Free Press 2007).

The \$40 million dollars that was promised to single-industry Manitoban communities over the next three years by the federal government in January 2008 was given to the province. This money was then further distributed within various departments in the government (Table 4.12). This accounts for \$29 million of the \$40 million. The other \$11 million has not yet been announced.

Table 4.12: Part of the \$40 million Promised to Help Forest Industry Communities in Manitoba	
Amount of Money	Where it Went
\$14.7 million	To support embattled cattle producers
\$4.5 million	Northern Essentials Skills Training Initiative
\$3.9 million	Upgrades to Brandon waste-water treatment plant
\$5.9 million	Neepawa waste water treatment

As seen in Table 4.12, the money from the federal government that was allocated to single-industry communities affected by a downturn in their primary industry ended up

going towards other departments in the provincial government and was further distributed to other departments. The Auditor General announced on February 6, 2009 that the federal government gave out billions of dollars to the provinces to spend on various programs. Once the money was handed over to the provinces, the province can spend the money however it wants. There is no legal obligation for the provincial government to distribute the funds the way the federal government had originally intended (Ward 2009).

A government official said The Pas and Tolko were not eligible for the funds because of the Financial Stabilization Agreement (to be discussed more in the next section). Since the town was already receiving financial help from the province and the local government, it was not eligible to receive more funding from the federal government.

Provincial Government

Tolko had announced a permanent closure of the sawmill in 2005. Federal officials and provincial government members Premier Doer and Minister Lathlin flew to The Pas to discuss the situation with the union representatives. The government representatives stated concessions needed to be made for the sawmill to remain open. The province had been involved in research regarding the forest industry and the economic situation facing forest industry communities and was able to make suggestions and recommendations to keep the sawmill open. The province came up with a Financial Stabilization Agreement (FSA) between itself, the town, Tolko and the union. The Government of Manitoba provided \$11 million in concessions, including paying for seedlings, winter road maintenance, fire suppression costs and reduced off-road fuel taxes. The province worked with Manitoba Hydro and Tolko to upgrade the boiler system at the paper mill to burn waste goods and sell the extra electricity back onto the grid. The

town of The Pas gave up a portion of its tax base to ensure Tolko would stay in the community by reducing property and business taxes. The sawmill and paper mill unions agreed to a 10 percent wage cut for three years until the next round of negotiations, which took place in February 2009. In total, the concessions by the government, the town, unions and the partnership with Manitoba Hydro led to approximately \$19 million in savings over three years.

Provincial money has been granted to The Pas through the Neighbourhoods Alive! project. One hundred thousand dollars went towards Neighbourhood Capacity Building, Neighbourhood Stability, Neighbourhood Economic Development and/or Neighbourhood well-being (Anonymous 2008). The aim of this program was to provide long-term social and economic development and be run by The Pas (Manitoba Intergovernmental Affairs, n.d.). Surveys were distributed both online and in local stores to determine where local people thought the money should be allocated.

The Worker Adjustment Committee (WAC) was another provincial program set up in communities when an industry is threatened and the community is at risk. This government program works with communities and the industry to introduce new opportunities for education and re-employment to employees who have been laid off or their job is threatened. WAC looks at how to prevent layoffs or closure in the affected industry. It was brought into The Pas in April/May 2008 because the industry was at risk and it was not known at that point if the sawmill was going to close. WAC came in to provide options for the community and held a community meeting. Although there were many trained professionals available to help people who worked in the industry, not many people participated in the program.

Local: Current Initiatives in The Pas



Image 4.6: St. Anthony's Hospital and University College of the North

There are initiatives to strengthen the Regional Health Authority (RHA) and University College of the North (UCN) (Image 4.6). The RHA employs many people in The Pas and is focusing on employing more residents in the community. UCN is another area in which expansion has already started to take place by offering more courses and programs, including both college and university programs. Students at UCN can upgrade their high school education, take certificate courses and get a diploma or degree. UCN also has developed partnerships and programs with other communities, such as a degree in Aboriginal midwifery with Aboriginal communities in northern Manitoba.

Strategies Successfully Used in Forestry Industry Communities

Strategies that were used in Voikkaa, Finland and in Prince Albert, Saskatchewan to respond to the downturn in the forest industry are discussed in this section.

Voikkaa, Finland

An example of a forest industry community that was affected by the decline in the forest industry is Voikkaa, Finland. This community experienced a paper mill closure due

to rising export taxes on timber from Russia, which made it uneconomical to continue in the production of paper (Yakabuski 2007).

When United Paper Mills (UPM) announced the closure, 678 jobs were directly affected. UPM provided full salaries to its employees for seven months while closing down the facility, even if the employee had already found alternative employment. UPM also funded a “job-to-job” program aimed at re-education and relocation for the affected employees. The closure at UPM was done in phases, which allowed extra time for Voikka to obtain funding from their central government to put resources and programs in place to help the town, laid off workers and to promote new businesses into the community (OECD 2008).

Community members thought it would take years for their town to recover from the forest industry closure, if they even were able to recover. Two years later most of the people who were laid off have found employment. With the help of UPM and the government, new industries moved to the community, workers were retrained and re-educated to work at new jobs and some of affected employees started their own businesses (Kinnunen 2008). Diversification, education and retraining along with entrepreneurial people kept jobs in the community and made it economically and socially stable.

The example of Voikkaa shows a community that was able to diversify its economy and become less reliant on not only the forest industry but less reliant on a single industry for economic sustainability. A wide range of different businesses and industries now contribute to the economic base of this small Finnish community. This was able to happen quickly because the company worked with the community and the government to promote retraining and development of new industries.

Prince Albert, Saskatchewan

Prince Albert, a community close to The Pas, experienced a closure in their paper mill in the spring of 2006. The Economic Development Officer in The Pas mentioned that Prince Albert has become a “commuter community” for the oil fields in Alberta. A commuter plane started to fly from Prince Albert to Fort McMurray on a weekly basis to transport workers to the oil industry. On their week off they can fly back to Prince Albert and spend time with their families. This strategy allows workers to live in the community while their employment is elsewhere. The community members did not have to sell their houses in order to gain employment elsewhere. This response plan could be used in The Pas with the possibility of new mines and hydro projects opening in the north, workers could live in The Pas and commute to mines and/or hydro projects elsewhere. It could also be used for the mines that are already established, such as in Flin Flon or Thompson.

Conclusion

This results found in the study were presented in this chapter and categorized in this chapter according to each objective. Survey results on the perceived importance of the forest industry on the community were also discussed. Impacts that could potentially be associated with a closure in the industry were presented along with current initiatives by the federal, provincial and local governments. Strategies successfully used in other communities were introduced and are further discussed in Chapter 5.

Chapter 5 – Discussion

Introduction

The results presented in Chapter 4 are discussed here. This chapter is organized by each objective.

Exploration of the importance of the forest at The Pas

This section examines the results related to the importance of the forest industry on the community, economy and environment at The Pas.

Community

A single-industry community depends on the industry for 50 percent or more of its employment from the forest industry. The economy of The Pas is quite diversified and does not depend on Tolko as much as the participants perceived. In the summer of 2008, Tolko had 480 employees, 9 percent of the direct employment of The Pas, R.M. of Kelsey and OCN combined. Although perceived by many to be a one-industry town, The Pas has a diversified economic base. It has expanded with the university and the hospital along with initiatives that have taken place on OCN, such as the casino. The community is still quite reliant on the forest industry through the number of jobs provided and the income brought into the community through taxation and employees' salaries.

Resentment stems from the reliance of jobs and income on the forest industry, which has led to negativity by many participants towards Tolko. Participants who worked at the mill tended to be more negative about their future than those who that worked in the community. This can be attributed to the fact that their employment is not stable and they could lose their employment before community members do. The forest industry is

down throughout Canada so mill workers would not be able to find forest industry-related employment elsewhere. Many workers at the mill have industry-specific training that could not be transferred to another industry. Since all commodities in Canada have been suffering, employment would be difficult to find in other industries.

Opportunities for youth in the community are lacking and many have left for employment and education in other communities. The University College of the North has expanded its programs, but with few employment opportunities opening in The Pas, youth must go elsewhere for employment.

Part of this study included determining the factors participants thought had contributed to the decline in the forest industry in The Pas. Before starting this project, it was thought the majority of participants would say the decline in the mills at The Pas was because of the mill owner because they would not understand the underlying fundamentals of the industry decline. After the completion of the surveys, it was determined that both the Tolko group and the community group were knowledgeable about the circumstances leading to the decline in the forest industry. It was found that the Tolko employee group was much more knowledgeable and had listed more factors per participant than those in the community group. This led to the conclusion that both groups were more knowledgeable about factors affecting the forest industry than was originally thought, but the Tolko group was more knowledgeable than the general public.

Economic

Through property taxation, Tolko contributes 9 percent to the municipal tax base of The Pas. In 2006 the total business tax was a total of 17 percent of the annual budget of The Pas. Since the percentage of the tax base received from Tolko is low, The Pas is not considered a single-industry community. The definition of a resource-dependent

community is the dependence of the census subdivision on the industry for 50 percent or more of their employment from the forest sector (CCFM 2005). Multi-resource dependent is defined as the census subdivision having a mixed economic base (CCFM 2005). These definitions rely on the census subdivision, which in the case of The Pas is quite large. Even when narrowing the definition to just the inclusion of The Pas, OCN and the R.M. of Kelsey, The Pas still falls under the category of having a mixed economic base.

Environment

The forest industry in The Pas has the largest cut allowance of any forest industry in the province with a surplus of trees that could provide the industry for hundreds of years. Thus the decline in the forest industry at The Pas has not been caused by environmental factors.

On average, less than half to half of the annual allowance is harvested by the forest industry at The Pas. The sawmill and paper mill are intertwined through the production and sale of wood chips, which has kept the sawmill open. The success of the paper mill has kept employment at the sawmill as well as the woodlands operations through the harvest of trees for the production of chips.

Assessment of Impacts Anticipated with Potential Forest Industry Decline

This section explores and discusses social, economic and environmental impacts that may be anticipated with the potential forest industry decline at The Pas.

Social

As can be seen in the census, the population in The Pas and the R.M. of Kelsey has steadily decreased each year from 1991 to 2006 while the population on OCN has

steadily increased. As of 2006, the population of The Pas was 5,590, the R.M. of Kelsey had a population of 2,450 and OCN had a population of 2,187. Between the 2001 and 2006 census, there was a decrease of 205 people in The Pas, 70 in the R.M. of Kelsey and an increase of 162 people at OCN. The population of the town has slowly been decreasing since 1991 by approximately 200 people each census term. The Pas has adapted to this small change in population.

If the sawmill closed, 170 people at the mill site would be out of a job. Many of these people might leave the community within a short period of time. They would also take their families (wives, husbands and kids) and move to another community in search of employment. The decrease of population in a short time span would be a shock to the community. If the paper mill also closed at the same time, then more than 480 people (280 from the paper mill and 200 from the sawmill and woodlands operations) could potentially leave the community with their families. This would cause a multiplier effect in job loss and population decline. The number of jobs lost at the mill would lead to jobs lost in the community because of a decline in spending as well as potential population decline.

As seen in Chapter 4, the population in The Pas and the R.M. of Kelsey has been decreasing with the population of OCN increasing. As seen in Table 4.8, the population of The Pas is made up of 60 percent of non-Aboriginal people and 40 percent Aboriginal people; the R.M. of Kelsey is made up of 58 percent non-Aboriginal people and 42 percent Aboriginal; and OCN is made up of 1 percent non-Aboriginal and 99 percent Aboriginals. Non-Aboriginal people tend to be more mobile and more likely to leave the community when the industry closes, whereas Aboriginal people are more likely to stay in their communities. The demographics of The Pas are slowly changing, with an increase

in the Aboriginal population and a decrease in the non-Aboriginal population. If the forest industry continues to decline and people continue to leave the community, the changing demographics will change the types of services needed. Since the Aboriginal population is slowly increasing in The Pas and area, more programs, education and employment opportunities should be directed at this population.

Economic

The forest industry at The Pas is important for the community and region. Employment is gained in northern Manitoba through woodlands operations, employment at the mill and through services such as fire prevention and control. Employment is gained through direct and indirect linkages and without these linkages employment would be reduced in northern Manitoba.

As discussed above, The Pas is not a single-industry community, although it was found to be a common perception among participants through surveys and interviews. Understanding how participants perceive the economics of the community and forest industry is important because perception is reality. If people continue to perceive The Pas as a single-industry community, then they will continue to move from the town and refrain from investing and making long-term goals. Many participants mentioned they have started looking for employment opportunities outside of the community. Staying in The Pas for many is short term so spending and investing in the town is decreased. Business owners that participated in the surveys mentioned impacts to the reduced forest industry had been felt in most of their businesses.

The perception that The Pas is a single-industry community leads to consequences, such as a lowered real-estate market when the industry is in trouble. One of the main impacts mentioned by participants was the lowered value of their properties

and the decline in housing starts. Participants mentioned the sale of their houses was questionable since the number of people leaving the community had increased. People were afraid of what their future would be in The Pas.

The town needs to promote its economic diversity to lower the fears people experience about the future without the forest industry. Different industries need to establish themselves in The Pas to provide more sources of employment. Increased industry would lead to less people viewing The Pas as a single-industry community and being less dependent on Tolko as the only source of employment. To decrease the perception of The Pas as a single-industry community, the town could publicize new developments and businesses within the community. Understanding economic initiatives that have taken place or are about to take place would be a positive step for the town.

Environment

An environmental impact associated with the forest industry is the creation of roads. A survey participant mentioned people were able to access areas that were once inaccessible to hunt and fish. This participant felt a reduction in the forest industry would reduce the number of people who accessed remote areas because fewer roads would be created. Although some participants felt the reduction in harvesting the forest was beneficial for environmental impacts (road access and harvesting trees), employment and the tax base would also be reduced.

If the paper mill and sawmill both experienced a closure and a buyer could not be found for the complex, an environmental clean-up of the site would need to occur. Even though the clean up would take years to complete, there would not be much direct employment to the community as most of the work would be contracted out to consultants.

Assessment of Recent and Current Initiatives to Strengthen the Economy of The Pas

North Forks

The North Forks Agreement was an essential agreement to the future economy of The Pas, OCN and the R.M. of Kelsey. Prior to this agreement, the three worked as separate communities competing for the same economic opportunities. Through the loss of businesses that were going to set up in the area in the past, the three communities realized that if they had worked together they all would have benefited from the businesses. Instead, the competition led the business to another community and The Pas, OCN and the R.M. of Kelsey missed out on the opportunity. The North Forks Agreement is important to the economic development of the region because the areas can work together to promote new business and industry opportunities. It is hoped that with this agreement future opportunities will be easier to access and obtain.

Industry and Business

Participants were in favour of diversification of the economic base of The Pas with a preference given to small to medium-sized industries, which would benefit the community rather than relying on a single big industry. This would diversify the economic base and the community would become less vulnerable to a collapse in the industry.

Some participants mentioned the desire to have an industry owner who resided in the community. This is unrealistic, especially for a forestry company. Small forestry companies are not able to compete on the global market because they do not have the capacity to be competitive with low prices.

Supportive businesses are needed within the community such as shoe stores and clothing stores. Throughout this project, participants mentioned the types of businesses they thought could increase the economy although were not willing to start these businesses themselves. Participants mentioned the fear of making a bad investment for their lack of motivation to open a business. It was suggested by a participant that local business successes should be recognized and promoted, which could help ease the fears of many people. If people recognized that local businesses were doing well and if business grants and loans were promoted and easy to access, entrepreneurship in the community might increase.

Tourism and Recreation

Tourism was a common response to the types of activities that could strengthen the economy at The Pas and contribute to its future. In order for The Pas to take advantage of tourist opportunities, it needs to increase its infrastructure towards tourism and tourism-related industries, such as places where people could rent canoes, boats, or participant in tourist-oriented activities.

The idea of creating an Aboriginal Cultural Centre in The Pas or OCN was suggested by a participant to promote Aboriginal culture and increase Aboriginal employment. This idea would also bring tourists to the community. Promoting Aboriginal culture through activities everyone could participate in could be beneficial. The employment rate on the reserve was much higher than the unemployment rate at The Pas and the R.M. of Kelsey, so this idea would help to lower OCN's unemployment rate.

Location and Transportation

The location of The Pas has historically been important to its economy and could play an important role in the future. The Economic Development Officer wants The Pas

to become a transportation hub to distribute goods from the port of Churchill to the rest of Canada. There was no mention of a projected date when The Pas would become a transportation hub, the type of infrastructure needed or when it would be built, or if there was an agreement in place with Churchill.

The proposal of the OCN pellet plant to use waste wood residue to make pellets for wood stoves is interesting. The pellet plant would most likely receive the wood residue from the sawmill, but if the sawmill closed then harvesting would have to occur. The paper mill currently uses the waste wood residue, also known as hog, to produce energy at the mill. The idea of using the port of Churchill is premature as it is not yet open as a year-round transportation route, so access to European and Russian markets may not yet be viable.

The wild rice industry initiative mentioned by the Economic Development Officer also relies on the port of Churchill for its distribution. The production of wild-rice is small-scale so infrastructure to increase the production and package the product would be needed in the community, which was not mentioned during the interview.

Commuter Community

The idea of The Pas becoming a commuter community is an interesting idea and could be viable if the recession had only hit the forest industry. Since the recession has hurt all commodities, mining communities have felt the effects of the downturn. Employment in other commodity-based communities will decrease. It was not mentioned if the Economic Development Officer had spoke with the hydro or mining companies to discuss the possibility of The Pas becoming a commuter community for their industry.

Non-Timber Forest Products

As documented in the literature review, non-timber forest products have the potential to increase income even become a person's primary source of income. NTFPs can be a positive way to increase the incomes people in areas that may be either under- or unemployed. In the case of The Pas, NTFPs can help increase the incomes of individuals but is not a reasonable employment initiative for mill workers. The level of income

received from NTFPs is lower than mill workers are used to making and could not sustain their livelihoods.

Federal Government

The announcement in January 2008 by the federal government that forest-industry communities that have experienced lay offs would receive part of the \$1 billion fund to help diversify the economy was welcomed. The reality is the allocated money was not distributed to forestry or mining communities, but rather to cattle producers and wastewater treatment plants in Brandon and Neepawa. Of the \$40 million distributed to Manitoba, \$4.5 million was given to northern essential skills training, which could possibly benefit forestry or mining communities. A recent article stated that the provinces do not have a legal obligation to allocate the funds received by the federal government in



Image 5.1: Non-timber forest products

or

of

the way they were intended. Throughout this project, a few participants did not want to answer the question of where the federal money should go if The Pas was eligible to receive it because they knew the money would not be redirected properly.

When discussing this fund with a government official, it was said The Pas was not eligible because of the assistance it was already receiving from the provincial government. The industry already had made concessions with the province, through reduction of taxes, seedlings, road maintenance and increasing energy efficiency through the development of a boiler that could burn chips to make electricity to sell back to the grid. The local government also helped the mill stay open at this time by cutting business and property taxes to make the industry more affordable. The unions had given concessions through lowering their wages by 10 percent at both the sawmill and paper mill. Since the industry was receiving approximately \$19 million in concessions from the provincial and local governments as well as from the unions, The Pas was ineligible for federal money.

Provincial Government

The province assisted the community and Tolko in 2005 when the sawmill announced it was going to close. Through concessions made, the sawmill was able to remain open.

The provincial government also started a program called the Neighbourhoods Alive! project. This program was given \$100,000 for long-term social and economic development in The Pas funded through Manitoba Intergovernmental Affairs and coordinates with other government programs. It aims to revitalize neighbourhoods and communities through improving housing, employment and training, education, recreation, and crime prevention. This program works with the local government in allocating the

funds and aims to make the community a better place to live by building its strengths. This fund is different than the federal fund because the money goes directly to the community. Community members are encouraged to participate in surveys to give their opinions about where this money should go and what types of programs and initiatives would benefit the community. The federal money seemed to be allocated by the government for infrastructure-type initiatives and towards the industry itself rather than focusing on diversifying communities to make them more resilient.

The Worker Adjustment Committee (WAC) is another provincial program that is set up in communities when the industry is threatened by closure. This committee held a meeting in the spring of 2008 with affected employees at the mill. It was tested in The Pas because the sawmill was experiencing layoffs and there was a possibility of a closure. The program runs until affected employees have a plan, are retrained, have found new employment or have moved out of the community. This could take 12 to 15 months. There is always an end date to this program because people will eventually find alternative employment/opportunities.

Employees and the public showed little interest in the program. Few people showed up at the meetings held by WAC. The sawmill had experienced layoffs but remained running on one shift (rather than the previous two and three shifts). The paper mill was still running strong at this point. For that reason, the WAC did not set up a long-term program to provide assistance. A reason for the lack of participation is that employees affected with the potential of being laid off have already thought ahead and had a plan for their future. Some took advantage of alternative employment opportunities in or out of the community.

Examination of Strategies Successfully Used in Forestry Industry Communities That Have Experienced a Downturn

This section will examine strategies used in other forest industry communities that have experienced a downturn.

Voikkaa, Finland

Voikkaa, Finland is a community that was able to diversify its economy. The industry had a lot to do with the successful transition of the community. With the paper mill providing full salaries to its employees while closing the facility, the promotion of new industries to the community and the “job-to-job” program that provided re-education and relocation for affected employees, the community was able to recover from the closure of the forest industry. The industry also allowed enough time for their central government to allocate funds and create programs directed at laid-off workers.

This is an interesting strategy that would be beneficial to employees. The fact that the industry helped laid-off workers find alternative employment as well as providing full salaries is a strategy that was beneficial. This strategy is not common and would most likely not occur in The Pas (or Canada). Sawmills and paper mills have been closing throughout Canada and this type of strategy has not been used. The sawmill and paper mill at The Pas are privately run. The interest of the owner is to make a profit, not to help the community survive the downturn in the industry. It would be interesting to see a fund set up by the industry to aid workers in retraining and re-education but is not a likely scenario in The Pas. There was no mention during the project of Tolko, or any other sawmill or paper mill in Canada, participating in a program like the one set up in Voikkaa, Finland.

Prince Albert, Saskatchewan

Prince Albert is a community that has successfully used the “commuter community” idea. Prince Albert is in a good location to fly to the oil fields for employment. Fort McMurray has been desperate for employees and has limited housing opportunities so Prince Albert has been able to fill that void. It is because of this success that the Economic Development Officer in The Pas would like to use the commuter community as a response plan for mines and hydro projects in northern Manitoba. It is a possibility, especially with the booming mine in Thompson. This idea could also not work because of the economic downturn and the recession. Currently, fewer products are being purchased world-wide which has led to the decrease in sawmill and paper mill products. This could also lead to a decrease in the need for minerals and ores, resulting in a decreased need for workers in the mining industry in northern Manitoba.

Chapter 6 – Summary, Conclusions and Recommendations

Summary

This thesis focused upon the effects of reduced forest activity on attitudes towards long-term sustainability at The Pas, Manitoba. The forest industry in Canada is in decline and has affected communities nationwide. Mills have closed, leaving thousands of people laid off in Canada. The sawmill at The Pas has been threatened by layoffs over the past three years. The sawmill and paper mill have had to make wage concessions in order to keep both mills open. Attitudes towards long-term sustainability of the community and mill were studied to determine the potential future effects of industry closure on the community.

The importance of the forest industry, potential impacts from a decline in the industry and current initiatives to strengthen the community were explored. Strategies used by other communities that have had a decline in the industry were studied and recommendations were made for additional strategies that could be incorporated into the response plans of The Pas.

Conclusions

Importance of the Forest Industry at The Pas

Attitudes about the future of The Pas were quite negative. Many participants felt The Pas was a single-industry community. Negative feelings were expressed about the mill, its owner and job security. Participants were hesitant to make plans for the future because they worried about the stability of the town. They did not want to get

economically rooted in the town because they did not want to lose everything if the mills closed. Business owners that participated in the survey were worried about a decrease in business and one mentioned he had sold his businesses.

The economy of The Pas is diversified, although it is still heavily dependent on the forest industry. The town is not classified as a single-industry community because its economy is diversified and offers employment through other means, such as the hospital, university and government jobs. As was seen in Chapter 4, The Pas has a diversified economic base. Employment in the community comes from a range of sectors, so The Pas is defined as a multi-resource community. Many survey participants felt the town was a single-industry community and it depended on the status of the sawmill and paper mill. Even though The Pas is quite diversified, the forest industry does play a major role. The forest industry provides employment to hundreds of people directly and more employment through indirect jobs. Tolko provides the community with nine percent of the town's totally municipal revenue. These percentages do not include payroll and other taxes that employees pay through living in the community as well as services paid for by employees that keep businesses open and thriving in the town.

The forest industry is important for the community because it provides people with employment and income. Many participants, especially those that work at Tolko, mentioned they did not feel secure with their employment status, leading them to feelings of fear and uncertainty. This can have negative effects on the community because (as mentioned in the surveys) people feel depressed, helpless, fearful and hopeless.

Impacts that may be Anticipated with Potential Forest Industry Decline

There are many impacts associated with the potential forest industry decline at The Pas. These include economic, social and environmental impacts.

An impact perceived by the public and workers at Tolko is a decline in the economy of The Pas. The more people who lose their jobs will result in an increase of those likely to leave the community. If that happens, it can be anticipated less spending will occur in the community. This will also lead to a lowered tax base (another impact that can be associated with the forest industry decline).

Interviews with the Economic Development Officer, business development specialist, employment consultant and community engagement co-ordinator led to the conclusion that The Pas is more diversified and less dependent on the paper mill and sawmill than community members had thought in the surveys and interviews. These participants believe the town is quite diversified and have plans for continued diversification.

Social impacts would be felt with a closure or decline in the forest industry. People would become unemployed and depression would become a major issue. This would have a negative effect on the community and could lead to an increase in alcoholism, drug abuse and gambling problems.

A reduction in the forest industry would also lead to environmental impacts. There would be a decreased harvest of the northern forest. This would contribute to economic and social impacts. Fewer roads would be built, decreasing access to remote areas.

Current Initiatives Used to Strengthen the Economy of The Pas Outside of Commercial Forestry

There have been a few recent initiatives to strengthen and diversify The Pas. Most initiatives mentioned in this project are speculative. The only initiative that has become a reality is the North Forks development, where The Pas, Opaskwayak Cree Nation (OCN) and the R.M. of Kelsey have banded together to create a single unity. The partnership allows the three communities to work together to promote economic development with the realization that development in one area is good for the other two areas.

The University College of the North (UCN) has increased the number of programs and courses available. This is the first year (2008-2009) that UCN has offered university courses, so it is now possible to receive certificates, diplomas or degrees. Students from northern Manitoba now have more options available to them through schooling in The Pas.

Other initiatives have been considered although they rely heavily on economic development occurring all over northern Manitoba. These strategies are still at the developmental phase and because they depend on development in other communities, they should not be considered initiatives.

One speculative strategy that has been considered is to make The Pas a transportation hub. This strategy would rely on the port of Churchill opening year-round so The Pas could become a centre in which the freight would come through. The Pas has a plan to improve the highway to Hudson Bay, Saskatchewan. This would improve the ability to transport cargo by road from east to west directly from The Pas. There were suggestions in the surveys and interviews to build a second type of Trans-Canada

Highway that goes through northern Canada, which would ultimately help The Pas if the Port of Churchill does open.

Another initiative proposed for OCN is a pellet plant making pellets for wood stoves. This would be an opportunity to use the boreal forest other than for paper or lumber and could increase employment in the community and among Aboriginal people. This industry could also benefit from the port of Churchill becoming a major transportation centre because it would open up European markets that would otherwise be difficult and more expensive to access.

The wild rice industry has always been small-scale in northern Manitoba. Another initiative is to increase the production of wild rice in The Pas for sale worldwide. This would also be made easier with the port of Churchill becoming a transportation centre because worldwide markets would be easier to access.

Increasing tourism and tourist opportunities were mentioned to improve the economy of The Pas. Increasing activities that tourists could participate in could potentially increase tourism in The Pas.

Non-timber forest products could benefit The Pas. Although non-timber forest products have the potential to boost incomes, it is not by much and would not be a viable means of employment for those employees laid off from Tolko.

The Economic Development Officer mentioned an expansion in the capacity of the hospital could help strengthen the economy of The Pas. If the amount of health care provided in The Pas was increased, more people would be employed. This would also lead to an increase in people who would come into the community for health services.

Another strategy mentioned was to encourage people to reside in the community by promoting the town as a commuter community for mining and/or hydro projects that

are being developed in northern Manitoba. Workers could live in camps up north while they are working and then come back to their families in The Pas on their days off. The promotion of this initiative would encourage families to stay in The Pas even if the forest industry collapses. Although this idea is good in theory, commodities in all industries are down. Mining communities are also feeling the effects of the downturn in the global market. The commuter community strategy might not be viable if the economy continues to decline.

The funds the federal government allocated for diversifying industry communities ended up going to waste-water treatment plants in Brandon and Neepawa, embattled cattle producers and northern essential skills training initiatives. The funds did not directly go to The Pas or other forest industry (or mining) communities in Manitoba.

There are many initiatives that could strengthen the economy of The Pas, but few have been taken advantage of yet. The people in charge of business development who were interviewed believed the sawmill and paper mill would remain open. They felt The Pas was economically stable and even in the off-chance lay offs were to occur, the community would be fine economically because of the upcoming opportunities. The sawmill announced on January 22, 2009 they were going to layoff 70 on people February 1, 2009. Besides offering an increased amount of programs at UCN and creating the North Forks Agreement, there has yet been an initiative to respond to a loss in so many jobs.

Successful Strategies Used to Respond to and Diversify Forestry Industry Communities

The economic climate has changed in the world and has resulted in many communities being affected by the forest industry decline. Canada alone has experienced

approximately 184 mill closures, both permanent and indefinite, by 2007. The economic decline has affected the forest industry worldwide. There have been few success stories for forest industry communities that have experienced closures, although some have been able to thrive in the aftermath.

Voikkaa, Finland was a community reliant on the forest industry for its economic sustainability. When the forest industry started to decline, along with high tariff prices on lumber from Russia, the paper mill in the community closed and many people lost their jobs. It was thought it would take years for the community to bounce back economically. Two years after the industry closure, with the help of the industry and the government, the majority of people who had been laid off found employment in the community. The community thus proved to be quite resilient. The promotion of new industries to come into the community proved to be successful. Retraining and education took place so people could work at the new jobs that had come into the community. Some people who had worked in the forest industry opened their own businesses which ended up being successful. Through the addition of new industries and by entrepreneurial members in the community taking risks, the community was not devastated by the closure of their paper mill which they were once dependent on for their economic stability.

A closer-to-home example of a community that was able to respond to a closure in its mill was Prince Albert, Saskatchewan. When the forest industry closed, the community was able to take advantage of its position in the province and the economic opportunities available for employment in northern Alberta. A commuter plane started to fly from Prince Albert to Fort McMurray weekly to transport workers to the oil industry where they would live in a camp. On their week off they could fly back to Prince Albert and spend time with their families in the community. This strategy allows workers to live

in the community while their employment is elsewhere. The community members did not have to sell their houses in order to gain employment elsewhere. This response plan could potentially be used in The Pas. Employees could travel to work in the mines in Flin Flon or Thompson. With the possibility of new mines and hydro projects that are opening in the north, workers would be able to live in The Pas and commute to mines and/or hydro projects in northern Manitoba.

Recommendation of Additional Strategies to Incorporate into Response Plans

The current initiatives that have been concocted for The Pas rely on opportunities and development in other communities. The reliance on the port of Churchill for the majority of the initiatives discussed is naïve. The heavy reliance on Churchill and opportunities in other communities makes it seem like there are no current initiatives to increase and diversify the economy of The Pas. Opportunities specific to The Pas, OCN and/or the R.M. of Kelsey need to be increased.

Communities can first use a preventative strategy to encourage the industry to remain open, even if it means a wage decrease or decreased work hours. It would keep employment in the community. The next approach is to diversify the local economy beyond the primary industry. The third approach is to prepare for a population decline in the community. In The Pas, the sawmill and paper mill employees have taken a wage cut to keep the industry open. It was not found that the local economy has started to diversify beyond the primary industry, although some potential plans were mentioned. Plans to prepare for a potential decline in population were also not discussed by key informants.

The plans that have already been mentioned for The Pas include making it a transportation hub, increasing the production of wild rice for worldwide sale, establishing the pellet plant that is being negotiated on OCN, strengthening the RHA, increasing UCN

and the programs offered and the possibility of The Pas becoming a a commuter community for new mining opportunities that are opening. Additional strategies need to be incorporated into the response plans for The Pas.

The Economic Development Officer needs to be proactive with the Chamber of Commerce and town council. They need to be proactive in promoting new industries that will add more jobs to the town before the mills close. This will benefit the community as a whole, and if the mills do remain open, it will only positively benefit the community. The response plans mentioned above will benefit the community, but are reactive and rely heavily on opportunities happening elsewhere. The Pas needs to come up with opportunities that are created specifically for itself and the area that benefit the town and its population. The promotion of business grants and loans could increase entrepreneurship in the community. Financial incentives to start businesses may increase the number that open and increase employment.

A strategy The Pas should incorporate into its response plans is how the community could adapt to a smaller population. Throughout this project, many participants responded The Pas should diversify its economic base and bring in more industry. There were not any responses on how the community could adapt to a smaller population base. If the mills do close, a large number of people will become unemployed, many of whom will be forced to move elsewhere to find employment. The town needs a response plan that can adapt to the smaller population and smaller tax base. Along with adapting to a smaller population, the community should increase social programs to help people deal with unemployment issues and substance abuse.

The demographics of the community have been slowly changing. The town of The Pas along with the R.M. of Kelsey have experienced a decline in population over the last

few census periods while OCN has experienced an increase in population. The town needs a response plan that can adapt to its changing demographic base. If the mills do close, even for an indefinite period of time, the non-Aboriginal population will continue to decrease and the Aboriginal population will continue to increase. Education and entrepreneurial programs need to be increased and should be directed at Aboriginal people. Education is important because there are many opportunities to work in mines and on the hydro dams that are going to be available in northern Manitoba. The hydro projects in the north especially focus on hiring Aboriginal people, so education will be an important asset. Entrepreneurial and business skills are important for Aboriginal people to increase economic development. The Pas should have a strategy in its response plans on adapting and providing more services to an increased Aboriginal population.

Programs can be put in place to deal with closures in the forest and mining industries to retrain employees and assist them in finding alternative employment. The problem is that many employees do not take advantage of these programs. A recommendation to increase participation is to advertise these programs and make them easier to access.

Recommendations for Future Studies

A recommendation for the future is to conduct studies on the types of industries that would potentially flourish in The Pas, benefit the community and provide employment to many people. This study showed that participants were in favour of small to medium-sized businesses and industries moving into the community, so future studies should focus on small to medium-sized industries that could benefit The Pas, OCN and the R.M. of Kelsey.

Linkages of jobs to the forest industry need to be understood. There are primary, secondary and tertiary jobs related to the forest industry. Survey or interview participants did not mention these once throughout the project. The Prince Albert web page is easy to navigate and includes the number of direct and indirect jobs related to the forest industry in its community and also includes the number of jobs related to the forest industry in the province. The Pas needs to do a study on the number of jobs related to the forest industry so an appropriate response plan can be formulated for the community.

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Appendix A: Ethics Approval Certificate

APPROVAL CERTIFICATE

04 July 2008

TO: Crista Gladstone
Principal Investigator

FROM: Wayne Taylor, Chair
Joint-Faculty Research Ethics Board (JFREB)

Re: Protocol #J2008:080
“Strategies to Respond to the Potential Impacts of Reduced Forest Activity
on Sustainability at The Pas, Manitoba”

Please be advised that your above-referenced protocol has received human ethics approval by the Joint-Faculty Research Ethics Board, which is organized and operates according to the Tri-Council Policy Statement. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

- if you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to Kathryn Bartmanovich, Research Grants & Contract Services (fax 261-0325), including the Sponsor name, before your account can be opened.
- if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.

The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/ors/ethics/ors_ethics_human_REB_forms_guidelines.html) in order to be in compliance with Tri-Council Guidelines.

Appendix B: Informed Consent Form

Informed Consent Form

Research Project Title: Strategies to Respond to the Potential Impacts of Reduced Forest Activity on Sustainability at The Pas, Manitoba.

Researcher(s): Crista Gladstone
Master's Student
Natural Resources Institute
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

1. **Purpose of Research:** The purpose of this research is to study strategies to respond to the potential impacts of reduced forest activity on economic, social and environmental sustainability at The Pas, Manitoba. This research and data will be used to fulfill the thesis requirement for graduation of the Natural Resources Management Master's Program at the University of Manitoba.
2. **Description of Procedures:** The purpose of your involvement is to provide information through the survey group. The surveys will last between ten to thirty minutes.
3. **Description of Risk-** This project is low risk and does not create any potential harm (greater than what one might experience on a normal day)
4. **Description of Recording Devices-** The main recording device used will be pen and paper. A tape recorder will be used for focus groups so as not to lose information.
5. **Confidentiality-** Confidentiality will be maintained unless not desired by the participant. The main researcher (Crista Gladstone) and her advisor (Thomas Henley) will have access to the information gathered. Confidentiality and anonymity is guaranteed through not collecting names on the questionnaires.
6. **Feedback-** An executive summary of four to five pages will be written that highlights the findings of this project. This summary will also include photographs that were taken throughout the study. This summary will be sent to each member that participated in the study (if a copy is desired by the participant) and to key organizations that were apart of the study.

7. **Risks and Benefits:** There will be minimal risk to participants, or any third party, in this study.
 8. **Compensation:** Compensation will not be provided for participants of this study.
 9. **Destruction of Data:** will occur once the final draft of my thesis has been approved.
- () I agree to be identified as a contributor to this project
 () I do not agree to be identified as a contributor to this project
- () I give permission for Crista Gladstone to use information obtained for the purpose of publishing, or for presentation and summaries of the project
 () I do not give permission for Crista Gladstone to use information obtained for the purpose of publishing, or for presentation and summaries of the project
- () I give permission for Crista Gladstone to use photographs taken of me during the project for her thesis project and for summaries and presentations of the project
 () I do not give permission for Crista Gladstone to use photographs taken of me during the project for her thesis project and for summaries and presentations of the project
- () I would like to receive a copy of the summary
 () I would not like to receive a copy of the summary.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Principal researcher: Crista Gladstone 1-204-223-0632
 Supervisor's name: Thomas Henley 1-204-474-8373

This research has been approved by the Joint-Faculty REB. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature

Date

Researcher and/or Delegate's Signature

Date

Informed Consent Form

Research Project Title: Strategies to Respond to the Potential Impacts of Reduced Forest Activity on Sustainability at The Pas, Manitoba.

Researcher(s): Crista Gladstone
Master's Student
Natural Resources Institute
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

1. **Purpose of Research:** The purpose of this research is to study strategies to respond to the potential impacts of reduced forest activity on economic, social and environmental sustainability at The Pas, Manitoba. This research and data will be used to fulfill the thesis requirement for graduation of the Natural Resources Management Master's Program at the University of Manitoba.
2. **Description of Procedures:** The purpose of your involvement is to provide information through the interview. The interviews will last between ten to thirty minutes.
3. **Description of Risk-** This project is low risk and does not create any potential harm (greater than what one might experience on a normal day)
4. **Description of Recording Devices-** The main recording device used will be pen and paper. A tape recorder will be used for focus groups so as not to lose information.
5. **Confidentiality-** Confidentiality will be maintained unless not desired by the participant. The main researcher (Crista Gladstone) and her advisor (Thomas Henley) will have access to the information gathered. Confidentiality and anonymity is guaranteed through not collecting names on the questionnaires.
6. **Feedback-** An executive summary of four to five pages will be written that highlights the findings of this project. This summary will also include photographs that were taken throughout the study. This summary will be sent to each member that participated in the study (if a copy is desired by the participant) and to key organizations that were apart of the study.

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8. **Compensation:** Compensation will not be provided for participants of this study.

9. **Destruction of Data:** will occur once the final draft of my thesis has been approved.

☐ I agree to be identified as a contributor to this project

☐ I do not agree to be identified as a contributor to this project

☐ I give permission for Crista Gladstone to use information obtained for the purpose of publishing, or for presentation and summaries of the project

☐ I do not give permission for Crista Gladstone to use information obtained for the purpose of publishing, or for presentation and summaries of the project

☐ I give permission for Crista Gladstone to use photographs taken of me during the project for her thesis project and for summaries and presentations of the project

☐ I do not give permission for Crista Gladstone to use photographs taken of me during the project for her thesis project and for summaries and presentations of the project

☐ I would like to receive a copy of the summary

☐ I would not like to receive a copy of the summary.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Principal researcher: Crista Gladstone 1-204-223-0632

Supervisor's name: Thomas Henley 1-204-474-8373

This research has been approved by the Joint-Faculty REB. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature

Date

Researcher and/or Delegate's Signature

Date

Appendix C: Interview Schedule

Key Informant Group

Part A: Demographics

1. Gender: Male _____ Female _____
2. Age: 15-19 _____ 20-24 _____ 25-29 _____ 30-34 _____
35-39 _____ 40-45 _____ 45-49 _____ 50-54 _____ 55-59 _____
60-64 _____ 65-69 _____ 70-74 _____ 75-80 _____ 80-84 _____
85+ _____
Choose not to respond _____
3. Income:
\$0 – 20,000 _____
20,001 – 40,000 _____
40,001 – 60,000 _____
60,001 – 80,000 _____
80,001 – 100,00 _____
100,001 + _____
Choose not to respond _____
4. Name of Employer:
5. Kind of Business:
6. Occupation:
7. Main Activities:

Part B: Knowledge and Awareness

1. What is the structure of The Pas' economy? Where do people work and what types of jobs do they hold?
2. What is the primary basis for the economy at The Pas?
3. What do you believe are the primary impacts of forest decline at The Pas?
4. What are the factors contributing to the decline in the forest industry at The Pas?

5. What are the strengths and weaknesses of the economy at The Pas?
6. What could be done to strengthen the economy at The Pas?
7. What economic development activities could contribute to The Pas' economy in the future?
8. What portion of The Pas' budget is contributed by Tolko?

Part C: Personalized

9. How has the threat of a decline in the forest industry in The Pas affected you?
10. What effects have been felt community-wide due to the threat of a mill closure?
11. How will the community change if Tolko Industries Ltd. does close both the sawmill and paper mill?
12. Has there been an increase in social problems since the decline in the forest industry started to take place? (ie: increase of drinking, gambling, abuse, etc)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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13. a) The federal government announced it will give financial aid to single-industry forest communities across Canada. If The Pas is eligible to receive some of this aid, where would you like to see it go?
- b) What types of programs do you feel would benefit the community?
- c) Who should these programs be targeted at?

Part D: Environmental

14. Has forest activity helped regenerate the northern boreal forest?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

15. What are the environmental consequences of reduced forest harvest?
16. What environmental problems are associated with the sawmill and paper mill?

17. What possible advantages and disadvantages will be felt environmentally with reduced forest activity?

Part E: Causes/Consequences/ Solutions

18. What strategies could take place in The Pas to respond to the potential effects of reduced forest activity/closure of the sawmill or paper mill?
19. What strategies could Tolko implement to decrease the effects of forest industry decline?
20. Is there a community impact fund in the province to mitigate a downturn in the forestry sector?
21. What is the current response plan for the community of The Pas in the event of potential forest industry closure? (If there is not one, explain why not.)
22. What response plans are in place provincially and/or locally to respond to future effects of forest industry decline at The Pas?
23. What role could diversification play in the local economy responding to a decline in the forest industry?
24. What interaction in determining response plans occurs between the local government and:
- a. The Regional Government
 - b. The Provincial Government
 - c. The Federal Government
25. What response plans do the regional, provincial and federal governments have for forest-based single industry communities? Are they being used at The Pas?

Tolko Employee Group and Community Group

1. Gender: Male _____ Female _____
2. Age: 15-19 _____ 20-24 _____ 25-29 _____ 30-34 _____
35-39 _____ 40-45 _____ 45-49 _____ 50-54 _____ 55-59 _____
60-64 _____ 65-69 _____ 70-74 _____ 75-80 _____ 80-84 _____
85+ _____

Choose not to respond _____

3. Income:
\$0 – 20,000 _____
20,001 – 40,000 _____
40,001 – 60,000 _____
60,001 – 80,000 _____
80,001 – 100,00 _____
100,001 + _____
Choose not to respond _____

4. Name of Employer:

5. Kind of Business:

6. Occupation:

7. Main Activities:

Part B: Knowledge and Awareness

1. What do you believe are the primary impacts of forest decline at The Pas?
2. What are the factors contributing to the decline in the forest industry at The Pas?
3. What are the strengths and weaknesses of the economy at The Pas?
4. What could be done to strengthen the economy at The Pas?

5. What economic development activities could contribute to The Pas' economy in the future?

Part C: Personalized

6. How has the threat of a decline in the forest industry in The Pas affected you?
7. What effects have been felt community-wide due to the threat of a mill closure?
8. How will the community change if Tolko Industries Ltd. does close both the sawmill and paper mill?
9. a) The federal government announced it will give financial aid to single-industry forest communities across Canada. If The Pas is eligible to receive some of this aid, where would you like to see it go?
b) What types of programs do you feel would benefit the community?
c) Who should these programs be targeted at?
10. Do you believe non-Aboriginal people have been more impacted or less impacted with the forest industry decline than Aboriginal people? Explain why or why not.
11. Do you feel adequately supported by the Chief / MLA / MP with the layoffs that have occurred at the Tolko sawmill?

Part D: Environmental

12. What are the environmental consequences of reduced forest harvest?
13. What environmental problems are associated with the sawmill and paper mill?
14. What possible advantages and disadvantages will be felt environmentally with reduced forest activity?

Part E: Causes/Consequences/Solutions

15. What strategies could take place in The Pas to respond to the potential effects of reduced forest activity/closure of the sawmill or paper mill?

16. What effects have been felt both personally and community-wide since the layoffs at the Tolko sawmill?

Part F: Likert Scale Questions

Please answer the following statements to the extent of your agreement.

1. Forestry is an important industry for The Pas's economy.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
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2. The layoffs at the Tolko sawmill have affected me.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

3. The primary impact of the forest industry decline at The Pas is job loss.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

4. People have left the community because of the decline in the forest industry.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

5. An impact in the forest industry decline is an increase of social problems (ie: alcoholism, gambling, abuse).

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

6. The decline in the forest industry has lowered my house value.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
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7. The possibility of a closure in the sawmill and paper mill has affected my job security.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

8. A closure in the Tolko sawmill and paper mill will affect my income.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
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9. The Aboriginal community at The Pas will be hit hard from the decline in the forest industry.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

10. The non-Aboriginal community at The Pas will be hit hard from the decline in the forest industry.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
----------------------	----------	----------------------	---------	-------------------	-------	-------------------

11. Non-timber forest products has the potential to boost the economy at The Pas

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
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Is there anything else I should know about the effect the decline in forestry has on The Pas? _____

Appendix D: Tax Assessment for The Pas

Type of Assessment	Mill Rate
Full Assessment	84.44
School Assessment	43.07
>Provincial School Assessment	16.09
>Local School Assessment	26.98
Town (Municipal) Assessment	41.37

Sample Calculation			
Type of Assessment	Taxable Portion	Mill Rate	Total
Full Assessment	\$2,532,300	65%	\$1,645,995
Portion Assessment	\$1,646,000	84.44 / 1000	\$138,988.24
School Tax	\$1,646,000	43.07 / 1000	\$70,893.22
>Provincial School	\$1,646,000	16.09 / 1000	\$26,484.14
>Local School	\$1,646,000	26.98 / 1000	\$44,409.08
Municipal Tax	\$1,646,000	41.37 / 1000	\$68,095.02

Tax Assessment for 2008 for all Tolko Property			
Property	Full assessment	65% taxed on	Total tax
Roll 40	1,046,800	680,420	57,454.66
Roll 251900	18,235,500	11,853,080	1,000,874.08
Roll 252200	9,300	6,050	510.86
Roll 252600	11,200	7,280	614.72
Roll 252700	3,600	2,340	197.59
Roll 252800	10,400	6,760	570.81
Roll 252900	11,200	7,280	614.72
Roll 252500	11,200	7,280	614.72
Roll 252000	2,532,300	1,646,000	138,988.24
Roll 2530000	9,200	5,980	504.95
Total			1,200,955.35

Tax Assessment for 2008 Tolko Properties					
Property	Total tax	To town	To school	Provincial school	Local school
Roll 40	57,454.66	28,148.97	29,305.69	10,947.96	18,375.73
Roll 251900	1,000,874.08	490,361.92	510,512.16	190,716.06	319,796.10
Roll 252200	510.86	250.29	260.57	97.34	163.23
Roll 252600	614.72	301.17	313.55	117.14	196.41
Roll 252700	197.59	96.81	100.78	37.65	63.13
Roll 252800	570.81	279.66	291.15	108.77	182.38
Roll 252900	614.72	301.17	313.55	117.14	196.41
Roll 252500	614.72	301.17	313.55	117.14	196.41
Roll 252000	138,988.24	68,095.22	70,893.32	26,484.14	44,409.08
Roll 2530000	504.95	247.39	257.56	96.22	161.34
Total	1,200,955.35	588,383.94	612,561.78	228,839.56	383,740.04

Total Tax for The Pas	
Type of Tax	Total
Total Municipal Tax for Town	\$5,105,914.57
Total School Tax for Town	\$3,967,640
Other Revenue (Government Grants, interest, Business Licences, Animal Licences, etc.)	\$2,329,148.99
Airport	\$883,350
Total tax for The Pas	\$12,286,053.56