

***Applied Business Project, 2009***



**VANCOUVER ISLAND  
UNIVERSITY**

***Aklavik Community Economic  
Sustainable Development Plan (ACESDP)***



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31 October 2009*

## **Executive Summary**

This project's goal was to research and compile the requirements for the production of an "Aklavik Community Economic Sustainable Development Plan" (ACESDP) for the small, remote community of Aklavik in Northwest Territories, Canada, and eventually develop a draft plan for community review and adoption.

Community economic development in remote arctic communities is a challenge due to numerous factors including distance from markets, high cost of living, cold climate, difficulty attracting and retaining qualified human resources, lack of economies of scale and other factors. In Canada, the sustainability of such remote communities is important to the Inuit (Inuvialuit), Dene, Métis and Non-indigenous people as they continue to use and occupy the land and waters of the arctic as their home. The sustainability of remote arctic communities is also important for national sovereignty reasons as climate change opens the arctic up to resource development, transportation and strategic military positioning. At the local level, communities are struggling to develop self-sufficiency and sustainable economic development foundations while at the international level, arctic resources are viewed as potential future riches to exploit and export to southerly locations. It is within this mix of local, national, and international arctic dynamics that this research project is set.

The central hypothesis for this research project was, "Community economic sustainable development planning, involving community members, to develop a community economic sustainable development plan, can help to improve a community's work towards achievement of economic self-reliance." The project used a grounded theory methodology using face-to-face survey questionnaires, focus group sessions, participation and observation in community meetings, events and cultural activities, as well as secondary data to obtain information that would provide the required inputs for the development of ACESDP. Given the predominance of Aboriginal people occupying arctic communities, a heavy emphasis was placed on researching and understanding the history, culture and traditional socio-economic way of living of Aboriginal people of

Aklavik, so as to fully understand and incorporate their views regarding sustainable economic development.

The researchers also studied and explored existing social and economic development (business) resources and opportunities that are present in the community of Aklavik; government policies related to advancing Aboriginal and Northern (Canada) economic development; community needs and gaps in resources. This led to the identification of several socio-economic priorities.

Several ideas emerged from the people related to community economic sustainable development, which included modern and traditional economic activities/ideas as well as social development activities/ideas. Community members felt that cooperation between community members as well as different levels of government, investment in healing, investment in their human and renewable resources, investment in their traditional culture, communication and united leadership were all important factors that would assist in advancing economic sustainable development.

The main priorities identified by the people, related to Aklavik's socio-economic health, were: creating jobs; tackling social-wellness issues such as alcoholism; and, investing in their traditional activities.

The main gaps identified were: limited resources; and challenges related to retaining and hiring qualified people to fill key employment positions in the community.

The outcome of this research was the production of a draft ACESDP. This is a plan owned by the community to assist it in advancing its vision for the future with the support of all stakeholders. This study recommended an incremental approach exercising due diligence to complete feasibility studies and business plans on each business economic priority identified in ACESDP. Further, it was recommended that entrepreneurial/community ownership in the economic initiatives be engaged and that partnerships amongst governments, industry and local people be created to support projects that were deemed worthy of implementation.

## **Acknowledgements**

The research team would like to thank the Aklavik Indian Band, Aklavik Community Corporation, Hamlet of Aklavik, Inuvialuit Regional Corporation, Department of Industry, Tourism and Investment, GNWT, MITACS - ACCELERATE BC, Library & Equipment Loans Unit of Vancouver Island University (VIU), GNWT MLA David Krutko, Billy Archie Contracting and Consulting, ACC Chair Carol Arey and Board, Aklavik Indian Band Chief Mildred Edwards and Councilors, His Worship William (Billy) Storr and Councilors, and the elders and people of Aklavik. Without their support, this project would not have taken place.

We also want to express our special thanks to Professors Dan McDonald and Bonita Russell for their splendid Supervisory roles. We also wish to thank the following staff/faculty at the VIU-MBA program for their support and encouragement throughout the MBA program and ACESDP research project: Brook Pearce, Brock Dykeman, Mike Mann, Maggie Griffel, Tiffany McLaughlin, Lisa Marchant, Nicole Vaugeois, Robert Willis, Raimo Martalla, Rosmy Jean Louis, Colin Hayme, Keith Jensen, Michael MacColl, Barbara Thomas, Michael O'Shea, Don Miskiman, Steven Purse, Fenix Theuerkorn, Patrick Chuankamnerdkarn, Marie Scoretz, Yvonne de Quincey and many others.

The support and encouragement from VIU Chancellor Shawn Atleo and VIU President Ralph Nilson is also recognized and much appreciated. And finally, we wish to acknowledge and thank our family members and friends for their full support and constant encouragement as we worked hard to serve the people of Aklavik by working on their ACESDP plan. Mahsi cho, Quyanainni, Merci, Hychka, Shukran, Shukriyah, Dhanyavaad, Thank you to you all.

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## List of Acronyms

ACC	Aklavik Community Corporation
ACESDP	Aklavik Community Economic Sustainable Development Plan
AHC	Aklavik Hamlet Council
AHTC	Aklavik Hunters and Trappers Committee
AIB	Aklavik Indian Band
AIP	Agreement-In-Principle
APB	Applied Business Project
APG	Aboriginal Pipeline Group
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CBC	Canadian Broadcasting Corporation
CCCR	Canadian Centre for Community Renewal
CED	Community Economic Development
CHT	Canada Health Transfer
COPE	Committee for Original People's Entitlement
CST	Canada Social Transfer
DEW Line	Distant Early Warning Line
GCLCA	Gwich'in Comprehensive Land Claim Agreement
GDP	Gross Domestic Product
GNWT ITI	Government of the Northwest Territories, Industry, Tourism & Investment
GNWT	Government of the Northwest Territories
GRRB	Gwich'in Renewable Resources Board
GSA	Gwich'in Settlement Area
GTC	Gwich'in Tribal Council
HBC	Hudson's Bay Company
IFA	Inuvialuit Final Agreement

INAC	Indian and Northern Affairs Canada
IRC	Inuvialuit Regional Corporation
MBA	Master of Business Administration
MGP	Mackenzie Gas Pipeline
MITACS	Mathematics of Information Technology and Complex Systems
MScIB	Master of Science in International Business
NTPC	Northwest Territories Power Corporation
NWT	Northwest Territories
RCMP	Royal Canadian Mounted Police
TFF	Territorial Formula Financing
USA	United States of America
VIU	Vancouver Island University

## Introduction

The primary goal of this research project was to research and compile the requirements for the production of an Aklavik Community Economic Sustainable Development Plan (ACESDP) for the community of Aklavik, NWT. The project used a grounded theory methodology which directly engaged and consulted with the community in the research. An Aklavik Community Steering Committee composed of one youth, one adult and one elder from the Aklavik Indian Band, Aklavik Community Corporation and the Hamlet of Aklavik was created to ensure that consultation, input and guidance came directly from the community. Funding support for the research was provided by Billy Archie Contracting and Consulting, the Inuvialuit Regional Corporation, Government of the Northwest Territories, Department of Industry, Tourism and Investment, and MITACS Inc. With full community support and funding from key stakeholders, the research engaged the following three phases:

- Phase 1: Literature review and documentation research, community consultation, project logistics, ethics review, and methodology development.
- Phase 2: Field research and community participation
- Phase 3: Preparation of draft document for community adoption.

With support from the community and all appropriate licenses obtained, the research team was able to engage field work and secondary data gathering to assist in the development of a community economic sustainable development plan for the small, remote community of Aklavik in Northwest Territories, Canada.

The community was also photographed with a digital still camera and digital video camera. A website was also developed by the research team to place accurate historical and other information about Aklavik on the Internet. The outcome of the research was the production of an ACESDP which is a plan owned by the community to assist it in

advancing its vision for its future with the support of its membership and other governments, agencies and industries.

## 1.0 Aklavik

Aklavik means, “Barren Ground Grizzly Place,” or “Place of the Barren Ground Grizzly” in the Inuvialuktun language. Aklavik is located within the traditional territory of the Gwich’in and Inuvialuit on the west bank of the Peel River in the Mackenzie Delta at 135° 00’ W longitude and 68° 13’ N Latitude in the Northwest

**Photo 1.0.1 Aklavik’s Aerial View**



Territories, Canada. Aklavik is 58 air kilometres west of Inuvik and 1143 kilometres north of Yellowknife, Northwest Territories. Photo 1.0.1 shows Aklavik’s aerial view. The whole town is included in this aerial photograph.

## 1.1 History of Aklavik

Aklavik is located in the Mackenzie Delta area which is rich in wildlife, waterfowl, fish, trees, berries and other valuable natural resources. It is also located close to the Richardson Mountain range to the west; and 113 kilometers north of Aklavik is the Beaufort Sea. Aklavik’s rich natural resources have made it a natural harvesting area for the Gwich’in and Inuvialuit who traditionally used and occupied this area for as long as their people can remember. According to Aklavik elders, sedentary community life got its start by Gwich’in and Inuvialuit around 1910 when the Pokiak and Greenland families

permanently settled into the area. According to Hill (2008), the founding of Aklavik as a community started in 1910 when Pokiak, an Inuvialuit trader, set up a camp in the area.

In 1912 the Hudson's Bay Company (HBC) opened a small fur trading post at Pokiak Point, across the river from present day Aklavik. HBC was followed by other fur traders. An Anglican mission was established in 1919. By the 1920s Aklavik became one of the most prosperous communities in the north primarily due to the rich fur – especially muskrat harvests. During this time, Aklavik was the main administrative center of the Western Arctic. Inuvialuit, Gwich'in, Métis and non-aboriginal fur trappers, harvesting furs in the Mackenzie Delta and Beaufort Sea area, all congregated in Aklavik to trade their furs and purchase seasonal supplies. The western arctic headquarters of the Royal Canadian Mounted Police was established in Aklavik in 1922. In 1925 the Immaculate Conception Hospital was opened by the Roman Catholic Church and the federal government establishing a Royal Canadian Corps of Signals station. In 1926 the All Saints Anglican Hospital was built and the Roman Catholic Mission opened. Airmail service began in 1929 when C. H. Punch Dickens landed the first airplane in Aklavik (Alunik, Kolausok, Morrison, 2003).

During the winter of 1931-32, the Mad Trapper of Rat River brought world-wide attention to Aklavik as radio listeners world-wide tuned in to hear the latest updates on the most popular man hunt in the world during that time. The Mounties eventually got their man but not without a wild Northwest Territories chase – and still today, the true identity of the Mad Trapper remains a mystery.

In 1939 Dr. Leslie Livingstone arrived in Aklavik to practice medicine. He also started a farm that produced wheat, barley and vegetables. Dr. Livingstone established a successful dairy farm that produced milk products for the local population. Livingstone was perturbed by the lack of understanding and support by Ottawa to assist in supporting agriculture and farming in the rich delta area. The farm and dairy herd he established in Aklavik slowly ended after Dr. Livingstone left Aklavik to return south. A few local people tried to take over the farming but due to numerous issues, of which the

main ones were the challenging operational environment and lack of any real support by federal officials, the farming and dairy operation closed.

During the 1940s, Aklavik continued to be a community whose economic base was principally the fur trade combined with the traditional subsistence economy. World War II did not affect Aklavik much except for military officials realizing the strategic importance of northern communities. The northern communities confirmed sovereignty for Canada. The Royal Canadian Corps of Signals were located in Aklavik to act as monitor and communicator of any enemy intrusions into the north. This foreshadowed future military buildup in the north during the 1950s.

By the 1950s Aklavik had grown into a vibrant community with an economy based on the fur trade, with self-reliant people still practicing their subsistence traditional economic activities while wage employment activities began to increase. Local people built their own houses but many still lived off the land in their own camps scattered throughout the Mackenzie Delta.

The Inuvialuit received the right to vote in federal elections in 1950. Aklavik served a surrounding population of 1,556 people by this time and many enjoyed the services of Aklavik which included: many trading posts, hotels, several churches, two hospitals, Anglican and R.C. mission schools, a sawmill, wireless station, bakery, post office, Royal Canadian Legion, Native Hall, theatre and a radio station (Alunik, Kolausok, Morrison, 2003).

In 1953 the federal government decided to relocate Aklavik to a new site because they felt that Aklavik was situated on low swampy ground which was prone to flooding (see adjoining Photo 1.1.1) and the Aklavik site had limited space for growth. Other

**Photo 1.1.1 Aklavik in flood**





concerns noted were lack of proper sanitation, noted as early as August 1, 1937, by Governor General Lord Tweedsmuir during his visit to Aklavik (Hill, 2008). Sanitation, water supply, problems with construction on permafrost and lack of land to expand the community were the main reasons noted for relocation of Aklavik. Hill (2008, p. 27) notes that the Canadian Weekly Bulletin reported in December, 1953 that, "The plan for relocation of Aklavik, the largest community in the Canadian Arctic, is announced to have been approved in principal by the Canadian Government. The town is to be rebuilt in a location safe from erosion of the Mackenzie River and from sinking through the melting permafrost, with conditions permitting proper sanitation and water supply. The new site will be chosen by experts during 1954; after roadways, water and sewage system, etc., are installed, transfer of buildings will begin in the winter of 1955-56. The move is estimated to require four years' time."

From 1955 to 1958, construction activity on the new model town of Inuvik provided economic stimulus to the Aklavik sawmill and other construction related employment opportunities for many local residents. Also during this time the American and Canadian governments cooperated in the construction of the Distant Early Warning sites or DEW Lines as they were called. These military installations used the latest radar technology as early warning listening stations that were designed to be a first line of warning of any impending arctic route air attack by the Russians during the Cold War period. Construction, maintenance and supply of these DEW Line sites provided further employment opportunities for Aklavik residents.

As Inuvik began to take shape, Aklavik residents resisted the idea of their whole community being relocated and their traditional area abandoned. A committee rose to the occasion to defend Aklavik's potential demise, led by educator and school principal Moose Kerr. The popular Aklavik motto "Never Say Die" was created during this relocation resistance period. Moose Kerr and a strong group of elders and community activists were able to battle off a complete abandonment of Aklavik by the federal government but a large portion of the population relocated to Inuvik to take advantage

of its employment opportunities and modern services. The Moose Kerr School in Aklavik was named in honour of the well respected Moose Kerr who left a lasting impression on Aklavik.

In 1955 the first official winter ice road was made between Aklavik and East Three, future site of Inuvik. Fred Norris built the road after Adolf Koziesak scouted out the route. The first official travel on the Aklavik ice road occurred on November 4, 1956 when a jeep with RCMP Inspector Huget and Dr. Ian Black made a round trip of 115km from Aklavik to East Three and back (Hill, 2008).

In 1960 Indians were given the right to vote by the Canadian Parliament. Aklavik's economy continued to rely on traditional self-sufficiency harvesting along with fur trade harvesting, government jobs, DEW Line jobs and the introduction of oil and gas exploration jobs.

In 1970 a significant oil find was discovered at Atkinson Point on the Beaufort Sea coast. This hydrocarbon resource discovery stimulated land rights issues. It was partly responsible for ushering in a period of important land, resource and governance rights negotiations which involved the residents of Aklavik. The Committee of Original People's Entitlement (COPE) was created to pull together key aboriginal leaders in a united effort to defend their aboriginal rights. Later, the Indian Brotherhood of the Northwest Territories was formed and later matured into the Dene Nation. In the Beaufort Delta, the Inuvialuit began to negotiate their land claim agreement, first with the Inuit of the eastern arctic, then later on their own. The Dene and Métis negotiated together with the assistance of the Dene Nation.

In 1974 Aklavik obtained Hamlet status under the Government of the Northwest Territories' municipal and community affairs department. The Berger Inquiry was also established in 1974 to look into the potential impacts of a Mackenzie Gas Pipeline (Hill, 2008). The Berger Inquiry visited all 35 communities in the Northwest Territories and set a high standard for consultation with aboriginal peoples. In 1977, Berger released his

report which advised that although it was environmentally feasible to build a pipeline in 1977, it was better to wait. Berger advised that a pipeline should be built only after careful planning and strict regulation. He also stated that planning could occur after native land claims were settled. Berger expressed his views on what he learned from his Inquiry in a letter written to the Honourable Minister of Indian and Northern Affairs, Warren Allmand on April 15, 1977, "I have proceeded on the assumption that, in due course, the industrial system will require the gas and oil of the Western Arctic, and that they will have to be transported along the Mackenzie Valley to markets in the South. I have also proceeded on the assumption that we intend to protect and preserve Canada's northern environment, and that, above all else, we intend to honour the legitimate claims and aspirations of the native people. All these assumptions are embedded in the federal government's expressed northern policy for the 1970s" (Berger, T.R., 1988, pp. 15). During this period the Canadian Government was spurred on by the Civil Rights movement and Aboriginal rights activists to address Aboriginal rights and the Berger Inquiry was hailed as confirming that honouring Aboriginal rights was the moral and ethical thing to do.

In the 1980s Aklavik continued to be a place where people hunted, trapped and lived off the land. People engaged in employment doing government jobs, Hamlet administration and municipal services, Aboriginal government services and in local health, welfare, retail and service sectors. Seasonal employment opportunities in the oil and gas exploration industry in the Beaufort Sea and Mackenzie Delta, as well as in the production fields of Norman Wells, also provided jobs for local residents.

On June 5, 1984 the Inuvialuit achieved a land and resource settlement agreement when the Inuvialuit Final Agreement was signed. On April 22, 1992 the Gwich'in achieved a land and resource settlement agreement when the Gwich'in Comprehensive Land Claim Agreement was signed. Both of these agreements allowed each Gwich'in and Inuvialuit Government to reinstate their formal governmental relationship with the GNWT and federal government instead of the past token treatment that these groups

received. As the oldest forms of governments in their traditional areas, the move towards self-determination within the Canadian federation had truly begun.

The oil and gas discoveries, which were partly responsible for initiating land rights negotiations, continued. Esso, Dome Petroleum and Shell found significant oil and gas reserves north of Inuvik and in the Beaufort Sea. A Mackenzie Gas Pipeline was never built but oil and gas exploration continued and an application to build the pipeline was submitted to regulators for review in 2004. At the time of writing this report, the application's decision is anticipated to be released sometime in the winter of 2009.

With the rise of Inuvik as the main community in the Mackenzie Delta, Aklavik's population began to decline throughout the 1990s and into the 21st Century. Despite this exodus, there are people today who still call Aklavik their home and are living in a balance of traditional and modern economic ways. Aklavik residents still express their motto "Never Say Die" in a spirit of northern courage that keeps the thriving spirit of Aklavik alive.

## **1.2 Aklavik Today**

Aklavik's population is estimated at 655 people as of July 1, 2008 (NWT Bureau of Statistics, 2009). Over 90 percent of the population is aboriginal with the majority of people being Inuvialuit (62%) followed by Gwich'in (24%) and then Métis, and finally non-aboriginal (Aklavik Community Corporation, 2005). Languages spoken in Aklavik include Inuvialuktun, Gwich'in and English.

Aklavik continues to be a community that relies on traditional economic activities such as harvesting country foods, wood and other supplies off the land; but the people also rely on wage employment opportunities to sustain their community lifestyle. The primary employers in the community are governments, with the Government of the Northwest Territories being the main employer - either directly through government

jobs or through agencies such as schools, nursing stations or Hamlet Offices. Other employers include aboriginal governments, private retail stores and small businesses. Commuting opportunities to other communities for work is also available to local people from industry and government engaged in oil and gas exploration and production, construction, research or tourism activities.

Aklavik has most of the modern facilities and services available in modern northern communities. The following services and facilities are available in Aklavik at present: two grocery stores with one providing retail clothing and dry goods; a bulk fuel oil distributor with tank farm capable of storing a winter's supply of fuel oil; two gas stations; two restaurants and two fast food service outlets located in the grocery stores; a Traditional Arts and Crafts Store, one K to 12 school; one pre-school; one adult Learning facility operated by Aurora College; a curling rink; a recreation complex with hall and ice skating rink; a fitness center; a swimming pool (operated during the summer only); a youth center; a baseball field; an airport with gravel surface, community airport staff and daily scheduled air service provided by two airlines; a Health Care Station also known as a Nursing Station; Hamlet Office with meeting rooms and garage facilities; an RCMP Station; cable TV and internet services; construction contractors that can provide road construction, housing construction, plumbing, welding and oil field services; a Hunters and Trappers Committee; Post Office, two Bed and Breakfasts; Elders Facility, a water treatment plant; a diesel power generation facility; a volunteer fire fighting team with fire truck; water truck delivery service; sewage vacuum truck services; taxi service, office buildings; and other services provided by local entrepreneurs (see also Appendix-L).

## 2. ACESDP Project Overview

### 2.1 Background Information on ACESDP

The ACESDP is a research project that four Master of Business Administration (MBA) students engaged as part of their MBA/MScIB graduate program at Vancouver Island University (VIU). After completion of all core MBA/MScIB courses at VIU, students are provided with an opportunity to develop professional skills and gain experience through internships with industry, governments or agencies that are engaged in business or economic development activities. “The Internship requires the agreement of the intern, and organization mentor, the Applied Business Project Supervisor and Internship Coordinator. The internship ideally occurs within or in conjunction with a business/organization as a supervised/mentored learning experience that takes place on regular or flex-time hours (it is recommended that the internship activity average approximately 24 hours a week up to 16 weeks in duration). The Applied Business Project is a substantial research-based project that will provide the intern with the opportunity to apply their knowledge and skills through the investigation and analysis of a complex business problem or management issue that will form the basis of their internship experience” (VIU, Intern’s Guide to the Internship, 2009, p. 6,(a)).

In the fall of 2008, Mr. Billy Archie (second from left with three of the four ACESDP researchers in Photo 2.1.1), an Aklavik community advocate and businessman, envisioned an idea to see Aklavik come together in unity to create a community economic sustainable

**Photo 2.1.1 ACESDP Researchers with Mr. Archie**



development plan. He discussed his idea with Edwin Kolausok, a student enrolled in the

VIU MBA program at that time. Mr. Archie's vision was to see his community working together to maximize its resources, talent and potential while maintaining its unique culture and moving towards socio-economic self-sufficiency. Mr. Archie strongly believed that a way to accomplish this was to work with all community councils and go directly to the people to ask them what they felt was required for Aklavik to advance forward socio-economically. Mr. Archie also realized that it would take a lot of work and partnerships to complete such a large research project. Mr. Kolausok enlisted the support of three other MBA graduate students. Mr. Archie obtained the support of elders and the Aklavik community councils, the Department of Industry, Tourism and Investment, Government of the Northwest Territories and the Inuvialuit Regional Corporation. MITACS Inc. also became a partner in the project. Mr. Archie consulted extensively with Aklavik residents over a long period of time to explain and obtain their concurrence that a community economic plan directed by the people and for the people would be beneficial to all residents of Aklavik. The ground work began in September 2008 with field work commencing in July, 2009. A draft Aklavik Community Economic Sustainable Development Plan (see section 8.1) was provided to the community on October 31, 2009 for their review and community approval process.

## **2.2 Vancouver Island University**

Vancouver Island University (VIU) is known as a centre of excellence for teaching, applied research and learning in Western Canada. VIU first opened as a vocational training school in 1936. With a solid foundation built on meeting the educational and skill needs of industry and communities and an emphasis on community relationship building, VIU has grown into a unique university that offers a wide variety educational programs including but not limited to: trades, professional training, international student education programs, culinary arts, aboriginal programs, tourism, aquaculture, business, Bachelor's Degrees and Masters Degree programs. The VIU student population

is in excess of 18,000 full and part-time learners, including over 1000 aboriginal students and 1100 international students. Students are provided with modern learning facilities complete with internet access, counselling services, library, cafeteria and recreational facilities. VIU's main campus is located in Nanaimo, British Columbia, Canada with regional campuses located in Duncan, Powell River and Parksville-Qualicum on Vancouver Island (VIU website, 2009). The VIU MBA/MScIB program is instrumental in providing quality business graduate education that connects directly to real life business challenges in the world. It was through this innovative program that the MBA business students were able to engage the ACESDP research project.

### **2.3 MITACS - Accelerate**

MITACS Inc. was formed in 1999 to promote leadership in linking businesses, governments and not-for-profit organizations with over 50 Canadian universities “to develop cutting-edge tools to support the growth of our knowledge-based economy” (MITACS website, 2009). The acronym MITACS stands for “Mathematics of Information Technology and Complex Systems”. MITACS funds mathematical sciences research projects throughout Canada with a focus on the following five key economic sectors: biomedical and health; environmental and natural resources; information processing; risk and finance; and, communication, networks and security. MITACS programs also assist in developing the knowledge economy generation of Canadian researchers through technical training events, skills training and entrepreneur workshops, math outreach activities and graduate and post-doctoral internships. MITACS is a leader in creating internships in all industry sectors and academic disciplines – from engineering to psychology, medicine or business, MITACS ACCELERATE is one of Canada's leading programs that offers opportunities for students to engage real-life research in real-world situations. MITACS ACCELERATE's Internship program can be accessed on their internet website. This program was accessed to assist in the ACESDP research project.



## 2.4 ACESDP Steering Committee & Sponsors

The ACESDP Steering Committee was created by the following three Aklavik community councils: Aklavik Indian Band, Hamlet of Aklavik and Aklavik Community Corporation (ACC - see Photo 2.4.1). Each Council appointed one elder, one adult and one youth to the ACESDP Steering Committee. The Steering Committee and local

industry sponsor are responsible for overseeing the ACESDP researchers in their community consultations, research and community activities. ACESDP community open meetings allow for direct communication and feedback from ACESDP members and community people. The ACESDP Steering Committee members report back to their councils on progress of the research project.

The MBA graduate researchers were supervised by professors at VIU, an Internship Coordinator and Industry Sponsor Billie Archie Contracting and Consulting.

Sponsors of the ACESDP research include: Billy Archie Contracting and Consulting Ltd., Inuvialuit Regional Corporation, Department of Industry, Tourism and Investment – Government of the Northwest Territories and MITACS ACCELERATE.

**Photo 2.4.1 ACC Office**



## 2.5 Scope of ACESDP

The scope of the ACESDP research project was to explore socio-economic ideas of the residents of Aklavik in order to produce a community economic sustainable development plan for the community. The research team used a grounded theory methodology whereby local people were engaged through face-to-face questionnaire

surveys, in focus group sessions and at public events and meetings to obtain their views on what they (Aklavik people) thought about their current socio-economic situation and what ideas they had about future socio-economic potential for Aklavik. Secondary research was also engaged to review patterns and approaches to community economic sustainable development. A literature review, ethics review and methodology development was conducted to inform and guide the project. The approach to obtaining community consent and a community sponsor in the research assisted in community consultations, field research and community ownership. The research team was reminded on several occasions by community leaders and the ACESDP Committee that the research was important to help create a community sustainable economic development plan that would be used to confirm economic development priorities for the community, as well as identify gaps and seek partnerships to assist Aklavik in implementing priorities in the future. The grounded theory methodology allowed the community to oversee the scope of the research. This was important as the community suggested changes and recommended deleting some areas of study as they were already engaging such areas and did not want duplication. The scope was to take a general overview of the most important aspects of Aklavik's economic development potential with the main goal of involving the people in the production of an Aklavik Community Economic Sustainable Development Plan, that once completed and approved, would see all councils working together to implement.

## **2.6 Structure of this Report**

This report is divided into eleven major sections, each of which has a number of sub-sections. As per the guidelines given in the VIU (2009) ABP handbook, these eleven sections have been broadly categorised into seven groups or categories, shown in Table 2.6.1 titled "Structure of ACESDP Report" below:

**Table 2.6.1 Structure of ACESDP Report**

Section of this ACESDP report	Broad category as per VIU ABP Section division
1. Introduction	1. Introduction
2. ACESDP Project Overview	
3. Issues at Aklavik (Situational Analysis)	2. Situational Analysis
4. ACESDP Research and Analysis Methodology	
5. Community Sustainability	
6. Aklavik Community Profile & Infrastructure Inventory	
7. ACESDP Summary of Priority Options Identified	3. Option Generation
8. Recommendations	4. Recommendations
9. Literature Review	5. Literature Review
10. International Context	6. International Context
11. Project Reflections	7. Project Reflections

Another important fact about this report’s structure is that “ACESDP Preliminary Plan with Recommendations and SWOT Analysis” is outlined in detail in Section 8.1 which has a thick page border, to emphasize its presence and numbering format as distinctly separate and independent. Also, this report uses Harvard style of referencing in all sections as well as Appendices, as per the request of the project’s industry sponsor.

### 3. Issues at Aklavik (Situational Analysis)

#### 3.1 Aklavik’s Special Challenges

Aklavik is a community that has collectively experienced a history of self-reliance based on a traditional subsistence economy; however, well meaning outside government intentions and influences brought welfare, housing, education, health and employment

**Photo 3.1.1 Aklavik roads, sidewalks & houses**



opportunities which altered the once self-reliant Aklavik people creating a situation where dependence on government programs, services and funding is a major part of Aklavik's socio-economic sustainability as a community today. Justice Thomas Berger (1988, pp 4) captured the essence of the core root of the social issues and special challenges of many communities in the north, including Aklavik when he wrote:

Progress meant absorption and assimilation of the native peoples. Confronted with what we conceived to be the poverty and the backwardness of the Inuit and the Dene (Indians of the Mackenzie Valley), we sought to make them over into white people with brown skins. Our actions had resulted not only in the usual bureaucratic muddle but in enormous social upheaval. In the 1950s native people in the North were living off the land. We evacuated them and clustered them in settlements – the villages in which native people live today – where they were to begin a new life, cut off from the land. The traditional native subsistence economy, based on hunting, fishing and trapping, which had maintained them for centuries, had to be abandoned if they were to enter the new age. But in these villages there were few jobs. We spent millions of dollars to create jobs, but most of these jobs went to white people. The state of dependence of native people, their sense of powerlessness, increased. To be sure, many native people wanted to leave the land, to live as we do. Many others wondered which way was best. But virtually all of them wanted to maintain their identity as natives.

Source: Thomas Berger (1988, pp 4)

Berger was commenting on the situation back in 1977 but his analysis is not far off the mark and demonstrates the great social and cultural dislocation that aboriginal peoples experienced in their rapid adjustment from a self-sufficient life living off the land to sparse wage employment opportunities in sedentary communities.

A long standing practice of the early Canadian Government policy was to extinguish aboriginal identity and nowhere is this best expressed than by Duncan Campbell Scott, Deputy Superintendent General of Indian Affairs, when he told a Special Parliamentary Committee convened to hear comments on the proposed amendments to the Indian Act in 1920,

I want to get rid of the Indian problem. I do not think as a matter of fact, that this country ought to continuously protect a class of people who are able to stand alone. That is my whole point. Our objective is to continue until there is not a single Indian in Canada that has not been absorbed into the body politic, and there is no Indian question, and no Indian Department and that is the whole objective of this Bill.

Source: Titley, E.B. 1986, p. 50

The treatment of aboriginal peoples through attempts to erase their culture and identity is at the very foundation of much of the social problems that have been created, not by the aboriginals, but by the actions perpetrated against them. It is important to understand this so that the symptoms that are observable of deeper rooted issues and problems can be addressed appropriately by dealing with the root cause and not the just the symptoms.

This research project found that special challenges facing Aklavik include: preserving the culture and languages; engaging meaningful healing programs; creating sustainable employment opportunities using local resources; and having a visionary leadership that seeks actions to ensure that Aklavik's community councils work together in the best interest of all community residents.

In one focus group session held on August 9, 2009 in Aklavik an elder spoke of social issues such as alcohol and drugs. Her ideas were to use local resources and on-the-land activities with local people to address systemic social issues arising from residential

school experiences and treatment of aboriginal peoples by past government policies and practices. Time after time people spoke of past experiences that have influenced social problems such as lack of education achievement, alcoholism and drug use, unemployment, housing ownership and self-esteem which to them was created by the larger discriminatory treatment they faced. For example, at one time aboriginals were not allowed in certain established businesses like the Legion in Aklavik. They were also not allowed to drink legally until 1969 and had their traditional hunting practices greatly curtailed by southern government legislation and regulations. These are just a few of the long list of institutionalized discriminatory treatments faced by aboriginal peoples in communities like Aklavik and all across Canada. The elders of Aklavik still remember these times but they are patient and kind people. They felt that the answers for many of the social problems are in the community but noted that there is a need for government and industry help to solve the special challenges inherited from the past and afflicting numerous healthy lifestyle choices in the present. The federal government has recognized the past abuses and is starting to do something about it as Governor General Michaëlle Jean, speaking on the need for reconciliation and healing arising from past residential school practices, recently stated from Rideau Hall in Ottawa, "When the present does not recognize the wrongs of the past, the future takes its revenge" (CBC Radio, 2009). But there is still resistance to truth and reconciliation by people who simply do not understand the magnitude of the situation! Justice Murray Sinclair of Manitoba notes this concern when he states, "To those of you who would say, 'That's in the past, why don't you just get over it?' I would say this. We and you are not out of that past yet. Our families were broken apart and must be rebuilt. Our relationships have been damaged and must be restored. Our spirits have been stolen and must be returned. Our love for life was turned into fear and we must work together to learn to trust once again" (CBC Radio, 2009).

The root cause of the numerous social 'special challenges' faced by many communities of which Aklavik is not immune require real investment and the local people's

involvement and support from others to fully address the core challenges. Aklavik elder, Annie B. Gordon, shared her concerns and ideas at an open ACESDP Steering Committee meeting in Aklavik on August 19, 2009 saying, “We need a (healing) center in our community. We need our people to sit down and work closely together.” The elders know that the answers and solutions are in the communities but systemic barriers such as rules, regulations and requirements that people in the healing industry have certificates and degrees instead of real life experience and understanding of the people mean that those who want to heal face professionals with good theoretical backgrounds but lack local knowledge and deeper understanding of the issues. Elder Colin Gordon (ACESDP Steering Committee, 2009) provided examples of how he encountered professionals that did not understand his situation and stated, “you need someone who went through this [alcoholism] before.” He was speaking of the importance of having people that really understand what people have gone through in their lives. It will take time and a big investment to truly engage local healing programs designed by the people and for the people but local people are talking and demanding that they become an integral part of their healing programs and practices.

The high cost of living including housing, food, heating oil and travel was also raised as an issue of concern.

Other special issues are related to the creation of sustainable economic development opportunities using local resources. Elders spoke of a time when Aklavik had a sawmill that produced rough lumber and employed people. They pointed out that this was hard work but it was possible to do if there was cooperation between industry, governments and that it had local entrepreneurial ownership. The past successful sawmill provides an example of potential sustainable economic development opportunities using local resources but the past operation was shuttered due to many factors of which the main ones were economies of scale, government interference and imported product competition according to elders who worked at the operation. It will be complex but

with political will, entrepreneurial spirit and saleable products, a sawmill may be practical for the community but it will require a feasibility study, solid business plan, community support, entrepreneurial ownership and good management to see success.

During the research it was noted by members of the community that finding and keeping local professionals and managers was difficult. Vacant positions at the time of the study included: Community Economic Development Officer and Manager of the Housing Association. These key community positions require ongoing attention to assist in implementing Aklavik's housing and development needs. This was pointed out as a significant gap.

With regard to large scale industrial development, local people felt that a Mackenzie Gas Pipeline would provide economic opportunities but they also felt that it would create social problems. Aboriginal leaders in the Mackenzie Valley were successful in negotiating a \$500 million dollar Social Impact Fund, contingent upon the pipeline being approved and to be used by aboriginal communities along the right of way of the pipeline over a 10 year period to mitigate against the potential negative impacts related to the pipeline. An Aboriginal Pipeline Group (APG) that supports the development of the pipeline has membership from both the Gwich'in and the Inuvialuit. According to the Aboriginal Pipeline Group website (2009), "The main reason for creating APG was to offer a new model for Aboriginal participation in the developing economy, to maximize ownership and benefits from a proposed Mackenzie Valley pipeline and to support greater independence and self-reliance among Aboriginal people." This demonstrates that aboriginal leadership in the Beaufort-Delta Region, including the community of Aklavik, has moved from opposing a pipeline during the 1970s to supporting it in the present. According to (Salokangas, R., 2005, pp. 2), "...the Inuvialuit opinion about the project had changed from strong opposition to support in 30 years." This is due in part to these groups having settled land and resource claims. It is also a result of their desire to have a modern economic base as Fred Carmichael, former President of the Gwich'in



Tribal Council and current, as at October 2009, Chair and Director with the APG told the *Alaska Journal of Commerce*,

“Protecting the land is a top priority,” he said. “We also have a responsibility to develop an economic base for our children and grandchildren. I lived in a tent as a teenager. I know what it is like to chop wood and haul it by dog team. My grandchildren will never make their living from the land. That part of our world has changed forever. That's why I am determined to take advantage of the economic opportunities that controlled, responsible resource development will bring.”

Source: Bauman, 2007

From large scale industrial projects to small scale enterprises, special challenges for Aklavik raised by local people included: the high cost of living, housing, lack of employment opportunities and healing. People felt that it would take a combination of education, local healing programs, prevention programs, and meaningful traditional and modern economic activities such as employment opportunities to assist in addressing the special challenge of regaining community self-determination and community self-reliance.

### **3.2 High Cost of living**

The cost of living in Aklavik is 55% to 60% higher as compared to Edmonton. Similarly, the food price index for Aklavik is 183 as compared to 100 for Yellowknife (NWT Bureau of Statistics, 2009). However, the cost of living index and the food price index were calculated in the years 2000 and 2001 may not provide an accurate picture of the high cost of living situation in the community. Therefore, the prices of a basket of similar goods purchased in Aklavik and Nanaimo have been compared to better understand the current scenario (see Appendix-N). It has been found that the average price of a similar

basket of goods is 3.6 times higher in Aklavik as compared to Nanaimo, BC. This further reaffirms about the high cost of living faced by people living in Aklavik which adds to their challenges in trying to make ends meet for food and essential goods.

From the surveys conducted and public meetings attended in the community it was found that people try to mitigate the high cost of living by hauling in as much supplies as possible from Inuvik or even Whitehorse when they travel by boat or by their own vehicle. But again these efforts are limited to those who have the resources to travel and don't make a whole lot of difference because of the high transportation costs.

### **3.3 Work Opportunities, Employment Issues**

As of 2006, the unemployment rate for the Hamlet of Aklavik was 22.9% whereas for the NWT it was 10.4%. The unemployment rate has gone down for Aklavik since the turn of the century, as it was close to 26.9 in 2001. However, it is still high when compared with the unemployment rate of NWT as a whole (NWT Bureau of Statistics, 2007). Similar to other Beaufort Delta communities, Aklavik also faces the challenge of creating sustainable employment for its community members (Forintek Canada Corp., 2007).

Amongst the employed people of Aklavik, 50% are involved with government, health, social service and education; 15% are involved in the production of goods and 33% are involved in other industries (NWT Bureau of Statistics, 2007). There are no individuals involved in occupations unique to the processing, manufacturing and utilities industries. However, back in the 1990s there was a small population that was involved in these occupations (Aklavik Community Report, 2005). The ACESDP survey confirmed that the lack of employment opportunities in Aklavik is one of the major concerns of the people of the community (see Appendix-A, Figure-5).

### **3.4 All-Season Road Access to Aklavik**

Aklavik has three to four months of road access via a 115 km ice road from Inuvik. In addition to that, there is a 27 km ice road which runs from Aklavik to Willow River gravel source in winters. There is an absence of an all season road access to Aklavik. The current situation limits transportation of supplies as well as gravel to the community by means of a road to just three to four winter months (Department of Transportation GNWT, 2009).

The current situation affects the people living in the community. The cost of gravel is very high as it has to be either trucked in on a winter road or barged in from Willow river gravel source. This inhibits the process of infrastructure development in the community (NWT Hansard, 2008). In addition, people of Aklavik have to first travel to Inuvik to travel down the Dempster highway. It makes Aklavik not very accessible for the tourists; hence development of tourism sector is also a challenge for this community (Inuvialuit Regional Corporation, 2009).

A Road Committee with membership from all three Aklavik councils is actively working on a strategy to construct an all-weather access road from Aklavik to the Willow River gravel source in the Aklavik Mountains. This will assist in reducing the cost of gravel and can help in the larger strategy of seeking an all-weather road connected to the Dempster Highway (Nehtruh-EBA, 2009, pp.13).

### **3.5 Quality and Durability of Housing**

The findings of a survey conducted by the Northwest Territories Housing Corporation (2004) shows that Aklavik has 248 households and 109 households of these households has one or more problems related to housing. In short, 44% of the households have problems; these problems have been further classified in to three categories: suitability,

adequacy and affordability. Taking the analysis to the next stage illustrates that 8% of housing problems are related with the suitability, which means problems regarding overcrowding or not having enough beds in a household; 36% are related to adequacy issue that is the physical condition of the house is insufficient for healthy and safe living. Finally, another 8% of housing problems are related with the affordability issue that is the people have to pay more than 30% of the household income towards housing.

Another report on Aklavik Community Report (2005) reaffirms the findings of the survey done by the Northwest Territories Housing Corporation and states that a greater proportion of housing in Aklavik is in need of major repairs than in any other Beaufort Delta Region community except Paulatuk. Apart from that there are a lot of old facilities in the community and the operating costs for these facilities continue to escalate due to high cost of heating and less efficiency of these units to retain heat in winters (CBC, 2008). Finally, the surveys conducted in the community as a part of the ACESDP research also paint a similar picture with 94% (see Appendix-A, Table-4) of respondents dissatisfied with the current housing condition and complaining about similar housing problems. The surveys and focus group sessions found that people were generally dissatisfied with public housing rental programs and often cited that rent based on 30% of the income of individuals was a disincentive to people who wanted to either get off of Income Support programs or who had large families to care for.

### **3.6 Environmental Risk**

Aklavik has a natural sewage lagoon disposal site that is prone to flooding and which may cause water contamination if a flood occurs. In the delta flooding is common and usually occurs during spring break up when ice jams the delta up which can cause severe flooding of Aklavik. Aklavik has been designated as a flood risk area under the Canada – NWT Flood Damage Reduction Program (Environment Canada website, 2009). The local garbage dump is located in close proximity to the sewage disposal site and may also

have wastes that can drain into the surrounding area if not managed properly.

Observations during the community research and meetings with community members indicate that both of these sites are being managed well but natural floods can create health and environmental risks.

Safe water supply is another concern of local people. Some people expressed concerns that their water supply was not safe and some people speculated that it might be the cause of cancer. A Helicobacter Pylori or H. Pylori study was conducted on the community of Aklavik in 2008 to try to unravel the mystery of why so many people in Aklavik were getting stomach cancer. An NWT Health and Social Services cancer statistics report compiled in 2002 revealed that rates of stomach cancer among Inuit and First Nations people was double that of the rest of Canada. H. Pylori bacterium lives in the stomach and intestine below the stomach. It is implicated as the cause of the most common bacterial infections globally and is the principal cause of stomach cancer and peptic ulcers. Socio-economic factors such as poverty and poor housing as well as a diet heavy in red meat, smoked and salted foods may also play a role in increased rates of stomach cancer. It is believed that approximately half the world's population may have H. Pylori bacteria, therefore it is not the only factor related to causing stomach cancer. The good news is that H.Pylori can be treated and an extensive treatment program was undertaken in Aklavik (Globe and Mail, 2008).

Another long term environmental risk for Aklavik is climate change. Aklavik is only 33 feet above sea level and is located on a mud silt foundation which is held together by permafrost. Gravel is used to create pads for houses and for roads. If the permafrost is disturbed or if climate temperatures increase substantially in the arctic, Aklavik will likely be impacted by the thawing permafrost which can cause heaving and damage to community infrastructure.

### **3.7 Complex Political Relationships: Aklavik, GNWT & Federal Canada**

Aklavik is the traditional territory of the Gwich'in and Inuvialuit. Both groups have settled land and resource land claim agreements. Indigenous Métis people from the Delta are included in the Gwich'in Comprehensive Land Claim Agreement. The land claim agreements provide the Inuvialuit and Gwich'in with title to certain amounts of surface and sub-surface lands in fee simple title, cash compensation, wildlife harvesting rights, representation on institutions of public government for co-management purposes and other rights specified in each land claim agreement. Both groups also have the right to participate in self-government negotiations which will determine what governance systems and jurisdictions each group will eventually be responsible for administering.

The Government of the Northwest Territories is a territorial entity which has responsibility for many areas of public jurisdiction such as health, social services, education, municipal and community affairs, wildlife and forestry but unlike the provinces in Canada, it does not have care and control over its sub-surface natural resources like oil, gold, silver or other minerals. The ownership of the NWT's mineral resources rests with Canada and the federal government receives the resource royalties and other revenues associated with administering and managing these lands and resources. Only the NWT and Nunavut territories have not had their mineral resources devolved to them by the federal government. Devolution negotiations to discuss transferring ownership of the sub-surface resources to the NWT Government and Aboriginal Governments have been on and off over the past 20 year. This is an issue of great concern to aboriginal governments because they feel that sub-surface resource management will assist them in raising revenues to manage and administer their governments. With the Dehcho, Akaitcho, South Slave Métis and North Slave Métis groups all with unsettled land and resource claims, and only the Tlicho Government with a self-government agreement, devolution appears to be many years from realization in the NWT.

The NWT Government obtains the majority of its revenue from federal transfer payments made by Canada through the Canada Health Transfer (CHT), the Canada Social Transfer (CST) and the Equalization and Territorial Formula Financing (TFF). According to the Department of Finance, Canada website (2009), "The CHT and CST are federal transfers which support specific policy areas such as health care, post-secondary education, social assistance and social services, early childhood development and child care. The Equalization and TFF programs provide unconditional transfers to the provinces and territories. Equalization enables less prosperous provincial governments to provide their residents with public services that are reasonably comparable to those in other provinces, at reasonably comparable levels of taxation. TFF provides territorial governments with funding to support public services, in recognition of the higher cost of providing programs and services in the north." In 2008-09, the GNWT received a transfer payment of \$844 million which is estimated to be 69% of its revenues for that fiscal year (Department of Finance, Canada, 2009). It is estimated that the GNWT will receive \$991 million through CHT, CST and TFF transfer payments in 2009-2010. With NWT resource revenues flowing to the federal government and transfer payments flowing back to the GNWT some people believe that the NWT will need to have devolution to become more autonomous. It is important to observe that Yukon, which obtained a devolution agreement from Canada, still relies on transfer payments from Ottawa to the sum of \$600 million in 2008-09 and projected to rise to \$734 million in 2009-10 (Department of Finance, Canada, 2009). The debate over devolution is a complex issue which has potential implications for all groups and all communities in the NWT.

On the territorial/federal/aboriginal level the main issues that make the political landscape complex are: unsettled land claims for land and resource agreements in the southern NWT and unresolved self-government agreements throughout most of the NWT; Devolution of responsibility over non-renewable resources; resource

development regulatory issues; energy conservation, environmental and climate change issues and self-reliant sustainability of northern communities.

On the community level Aklavik has its own unique political complexities. For a community of approximately 655 people, it has three elected councils: Hamlet of Aklavik which is responsible for municipal jurisdictions; Aklavik Community Corporation which is responsible with the Inuvialuit Regional Corporation for ensuring that the Inuvialuit Final Agreement is respected and that its measures are implemented on behalf of the Inuvialuit; the Aklavik Indian Band which is responsible for programs and services related to its membership. Another council called the Ehdiitat Gwich'in Council exists as a Designated Gwich'in Organization responsible for administering and implementing the Gwich'in Comprehensive Land Claim Agreement on behalf of its membership of which its membership is also comprised of the members of the Aklavik Indian Band. This situation with several different councils can make community decision making challenging and if a leader or council is unwilling to cooperate or work with the other councils on important community matters, it can bog down community progress. In the door-to-door surveys when asked question 12, "If there was one thing you could change about your community, what would it be?"... 7 respondents out of 50 or 14% of the surveyed sample said that good leadership is required for change. Research team members participated in several community council meetings and initiatives and it was clear from the current leaders that they want to work in a cooperative way together. In a meeting of the ACESDP Steering Committee on February 27, 2009 His Worship Hamlet of Aklavik Mayor William Storr used the following analogy to explain his commitment to working together, "We are too small a community to be not working together. We are all in the same canoe together and we must all be paddling in the same direction together." At a public meeting held in the Aklavik Hamlet Chambers during the summer of 2009 to discuss the Road to the Aklavik Mountains, elected representatives from all three councils stated their commitment to work together in an open and transparent manner for the betterment of the whole community. Their collective committee work to



advance their desire to build a road to the Aklavik Mountains is action that testifies to their commitment to working together on common community initiatives.

Unfortunately, federal funding programs, land claim agreements and Hamlet jurisdictions often have their own sets of criteria along with rules and regulations that can easily create obstacles rather than facilitate cooperation. This situation can be viewed as a unique opportunity or challenge but future leaders will have to manage well to see collective progress. The complexity of local politics is high in Aklavik but leaders are working on solutions and tackling important community issues at their own pace.

### **3.8 Land Claim Agreements – Gwich'in and Inuvialuit**

Aklavik Indian Band members are signatories to Treaty 11 which is a nation to nation Treaty that was signed with descendants of the Aklavik Gwich'in in 1921 shortly after oil was discovered in Norman Wells, NT. On April 22, 1992, the GNWT, Federal Government and the Gwich'in Tribal Council completed negotiations on a modern Treaty to address land and resources. The agreement came into effect on December 22, 1992 and was accompanied by an implementation plan. The Gwich'in extinguished certain rights in exchange for receiving title to 22,422 square kilometers of land in the NWT and 1,554 square kilometers of land in the Yukon Territory. They also received first refusal rights for commercial wildlife activities and wildlife harvesting rights in the Gwich'in Settlement Area (GSA) along with guaranteed Gwich'in representation on public government institutions created to manage wildlife and regulate land, water and environment in the GSA (Gwich'in Comprehensive Land Claim Agreement, 1992).

For compensation the Gwich'in received \$75 million, in 1990 constant dollar value, spread over a 15 year tax-free capital transfer schedule. The Gwich'in also secured a commitment to negotiate self-government which, when agreed to, would be brought into effect through federal or territorial legislation or both (Department of Aboriginal Affairs and Intergovernmental Relations, GNWT, 2009).

The Inuvialuit of Aklavik never signed a numbered Treaty similar to Treaty 11 signed by the Gwich'in. Instead, they were among six other communities with large Inuvialuit populations in the Beaufort Delta and Western Arctic Islands to negotiate the Inuvialuit Final Agreement (IFA) which was signed on June 5, 1984 and came into effect on July 25, 1984. The IFA provides the Inuvialuit with fee simple title to 90,600 square kilometers of land which includes 12,980 Square kilometers of sub-surface mineral rights ownership (Department of Aboriginal Affairs and Intergovernmental Relations, GNWT, 2009). The Inuvialuit received compensation of \$152 million over a 14 year period. The IFA also provided the Inuvialuit with rights to participate on co-management boards within the Inuvialuit Settlement Region. The IFA also created the Inuvialuit Game Council which was established to protect and promote Inuvialuit wildlife interests.

The Gwich'in Comprehensive Land Claim Agreement and the Inuvialuit Final Agreement are protected by Section 35 of Canada's *Constitution Act, 1982*. These agreements are legally binding and commit Canada and the Northwest Territories Governments to a special government to government relationship with the Gwich'in and Inuvialuit Governments. The agreements have been used to assist the Gwich'in and Inuvialuit to protect their wildlife and environment, participate in decision making affecting their lands and to work at making progress towards advancing their socio-economic situation.

Self-government remains an unsettled issue and for Aklavik it may mean separate self-government agreements may apply to its 655 residents. At one time the Inuvialuit and Gwich'in negotiated self-government together and were able to achieve an Agreement-In-Principle (AIP) but it was relinquished when one of the parties required time to review the implications of the AIP. Today both groups are negotiating self-government separately.

The settlement of land and resource agreements has allowed both the Gwich'in and Inuvialuit to pursue economic development, self-determination and self-reliant activities. Both groups are achieving various levels of success in their ventures. But without self-government settled, the full scope of their self-determination efforts within the Canadian federation is still an open question.

### **3.9 Issues Regarding Cleanliness, Hygiene, Sewerage, Drainage**

The water drainage system in Aklavik is primarily dependent on a series of drainage lagoons. These lagoons run from south towards north in the community. The lagoons function well during summer but in spring time when the snow starts melting, sometimes the volume of water from the melting of snow is far more than the capacity of these lagoons. This leads to occasional flooding in the community. In addition to that, Peel River has overflowed its banks over the past years, which left several feet of water standing in the community (Aklavik Community Report, 2005 and CBC, 2006).

The liquid waste is stored in the holding tanks outside the houses. It is taken out by sewage disposal trucks, and then transported to a Clearing Lake 2 km downstream from Aklavik where it is disposed. This lake further discharges into an array of lakes and ponds before reaching the Peel Channel. On the other hand, the solid waste is compacted and disposed into excavated cells (Aklavik Community Report, 2005).

In the past years, an Aklavik Aboriginal Committee, which was disbanded, had proposed to “clean up” the community or improve the appearance of the community. They believed that this could have a positive impact on the development of tourism sector in the community (Conacher and Stephen, 1995). It has also been found in the ACESDP surveys that the above statement still holds true and the code related to this issue came up 14 times in our analysis (see Appendix-A, Table-10). Many respondents were supportive of a community clean up and beautification campaign. Overall the

cleanliness and hygiene situation in the community could be improved. In the summer of 2009 a large project to improve the ditch drainage system was underway demonstrating that infrastructure improvement was occurring in some key areas.

### **3.10 Sustaining Traditional Economic Activities**

The people of Aklavik are actively pursuing traditional economic activities. People still rely on country foods such as caribou, moose, fish, beluga whale, rabbits and similar game and marine mammals to supplement their diets. Fish nets are a common site in Aklavik during the summer and in the early fall as people either make dry fish or harvest fresh fish for their own consumption needs. Some local entrepreneurs also make dry-fish and smoked fish for sale directly into the local market. A lot of people still share their catches with families and elders in the community.

People in Aklavik also go out on the land to live, hunt and trap. The research team witnessed people fishing, picking berries, traveling out to hunt caribou and whale throughout the summer of 2009. The Shingle Point Games, an annual event held on the Beaufort Sea coast also provides traditional hunting, gathering, fishing and recreational sports for the whole family to participate in. Aklavik people also participate in the Northern Games, a circumpolar event usually held in Inuvik, which preserves, promotes and celebrates circumpolar aboriginal cultural and traditional activities.

The people of Aklavik also engage in traditional dance and put on traditional feasts at important community events. The youth are also involved in these events. In one instance an Aklavik youth of 12 years age had shot his first caribou in August, 2009. His elders and family put on a big feast to celebrate this important event.

People in Aklavik still make traditional clothing as well as arts, crafts and tools. They use these products and also sell them as part of a cottage industry.

Traditional economic activities help to sustain traditional practices, build self-esteem and if developed along commercial lines may add to tourism product offerings by local Aklavik people.

### **3.11 Alcohol and Drug Abuse**

A 2006 Addictions Survey for NWT, compiled by the GNWT, has data about alcohol and drug abuse classified in three categories based on physical locations: Yellowknife, Regional Centers and Rest of the Communities. Aklavik falls under the category “Rest of the Communities.” Hence, the statistics from the same category have been taken to represent the population of Aklavik. These numbers may not be exactly applicable to Aklavik but still give a good idea about the addiction situation.

According to the 2006 Addictions Survey (NWT Bureau of Statistics, 2008), 73.4% of community members drink alcohol. From these 19.1% of the community members drink alcohol more than once a week and 44.8% have more than 5 drinks. The bar graph below shows the overall situation of incidences of heavy alcohol use for NWT and Canada (refer Figure 3.11.1). This graph confirms that there are a higher number of incidences of heavy alcohol use in NWT than Canada as a whole over a period of 10 years.

Figure 3.11.1 Incidence of Heavy Alcohol Use: NWT and Canada, 1997-2006



Percentage of persons 12 years of age and over who drink 5 or more drinks per occasion more than once a month.

Note: Some numbers are not directly comparable as NWT Addictions Surveys from 2002 on only survey 15 year olds and older. Community level data is not available.

Source: Statistics NWT Bureau of Statistics, 2008

In addition to that 31.3% of the community members have used marijuana or hash in the past 12 months. These numbers simply reflect the extent of community members involved in alcohol or drug consumption activities (NWT Bureau of Statistics, 2007).

With regard to a concern for Alcoholism, the code related to it came up 111 times in the analysis of surveys (see Appendix-A, Figure-5), which clearly indicates the discomfort of community about this issue. Similarly, with regard to concern for Drug Abuse, the related code came up 75 times (see Appendix-A, Figure-5). The use of alcohol and drugs is often a symptom of some other underlying unresolved issues. In one focus group session some elders spoke of the challenges related to alcohol and drugs. For them the solution was to address the issues in the community or on the land by involving local people who understood and could play a key role in assisting people that required help to heal. Overall Aklavik people were very understanding of the problems of alcohol and

drugs but they were also forgiving as they appear to understand that these problems come from deeper systemic causes which will require a community and government partnership to resolve.

### **3.12 Issues Related to Governmental Income Support**

Income support programs are social programs delivered by the Government of the Northwest Territories or the Government of Canada. These programs provide money to families and individuals to help them pay for living expenses or household expenses. Two members of our research team participated in a self-government public meeting held by the Gwich'in Tribal Council negotiating team in Aklavik on July 8, 2009. This meeting identified the following main issues related to Income Support:

- 1) Programs encourage dependency on government and discourage some people from seeking work;
- 2) Programs do not adequately support those truly in need (e.g. seniors);
- 3) Money provided by some programs is not enough;
- 4) There are not enough productive choice options at the community level (training, short term employment, life skills, counselling, family services and traditional pursuit support);
- 5) Income Support programs are poorly organized and not coordinated with other programs.

The ACESDP research project confirmed that these were real issues. The research also found that those people who were on Income Support were not happy to be on it but felt they were in a sort of poverty trap. Anytime they tried to work or advance their situation, they were penalized by having their rent increased or having benefits taken away just when they were starting to get a grip on independent living.

The July 8, 2009 Gwich'in self-government meeting provided the following possible solutions to improve the Income Support Programs:

- 1) Improve counselling and referral of clients to appropriate productive choices;
- 2) Work to change public views of income assistance program;
- 3) Increase the number of community-based productive choices;
- 4) Additional programs for youth (prevention, training for jobs, etc.);
- 5) Re-establish traditional practices to share with and support seniors;
- 6) Increase funding for some income support programs;
- 7) Consolidate coordination/management of all related programs and services;
- 8) Make programs easier to access by relaxing regulations.

In face-to-face meetings conducted during the survey sessions in Aklavik we heard from several individuals on Income Support. These individuals pointed out that they are not happy on Income Support but that they have limited employment opportunities and that if they get a job their rents get raised so high that they have little income left to live off after they pay bills and buy household goods, groceries and their other basic needs. Income Support does provide people with their basic needs but it can also create dependency. As the community obtains more autonomy to design and deliver such programs they will be challenged with finding solutions to address Income Support issues.

### **3.13 Fuel Supply and Energy Consumption Issues**

The old NTPC generator facility that was located in down town Aklavik has been replaced by a newer and more modern electrical generator facility. This new facility has reduced fuel consumption rates through the use of technology and modern diesel generators. Still, thermally generated electricity is very expensive in Aklavik as



compared to southern regions like British Columbia, or even Yellowknife in Northwest Territories. Section 6.4 of this report discusses this issue in detail.

P-50 fuel oil is mainly used for heating purposes in Aklavik. Apart from fuel people also use wood stoves to keep their houses warm in the winter season (Aklavik Community Report, 2005). During the ACESDP surveys, many people that used wood stated that they had to go farther and farther from the community each year to obtain fire wood. Others use drift wood that floats down the Mackenzie River as a source of firewood. Thus, sustainability and management of wood supply in the delta is an issue of concern if more people start to use wood for heating.

### **3.14 Food Sustainability Issues Related to Fish and Game**

Fish and game obtained from the land still provides a significant portion of the food obtained by Aklavik residents. The Gwich'in Renewable Resources Board website (2009) notes the importance of fish to the people by stating, "Fish are an important resource and constitute a large part of the Gwich'in subsistence economy. Fish are significant for traditional, commercial and recreational activities." NWT Bureau of Statistics, November (2008) reports that 49.3 percent of Aklavik residents hunted and fished; 21.1 percent trapped and 35.5 percent of households consumed country food (most or all meat consumed). In observations during the study it was found that many young people and elder hunters hunted not only for themselves but for other elders and people who could not afford to go out on the land to hunt. The researchers observed people sharing equipment and youth or elders sharing resources so that they could go on fishing, whaling or caribou hunting trips. In several instances the researchers observed people sharing or giving country foods (fish, muktuk and caribou) to other families that did not have the means or resources to get their own country foods.

The Aklavik Hunters and Trappers Committee, Gwich'in Renewable Resources Board and other agencies are actively monitoring and participating in the management of their

country food resources. Conservation and protection of the environment and wildlife habitat is a real concern of the people and they are working hard to ensure that the environment is protected as they are intimately aware that it is the land that provides much of the subsistence food resources that has sustained their people from time immemorial. The Inuvialuit, Gwich'in and GNWT place a high priority on conservation and their respective organizations are actively involved in developing management plans to manage and conserve their wildlife, fish, mammals and other game in the Aklavik area and throughout the Mackenzie Delta and Beaufort Sea. It was noted by several people during the research that the people of Aklavik voluntarily closed their char fishery when they obtained data that the local char population was in decline. This is a good example of local people taking responsible action to protect their natural resources.

A real issue for obtaining country foods is the high cost of purchasing equipment such as boats, motors, skidoos and the operating costs to operate and maintain this equipment. If a person does not have a job then they cannot save money to purchase such equipment let alone maintain it. Costs are extremely high, for example, On August 17, 2009 a liter of gasoline in Aklavik cost \$1.314 and one liter of motor oil cost \$10.99 at the Northern Store. Boats, outboard motors, snow machines and all terrain vehicles can easily reach into costs of many thousands of dollars. To help offset costs some groups in the community like the Hunters and Trappers Committee and the Renewable Resources Board provide programs that assist people in traditional harvesting activities. This recognizes the important contribution that country foods play in providing a food source to Aklavik people. Sustainability of the traditional food sources is always an issue but there are GNWT and federal departments as well as regional and local agencies/committees in Aklavik that are actively monitoring and managing their traditional food resources.

## **4. ACESDP Research and Analysis Methodology**

The following sections describe the methodology used by the four MBA/MScIB students from Vancouver Island University to gather primary and secondary data relevant to the ACESDP project, analyze the data, and eventually develop the plan based on the analysis.

### **4.1 ACESDP Methodology**

As outlined briefly in sections 2.1 and 2.5, the objectives of the ACESDP were: to explore socio-economic ideas of the residents of Aklavik in order to produce a community economic sustainable development plan for the community. In order to arrive at this, the researchers worked to understand and explore existing social and economic development (business) resources and opportunities that are present in the community of Aklavik ; analyze socio-economic practices and traditional activities of the people; analyze government policies related to advancing Aboriginal and northern (Canada) development; identify community needs, desires and their vision for the future; identify gaps in resources; and, develop a community economic sustainable development plan to assist the community in advancing towards their socio-economic goals in a beneficial manner.

The hypothesis for this research project was, "Community economic sustainable development planning, involving community members, to develop a community economic sustainable development plan, can help to improve a community's work towards the achievement of economic self-reliance." Using questionnaires and focus group sessions a broad range of data was collected to determine what local people feel are important aspects for community economic sustainable development. The data assists in answering the following three main questions:

- 1) What do Aklavik residents perceive their community's sustainable economic development to be?
- 2) What factors or changes, in their opinion, can lead to this sustainable economic development?
- 3) What priorities do they want to establish for their community's economic sustainable development plan?

A general inventory of existing community assets was also undertaken to establish the community infrastructure capacity level so that this information can help to inform gaps, needs and readiness for potential economic development activities identified in the community's economic sustainable development plan.

The research assessed, through a mix of predominantly qualitative interview methods and some quantitative analysis what community members thought were important aspects of their community's economic sustainable development. The researchers predicted that local people will have a much broader range of ideas that may include social, traditional, cultural and economic elements, to help them to achieve economic self-sufficiency. The researchers also predicted that a community that is actively involved in creating its own economic sustainable development plan will be better positioned to act on its priorities and achieve its short and long term community development goals.

A major part of the ACESDP research was to analyze the qualitative and quantitative data from questionnaires, interviews and focus groups in order to identify:

- 1) Several small scale industry related projects or entrepreneurial ventures which can boost the local economy;
- 2) Other industrial development options which would positively impact, directly or indirectly, the regional economy, social well being and standard of living of the people.

The research was primarily based on an inductive approach. According to Saunders, Lewis, & Thornhill (2007, pp.492, 599), this involves the development of a theory resulting from observation of quantitative and qualitative data, which the researchers obtained from questionnaires, interviews and focus groups. This primary data consisted of two groups – data which could be quantified based on numerical responses or Likert scale type responses, and qualitative data obtained in the form of responses from subjects to open ended questions. The specific type of inductive approach followed for ACESDP study was the grounded theory approach (which is critically explored in detail in the literature review section 9.2) based on inputs from literature review and the steering committee members. Section 9.2 also supports the logic behind using this approach for ACESDP study.

For analysing qualitative data, the researchers initially contemplated between two different inductive approaches – “template analysis” and “grounded theory”. However, in the former case, codes that represent the themes from the open ended qualitative responses of the subjects (community members) are supposed to be predetermined by the researchers (Saunders, Lewis, & Thornhill, 2007, pp.496). Keeping this fact in view, the ACESDP team’s academic supervisors and steering committee members made suggestions which were more aligned with using a grounded theory approach. The idea was that the codes emerge from the open ended questionnaire responses and any prejudice on the part of researchers has minimal affects on the analysis process.

Rhine (2009) defines grounded theory method as “the systematic generation of theory from systematic research”; or, as “a set of rigorous research procedures leading to the emergence of conceptual categories” and themes. Saunders, Lewis, & Thornhill (2007, pp.501) also note that using the grounded theory approach involves the researchers in a process that is “time consuming, intensive and reflective”. The authors also warn that there is a possibility that the results that emerge from this type of research analysis may be of little significance to the stakeholders. However, as this report shows, the grounded theory approach in the case of ACESDP project worked quite well in the sense

that themes and tangible solutions of significant importance emerged from the analysis; which, if properly implemented, has the potential of bettering the economy of the region and improve people's standard of living.

Sections 4.5 and 4.7 describe in detail how the grounded theory approach was used in this study for providing important inputs from community members which helped immensely in the creation of this ACESDP.

It may also be mentioned here that besides the academic exercise of collecting primary and secondary data, the researchers tried their best to understand the people and their needs by living in Aklavik for several months - talking to community members and participating in different regional cultural events. Such interaction was deemed necessary after initial discussions held with the ACESDP sponsors and steering committee members. One of the key points that came up in these preliminary discussions was that the northern Arctic communities have a high context and collectivistic culture and therefore, it was important for the researchers to interact with the people, in their own environment, in order to capture the subtleties of their life and regional economic/work related activities.

## **4.2 Gathering Primary and Secondary Data**

Four ACESDP team members spent several months in Aklavik, Inuvik as well as Yellowknife for collecting primary and secondary data. Prior to this field work, a research license for primary data collection was obtained successfully on 06 July 2009 from Aurora Research Institute – Aurora College, Inuvik, Northwest Territories (see Appendix-B). Also, a formal approval for conducting field research involving human subjects was taken from Vancouver Island University's Committee for Research Involving Human Subjects (CRIHS) on 11 May 2009 (see Appendix-C).

Posters were put up at important locations and governmental offices in Aklavik to let the residents know about the ongoing research and create awareness amongst people. Radio announcements were also made for this purpose (see Appendix-I).

The two modes of primary data collection used were:

- 1) **Interview/Questionnaire:** Going from door to door in the community through a systemic random sampling method to administer a structured interview based on a questionnaire containing both open and close type of questions (the detailed format of the interview and questionnaire is described in the next section – 4.3). The field researchers knocked on every third house while walking on the streets, beginning from a randomly picked house. If a house was found locked, then a note was made and the researchers went to next third house. Similarly, if someone opened the door but there was no adult in the house available at that moment, or the residents did not want to participate in the study, then a note was made and the researchers went to the next third house. In some cases, the researchers were asked to come back later at a time convenient to the interviewee. Once again, a note was made and the researchers made sure to go back to such homes and complete the interview at a mutually convenient time. After preliminary introduction and a brief description of this research (see Appendix-D), one or two researchers would be invited into the house. Once an adult resident of a particular house had agreed to participate in the interview and questionnaire, the researchers would sit with the subject and debrief him/her about the ACESDP study (for debriefing protocol, see Appendix-D). A consent form was then presented and explained to each participant, who was then asked to read and sign it. A sample of the consent form is provided in Appendix-M. Then the subject would be shown the questionnaire as a MS Word file (for a printed version, see Appendix-E) on the researcher's laptop. In most cases (at the request of the subjects), the researchers would read aloud the questions to the subject, in a neutral tone of voice. This aspect is important in open type of questions for the sake

of avoiding introducing any bias in the mind of the subject (Saunders, Lewis, & Thornhill, 2007, pp.324).

The researchers then typed or entered the responses of the subjects directly on their laptops, sitting in such a position so as to enable the subject to see what they were typing. This saved the time that would have been otherwise spent later in transcribing the subject's responses for open questions. Of course, this was made possible by the fact that each of the researchers had a fast typing speed so that the subject's did not have to pause or wait in between while voicing their thoughts and opinions, especially while answering open type questions. See Appendix-F for a sample of responses to open questions.

A typical session lasted one to two hours. Just after the session was completed, the interviewer added his own comments at the end of electronic questionnaire MS Word file, related to some contextual information and setting of the interview session (see Appendix-G for a sample of these comments).

The researchers knocked on 70 homes and were able to get 58 responses. In the remaining 12 cases, the residents were either unavailable or, in a few cases, unwilling to participate. The former can be attributed to the fact that the ACESDP research was conducted during the fishing and hunting season so that quite a few adults were out on the land or in fishing camps. The high rate of successful responses can be attributed to the fact that one of the researchers was originally from Aklavik.

- 2) **Focus Groups:** There were four focus group sessions held at Aklavik, in the months of August and October 2009. The introductory debriefing and focus group session protocol and structure are explained in Appendix-H. The composition and setting of these focus groups are explained in the next section – 4.3. Out of the four groups, one was recorded on video with the consent of the participants. In the other three cases, there was no audio or video recording made as requested by the participants.



Instead, the researchers who participated in the sessions made handwritten notes unobtrusively (so as to not disturb the discussions) with the consent of the participants, and compiled their notes into MS Word files, at the first opportunity after the sessions.

For secondary data, the researchers obtained a number of reports in electronic as well as paper printed format from different sources, including different government offices in Inuvik, Aklavik and Yellowknife, as well as the internet. The bibliography section of this report lists all these relevant secondary data sources.

### **4.3 Questionnaires, Focus Groups, Interviews and Surveys**

The questionnaire (Appendix-E) consisted of 37 questions, some having several subcategories. Adding all subcategories, there were a total of 56 questions, out of which 26 were open type questions while the remaining quantitative - in the sense that they either required a quantitative response, or a Likert scale type response ranging from “strongly agree” to strongly disagree”. These questions were developed through intensive discussions between the researchers, the steering committee members, industry sponsors and especially the academic supervisors at Vancouver Island University, along with appropriate literature review and guidelines from text books on research methods (See **Section 9.y**). The details of how the mixed type data was obtained from these questionnaires are described in sections 4.4 – 4.6.

The four focus group sessions held at Aklavik, in chronological order, are described below. The names of the participants have not been mentioned in this report respecting the privacy of the individuals.

**Focus Group Session – 1:** This session lasting about 8 hours was held at an Elder’s Fishing Camp, about 5 km from Aklavik. There were 8 participants in this focus group, besides three researchers. It may however be noted that there was adequate representation in this group from different sections of the society, as well as across all

age groups, ranging from 20 to 90 year olds (ages approximate for anonymity). The session was not recorded in audio or video format. Two of the researchers made handwritten notes on what the focus group members were saying and the key issues that emerged from the discussions. One of the participants also presented a self drafted paper which raised several important socio-economic and work related issues which the residents of the region had to face. The researchers later coded all this qualitative data (the handwritten notes) to record and analyze the key themes that emerged from the session. Appendix-J shows the themes from combined data of all four focus groups.

**Focus Group Session – 2:** This session lasting about 4 hours was held at another Elder’s Fishing Camp, about 10 km from Aklavik. There were 3 elderly participants in this focus group, besides three researchers. The session was not recorded in audio or video format. One of the researchers made handwritten notes on what the focus group members were saying and the key issues that emerged from the discussions. The researchers later coded the handwritten notes to record and analyze the key themes that emerged from the session. Appendix-J shows the themes from combined data of all four focus groups.

**Focus Group Session – 3:** This session was held at the Aklavik Hamlet chambers and lasted for about 3 hours. There were 6 participants in this focus group who were also part of the ACESDP steering committee, besides three researchers. Approximately 40 community members attended the session which included a feast, presentation and discussion on the ACESDP. This session was video recorded and later transcribed and coded to record and analyze key issues that emerged from the discussions. Appendix-J shows the themes from combined data of all four focus groups.

**Focus Group Session – 4:** This session was held in the Aklavik Hamlet chambers. Participants from all three community councils participated as well as leaders, elders, youth, the general public and ACESDP Steering Committee members. An overview of the ACESDP was provided, general discussion was held with a focus on economic development business ideas and the ACESDP Steering Committee confirmed the list of

priority projects they felt were most important and achievable as the ideas that should be focused on and reflected in the ACESDP draft plan outlined in section 8.1 of this report (see also Appendix-J for the themes that emerged from combined data of all four focus groups).

The research team also participated in public meetings, traditional events and community events to observe activities and record important subject matter related to the ACESDP.

#### 4.4 Data Analysis and Excel Modeling

Out of 58 responses, 50 were coded and analyzed using Microsoft Excel. The researchers explored two other software for analyzing the mixed data - Nvivo and SPSS; but found that MS Excel was quite adequate, and comparatively easier to use, for this project. This viewpoint was also supported by the Academic Supervisors of the ACESDP project. Questions 1, and 29 to 37 either had quantitative responses or Likert scale type responses which were quantified using the numerical codes listed below in Table 4.4.1:

**Table: 4.4.1 Likert Scale**

Likert scale	Numerical Code
Strongly Agree – SA	2
Agree – A	1
Neutral – N	0
Disagree – D	-1
Strongly Disagree – SD	-2

Similarly, numerical codes were assigned for the Gender, Educational level and other demographic variables like age groups, etc. An Excel sheet was created for data analysis

of these questions having quantifiable responses, whose snapshot can be seen in Appendix-K.

Question 21 also had quantifiable responses or responses which could be assigned numerical codes. This question was handled separately in another worksheet, and its results are compiled in Table 11 and Figure 6 in Appendix-A.

Various charts and tables were created from this quantitative data using Excel formulae and functions. Tables 1 to 4 and Figures 1 to 4 in Appendix-1 show all the results obtained through the analysis of aforementioned quantitative data. To understand how much the subjects differed in their opinions, the researchers had originally planned to find the coefficient of variation (CV) as a measure of dispersion, calculated as:

$$CV = \text{Standard Deviation} \div \text{Mean}$$

However, the Likert scale responses were quantified as -2, -1, 0, +1, and +2. An equal amount of spread over negative and positive sides created the possibility of the mean being close to zero, in which case, CV would be absurdly tend to positive infinity or negative infinity. The problem could have been handled by using only positive values for Likert scale responses. However, this exercise was felt to be beyond the present scope of ACESDP by the researchers as well as the industry mentor. Although a quick look at Table 4 in Appendix-A indicates that most of the responses are clearly skewed in one direction - towards the positive side or negative side, indicating consensus; or, very few questions have responses which are equal in number in positive as well as negative directions (which would mean that half the people agree and half disagree). This is especially true for those questions which were critical to the mission of ACESDP, e.g. questions related to economic development, creation of jobs, tourism, culture, etc. Such questions had most people giving a unidirectional response (positive or negative) indicating consensus.

Questions 2 to 28 (excluding Q. 21) were open type questions and the subject's responses to these questions constituted qualitative data. After a reasonable study of popular Computer Aided Qualitative Data Analysis Software (CAQDAS) like NVivo and

SPSS, the ACESDP researchers developed their own Excel model on similar guidelines. First, as suggested by the academic supervisors, the researchers thoroughly read the first 10 respondents' questionnaires and identified 69 codes to create a codebook (see Tables 5 to 9 in Appendix-1) in the form of an Excel worksheet. These 69 codes included 10 codes (codes 60 to 69) which emerged from question 21. Thereafter, with these codes placed in 69 rows, worksheets were created in Excel for each of the questions (from 2 to 28) with different columns assigned to different respondents, as illustrated in the incomplete matrix example shown in Table 4.4.2 (shown for Question 2, say):

Table 4.4.2 Incomplete Matrix Example for Question 2, for illustration

Question 2					
Code #	Respondent-1	Respondent-2	Respondent-3	Respondent-4	Respondent-5
Code-1	1		-1		
Code-2	-1	1			1
Code-3				1	

In a particular worksheet corresponding to a particular open type question, if the qualitative response of a subject mentioned a certain code's theme, then the numerical digit "1" was put in the particular cell, as shown above. If nothing was mentioned, then the cell was left blank (which Excel considers as having a value of zero). In rare cases, if something was mentioned that negated the theme of a code, then a numerical value of "-1" assigned in the respective cell. There were a total of  $27 \times 50 = 1350$  cells which contained the values of 1, -1 or 0, based on the inputs from the researchers doing the coding.

Finally, after all questions had been coded in the manner explained, the numerical values were added as per the following formula to obtain the major themes that emerged from all this qualitative data:

Let  $X_{j,k}^i$  = numerical value (1, -1 or 0) corresponding to  $k^{\text{th}}$  respondent, for  $j^{\text{th}}$  code, that was mentioned in the response to  $i^{\text{th}}$  question (i.e. spreadsheet in Excel file). Note that  $j$  = row number,  $k$  = column number and  $i$  = spreadsheet number.

Then a new Excel spreadsheet was created in the form of the codebook, in which all codes were placed in different rows of the first column. Then, in the second column, for each  $j^{\text{th}}$  code number, the value in the  $j^{\text{th}}$  row cell (of second column) was calculated as equal to the sum of  $X_{j,k}^i$  for all  $i$  (# of questions, from 2 to 28) and all  $k$  (# of respondents, from 1 to 50).

Then, each of these values (thus obtained) was divided by 50 to get the average values. These final average values illustrate which codes came up most often in the qualitative responses to open type questions. Table-10 in Appendix-1 shows these values graphically, which were calculated as explained above, using the following formula:

$$\text{Average Value corresponding to } j^{\text{th}} \text{ code} = \sum_{i=2}^{28} \sum_{k=1}^{50} X_{j,k}^i$$

Figure-5 in Appendix-1 shows the top 17 codes that emerged as the most significant from the qualitative questionnaire responses using the method described above.

The researchers had initially planned to find the standard variation of all  $X_{j,k}^i$  to check if the people of Aklavik were united in their viewpoint or did they differ in their opinions. For instance, if half the people said healthcare was good ( $X_{j,k}^i = 1$ ) and the other half said it wasn't ( $X_{j,k}^i = -1$ ), then the final average value would be 0, wrongly indicating that the town was neutral towards the state of healthcare available in Aklavik. In this case, a high standard deviation would have disclosed that people were strongly different in their opinions. It was then proposed that the researchers would further explore the phenomenon to understand the reason for the diversely different response of the community. However, this exercise was felt to be beyond the present scope of ACESDP by the researchers as well as the industry mentor. Further, very few codes were of this nature that allowed inputting a value of  $-1$  as well as  $+1$ . The code "healthcare is

adequate”, for instance, was one such code. But other codes which were critical to the mission of ACESDP, like “create more jobs”, etc. were such that people either mentioned them (leading to the assignment of a numeric input of  $X_{j,k}^i = +1$ ) or did not mention them (leading to the assignment of a numeric input of  $X_{j,k}^i = 0$ , or simply a blank cell in Excel worksheet). Hence, for mission critical codes, the issue of calculating standard deviation or coefficient of variation to measure dispersion in the opinion of people was found to be immaterial and the exercise discarded due to this reason as well as time constraint. This issue is discussed again in Section 11.0, titled “Limitations” (of this study).

#### **4.5 Guidelines for Interpretation and Main Results**

As explained in the previous section, the researchers compiled and analyzed quantitative and qualitative data using a simple excel model. There are three key set of results relevant for generating options for economic development of the community:

- 1) Quantitative data compiled and analyzed from responses to Questionnaire questions 32 to 37 (25 questions in total, including their sub-parts) of the questionnaires and shown in Table-4 of Appendix-1. To generate this table, subjects who responded to a particular question with “Agree” (numeric code +1) or with “Strongly Agree” (numeric code +2) were combined together into the category of people who had a positive response to a particular question/statement. Similarly, subjects who responded to a particular question with “Disagree” (numeric code -1) or with “Strongly disagree” (numeric code -2) were combined together into the category of people who had a negative response to a particular question/statement. For a “Neutral” response, the numeric code was zero. This table shows a snapshot of the views of the community residents’ random systematic sample about some key economic development related ideas.

2) The second set of results, which took the maximum time to compile, code and analyze, is based on the qualitative data obtained from the responses to open ended Questionnaire questions 2 to 28 (excluding Q. 21). Table 10 in Appendix-1 shows these results. The horizontal bar graphical representation illustrates which codes came up most often, following the methodology explained in the previous section. The top 17 codes or themes (which came up most often in qualitative responses) are shown in Figure-5 in Appendix-1. The researchers hypothesized that the themes or codes which came up the most often in such qualitative responses to open questions reflected the most important issues related to socio-economic development as perceived by the community members, and depicted by the viewpoint of the systematic random sample interviewed. Though, some minor limitations associated with this logic model are explained in Section 11.0. It may be noted here that adequate care was taken to create open questions that were not “leading” questions. Also, questions 32 to 37 (total 25 sub-parts) do have some leading questions. But these were incorporated on the special request of the industry sponsors of ACESDP project as they wanted to know specifically people’s opinion and reaction to certain ideas. However, as advised by the academic supervisors of ACESDP, these somewhat “leading” questions were put *after* the open type questions, which were carefully designed to carry a neutral, non-leading tone.

The researchers also noted that, except for some ideas like “road to the mountains”, the community members did not come up with specific responses that would be able to improve the economy of the region. The grounded theory approach adopted throughout this study required that the solutions come “from the people”, which will be “for the people”. But except for one or two subjects (who were further explored or interviewed informally later, and were found to have special entrepreneurial skills and some business leadership qualities), the



50 odd respondents did not come up with too many specific ideas or suggestions for entrepreneurial ventures or other ideas that would create jobs or boost the regional economy. However, there was consensus on one issue which finally emerged as the most important theme – and that was “to create jobs”. Thus, people wanted jobs to be created but did not offer any specific solutions that would create jobs. This led to the researchers moving towards the data from the four focus groups, following the grounded theory approach. This move was endorsed by the ACESDP steering committee.

- 3) The third data set was created from the four focus group sessions. As explained in the previous section, the researchers recorded and transcribed (using handwritten notes or video recordings) the qualitative data which came up in these sessions. Appendix-J and item 7.0 in section 8.1 show the main *economic development ideas and solutions (sawmill, fur-garment factory, etc.)* which emerged from these discussions.

The purpose of this study was to gather and identify the ideas for economic (and social) development for the community of Aklavik, by exploring what the community members thought and envisioned. The aforementioned four sets of data helped the researchers to do that through the grounded theory approach. Of course, the fact that this project is a business study project requires a thorough study of the secondary data – existing literature on infrastructure and economy of the region so that this report is able to summarize the available resources in the Aklavik region, so that the business options generated through this study can be matched against the existing resources. Gaps, if any, can then be identified during the feasibility studies. A preliminary SWOT analysis of these options has been conducted and reported in Section 8.1, which will serve as the starting point for feasibility studies which the community may wish to conduct in future.

#### 4.8 Guidelines for Literature Review

The following guidelines for conducting review of relevant existing literature in Section 9.0 were established by the researchers, based on Applied Business Project guidelines (VIU, 2009 (b)), researchers' own professional judgement, and discussions with Steering Committee members as well as ACESDP academic supervisors:

- 1) **Section 9.0** gives relevant background information on ACESDP, which are important for literature review.
- 2) **Section 9.1** reviews literature for the purpose of establishing the context of ACESDP. It looks at important community economic development related research done on Aklavik and other Aboriginal communities which assisted in understanding the complex and holistic approaches taken towards community economic development.
- 3) **Section 9.2** reviews literature which helped the researchers in choosing the methodology for ACESDP - the use of grounded theory approach in such a business study. Also included is a critical review of this methodology, along with the pros and cons of this approach. Several alternative research methods have also been discussed in this section. Finally, arguments have been developed to support the logic behind choosing grounded theory approach over other methods. Some other similar economic development studies have also been reviewed, which have been conducted in remote Arctic communities by other agencies and institutions, in order to compare and contrast the research methodology and analytical framework used in this study.

## 5. Community Sustainability

### 5.1 Exploring Community Economic Sustainable Development Ideas

In an attempt to define Arctic Community Sustainability Kofinas and Braund (1996) met with the community members from Arctic Village, Old Crow, Aklavik and Kaktovik in one-on-one discussions. They reviewed community based literature recommended by community members to define community sustainability goals (refer Appendix-R). The following are the five elements which emerged to be common among the four communities:

1. Use of, and respect for, the land and animals in their homelands.
2. A cash economy that is compatible with, and supports, continued local use of the land and animals.
3. Local control and responsibility for what is done in village homelands and what happens to resources used by the community.
4. Education of younger people in both traditional knowledge and western science, and education of the outside world about community goals and ways of living.
5. A thriving culture that has a clear identity, is based on time on the land and language, which honors and respects elders.

Source: Kofinas and Braund, 1996

Furthermore, (Kofinas, Braund, 1996) identified the following as some of the issues pertaining to community sustainability about which the community members shared some specific comments (refer Appendix-R for details):

- Subsistence
- Wage employment
- Local Control/Self-Determination

- Communication/Education
- Culture
- Infrastructure

This study demonstrates that community sustainability is a holistic and dynamic process that involves traditional and modern activities. Local control, respect for traditional practices along with the recognition that wage employment and modern activities can coexist if responsible management is engaged was a central theme that the research team observed from the many meetings and surveys conducted in Aklavik.

## **5.2 Aklavik Residents' Vision for the Future**

This section is based upon the findings of the ACESDP surveys, observations of public meetings, and focus group sessions conducted in the community of Aklavik in the summer/fall of 2009. The findings from the surveys were prioritized by using an excel model and have been presented below, in sections 5.2.1 to 5.2.4, in a decreasing order of priority.

### **5.2.1 Employment and Job opportunities**

This emerged as the most frequent issue which was talked about in interviews by local people. It came up 133 times during the course of 50 surveys (see Appendix-A, Figure-5). At present, aside from government related and some private industry employment opportunities, many jobs available to Aklavik community members are seasonal. The members of the community want year round sustainable job opportunities which provided employment to the local people year after year. Many ideas were proposed during our surveys and focus group discussions to improve the employment situation in the community but out of all those the ideas the main ones that stood out were a sawmill and fur garment factory.

The opinions of the interviewees about a sawmill include: it could bring down the cost of building houses in the community; it could provide raw materials like rough lumber

and square blocking to the local and regional market; it was further added that the waste wood could be used for heating purposes. Finally, but most importantly, it would provide employment to the local people using local or regional resources.

Living off the land which is a part of the culture and tradition of the Aklavik people has helped the community of Aklavik to sustain itself since its creation as a community. The Aklavik community members do not want to lose their cultural and traditional activities. Hence, the establishment of a sawmill and fur garment factory would help the newer generations to learn and sustain their age old tradition of living on the land, harvesting wood, trapping and sewing, and help them earn a living from these activities. Thus, according to the opinion of Aklavik residents, a sawmill and fur garment factory are activities that can help their community become sustainable.

### **5.2.2 Concern for Alcoholism and Drugs**

The concern regarding alcoholism and drugs was the second and fourth most common issue that came up during the ACESDP surveys (see Appendix-A, Figure-5). The residents in the community were very much concerned about the future of their younger generations because of the widespread concerns related to drugs, alcoholism and bootlegging. According to the elders of the community, the problem of drugs and alcoholism has deep roots and has prevailed over the years due to the suffering of local people at the hands of residential schools and other assimilation policies and practices. Therefore, in order to tackle this problem the members of the community want a healing centre in the community which they feel can also use on-the-land programs to help people deal with alcohol and drug addiction and other social issues.

### **5.2.3 Traditional economy and cultural support programs**

The community does its best to support and promote traditional economy and cultural support programs. The Aklavik Indian Band, Hamlet of Aklavik and Aklavik Community

Corporation all encourage and support to the best of their ability traditional and cultural programs. Community groups are engaged in various fund raising campaigns to support these activities. They also rely on the GNWT, Federal Government and industry to provide financial support to supplement their traditional and cultural programs. The traditional economy and cultural programs are integral to the Aklavik people's history, existence and identity; therefore it is important that they be encouraged and supported, according to elders and youth in the community.

#### **5.2.4 Aklavik Beautification & Tourism development**

The community members have personally confessed that the town is in a desperate need of a facelift. During the summer of 2009, empty cans and litter was scattered around in the town. One of the survey respondents said "that the people need to be educated about hygiene and keeping their houses and yards clean." Another survey respondent said that "only an effort by the community members can make Aklavik a better place to live as well as provide the opportunity for tourism development." Moreover, there are around 30 odd abandoned structures in the community, which are not very aesthetic for the local residents or visitors to look at. According to the community members these structures should be removed so that the land base within the community could be expanded for new houses or development purposes. This would also contribute towards Aklavik's beautification. In addition to that a community cleanup campaign could be started with the community members as its primary participants to cleanup Aklavik. The Hamlet of Aklavik does its best to do annual clean-ups but it is incumbent upon community members to take responsibility in keeping their community clean. A report entitled "Town Beautification Plan" produced by the Aklavik Indian Band, Aklavik Community Corporation and Hamlet of Aklavik which was not dated or signed off confirms that all three councils want to do work towards beautification. One of the report's most immediate priorities was to "identify and prepare a list of abandoned buildings, junked vehicles and other unused materials...remove 2 or 3 abandoned buildings in 2008 with emphasis on the old

friendship centre.” Town beautification is a priority that once engaged can assist in increasing community pride and help with tourism.

Tourism development came up as another important possible economic development activity that could assist in sustainable economic development for Aklavik. Residents wanted tours similar to Tuktoyaktuk for their community. Tours are offered to Aklavik by Inuvik tourism operators but with a lack of licensed tourism operators in Aklavik and limited marketing coming directly from the community, tourism visits to Aklavik are few.

The Ivvavik National Park and the Herschel Island Territorial Park are near Aklavik and provide employment opportunities for local residents but these parks are usually accessed by air from Inuvik simply because of cost and convenience for tourists traveling to Inuvik by road or air.

Aklavik residents want training and awareness programs related to the importance of hospitality and tourism so that people and businesses can cater to a variety of needs of the tourists and help to increase tourism visits to Aklavik.

Tourism Infrastructure development within the community is also a desire of local people. This has been a long standing desire as Conacher and Stephen (1995, pp.2) pointed out in 1995, “The Aklavik Tourism Strategy has identified the development of a more effective community tour operation as a priority. The Strategy has addressed the need for improved community infrastructure and promotion of the community’s traditional/cultural heritage and identified same as being necessary prerequisites for the development of the existing community tour market.”

Elders wanted culture and traditional activities to be an important part of the current or future tourism programs. Living off the land activities such as visits to traditional fish camps and boat tours to the mountains or ocean along with sightseeing naturalist

activities could form core products offered by tour operators in Aklavik. One person remarked that there are very few tourists that visit Aklavik so it would be difficult to be a tourism outfitter and survive if a person or business depended on tourism income alone to make a living.

The research team visited with members of the GNWT's Department of Industry, Tourism and Investment in Inuvik and it was confirmed that there were two tourism operators in Aklavik but that no GNWT Tourism Licenses were held by businesses in Aklavik as at August, 2009. It was acknowledged that Aklavik has good tourism potential but the cost for tourists to visit Aklavik are high and tourism numbers are in decline but an opportunity still exists to develop a small scale tourism industry in Aklavik. The GNWT is keen on supporting, marketing and helping communities advance their tourism potential but the community must also engage development activities to boost its tourism potential.

Overall, Aklavik residents want to maintain their culture and traditions but they also want to benefit from modern economic activities. Their experiences with hunting, trapping, fishing and operating a sawmill, fur garment factory, constructing houses, Hamlet municipal administration and management, small scale tourism and oil and gas exploration has taught them that it is possible to have both traditional and modern economic activities in the community. They want a healthy self-sufficient community that is able to sustain itself through a diversified economy that respects environmental protection and wildlife conservation while still engaging potential development activities like oil and gas exploration and production.

### **5.3 Community Values, Culture and Traditions**

Aklavik has a history of community values based on the people's long standing culture and traditions which are strongly linked to their relationship with the land. The Aklavik



Hunters and Trappers Committee's presentation to the Joint Review Panel – Mackenzie Gas Pipeline (2007) expressed Aklavik's community values as:

- 1) Conservation is First Priority
- 2) Integrated Management
- 3) Maximize Community Benefit
- 4) Protect Priority Community Activities ...hunting, fishing, guiding, trapping, tourism and arts and crafts manufacturing;
- 5) Cooperative Management of Shared Resources
- 6) Maintain Healthy Environment
- 7) Consistency

With respect to conservation, the Gwich'in Renewable Resources Board's website (2009) vision states, "We believe that people in the Gwich'in Settlement Area are responsible for using, protecting and conserving their resources, as well as, active partners with the Gwich'in Renewable Resource Board in managing their resources."

This confirms a strong community value placed on conservation and respect for the land and resources that comes from the land.

Aklavik people also have strong community and family values. During this study's field research many instances of community and family events were observed. Families helped out other families with country foods, child care, housing, and other needs. Family values were clearly noticeable during the loss of a family member. Two members of the research team observed one situation where a member of the community passed on. The community raised money to help the family out, put on a community feast and supported the family through their time of grieving. The whole community pulled together during this time to help out the family demonstrating strong family and community values.

The recognition and appreciation for Arts and Culture is also a strong community value. Aklavik people still produce arts and crafts. They have fond memories of the Aklavik Fur Shop which produced fur garments and other garment products in the past. Local artists and crafts producers still practice their craft and a local outlet still sells high quality

locally produced arts, crafts and traditional tools. Aklavik also has one of the oldest continuous Inuvialuit Drum Dance Groups in the Beaufort-Delta Region.

All of these community values have a foundation built on the community's relationship with the land which has sustained them and their ancestors from time immemorial.

#### **5.4 Community Planning**

The Hamlet of Aklavik has jurisdiction over municipal community planning. The Hamlet has produced a report entitled, "Hamlet of Aklavik Strategic Plan 2007-2012." This plan provides the community with direction on municipal community planning.

#### **5.5 Sustainability Principles**

The International Institute of Sustainable Development (IISD) website states that *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*

- *the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs"* (IISD, 2009).

It has also been stated that all definitions of sustainable development must consider *"world as a system, a system which connects space; a system that connects time"* (IISD, 2009).

In addition to the above mentioned definition of sustainable development the Ontario Round Table on the Environment and the Economy (ORTEE) website states that a sustainable community is one which:

1. employs ecological decision making (e.g., integration of environmental criteria into all municipal / government and business decision-making processes);
2. recognizes that growth occurs within some limits and is ultimately limited by the carrying capacity of the environment;
3. uses renewable and reliable sources of energy;
4. minimizes harm to the natural environment;
5. fosters activities which use material in continuous cycles;
6. values cultural diversity;
7. makes best use of local efforts and resources (strives for local self-sufficiency and nurtures solutions at the local level);
8. has respect for other life forms and supports biodiversity;
9. does not compromise the sustainability of other communities (a geographic perspective);
10. does not compromise the possibilities of future generations by its activities (a temporal perspective);
11. has shared values amongst the members of the community (promoted through sustainability education).

Source: ORTEE, 1994

The research found that Aklavik is a community that has well established sustainable development values. The land claim agreements have created legally binding co-management structures that are keenly involved in environmental and wildlife habitat protection as well as in the decision making process for industrial development

activities. Local committees such as the Aklavik Hunters and Trappers Committee, Elder's Committees and local governments also strongly believe in sustainable development values and practices. The GNWT and federal government are also actively promoting conservation, energy efficiency and self-sufficiency which are in line with sustainable development values. The challenge for all parties is to manage and coordinate towards the achievement of sustainable development initiatives that involves and is led by the community at the community's pace. A major reality check is that there are scarce resources to engage most activities related to larger scale sustainable development. Therefore, a strategic plan or community economic development plan may be helpful in moving the community towards its economic sustainable development goals.

## **6. Aklavik Community Profile & Infrastructure Inventory**

### **6.1 Human Resource in the Community**

As of 2001, Statistics Canada numbers show that the employment rate in Aklavik was 41% and the unemployment rate was 29%. For Aklavik women, the employment rate was 43% and the unemployment rate was 25%. In 2006 (which is the last census date for which data is available from Statistics Canada), the employment rate went down to 38% and the unemployment rate stayed at 29%. For women, however, the employment rate went up by 2% (to 45%) and the unemployment rate reduced down to 14% (Statistics Canada, 2006).

A comparison between the last two censuses (in years 2006 and 2001) for males illustrates that the male unemployment rates in Aklavik stayed almost the same between 2006 and 2001 (Statistics Canada, 2006).

The overall labour force activity (related to employment and unemployment rates for both males and females) in the community improved slightly as shown in Table 6.1.1 below:

**Table 6.1.1 Aklavik Employment Comparison**

<b>Aklavik</b>	<b>Employment rate</b>	<b>Unemployment Rate</b>
2001	41.8%	26.9%
2006	52.2%	20.1%

Source: Statistic Canada (2006)

When we compare these numbers with the national rates we find that there are some differences; for instance, the national unemployment rate in 2006 was around 6.1% which indicates a gap (between Aklavik and Canadian average) of around 14%. The employment rate in that year was around 63% which indicates a gap (between Aklavik and Canadian average) of almost 10.8% (Human Resource and skills development Canada, 2008).

The gap in labour force activity between Aklavik and Canadian national average indicates that the community is in greater need of jobs for local people. This observation is similar to the feedback from the survey that has been conducted by this research project during the summer 2009. The biggest concern across the entire community, based on the survey findings was “creating jobs”. From the analysis of around 50 interviews and surveys conducted, this issue has been mentioned 133 times (see Appendix-A, Figure-5). Moreover, 68% of the population thinks that there are not good employment opportunities for people in the community, while only 24% thinks that there are (see Appendix-A, Table-4). Additionally, around 96% of the sample population thinks that education and training opportunities are important to help people prepare to be employed in economic development activities. 86% said that if they had the

opportunity they would upgrade their skills in computer information technology. Additionally, 70% of the population thinks that the government and industry do not provide enough training programs for the community.

But the problem is more complex than the numbers indicate. For instance, the researchers learned that two key positions (Economic Development Officer and Manager of Housing) were vacant for a period of time, and yet not filled, due to the problem of finding experienced and qualified people. Thus, the problem of unemployment is two-faceted: firstly, there aren't enough jobs; and secondly, there aren't many qualified people in the community to fill skilled jobs, even if they are created.

## **6.2 Water, Sewer & Drainage**

**Water:** Water supply in Aklavik uses a Class-2 system, consisting of a permanent twin intake system, two tanks for treated water and a truck-fill station. The system itself was built in 1971 with two new tanks built in 2000-2001 to replace the original tanks. Each intake has its own submersible pump and heating system for cold weather protection (North West Territories Drinking Water Database, 2009). The raw water comes mainly from Peel River. Its quality, in general, meets the Guidelines for Canadian Drinking Water Quality (GCDWQ) for all parameters tested except turbidity, color, iron and manganese. Turbidity has a maximum acceptable concentration of 1 NTU because of health risks. High turbidity water interferes with the disinfection process, provides shelter and food for micro-organisms, and increases chlorine demand, theoretically threatening the water quality when it exceeds the maximum accepted concentration. Color, iron and manganese on the other hand do not have maximum acceptable concentrations but rather aesthetic objectives because they are not considered as health risk at concentrations normally encountered. However, the water supply is often challenged by seasonal fluctuations in sediment loading in the Peel River (Hamlet of Aklavik, 2009). But the ACESDP researchers were informed by community leaders that

these issues are being addressed and a new water treatment facility is being established in Aklavik.

**Sewage:** The community's sewage is trucked from individual sewage tanks (located usually near the gravel foundation of each home) and treated at the Clearing Lake Sewage Lagoon. Liquid waste disposal is by pump out from a holding tank. Construction began on a new sewage lagoon and solid waste landfill facility at Clearing Lake in the mid 1980's to replace the previous waste site (1.2 km northwest of the community) which had problems with flooding during spring break-up periods. Construction of the sewage, honeybag and solid waste disposal facilities at Clearing Lake was completed in 1987. Clearing Lake has an area of 16 hectares ( $\approx$  40 acres) and is located 2 km away from the community. The estimated retention time is about three years. The lake discharges into an array of lakes and ponds before reaching Peel Channel. (Aklavik Community Report, 2005 & Hamlet of Aklavik, 2009).

**Rain water drainage:** The community has an open drainage system, exposed to the atmosphere. Although the 1997 plan states the importance of comprehensive drainage system plan, the drainage system still causes some health and air quality problems like sending out unpleasant smell and attracting bugs & mosquitoes because the system is open to the air (Community Plan, 1997). Photos 6.2.1 and 6.2.2 below show the open exposed drainage system in Aklavik.

**Photos 6.2.1 and 6.2.2    Open drains parallel to sidewalks and roads**



In conclusion, drinking water in Aklavik is sufficient for the demand in the community, though there are some issues related to controlling the quality and maintaining continuous supply. However, the water supply gets challenged sometimes by environmental changes such as the seasonal fluctuations in sediment loading in the Peel River. The main issue with the sewage facility is that the sewer stays for about three years in the nearby Clearing Lake which could be a potential health hazard in future. The open storm/rain water drainage system is a health hazard as well.

### **6.3 Recycling and Waste Management**

Solid waste is deposited and compacted in excavated cells. In this cell disposal method, cells are excavated in the soil, and waste is compacted and covered until the cell is full (Aklavik Community Report, 2005).

A local contractor trucks Aklavik's solid waste to a landfill. Approximately 4 truckloads of solid waste are collected daily from Aklavik and taken 2 km north to the Clearing Lake landfill. The entrance to the landfill is not gated and the road continues a short distance past the landfill site to the sewage lagoon truck discharge area (Hamlet of Aklavik, 2009).

Regarding recycling facilities, the community has a temporary satellite depot, which is run (since February 2006) by Billy Archie Contracting and Consulting - a local business. Its main activity is recycling beverage containers (Beverage Container Program Annual Report, 2008).

In conclusion, the waste management system currently appears sufficient; however, it may not be sustainable in future, especially if we take into consideration the health standards and limited capacity of the landfill for future demand. It may be noted that



these issues are monitored and managed by municipal and territorial government agencies.

#### **6.4 Community Energy Management**

Northwest Territories Power Corporation (NTPC) is responsible for supplying electricity to the town of Aklavik as well as other cities and communities in the NWT. The electricity is generated in NWT from hydro operations, natural gas turbine engines and diesel engines. The vast distances between communities and their small populations are the main reasons why a transmission grid spanning the territory is not feasible. Therefore, remote communities like Aklavik have to rely on local thermal operations.

The town of Aklavik is powered by four Detroit diesel model series 60 generators. Each has a rated capacity of 320 Kilowatts and a total combined capacity of 1280 Kilowatts (NTPC, 2009). Usually, the thermal power plant runs at a lower maximum load than its rated capacity of 1280 kW. Also, the plant manager told one of the ACESDP researchers that the new generator system was much more efficient and ended up saving 40,000 to 90,000 litres of diesel per month, as compared to the old system which was recently changed.

The electricity charge per unit of consumption is about 64 cents per kilo-Watt-hour (kWh) of electricity consumed, for residential service; and about 61 cents per kWh for general service connections. This rate is about four times the rate of hydro electricity available in Yellowknife, NWT; and about ten times in British Columbia (NTPC, 2009 and BC Hydro, 2009). The minimum monthly bill in Aklavik for residential service is \$ 18, while for general service, it is \$ 40.

The Hamlet of Aklavik is currently exploring alternative energy solutions for Aklavik with



the help of outside agencies. Aklavik is situated on the bank of the meandering Peel River (see adjoining Photo 6.4.1 Aklavik's Aerial View) so that there could be potential for micro hydro turbines, as well as wind and solar power generation. Another energy saving possibility is using the waste heat from diesel generators for heating some of the buildings in the vicinity, and using woodchip stoves for heating homes. However, the Hamlet of Aklavik told the researchers not to engage in any research on alternative energy for Aklavik as they were in the process of completing their own energy plan.

Refer to Section 3.13 for information on home heating alternatives (besides electricity).

## **6.5 Community Transportation Infrastructure.**

### **6.5.1 Winter Road**

During winter, a 115 Km ice road is available from Aklavik to Inuvik on the rivers and tributaries in the Mackenzie Delta. This ice road links Aklavik to Inuvik and to the all-weather Dempster Highway, providing Aklavik residents with a period of road connection to the rest of Canada. The ice road is accessible for three to four months during the winter. All light vehicles and trucks up to 55,000 kg gross weight are allowed to cross it (Department of Transportation, GNWT, 2009). The ice road is an important connection to Inuvik and the rest of Canada as it allows for winter re-supply and reduces transportation costs.

### **6.5.2 Hamlet Roads**

Community roads require regular maintenance and upgrades. This is due to the weather conditions, permafrost conditions and spring flooding. The gravel roads are built up on the permafrost and have wooden sidewalks for pedestrians on each side at most places in Aklavik. During spring runoff when the ground is still frozen, water pools either on the roads or on adjacent properties. In the summer, given the nature of the gravel road, the

dust could be a health problem for some people (Aklavik Community Report, 2005). Information from the surveys collected in summer 2009 indicates that many people of Aklavik think that the road infrastructure needs to be upgraded (see Appendix-A, Figure-5).

### **6.5.3 Navigable Rivers and Ocean**

Aklavik has access to navigable rivers during the summer. The Beaufort Sea is approximately 110 kilometers from Aklavik and provides the community with ocean ship transportation access. Supplies from the south can also be provided by barging activities along the Mackenzie River which run from mid-June through September (Aklavik Community Report, 2005).

### **6.6 Airport & Floatplane Operations**

Aklavik has a 914 m gravel runway that accommodates scheduled flights five days a week, connecting Aklavik with Inuvik and the other ISR communities. The airport has a telephone but it lacks car rental agency, restaurant and aviation fuel (Aklavik (YKD) Profile, 2009).

The community can also access different destinations around ISR via float planes in summer and snowmobile in winters (Charlie, 2002 quoted in Aklavik Community Report, 2005 p 6-15).

### **6.7 Housing & Land Development**

Housing Infrastructure consists of 18 rented private Housing, 145 rented public housing, 8 rented staff housing and 77 owned private houses (Aklavik Infrastructure Profile, 2009).

Aklavik housing quality is lower in comparison to housing in the ISR as a whole with 27% of dwellings in need of major repairs. Moreover, traditional use structures could be

noticed around the hamlet including cabins, warehouses or their remains, smoke houses, hide-stretching racks as well as abandoned vehicles. The cemeteries could also be spruced up. A greater proportion of housing in Aklavik is in need of major repairs than in any other neighbor community except Paulatuk (Aklavik Community Report, 2005).

According to the ACESDP survey conducted in Aklavik in 2009, one of the main concerns mentioned by the local people (43 times) is housing conditions. Many people mentioned (21 times) that the rent cost is too high and it is one of the main challenges for young people to stay in the community given the high level of living expenses (see Appendix-A, Figure-5). Additionally, 94% of the population agreed that the community housing needs to be improved. This finding is inconsistent with section 3.5 where a survey conducted by GNWT notes that 8% of housing problems are related to affordability.

Further findings of the ACESDP survey show that 60% of survey participants think that modern home construction is adequate for the community. With regard to rent, 86% of the population thinks that the economic rent scales used in the community should be more flexible. Moreover, 72% think that the economic rent scales are not working well. Finally, 98% of them think that the cost of operating housing in our community can be reduced by upgrading homes and using energy saving devices (see Appendix-A, Table-4). It may be noted that the actual ACESDP findings on housing issues were very different from the NWT Housing Corporation survey mentioned in Section 3.5 of this report.

## **6.8 Economic Development**

The economy has both traditional and monetary components, with the monetary component increasingly dependent on extracting mineral and hydrocarbon-related resources (Aklavik Community Report, 2005).

The traditional community economy suffered a lot from losing the fur industry due to the price drop and high cost associated with harvesting. In general, Aklavik has limited number businesses currently. However, potential mineral extraction and a proposed major gas pipeline in the area could create a lot opportunities for the local people in terms of opening new businesses and creating new jobs to accommodate the new excavations and projects. (Aklavik Community Report, 2005).

In summary, the economy has shifted from the traditional approach to the monetary one after the decline of the fur industry. According to the ACESDP survey responses, 84% of the community people think that economic development is important for the future good of the community. 68% of the population thinks that there are not good employment opportunities for people in the community. 74% of them think that government is not doing enough work to help develop economic opportunities, while 66% of them think that the industry is not doing enough work to help develop economic opportunities. Moreover, 48% of them think that Aboriginal groups are not doing enough work to help develop economic opportunities (Appendix-A, Table-4).

## **6.9 Heritage & Culture**

The cultural aspects in Aklavik are strongly manifested through traditional way of living off-the land. People continue to practice their traditional hunting, fishing, and harvesting activities. However, this trend has been in declining recently due to the high cost of harvesting equipments and necessary gas (Aklavik Community Report, 2005). On the other hand, the heritage aspect is strong. Activities like traditional drum dancing, elders' story-telling, making traditional cloths and utensils from natural materials, community feasts and gatherings are still occurring on a regular basis in the community.

Traditional harvesting has an important physical and psychological influence on wellness in Indigenous communities. Wild fish, natural plants and berries for instance are

nutritionally superior to processed food. In fact, they are sources of natural medicine as well (Usher, 1976). In terms of the indigenous language, it is still spoken and carried on with the new generation but fluent speakers are in decline. Preserving traditional language could have an important psychological influence on wellness by helping to establish feelings of identity and purpose (Aklavik Community Report, 2005).

According to the ACESDP survey conducted in summer 2009, 96% of the sample population believes that traditional activities help to preserve their culture. Moreover, 86% of them believe that traditional activities promote community development. Finally, 96% of them think that traditional activities can help develop good self-esteem in the people (see Appendix-A, Table-4). On the other hand, preserving those cultural aspects could be a potential cultural tourism business as well. 92% of them think it is important to share my culture with tourists (see Appendix-A, Table-4).

## **6.10 Education & Training**

Aklavik has one school – “Moose Kerr School” which is from kindergarten to grade-12. The school staff is 17 and the number of students enrolled is 135. The school year is from September to June. The school staff consists of principal, support staff, three senior high teachers and nine teachers for K-9. This school was built in 1969 and named after Arnold J Kerr, a former Principal in Aklavik during the 1960s. Support staff services such as education assistants, librarian, counsellor, secretary and custodians are provided by local community members. Local governmental agencies such as RCMP, Mental Wellness, Fire Department, Recreation, etc. partner with the school to assist with the delivery of various programs. (Beaufort Delta Education Council, 2009).

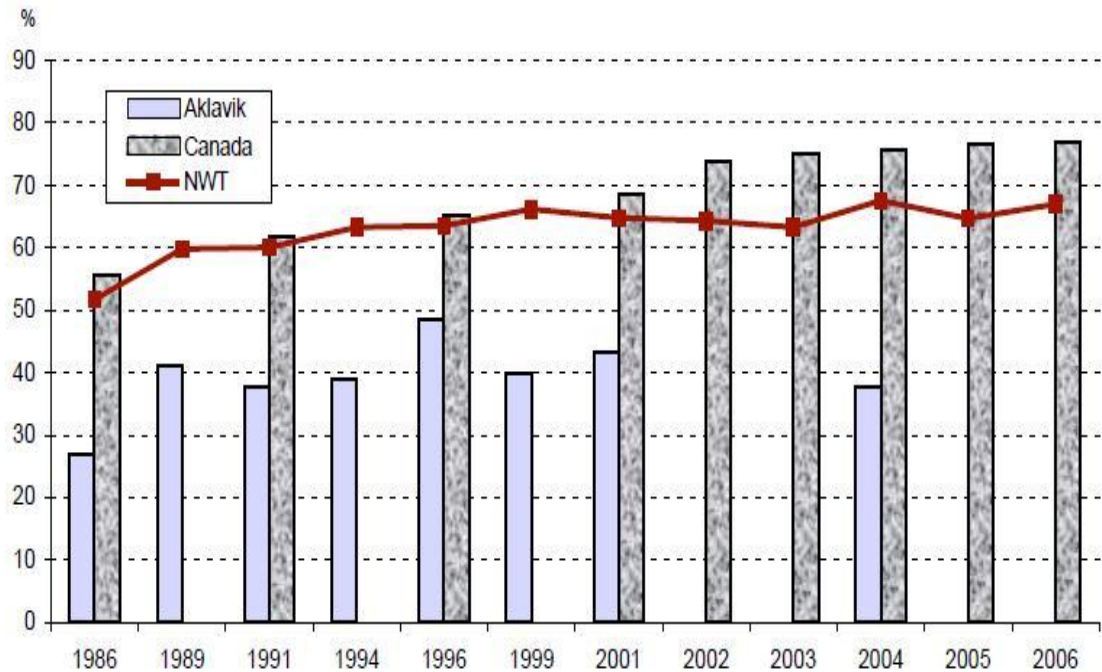
Moose Kerr Schools has a home economics room, an online room, a general computer lab, a shop, a science lab, and a gymnasium. The gymnasium is used by community organizations for recreational activities. The school was renovated in 1997 with the

addition of a senior high wing and a library that reflects the local cultures. The Aklavik Community Report (2005) mentions that, as per 2004 statistics, there is under-utilization of resources since the school capacity was 332 while the enrolment was only 144, indicating only a 43 % utilization.

Aklavik also has a Community Learning Centre operated by Aurora College which offers upgrading and trades skills as well as linkages to its campus in Inuvik that offers certificate and diploma programs and courses. It is reported that in the years preceding 2005, the college offered courses for training people who were interested in industrial jobs, especially in the then booming petroleum industry. In this context, Aurora College teamed up in the past with GNWT Resources, Wildlife and Economic Development offices “to offer various oil and gas exploration and drilling courses to provide training for jobs in the oil industry” (Aklavik Community Report, 2005).

Figure 6.10.1 below compares the percentage of population 15 Years and Older with at Least High School Education level, in Aklavik, NWT and Canada, from 1986 to 2006:

**Figure 6.10.1** Percentage of Population 15 Years and Older with at Least High School: Aklavik, NWT and Canada, 1986-2006



Note: Canadian data is not available for 1989, 1994, 1999 and 2004, and Aklavik's data is not available for 2002, 2003, 2005 and 2006.

Source: 2007 NWT Social Indicators – Aklavik (2009)

Clearly, the numbers are much lower than those of the rest of Canada or even NWT. The exact numbers for Aklavik and NWT are given below in Table 6.10.1 :

**Table 6.10.1 Percentage of Aklavik Residents with High School Diploma or more**

Year	Aklavik (%)	NWT (%)
1986	27.0	51.6
1989	41.1	59.8
1991	37.8	59.9
1994	38.9	63.2
1996	48.4	63.5
1999	39.7	66.1



2001	43.3	64.8
2004	37.6	67.5
2006	38.6	67.0

Source: Aklavik Statistical Profile, 2009

Thus, roughly 40 % of Aklavik's population (15 years or older) has had high school education or more. In the focus groups, ACESDP researchers heard from Aklavik people that education and training were very important to the people of Aklavik.

### **6.11 Internet and Communications**

Aklavik residents have access through local communications infrastructure to: microwave internet, basic CBC TV, satellite TV, CBC Radio, CKLB Radio, and CHON FM Radio. The community has news paper coverage through News/North and the Inuvik Drum. The mail delivery is five times per week (Aklavik Community Report, 2005). The Hamlet of Aklavik's internet and communications systems continue to be improved. During the period of the ACESDP research, NorthwTel, a communications firm operating in the NWT was starting to test and offer DSL internet services.

### **6.12 Community Health & Recreation**

Aklavik has a nursing station and the local councils and school are also involved in health awareness prevention programs. People in several indigenous communities such as Aklavik have realized the importance of interaction of physical, emotional, and mental well-being. Some of them see the spiritual part as essential too. Some have formed healing circles to deal with the different forms of family issues and other abuses including the residential school emotional impacts (Aklavik Community Report, 2005).

Currently, the most serious addiction in the Northwest Territories is alcohol, which is the most frequent source of wellness problems. According to coroner's report, 40% of health costs relate to addictions or mental health problems (Penney, 2003). The ACESDP survey showed that alcohol and drug abuse are among the main concerns raised by most of the surveyed interviewees in Aklavik. The second biggest concern across the entire community was alcoholism problem in the community. From around 50 interviews and surveys conducted, 111 times this issue has been mentioned. Moreover, Drug abuse problem has been mentioned 75 times (see Appendix-A, Figure-5).

With respect to recreation, the community has one swimming pool, one gymnasium, one curling rink, a baseball diamond, and one arena. The community has a very active community recreation program that combines traditional and modern activities to keep youth and elders busy in recreational activities. Other volunteers are also busy with canoeing, teaching traditional drumming and dancing, rifle shooting and similar activities.

### **6.13 Aklavik Community Corporation, Aklavik Indian Band and Hamlet of Aklavik**

Inuvialuit beneficiaries are represented by the Aklavik Community Corporation, which is the local government for the Inuvialuit of Aklavik. It is similar to the other Inuvialuit communities in the ISR. For business purposes each Community Corporation owns a Development Corporation (IBD, 2009).

Gwich'in people are represented by the Aklavik Indian Band (AIB) which is composed of Gwich'in members. The AIB is composed of an elected Chief and Council. It administers programs and services for its members. The Ehdiitat Gwich'in Council is a Designated Gwich'in Organization under the Gwich'in Comprehensive Land Claim Agreement. It has been created to administer the appropriate GCLCA sections on behalf of Gwich'in members.

All citizens of Aklavik are represented by the Hamlet of Aklavik which is responsible for administering and managing programs, services and community development under the authority of GNWT legislation.

All councils work together on projects of mutual concern to accommodate the needs of the Aklavik people.

#### **6.14 Global warming effects on Aklavik**

Scientific evidence supports a trend of global warming and reveals that it is a very real problem for many ecosystems, including the Canadian Arctic and sub-Arctic. Northern communities are witnessing their local environments change before their eyes, and often not for the better. Their way of life and their livelihoods are threatened but the hardy and resilient people of Canada's northern communities will continue to adapt to this onslaught of change (Northern Research Portal, 2009). Section 10.5 discusses the related issues in detail.

### **7. ACESDP Summary of Priority Options Identified**

During the surveys conducted for this report respondents provided many ideas that they felt would contribute to economic development in Aklavik. During focus group sessions involving meetings with local leaders and business people many ideas were also raised but the main economic development ideas that were raised and which were confirmed in the October 1, 2009 ACESDP Steering Committee meeting were:

- 1) Road to the Mountains
- 2) Saw Mill
- 3) Healing Center
- 4) Fur Garment Manufacturing
- 5) Aklavik Beautification

- 6) Tourism Development
- 7) Housing
- 8) Traditional Economy and Cultural Support Programs

Note: these economic development ideas are not in priority sequence and they are very broad but provide a start on working towards a more descriptive, coordinated and communicated community approach to addressing economic development initiatives in Aklavik.

### **7.1 Community Economic Development (CED) – Research Findings**

During the course of this research project it was difficult to find a comprehensive community economic development plan for the community of Aklavik. Instead, the researchers found reports and studies that were based on 1-dimensional approaches with specific themes such as tourism, community infrastructure, conservation or similar singular themes. These reports and studies are important but community economic development (CED) trends are taking a broader approach and using a holistic method to engage CED. The Canadian Centre for Community Renewal states, “...the 1-dimensional approach is essentially outdated in a time when towns and neighbourhoods find their way of life literally disintegrating around them. In this day and age, we can and must undertake something much bigger and more powerful: community economic development” (Canadian Centre for Community Renewal website, 2009).

The Canadian Centre for Community Renewal (CCCR) website (2009) also provides the following description of community economic development and provides what characterizes effective CED:

“CED is the process by which local people build organizations and partnerships that interconnect profitable business with other interests and values - for example, skills and education, health, housing, and the environment. In CED a lot more people get involved,

describing how the community should change. A lot more organizations look for ways to make their actions and investments reinforce the wishes and intentions of the whole community. Business becomes a means to accumulate wealth and to make the local way of life more creative, inclusive, and sustainable - now and 20 or 30 years from now.”

At its most effective, CED is characterized by

- a multi-functional, comprehensive strategy of on-going activities, in contrast to individual economic development projects or other isolated attempts at community betterment.
- an integration or merging of economic and social goals to bring about more far-reaching community revitalization.
- a base of operating principles that enable a broad range of residents to assume responsibility in the governance of development organizations and in the community as a whole.
- a process guided by strategic planning and analysis, in contrast to opportunistic and unsystematic tactics.
- a businesslike financial management approach that builds both ownership of assets and a diverse range of financial and other partners and supporters.
- an organizational format that is nonprofit, independent, and non-governmental, even though for-profit or governmental entities are closely linked to its work.

Source: CCCR, website, 2009

Although a holistic approach to CED is a practical desire, the reality is that economic projects and businesses usually operate as standalone activities with their own specific profit motivated objectives. However, the important factor for communities is that they have a collective vision or community economic development plan that guides them in identifying and creating economic opportunities for their citizens. Economic sustainable development plans are not meant to be static but to be dynamic and open to adjustments that facilitate changes as needed which work towards the evolving needs and goals of the community. The important factor is that a plan identifies realistic goals and outlines the implementation process required to achieve the goals. Feasibility studies and business plans will assist in decision making and managing projects.

Measurement tools are also created to measure the success of the economic initiatives and to plan and adjust accordingly to ensure success of the projects. Finally, in order to succeed the plan must be owned and managed by the community.

The Aklavik Community Economic Sustainable Development Plan has been developed with input from the community members and community leadership. After researching and obtaining the economic ideas of the people the following main economic ideas are presented as parts of the whole that can assist Aklavik with community economic sustainable development. Each idea will require significant work if the community decides to engage a specific project related to the idea.

### **7.1.1 Road to the Mountains**

Aklavik people and leadership are committed to developing a road to the mountains. When consulting with the Hamlet of Aklavik and other leaders, it was noted that a collective community process, led by the Hamlet of Aklavik, has been ongoing with membership from all three community councils involved. The research team was instructed to take note of this initiative but not to delve into it as it was proceeding as planned. Therefore, it is recognized that a road to the Aklavik Mountains is a priority for Aklavik and that the process of working towards its achievement is underway.

### **7.1.2 Saw Mill**

Aklavik residents have experience working with saw mills. In the 1950s a commercial saw mill was operating successfully in Aklavik. The Aklavik Indian Band purchased a Wood-Mizer portable sawmill. They have initiated programs to train local people to operate the Wood-Mizer. The Wood-Mizer is stored away at Knute Lang's camp.

An Aklavik sawmill can provide the following products:

- 1) Value added wood products such as: rough lumber and blocking
- 2) Wood chips, wood pellets, or firewood
- 3) Log Home Buildings
- 4) Log or rough timber warehouses
- 5) Wood furniture or secondary wood products

### **7.1.3 Healing Center**

Aklavik used to have a small Alcohol and Drug Center that was funded by the Department of Social Services, GNWT and operated by local people. The facility shut down after funding was redirected to other priorities and people that required healing were sent to Hay River or the south for recovery healing programs.

A Healing Center in Aklavik could be designed by the people, use local resources for construction and use the latest energy efficiency technology. Programming could be purchased from established resources and/or developed by the community. Local people could work at the center and provide continuous community support to people in recovery.

A major issue with facilities like Healing Centers is the high cost of staffing, operating and maintaining such a facility. One potential source of funding for such a facility is the potential Mackenzie Valley Pipeline Impact Fund but this is not a guarantee. To advance the idea of creating a healing center in Aklavik will require innovative thinking and a strategic approach.

### **7.1.4 Fur Garment Manufacturing**

Aklavik used to have an Aklavik Fur Garment Shop or Aklavik Fur Shop as it was known. The factory produced some of the finest muskrat fur parkas in Canada as well as other fur products. Local people were employed in design, sewing, blocking and other jobs at

the factory. Unfortunately, the factory was shuttered in the late 1970s. Many attempts have been made to revive this industry but minimal success has been achieved. This does not mean that Fur Garment manufacturing is not possible to engage as it is still done as a cottage industry in Aklavik. However, if any substantive effort is to be made at creating a Fur Garment Manufacturing facility, significant business due diligence such as feasibility study, business plan and marketing plan will be required.

#### **7.1.5 Aklavik Beautification**

Aklavik beautification can be a process that is ongoing and part of a community campaign that involves the whole community. A good start could be in the school by educating the youth on the importance of maintaining a clean community. The Hamlet of Aklavik already undertakes community clean-up projects and can continue to encourage local people to help keep Aklavik clean.

Past initiatives to clean up Aklavik such as the Aklavik Beautification Plan were also encouraging but these types of initiatives must be implemented to create an ongoing momentum for beautification. A beautification plan could also involve the idea of a sawmill as old dilapidated warehouses could be removed and replaced with locally made wood products such as log or rough lumber wood.

#### **7.1.6 Tourism Development**

Aklavik has good potential for tourism. Surveys from the ACESDP research confirmed that Aklavik residents overwhelmingly support tourism (see Appendix-A, Table-4). The survey and focus groups provided many ideas for tourism but people also said that Aklavik needed to be cleaned up and training programs in hospitality and tourism would assist in preparing local people to understand the importance of tourism.



In 1995 Aklavik commissioned two tourism reports produced by Stephen R., Conacher B. (1995). These reports entitled, "Aklavik Community Tours Enhancement: Business Plan: Tourism Strategy & Opportunity Identification Study for Aklavik, February 1995," and "Aklavik Tourism Strategy, February 1995," identified the overall picture of tourism in Aklavik in 1995 and identified some good tourism resources, activities and development opportunities. But in 2009 our research found that many of the ideas put forth in 1995 are still outstanding. This does not diminish these ideas, rather it confirms that local people feel these ideas are valid. Some of the ideas brought forth for tourism development during the ACESDP research include:

- 1) Promotion of the Mad Trapper
- 2) Town Tours by vehicle or walking tours (A town walking tour brochure exists)
- 3) Development of fish camps for near Aklavik that could cater to tourists
- 4) Cultural emersion tours where tourists get to spend time at events like the Shingle Point Games
- 5) Culture Camps
- 6) Dryfish making demonstrations
- 7) Opening up of the Aklavik museum on a regular basis
- 8) Naturalist tours to the mountains, ocean and through the delta
- 9) Air tours to the mountains
- 10) Hiking to the mountains
- 11) Sports fishing
- 12) Sports hunting
- 13) Boat Tours from Inuvik to Aklavik
- 14) Boat Tours from Aklavik to the North Slope, Yukon
- 15) Boat Tours from Aklavik to Alaska, USA
- 16) Helicopter Tours
- 17) Development of local parks and facilities
- 18) Winter Road Tours
- 19) Dog Sled Tours
- 20) Elders Hostel
- 21) Youth exchanges
- 22) Arts and crafts manufacturing
- 23) Online promotion of Aklavik and its tourism products and services

These are in no way the only tourism ideas but they point out the need to engage a comprehensive strategy for tourism that identifies priorities, integrates with the community's overall planning efforts and has an implementation plan that is monitored on a regular basis.

### **7.1.7 Housing**

Aklavik has a mix of private home ownership and public housing. Most homes are stick built but there are some traditional log homes in Aklavik. This research project revealed that housing was a concern for Aklavik as 94% of respondents out of 50 surveys conducted felt strongly that "housing needs to be improved" (see Appendix-A, Table-4). When asked the statement, "The economic rent scales used in our community are working well," surveyed participants response was: 72% negatively, 16% neutral, and, 10% positive.

The Aklavik Housing Association administers public housing rental units and works with the Northwest Territories Housing Corporation to deliver four programs:

- 1) Providing Assistance for Territorial Homeownership;
- 2) Contributing Assistance for Repairs and Enhancement;
- 3) Homeownership Entry Level Program; and,
- 4) Solutions to Educate People.

"Housing Choices is the new program structure offered to residents of the Northwest Territories. The new simplified structure of four programs offers flexibility delivery options, is more accessible to NWT residents and continues to meet the needs of special interest groups. The structure uses education and counselling to help residents not only to become more independent but also to assist them in becoming successful homeowners" (Northwest Territories Housing Corporation website, 2009).

Thus, the NWT Housing Corporation is actively promoting home ownership as well as good home management by tenants living in public housing.

In focus groups people spoke of the possibility of Aklavik people building log homes. They mentioned that a local sawmill could provide rough lumber to assist in home building. Home construction, renovation and maintenance is an activity that is ongoing and can contribute to sustainable economic activities in Aklavik.

### **7.1.8 Traditional Economy and Cultural Support Programs**

The traditional economy and cultural support programs have been important in Aklavik history and will continue to be a very important contributor to economic sustainable development in Aklavik. The ACESDP research field work confirmed that people of Aklavik hold a strong belief that traditional activities help to develop good self-esteem in their people, promotes community development and preserves the culture (see Appendix-A, Table-4). The value of traditional activities and cultural programs to the community is difficult to measure but these activities are integral to the identity of the people and their community; therefore, these activities will play a significant role in the long term economic sustainable development activities of Aklavik. The GNWT acknowledges the importance of the traditional economy by stating, "It [traditional economy] remains today, even with significant activity occurring in other economic sectors, a significant contributor to the economic wellbeing of most if not all communities in the NWT" (Northwest Territories Industry, Tourism and Investment, 2009).

### **7.1.9 Research Findings**

The hypothesis for this research project was, "Community economic sustainable development planning, involving community members, to develop a community economic sustainable development plan, can help to improve a community's work

towards the achievement of economic self-reliance." Clearly this hypothesis will require follow up to determine if the ACESDP has assisted in improving economic self-reliance. However, our research set that stage for this by seeking out what community people felt were important aspects for community economic sustainable development. Below are answers to the three main questions posed to address the hypothesis followed by a draft ACESDP in Section 8.1 which outlines the main community ideas to assist in advancing community economic sustainable development in Aklavik:

*1) What do Aklavik residents perceive their community's sustainable economic development to be?*

The research found that Aklavik residents had various ideas on community economic sustainable development which included modern and traditional economic activities/ideas as well as social development activities/ideas. The people also expressed that these activities/ideas should come from the community, involve their people, and use their resources responsibly to achieve economic sustainable development. Aklavik people perceived economic sustainable development to be a combination of protecting, preserving and promoting their traditional lifestyle along with obtaining employment and benefits from engaging in responsible development of non-renewable resources. The draft ACESDP in Section 8.1, below, reinforces the perception of Aklavik residents as a balance between traditional and modern activities as well as their social needs.

*2) What factors or changes, in their opinion, can lead to this sustainable economic development?*

The people's opinions varied but they feel that having a vision or strategy that identifies their socio-economic development needs so that they can work towards achieving the identified goals is important. Focus groups and leaders also felt that cooperation, working together, investment in healing, investing in their human and renewable resources, investing in their traditional culture, communication and united leadership

were all important factors/changes that would assist in advancing economic sustainable development.

*3) What priorities do they want to establish for their community's economic sustainable development plan?*

This research found that the main priority was creating jobs followed by concerns about social issues such as alcoholism and investing in their traditional activities are very important to sustain the community. See Figure 5, Appendix A for an overview of the priorities that were heard from the people during the survey interviews. Section 8.1, below, also provides a list of socio-economic development project priorities that the community feels will assist them in achieving success in economic sustainable development.

## **7.2 Gap between HR Demand and Availability**

During the research it was observed that the community councils have limited resources and have challenges in retaining or hiring qualified people to fill key jobs within the community. Thus, qualified human resources from within the community is a gap in some situations. An example is that key positions like the Community Economic Development Officer or a Housing Manager are difficult to staff locally when a manager retires or moves on. Other gaps include having skilled managers to engage in community economic development initiatives. Most skilled people are already employed or have their own businesses so new initiatives may place a strain on current management human resources if sufficient due diligence and investment in these positions is not made to ensure success of any project that is put forth to engage.

## **8. Recommendations**

The recommendations based on ACESDP research are presented in section 8.1 below, in the form of “ACESDP Preliminary Plan with Recommendations and SWOT Analysis”.

Since this section has its own sub-sections numbered 1.0 to 9.0, with many further sub-sections, the pages are shaded grey to avoid confusion with the sections of this ACESDP report. Thus, all following pages, which are shaded grey, constitute section 8.1 of ACESDP report. (The numbered sub-sections in these grey pages should not be considered to be part of the section numbering format of ACESDP report.)

### **8.1 ACESDP Preliminary Plan with Recommendations and SWOT Analysis**

#### ***Aklavik Community Economic Sustainable Development Plan***

*Draft October 30, 2009*

#### ***Aklavik’s Community Motto is, “Never Say Die.”***

*The Hamlet of Aklavik will continue to be an excellent modern community where traditional activities are respected, sustainable development is respected and in which people are welcome to visit, live, work, and conduct business.*

#### ***Hamlet of Aklavik Mission Statement:***

*“The Hamlet of Aklavik promotes and supports the local cultures within its community and endeavours to ensure a safe and healthy environment by providing all the residents of Aklavik with adequate programs and services for generations to come.”*

#### ***Hamlet of Aklavik Vision Statement:***

*“The Hamlet of Aklavik envisions that it will be appropriately staffed and resourced to provide adequate and safe programs and services that consistently meet the satisfaction of its residents.”*

### ***Economic Development Vision Statement***

*Aklavik is a traditional community with modern amenities and a spirit of innovation which will help Aklavik to continue to engage opportunities for traditional and modern economic growth, employment, tourism activities, and excellent residential living options for residents and visitors to enjoy.*

### ***Broad Objectives***

- *Improve Education and Awareness of Community Economic Development*
- *Improve the Economic Sustainable Development Capacity of Aklavik*
- *Promote Conservation, Environmental Protection and Traditional Activities*
- *Create ongoing Economic Planning and Business Development*
- *Enhance Community Beautification and Community Infrastructure*
- *Improve Tourism Opportunities for local businesses and visitors to Aklavik*
- *Attract and Retain Business Entrepreneurs and Investments*
- *Value and Retain People by focusing on Training, Retention & Attraction*
- *Retain Current Residents and Attract New Residents to Aklavik*
- *Create meaningful Economic Sustainable Development Employment Opportunities*
- *Be a leading Arctic Community that promotes diversified Sustainable Economic Development*

### ***1.0 Introduction & Terms***

The community of Aklavik’s Aklavik Community Economic Sustainable Development Plan (ACESDP) sets out the community’s Mission Statement and identifies development ideas

and strategies to implement the community's priorities over a five year planning period (2010-2015). The ACESDP is a companion piece to compliment the Hamlet of Aklavik Strategic Plan 2007-2012 and other community plans which identify development, conservation and community sustainable development initiatives but its focus is on sustainable economic development ideas and potential projects.

International Institute of Sustainable Development (2009) on their website states that *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*

- *the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."*

Community Economic Development (CED) is defined as *"the process by which local people build organizations and partnerships that interconnect profitable business with other interests and values - for example, skills and education, health, housing, and the environment. In CED a lot more people get involved, describing how the community should change. A lot more organizations look for ways to make their actions and investments reinforce the wishes and intentions of the whole community. Business becomes a means to accumulate wealth and to make the local way of life more creative, inclusive, and sustainable - now and 20 or 30 years from now"* (Canadian Centre for Community Renewal, 2009).

## **2.0 Development**

In 2009 the Hamlet of Aklavik, Aklavik Indian Band and Aklavik Community Corporation each appointed one youth, one adult and one elder to the Aklavik Steering Committee



with the specific objective of creating an Aklavik Community Economic Sustainable Development Plan (ACESDP). The goal of this committee was to provide direction towards the production of an ACESDP. This plan was drafted by MBA Graduate students with input the Aklavik Steering Committee, local residents and leaders. After consultations with the community and a review of historical economic sustainable initiatives that were carried out in Aklavik in the past, a list of priorities was approved by the Aklavik Steering Committee to begin the process of coordinating community economic sustainable development involving all community councils and residents of Aklavik. The list of ideas and potential projects is by no means complete but it does provide a start to advancing a communicated, coordinated and cooperative community approach to community economic development in Aklavik.

The ACESDP was formally adopted by all Aklavik councils on \_\_\_\_\_.

### ***3.0 Monitoring and Evaluation***

Aklavik Community Councils will monitor this plan on a regular basis to ensure that it is consistent with cooperative goals designed to achieve community economic sustainable development. The work plan is intended to detail actions to be taken and to evaluate progress on economic development initiatives engaged by the community.

### ***4.0 Review, Update and Renewal***

The plan will be updated annually, with updates drafted by staff in Aklavik responsible for Economic Development and presented publicly to each community council for their reference, update and renewal.

## **5.0 Goals**

The goals of this plan are as follows:

- Provide a vision, objectives and strategies to guide economic sustainable development;
- Provide for a united community effort where leadership is supportive and involved in collective community sustainable economic development initiatives;
- Provide an environment for focusing, reviewing and measuring of our community economic sustainable development efforts;
- Facilitate community and stakeholder involvement by sharing and communicating the objectives and strategies;
- Ensure that strategies and objectives are realistic, planned, owned by the community, focused, managed and measurable;
- Ensure that appropriate partnerships with governments, industry and philanthropic organizations is established and maintained.

## **6.0 Community Economic Sustainable Development Vision Statement**

*Aklavik is a traditional community with modern amenities and a spirit of innovation which will help Aklavik to continue to engage opportunities for traditional and modern economic growth, employment, tourism activities, and excellent residential living options for residents and visitors to enjoy.*

## **7.0 Main Economic Development Ideas brought forward by Community of Aklavik (not in ranked order)**

1. All-Weather Road to Aklavik Mountains
2. Sawmill

3. Healing Center
4. Fur Garment Manufacturing
5. Aklavik Beautification
6. Tourism Development
7. Housing
8. Traditional Economy & Cultural Support Programs

### ***8.0 Economic Development Ideas/Strategies SWOT Analysis***

It is recognized eight specific economic development ideas may be ambitious for the period of this plan but with leadership, good planning, coordination and commitment from partners, these objectives can be advanced incrementally and integrated with larger community planning initiatives to focus on holistic long-term achievements.

As a result, the specific economic development ideas have been identified for focusing/exploring over the next one to two years what can be achievable. However, it is acknowledged that not all of the strategies can or will be completed in this time frame. The main focus must be on planning, communicating, leadership, partnerships and community ownership to effectively implement the ideas.

### ***8.1 All-Weather Road to the Aklavik Mountains***

8.1.1 All Aklavik councils are engaged in a collective effort to address this issue

8.1.2 A Willow River Gravel Source Access Road Planning Study has been conducted

8.1.3 Aklavik councils will continue a collective partnership to advance this economic idea

Time Schedule: Ongoing but a strategic investment of resources must be made soon to start construction of the project.

The study commissioned by the Northwest Territories Department of Transportation, entitled *Willow River Gravel Source Access Road Planning Study*, Hamlet of Aklavik, NT was completed by Nehtruh-EBA, June, 2009. No SWOT Analysis is required for this ACESDP as all required planning actions are being engaged by the current process being conducted to address this initiative.

## **8.2 Sawmill**

### **Implementation Requirements:**

8.2.1 Complete a feasibility study

8.2.2 Complete a business plan

8.2.3 Create community ownership and implement the project

**Time Schedule:** Immediately engage feasibility study to determine feasibility of idea. After completion of feasibility study that demonstrates the idea is feasible, engage business plan. Start-up of operations can begin as early as April, 2010 if all Aklavik councils support this initiative and if governments act fast to provide financial and human resource support to this project.

**Responsibility:** TBD

### **Strengths:**

- Aklavik has experience in sawmill operations;

- Aklavik has trained sawmill workers;
- Aklavik Indian Band has access to a portable Wood-Mizer sawmill;
- Land is available in Aklavik for a site for the sawmill;
- Aklavik has access to timber supply from up-river jurisdictions;
- Job and Employment training programs fit this community project neatly;
- Partnership support from national organization with 40 years of sawmill experience.

**Weaknesses:**

- Management for sawmill operations does not exist;
- Potential for political interference;
- High cost of operations in north;
- Transportation of products have to be timed with barges, and winter road schedules.

**Opportunities:**

- Supply rough lumber to local, regional, territorial and Alaska North Slope markets;
- Sawmill can hook up with larger southern suppliers/producers to provide large volume supplies to large industrial projects;
- Modern Log home construction can increase;
- New warehouses can be built to replace old dilapidated warehouses;
- New products: furniture, cutting boards, tourism products manufactured in north;
- Fire wood chips, pellets, cord wood can be a by-product of sawmill or side product;

**Threats:**

- Political interference & cumbersome regulatory process;
- Lack of government support;

- Lack of community ownership.

### **8.3 Healing Center**

#### **Implementation Requirements:**

8.3.1 Complete a feasibility study

8.3.2 Complete a business plan

8.3.3 Create community ownership and implement the project

**Time Schedule:** 2010 Complete Feasibility Study; 2011 Complete Business Plan; 2012 Begin Project construction and implementation.

**Responsibility: TBD**

#### **Strengths:**

- Fits with needs of community;
- Fits with truth and reconciliation process;
- Meets MGP Impact Fund Criteria;
- Can assist in improving socio-economic health of community;
- Can use local resources and on-land programs;
- Can provide jobs to local people;
- Can be community owned and operated;
- Can provide stimulus to local businesses;
- Can provide training;
- Can keep people in community for healing rather than exporting them;

#### **Weaknesses:**

- Difficult to convince governments that local solutions and local control is healthy for a community;

- Lack of resources despite a real need;
- Political infighting could railroad the idea quickly;
- Lack of united leadership can derail initiative;

**Opportunities:**

- Assists in restoring healthy lifestyle to residents who suffered through systemic discriminatory treatment or assimilation and residential school experiences;
- Develop local counselors, healing practitioners;
- Create local employment opportunities;
- Be a leading community in advancing alternative healing using local resources;

**Threats:**

- Lack of government support;
- Lack of local leadership unity and support;
- Lack of resources;
- Lack of good planning and management.

***8.4 Fur Garment Manufacturing***

**Implementation Requirements:**

8.4.1 Complete a feasibility study

8.4.2 Complete a business plan

8.4.3 Create community ownership and implement the project

**Time Schedule:** 2010 Complete Feasibility Study; 2010 Complete Business Plan; 2010 Begin Project implementation.

**Responsibility:** TBD

**Strengths:**

- Local talented labour pool exists;
- Some fur machine equipment in Aklavik;
- Entrepreneurs willing to engage project;
- Aklavik has top quality furs;
- Aboriginal Brand is strong;
- Local market and circumpolar market to tap into;
- GNWT supports manufacturing and traditional economic activities.

**Weaknesses:**

- Facilities currently do not exist in Aklavik;
- Lack of Management experience in marketing fur products;

**Opportunities:**

- Fur products growing in Asian market;
- Luxury fur products still in vogue;
- Limited Supply of production of unique Gwich'in and Inuvialuit fur products can assist in overcoming demand issues with good partners, distributors, retailers;
- Canadian market receptive to fur products.

**Threats:**

- Anti-fur lobby continues to create negative image of fur products;
- Lack of feasibility plan
- Lack of business plan
- Patchwork approach to developing fur garment industry
- Lack of adequate government support

***8.5 Aklavik Beautification***

**Implementation Requirements:**

**8.5.1 Establish Sub-Committee responsible for Beautification**



### 8.5.2 Develop Beautification Plan

### 8.5.3 Implement Beautification Plan

(Note: this is consistent with the Hamlet of Aklavik Strategic Plan 2007-2012)

**Time Schedule:** 2007/2008 Planning; Implementation 2008 and ongoing

**Responsibility:** Hamlet of Aklavik

#### **Strengths:**

- An updated plan can assist in identifying low cost beautification activities;
- Community beautification can encourage pride in the community;
- Community beautification can increase tourism attractiveness;
- Small successes in beautification can lead to larger successes;
- Students can learn about beautification and practice it in the community;
- GNWT Departments such as MACA or ITI may wish to partner in beautification planning & implementation activities;

#### **Weaknesses:**

- Difficult to obtain funding;
- No dedicated resource writing proposals & seeking funding

#### **Opportunities:**

- Clean and beautiful communities are appreciated and get recognition;
- Community Beautification encourages community unity;
- A plan can identify potential resources to assist in beautification;
- Clean up of shoreline may be eligible for federal programs;
- Industry may be interested in supporting beautification programs;
- Partnerships can be created to improve overall beautification of Aklavik;
- Youth can become active part of beautification process;

- Reduce long-term costs of clean up for community;
- Awareness programs can be integrated into education programs;
- Can tie beautification initiatives to other community events/plans.

**Threats:**

- Political interference and lack of leadership;
- None enforcement of existing municipal littering by-laws;
- Garbage can create unsanitary and unhealthy situations;
- Image of community can be tarnished by litter and derelict buildings;
- Tourists or business visitors could be turned off from unsightly community

***8.6 Tourism Development***

**Implementation Requirements:**

8.6.1 Update Aklavik Tourism Strategy

8.6.2 Establish Tourism as key component of community planning

8.6.3 Create community ownership and implement tourism strategy

**Time Schedule:** 2010 Complete Tourism Strategy; 2010 Implement strategy.

**Responsibility: TBD**

**Strengths:**

- A Tourism Strategy can guide tourism development;
- Governments and industry support tourism;
- Tourism develops pride in community members;
- New tourism ideas and products can be explored;
- Tourism Strategy can support employment and businesses;

- Arts and Crafts cottage industries can be supported;
- Traditional economy linkages to tourism can be expanded.

**Weaknesses:**

- Lack of adequate resources;
- Tourism strategy developed without community ownership will likely fail;
- Tourism strategies require integration with other community planning initiatives to be successful, a stand alone strategy is not practical.

**Opportunities:**

- Develop a tourism strategy for all to understand and work from;
- Encourage arts and crafts manufacturing;
- Market products through Internet;
- Link marketing to current NWT Tourism Strategy;
- Develop underdeveloped tourism products;
- Train local guides and hospitality workers;
- Leverage partnerships & Increase community pride;
- Support traditional economy and cultural activities;
- Develop local assets like museum, parks, and historical sites

**Threats:**

- Lack of government support at early stages can prolong current situation;
- Politicizing tourism development rather than cooperating can delay progress;
- Lack of integration of other community initiatives can impede coordinated progress;
- Lack of communication may reduce community involvement;
- Lack of proper resources to develop a community made plan;
- Lack of an integrated and achievable plan or unrealistic expectations.

***8.7 Housing***

### **Implementation Requirements:**

8.7.1 Continue to work with home owners to encourage property improvements

8.7.2 Continue to encourage government to support home & property improvements

8.7.3 Continue to work with local housing association to provide local input into home ownership and rental issues

8.7.4 Continue to work with the Aklavik Hamlet to assist in municipal planning related to dwellings

8.7.5 Continue to support energy efficiency in homes

8.7.6 Continue to support local contractors and employment opportunities in home construction

**Time Schedule:** Ongoing.

**Responsibility:** Aklavik Housing Association and community councils

### **Strengths:**

- Helps to inform authorities responsible for housing of community needs and desires
- Promotes home ownership and self-sufficiency;
- Promotes energy efficiency
- Low cost support activities as most are cooperative and supportive in nature
- Assists in housing planning
- Supports housing needs of local people

### **Weaknesses:**

- Is an adhoc process relying on good will of community councils and organizations who are often overloaded with responsibilities and work

**Opportunities:**

- Leadership can encourage united community cooperation;
- Can address systemic housing issues or lobby for local solutions;
- Can explore housing needs with any local initiatives like a proposed sawmill to create synergies;
- Can assist in supporting local contractors in obtaining all housing contracts

**Threats:**

- Leadership unwilling to work together;
- Governments unwilling to listen to local housing ideas;

***8.8 Traditional Economy & Cultural Support Programs*****Implementation Requirements:**

8.8.1 Complete annual review and identification of all available traditional and cultural programs;

8.8.2 Complete a strategy to maximize comprehensive community draw down of government programs;

8.8.3 Create community partnerships to leverage larger projects for benefit of whole community;

8.8.4 Continue to enhance recreation/cultural/social community assets with traditional & cultural programs;

8.8.5 Continue to foster community unity, partnerships and leadership cooperative support;

8.8.6 Include traditional economy and cultural support programs in overall development of a comprehensive community plan.

**Time Schedule:** 2010 Complete Review; 2010 Monitor programs that can benefit from cooperative approach and leverage; 2011 Begin implementation.

**Responsibility:** Community Councils

**Strengths:**

- Supports coordinated approach;
- Community Councils Support Traditional Economic Activities;
- Strengthens Cultural identity and diversity;
- Creates tourism and employment opportunities.

**Weaknesses:**

- Potential lack of understanding by government bureaucrats;

**Opportunities:**

- Leverage resources for all cultural groups in community;
- Access programs than may not be currently used;
- Coordinate community activities to benefit whole community;
- Potential to find corporate sponsors;
- Access foundation funding opportunities;
- Provide youth and groups with touring opportunities.

**Threats:**

- Lack of any one leader to support initiative could jeopardize initiatives;
- Lack of consistent funding;

**9.0 Recommendations Summary**

It is recommended that an integrated and incremental approach be taken towards the implementation of the ideas presented in this plan. Some of the ideas are already well underway by either one Community Council or in the case of larger projects such as the road to the mountains all councils are working together. In these situations these projects are on their development path and will take their natural course but be part of a greater community economic development plan. Thus, a coordinated community economic sustainable development plan that is holistic and coordinated can achieve good synergies and create efficiencies leading to better achievement of the broader community objectives. For example, the items All-Weather Road to Aklavik Mountains, Housing and Traditional Economy and Cultural Support Programs are already being engaged through various processes. These are important community initiatives. The cooperative work to advance these initiatives is good. The other socio-economic ideas brought forward by the community members, listed below, require good formal planning and implementation strategies.

1. All-Weather Road to Aklavik Mountains
2. Housing
3. Traditional Economy & Cultural Support Programs
4. Aklavik Beautification
5. Tourism Development
6. Fur Garment Manufacturing
7. Sawmill
8. Healing Center

As each of these economic ideas begins to be engaged, they will fit into the bigger evolving picture of community economic sustainable development. By supporting local entrepreneurs and working with local development corporations and community councils to create an atmosphere that is supportive of community economic sustainable development, each of these identified opportunities can be engaged.

## 9. Literature Review

### 9.1 Background

This section reviews existing literature available as per the guidelines given in section 4.8. The objectives of this exercise are:

- a) Help the researchers to understand the unique needs of the people of Aklavik, and issues related to Aklavik's Economic Development; and how other researchers and studies have handled such issues (for Aklavik as well as other similar communities) or adapted their research methodology.
- b) To critically examine research methodologies available and select the most suitable methodology for ACESDP with supporting logic; and to develop the analytical framework needed for data analysis and interpretation.

Since the people inhabiting remote Arctic communities are deeply rooted in their culture, heritage and traditional means of living, the researchers found it important to also review existing literature (research studies, reports, books, etc.) that highlighted some of these concepts as per objective (a) listed above. This meant studying literature having anthropological and social links, besides those related to economic development, and also those that highlight Canadian government's role in the development of the North. The hypothesized logic was that understanding developed from such an exercise would facilitate the researchers in developing ACESDP that was most appropriate for the people of Aklavik and the community's advancement. This hypothesis was also supported by members of ACESDP steering committee. In the words of one of the members - "it is important to understand our culture and history, and our traditional economic practices, if researchers from outside our community are to create an Economic Development Plan that is for the people and accepted by the people."

The ACESDP researchers also discovered that there were few comprehensive community economic development plans or studies available on Aklavik. However



research had been done on various “individual” aspects of community planning which included specific economic issues, municipal issues, environmental conservation and sustainable development themes. Therefore, literature from many different resources has been considered and reviewed. Considering Aklavik’s unique setting and for the sake of relevance, care has been taken to focus only on those studies that were conducted on Aklavik or communities similar to Aklavik.

The ACESDP study’s overall goal was to research and compile the requirements for the production of an Aklavik Community Economic Sustainable Development Plan (ACESDP) for the community of Aklavik, NWT. The main emphasis of the research, using a grounded theory approach, was to explore the community’s economic sustainable development ideas by actively involving community members in the process of producing their own community economic sustainable development plan, and allowing theory and themes to emerge as data was collected and analyzed. In principle, the community will know best what its needs and wishes are related to economic sustainable development, hence their input was important. The underlying hypothesis was - *Community economic sustainable development planning, involving community members, to develop a community economic sustainable development plan, can help to improve a community's work towards the achievement of economic self-reliance.*

## **9.2 Literature Review for Establishing ACESDP Context**

The following literature review provides an overview of some of the important community economic development related research done on Aklavik and other Aboriginal communities which assisted in understanding the complex and holistic approaches taken towards community economic development.

Aklavik and its surrounding area has been the traditional territory of both the Inuvialuit and Gwich’in since time immemorial. The descendents of Aklavik lived off the land and waters in a society based on traditional subsistence hunting, fishing and gathering. The

founding of Aklavik as a community started in 1910 when Pokiak, an Inuvialuit trader, set up a camp in the area (Hill, R. 2008). In 1912 the Hudson's Bay Company Trading Post was established at Pokiak Point (Alunik, Kolausok and Morrison, 2003; and Black, 1975). The Inuvialuit already had experience in trade prior to this period as they provided local fish and game to American Whalers during the late 1800s in exchange for trade goods. They also traded for furs at Peels River Post in Fort McPherson in the late 1800s. Similarly, the Gwich'in were engaged in the fur trade and assisting in guiding services for explorers engaged in the Klondike Gold Rush during the late 1800s.

The establishment of the HBC Post in Aklavik coincided with the end of the Bow Head Whaling industry at Herschel Island. With Herschel Island's main economic activity (Whaling industry) gone, people began to engage fur trapping on a more regular basis (Berger, T.R., 1988). With the Mackenzie Delta and Aklavik area rich in muskrat and other furs, the establishment of a community based on the fur industry complimentary with the traditional economy was a natural occurrence. According to Berger (1988, pp.83), "By the early 1920's, the prices of both muskrat and white fox had increased 20-fold over what they had been at the turn of the century. The Delta trappers, harvesting muskrats by the hundred thousands, attained unprecedented prosperity." This shift towards the fur trapping industry as a means of advancing their socio-economic situation was a natural move for the people as they were adaptable and enjoyed the modern amenities and trade goods they received through their participation in the fur industry.

As Aklavik grew primarily on an economic base supported by subsistence traditional economic activities with the fur industry as its core economic activity, local commerce, government and religious infrastructure also began to get established and provided some wage employment opportunities for local residents. Local people engaged in part-time employment by providing game, cord wood, hauling ice, loading and unloading steam boats and related community services but their primary occupation was hunting, fishing and trapping. Aklavik was growing with the natural flow of its time and no

community council was established during its early years but administrative and local control was exerted by the R.C.M.P., religious authorities and a few government administrators. During this time, the Canadian Government's policy was based on non-interference in the lives of the aboriginal peoples as historian William Morrison states, "The federal government based its policy with respect to the Indians and, even more, the Inuit of the Yukon and Northwest Territories on the position that the less their indigenous way of life was interfered with, the better it will be" (Morrison, 1998, pp.158).

It was during the 1940s and 1950s that government practices and policies began to have more of an impact Aklavik residents. The federal government began to take more interest in the North, especially after World War II. In 1944, the first federal government social program, called the Family Allowance or "baby bonus," became available to mothers for each child they had under the age of 16 (Alunik, Kolausok and Morrison, 2003). The federal government also took over control of education from the missionaries by establishing a federal day school in Aklavik in 1951. These moves were consistent with Prime Minister Louis St. Laurent's major policy change towards more direct intervention in the north. St. Laurent stated in the House of Commons on December 8, 1953 that, "Canada has governed the NWT in an almost complete state of absent-mindedness for ninety years," and expressed his government's view of the north with regard to federal policy shift as "the center of gravity is being moved north (Hamilton, J.D. 1994, pp.57). The USA and Canadian military also entered the North in the mid-1950s in a major way to establish the Distant Early Warning Line in response to the threat of Russian aircraft bombers. This introduced new technology and employment opportunities to the people of the Mackenzie Delta region (Zellen, 2008). The north was gaining more government attention due to its natural resource potential, strategic military location, and a growing federal desire to provide services to communities in the north as one means of exerting sovereignty over the vast northern lands.

It was during the planning and creation of Inuvik from 1953 to 1958 that significant development research began on communities in the Beaufort-Delta region. According to Hill (2008, pp.30) one of the principles for the New Aklavik site (Inuvik) was, “the new site would be planned as a modern community with appropriate zoning,” and one criterion was, “suitability for economic and social aspects.” With a major emphasis being placed on the creation of Inuvik, Aklavik seemed to be slated for abandonment but many local people did not relocate to Inuvik. Instead, they preferred to live in their community to enjoy the traditional subsistence activities and the few employment opportunities offered by government or through the small private sector that was primarily dependent on government contracts. “The construction of Inuvik had had profound effects on Aklavik both socially and economically, and the future function of the settlement of Aklavik was very uncertain as this period came to a close in 1961”, (Black, 1975, pp.85). Black’s study employed structured interviews conducted in the community along with secondary data collection to obtain both local viewpoints and historical and statistical data.

The creation of Inuvik drew attention to social adjustment concerns facing people in the Mackenzie Delta. The Northern Affairs department in Ottawa commissioned a Mackenzie Delta Research Project including twelve research projects which according to Hill (2008, pp.90) “...was an attempt to describe and analyze the social and economic factors related to development in the Mackenzie Delta, with particular emphasis on the participation of the native people in the area, and the extent to which they are making effective adjustments to the changes brought about by government and commercial expansion in the North.” These studies saw researchers travel to Inuvik to observe, interview and engage field research using observation, collection of primary and secondary data collection to inform their theories about what was occurring. Ervin (1968, pp.7) observed that natives were experiencing high living costs, overcrowding in housing and “since the Native people are unskilled for the most part, large numbers of transients have been introduced into the area to fill administration and skilled

construction jobs.” These research projects were consistent with the Government of Canada’s growing interest in community development.

In 1965 the Government of Canada approved the first proposal to establish a community development program for Aboriginal people of Canada but Aboriginal groups were neither involved nor consulted in the development of the proposal (Shewell, 2002). This new policy ushered in an approach towards involving Aboriginal people in government decision making which resulted in more meetings, hearings, consultations and other methods of ‘public input’ but there was a lack of local organizations to engage with to find out local views. To address this void the government stepped in. Committees such as school committees, housing committees and health committees sprang up across the Northwest Territories by the end of the 1960s under the mandate of a number of community development structures in government to ‘organize the local Indians’ (Assheton-Smith, 1987). Southern based non-governmental organizations such as the Company of Young Canadians, Indian-Eskimo Association and the Catholic and Anglican churches also started to engage community development initiatives (Caine, Salomons & Simmons, 2007).

Consultants also began to do work on northern communities in the 1960s to conduct research and create “development plans.” In June 1967 a study entitled “Aklavik, NWT: Planning Report & Development Plan” was conducted by Makale, Holloway & Associates Ltd., from Edmonton and Regina. That report concluded that Aklavik was an economically depressed area but that it had more material wealth (natural resources) than many other NWT communities and “should not be as dependent on the Government for its existence,” and that “Above all, the program of improvement for the community should be organized which will in itself provide an increased employment opportunity” (Makale, et-al, 1967, pp.54,55).

Improvement of the community through economic development also started to gain more national attention during the 1970s. The Honourable Jean Chrétien addressing the

House of Commons in March 1972 before introducing the *Statement of the Government of Canada on Northern Development in the 70s*, stated,

Fundamental to the Government's statement is our belief that native northerners should derive early, visible, and lasting benefits from economic development. Our efforts must not only be turned to developing the natural resources of the North for the benefit of Canada as a whole. The development of northern resources must first improve the standard of living and the well-being of northern residents. All too often the economic activity of the past was at their expense.

(Berger, T.R., 1988, pp.171)

The *Berger Inquiry* conducted by Justice Thomas Berger from 1974 and 1977 was by far the most comprehensive community consultation process engaged to obtain the views of the people of the Northwest Territories in the 1970s. It became known as The Mackenzie Valley Pipeline Inquiry and was commissioned by the Government of Canada on March 21, 1974 to investigate the social, environmental, and economic impact of a proposed gas pipeline that would run through the North Yukon and Mackenzie River Valley of the Northwest Territories. As part of his work, Berger examined the relationships between cultural, social and economic problems faced by the aboriginal people of the Northwest Territories. He pointed out that "...the fact is that large-scale projects based on non-renewable resources have rarely provided permanent employment for any significant number of native people" (Berger, T.R., 1988, pp.23). Berger concluded his inquiry by stating:

There should be no pipeline across the Northern Yukon. It would entail irreparable environmental losses of national and international importance. And a Mackenzie Valley

pipeline should be postponed for ten years. If it were built now, it would bring limited economic benefits, its social impact would be devastating, and it would frustrate the goals of native claims. Postponement will allow significant time for native claims to be settled, and for new programs and new institutions to be established. This does not mean that we must renounce our northern gas and oil. But it does mean that we must allow sufficient time for an orderly, not hasty, program of exploration to determine the full extent of our oil and gas reserves in the Mackenzie Delta and the Beaufort Sea.

(Berger, T.R., 1988, pp.28-29)

Since the Berger Inquiry was completed in 1977, both the Inuvialuit (1984) and Gwich'in (1992) have concluded their land and resource land claim settlement agreements with Canada. Both groups have established their administrative bodies, policies, procedures and vision. Wagner (1992, abstract) notes, "The Inuvialuit Game Council expresses the collective Inuvialuit interest in wildlife, renewable resources and the environment. Its counterpart is the Inuvialuit Regional Corporation that deals with the business aspects of the claim settlement; finance and investment, economic and social development. Both facets of the Inuvialuit side of the IFA are democratic entities, drawing on elected representatives from each of the six communities in the ISR." Similarly, the Gwich'in Tribal Council participates in co-management agencies that express the interests of Gwich'in in wildlife, renewable resources and the environment. The Gwich'in Development Corporation deals with the business aspects of the claim settlement; finance and investment, economic and social development. Both groups are also advocates of responsible resource development that protects the environment and allows their members to have meaningful benefits from such developments. The Inuvialuit support shifted from opposing the pipeline 30 years ago to supporting the

development of a Mackenzie Gas Pipeline as noted by Salokangas, R. (2005) in her community based research on three Inuvialuit communities. The Gwich'in leadership is also supportive of the pipeline with former Gwich'in Tribal Council President Fred Carmichael now heading the Aboriginal Pipeline Group. By settling Aboriginal land claims, both the Inuvialuit and Gwich'in have moved further along the road towards self-determination by actively engaging their inherent right to self-government through their increasing efforts of participation in decision making that affects their communities and larger traditional territories.

At the community level, with regard to Aklavik, this has meant that municipal governments such as the Hamlet of Aklavik are working with other Aboriginal local governments such as the Aklavik Indian Band and the Aklavik Community Corporation to achieve goals that will benefit their mutual community members. In 1995 the following three reports were prepared by Conacher, B. and Stephen R.: *Aklavik Outfitting and Expeditions Business Plan*; *Aklavik Community Tours Enhancement Business Plan*; and, *Aklavik Tourism Strategy*. Each report was developed by gathering information provided by Aklavik households, existing reports on economic development and natural resources in and around Aklavik and the Inuvik Region and from community and regional groups. The tourism strategy and opportunity identification studies were completed under the guidance of the Aklavik Aboriginal Committee (a committee that is no longer in existence). The vision of Aklavik's tourism industry was stated in the Aklavik Tourism Strategy as, "More tourists will come to Aklavik. Tourists will stay in our community for a few days and use the services and products offered by local tourism operators. Our community will be appealing to tourists because of our high quality, unique local infrastructure and visitor services. Aklavik's tourism industry will employ local residents and increase personal income. Our tourism industry will compliment other community economic initiatives and the lifestyles of Aklavik people." (Conacher, B., Stephen, R. 1995, pp.56). The report provided useful local information and identified good tourism ideas coming from the community residents. It also provided objectives which were



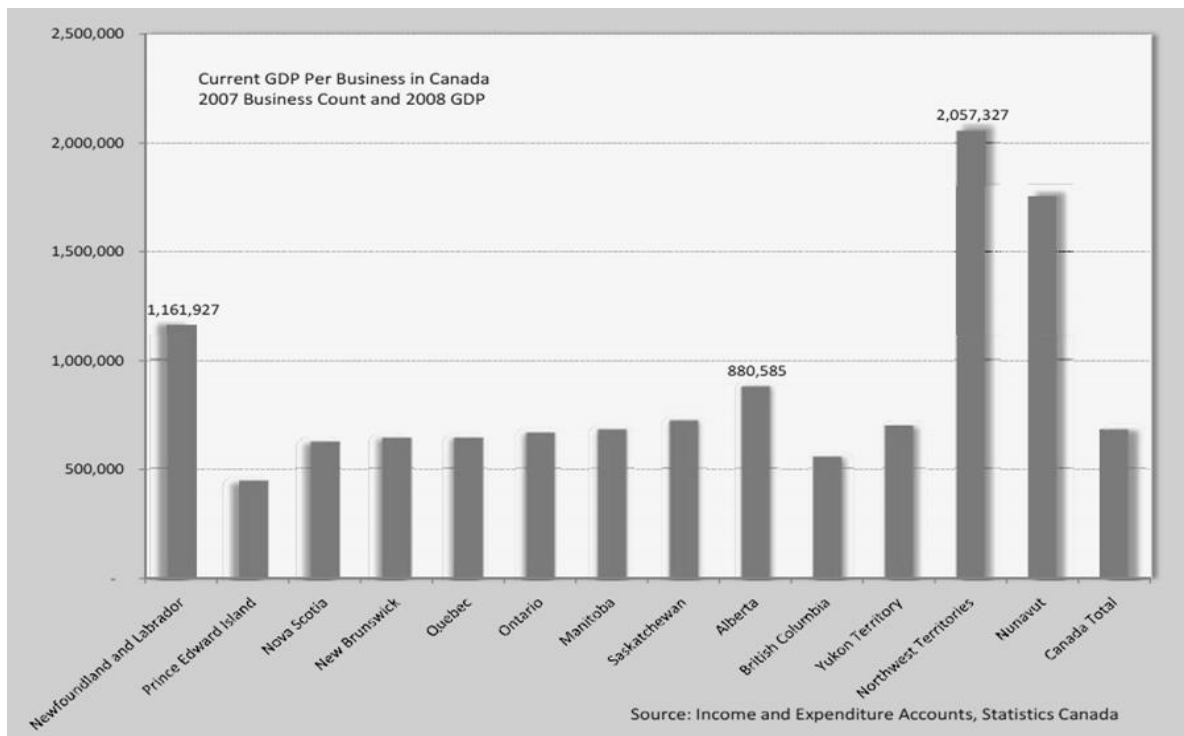
based on community leadership working together to engage a process of community ownership to implement the ideas.

In context to the larger NWT picture, generally the Northwest Territories, as a whole, has been undergoing large and rapid development recently because of the natural resources development. A recent report from Northwest Territories Industry, Tourism and Investment (2009) suggests that investment and mineral production around the territories since 1999 is the largest supporter for the economy. The NWT became one of the world's largest exporters of diamonds in the world. Major new investments are planned over the next five years as well, including up to \$16.2 billion in development of the Mackenzie gas project, which could have a major influence on Aklavik economy as it can provide business and employment opportunities as well as cash flow for Aklavik people. The NWT has the highest average incomes in Canada and the highest GDP per business in Canada mostly because of the lucrative mining industry. But these reports must be investigated carefully. During the research field work in the summer of 2009 it was observed that there was no economic boom in Aklavik or the Beaufort Delta Region nor were the people living on high incomes. In contrast, the community's main economic activities were due to government projects – most of which were related to housing and municipal infrastructure upgrades.

As shown in the figure 9.2.1, for every business, the GDP in the NWT is more than 2 million. A quick comparison with the oil rich province, Alberta, shows that NWT has well over twice Alberta's average and even three times the national average, which indicates big opportunities for investments in the mining and related business. But again, these numbers can be deceiving because not all residents of the NWT are benefiting equally from the resource development. The data from NWT communities like Aklavik demonstrate this as in 2007 there was an average of 111 people accessing Income Support programs; in 2006 the unemployment rate was 22.9 percent, and in 2006 the average employment income was \$27,403 (NWT Bureau of Statistics, 2008). However, it is anticipated that the future growth in NWT will face some significant challenges, due

to the world economic downturn which could impact the demand for diamonds, the NWT's primary export. Other commodity prices have also been affected. Oil prices have recovered recently, but natural gas remains low as well. This situation has a direct influence on the economic viability of the Mackenzie Gas Pipeline and will factor in the decision on whether or not to build the pipeline. These large scale industrial projects are important but equally important are the sustainable economic development ideas that do not require large scale non-renewable resource development.

**Figure 9.2.1 GDP per Business across Canada**



Source: Income and Expenditure Accounts, Statistics Canada, 2009

A number of factors influence resource development in the NWT. NWT communities are spread out and require significant transportation infrastructure maintenance and costs; resources are located long distances from markets; the settlement of land claims agreements is positive but, it is argued that land access and a complex regulatory environment work against project development. For large scale development projects, Aboriginal governments with settled land claims and the GNWT governments are

actively engaged in the dialogue to address whether or not a development is beneficial to the north and its communities. This research focused on Aklavik and may help explain that in some cases the necessary infrastructure, business services and human resources are in short supply. If a major pipeline were to get regulatory approval and if it was decided to develop the project, the community of Aklavik is positioned to benefit as well as realize negative impacts related to the project. The fact that there will be a large Impact Fund, subject to approval of the pipeline development, available to communities like Aklavik to mitigate against the potential negative impacts is evidence that the community leadership in the NWT is looking out for the well-being and sustainability of their communities.

### **9.3 Literature Review - Methodology & Developing Analytical Framework**

After studying various texts and studies similar to ACESDP done by other researchers and government as well as private agencies, the following research methodologies were narrowed down by ACESDP researchers. These were compared and contrasted against each other and eventually the grounded theory method was adopted because the researchers and ACESDP steering committee members, as well as industry sponsors found it to be the most appropriate and practical, and yet flexible approach that could be engaged to research and compile the requirements for the production of an ACESDP considering the unique needs and issues of people of Aklavik.

- a) **Grounded Theory:** This is an inductive approach in which theory is built from the data collected during the research. Saunders, Lewis, & Thornhill (2007, p. 599) describe an inductive approach as a “research approach involving the development of a theory as a result of the observation of empirical data”. The authors also describe grounded theory as a “research strategy in which theory is developed from data generated by a series of observations or interviews principally involving an inductive approach.” This is a bottom-up approach in the sense that researchers start without any pre-conceived ideas. The theory

emerges as data flows in from various sources. Even the analytical framework model develops as the researchers get deeper and deeper into their research in terms of primary and secondary data collection. The first set of primary data collected was in the form of questionnaires administered on a systematic random sample in Aklavik (target sample size = 70, response rate = 58, size of sample actually analyzed = 50, population or number of households in Aklavik = 200 approximately). The questionnaire itself was designed using guidelines from Saunders, Lewis, & Thornhill (2007, pp. 364-386), consulting with ACESDP steering committee members, pilot testing and valuable inputs and feedback from ACESDP academic supervisors at Vancouver Island University. Similarly, the guidelines for administering the questionnaires were adapted from the same text (pp. 387-394) and were reviewed by all stakeholders. The second set of primary data which further shaped the emerging theory and analytical framework was the focus group sessions.

- b) **Participatory Research:** This research method involves letting the subjects participate in the entire research process including generating research ideas, collection of data, analysis of data, etc. In this method, the power rests with the subjects (Sohng, 1995). According to Cornwall and Jewkes (1995), “participatory research focuses on a process of sequential reflection and action, carried out with and by local people rather than on them. Local knowledge and perspectives are not only acknowledged but form the basis for research and planning.” Sohng (1995) explains that “The role of the researcher in this process is a facilitator of the learning process”. Development practitioners and researchers that use the Participatory Methodology have observed “a participatory methodology is particularly effective in empowering Aboriginal communities” (Caine, Salomons, Simmons, 2007, pp. 458). Sohng (1995) further asserts – “Good participatory research helps develop relationships of solidarity by bringing people together to collectively research, study, learn, and then act. There is no off-the-shelf formula, step-by-step method, or 'correct' way to do participatory research.

Rather, participatory methodology is best described as a set of principles and a process of engagement in the inquiry.”

This approach was eventually rejected for ACESDP after consultations with stakeholders because of time, funding, logistics and distance constraints which were complicated further by the fact that the study was being conducted during summer when most community members are busy in traditional activities, or are away for vacation.

Another reason was that this research study was meant to be a complex graduate level research involving strict academic protocols and business principles; and fitting in such a scheme of complex academic requirements was perhaps not feasible for the 50 odd (sample size of subjects) community members. On the other hand, their participation at all stages was indeed very valuable and perhaps indispensable; therefore, this idea was borrowed and adapted to some extent from participatory approach, and inculcated in the grounded approach by involving some of the steering committee members at all stages of decision making during the course of ACESDP, from data collection to analysis and interpretation stages.

- c) **Ethnography:** This is another inductive approach that comes from Anthropology. Saunders, Lewis, & Thornhill (2007, p. 142) explain that its “purpose is to describe and explain the social world the research subjects inhabit in the way in which they would describe and explain it”. The authors also say that an Ethnographic approach is “naturalistic” in the sense that any phenomenon is researched “within the context in which it occurs”; in addition, one doesn’t have to use “data collection techniques that oversimplify the complexities of everyday life” (p. 143). But it is not a popular strategy for business research because it primarily focuses on the social world in which the research subjects live. However, it can be “very appropriate if you wish to gain insights about a particular context and better understand and interpret it from the perspective(s) of those involved” (pp. 142-143). The authors also mention that this type of

research strategy can be very long and time consuming, and puts great demand on the researchers as they need to immerse themselves completely in the social world being studied. For these reasons, this approach was rejected for ACESDP. Since this study undeniably had a social component to it, besides economic development and business planning, the researchers thought it prudent to borrow some concepts from the Ethnography approach – namely the fact that all four ACESDP researchers actually lived at Aklavik for a couple of months, mingled extensively with people and in the social events of the community and even spent time at fishing camps out in the bush. This exercise proved to be quite useful in providing the researchers valuable information about the community, especially about their traditional lifestyle and economy.

- d) **Archival Research:** This type of research uses “administrative records and documents as the principal source of data” (Saunders, Lewis, & Thornhill, 2007, p. 143). Not to be conflated with using secondary data, this method aims at answering questions of exploratory, descriptive or explanatory nature that are related to changes which take place over time. Of course, it is understood that all Archival research uses secondary data. Perhaps, this type of research approach could have been adequate for an elementary level of community economic planning exercise being conducted by leaders or business people. Ultimately, this method was rejected for ACESDP in the very early stages of project planning because getting the community members involved in creating an economic plan for their future was established as a fundamental requirement of ACESDP project by the stakeholders.

For the framework required for analysing qualitative data, the researchers initially contemplated between two different inductive approaches – “template analysis” and “grounded theory”. However, in the former case, codes that represent the themes from the open ended qualitative responses of the subjects (community members) are supposed to be predetermined by the researchers (Saunders, Lewis, & Thornhill, 2007,

pp.496). Keeping this fact in view, the ACESDP team's academic supervisors and steering committee members made suggestions which were more aligned with using a grounded theory approach. The idea was that the codes emerge from the open ended questionnaire responses and any prejudice on the part of researchers has minimal affects on the analysis process.

The researchers found and reviewed a similar study conducted for the community of Old Crow, which is the most northern community of Yukon, located above the Arctic Circle and only about 200 km West of Aklavik. This report was prepared by "Vuntut Gwitchin First Nation" in 2009 and was titled "Integrated Community Sustainable Plan (ICSP)". Their methodology used was briefly mentioned in the ICSP report, and is reproduced in Figure 9.3.1 below titled "ICSP-Old Crow Methodology". From the limited information available on this report's methodology, it appears that the researchers involved with ICSP used an approach that combined some elements of Archival, Participatory and Grounded Theory approaches in an elementary but logical manner.

**Figure 9.3.1 ICSP-Old Crow Methodology**

The content of the ICSP builds upon previous planning initiatives:

- *Vuntut Gwitchin First Nation Strategic Plan 2004-2008,*
- *Old Crow Capital Plan 2001-2006*
- *Old Crow Physical Development Plan 2000*
- *1997 Old Crow Community Development Plan*

VGFN worked with a consultant to prepare the plan. The consultant organized a series of workshops in Old Crow with department heads to determine the community's current and future needs. They then helped determine priority recommendations for expenditure of the available funds, and the staff recommendations were presented to Chief and Council with a draft ICSP in September 2007. Chief and Council then organized a public meeting to present the ICSP and get feedback from the community. Based on the views expressed at the community meeting the ICSP was finalized and approved for submission.

Vuntut Gwitchin First Nation held a community meeting on XX date, to confirm support for the priorities in this final plan. The meetings were advertised in the Yukon News and the community notice board.

Source: Vuntut Gwitchin First Nation, 2009

The process of community consultation with community involvement guided by a committee with membership from community leadership agencies and councils was at the foundation of the ACESDP research as it sought community input from the “ground up” using grounded theory and the participation of the community throughout the research project. Development practitioners and researchers that use the participatory methodology have observed “a participatory methodology is particularly effective in empowering Aboriginal communities” (Caine, Salomons, Simmons, 2007, pp. 458). But what grounded theory offered to the ACESDP research was flexibility by allowing input from the people regarding the research to adjust the research in accordance to what the research was finding in the field. According to Strauss and Corbin (1990) “Grounded theory is capable of and requires continuous expansion and refinement; when the possibility for such expansion ceases the possibility for further study also ceases.” This assisted the research team to focus on what was relevant to the community so as not to duplicate other efforts by the community. For example, when attending a regular



council meeting of the Hamlet of Aklavik on July 7, 2009, two research team members provided an update on the ACESDP research project to the Hamlet Council and were told that it was not necessary to research energy alternatives, the road to the Aklavik mountains and do any in-depth research on community infrastructure as the Hamlet was already completing an Energy Plan, engaged in an access road research process and completed their own community strategy related to Hamlet community planning. Instead, the Hamlet Council was more interested in finding out what their community members wanted in terms of economic development ideas and developing a plan related to outlining the ideas with recommendations for how to achieve the priorities. Hamlet councilors did, however, want the main priorities to be identified and if they were similar to the Hamlet initiatives already underway to then note them down as priorities. The ACESDP research, thus, took direction from the community to research their needs and desires in the production of their community economic sustainable development plan. This approach was consistent with McBride (2004, pp.4) who quotes McRobie and Ross as stating, "Community Economic Development is a process by which communities can initiate and generate their own solutions to their common economic problems and thereby build long-term community capacity and foster the integration of economic, social and environmental objectives."

Within the process of community economic development, it is becoming more noticeable that sustainable development is also engaging a holistic approach towards planning and development. In preparing their *Integrated Community Sustainable Plan*, the Vuntut Gwich'in First Nation (2009, pp. i) noted that, "The plan takes a holistic planning approach and includes areas such as health and wellness that are not traditionally discussed in community planning." This is important as the Aklavik leadership and focus groups were keenly aware of the interdependent relationship between the environmental, social, economic and cultural aspects of their community. As a concept, Carroll and Stanfield (2001) suggest that, sustainable development values development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It recognizes the linkages between

economic, social, environmental and cultural wellbeing and values participatory and inclusive decision making. But sustainable development is much more than a concept, as Douthwaite (1999, p 157-177) states, “ it is also a process; a process for decision making that ensures a better quality of life for everyone, now and for generations to come. The processes of sustainable development are being adopted throughout the world to identify and evaluate best value economic development projects and programs. Moreover, sustainable economic system must provide the commercial equivalent of consistency and cultural stability.” “Self-preservation is the fundamental goal of any healthy corporate organization,” Douthwaite adds. Self-preservation is also a goal of most communities as Aklavik’s motto “Never Say Die” clearly proclaims.

Establishing a sustainable economic plan for almost any community requires, as Meadows (1996) suggests, the essential consideration of a holistic approach in which different kinds of steps should be taken and which require different kinds of knowledge, talent, skill, and work. These are ingredients needed, for example, to make things happen, make budgets, find resources, hire people, establish and manage organizations, build, restore, protect, subsidize, regulate, punish, and reward. All of these activities take human and financial resources to engage successfully and there are several factors that determine whether an Aboriginal community is ready or has the capacity to support their entrepreneurs in business start-ups and growth. As McBride (2004) identifies, with regard to economic development in American Indian communities, important considerations that determine readiness including: a recognized structure for governance, culturally appropriate institutions, a functional band administration that is at arm’s length from business and able to accomplish the day-to-day work in a professional manner, the band or tribal council needs to have a strategic approach; and, there needs to be community support and encouragement. In Aklavik, all groups are experiencing various degrees of readiness and given the rapid move from being marginalized prior to the land claims settlement agreements to becoming more equal and meaningful participants in decision making over most aspects affecting their lives, the groups are doing well. An observation during the research was that although the

groups are doing their best, they still have challenges with acquiring the appropriate financial and human resources to effectively engage their expanding responsibilities. Of significant importance is 'Implementation' as it is the active management, monitoring, adjusting and action made in accordance with the implementation plan that helps to achieve the goal/s set out by a community.

As the ACESDP progressed, the research team was reminded time and again by leadership, industry sponsor Billy Archie Contracting and Consulting, elders and others through one-on-one meetings and in focus groups that the people appreciate research but what they really want is to produce a community economic sustainable development plan that identifies the current priorities of the community so that a strategic approach towards implementing the priorities can be engaged and implemented by the community. The continuous engagement with the community allowed for immediate identification of perceived deficiencies and identification of the lack of standard methods available to guide the collection, use, and application of sustainable economic plan ideas and solutions for Aklavik community. As such, the goal of the research for the community was to provide a clearly stated reference guide in the form of an Aklavik Community Economic Sustainable Development Plan. Integral to this would be the provision of the context and perceptions of Aboriginal peoples regarding the nature, scope and content of their priority ideas.

Ultimately it is the community that knows best what its issues are and this is the basic premise of community self-reliance and community empowerment through the autonomy of local government. Therefore, asking the local people to give their own perspective on ideas related to economic sustainable development for their community was a respectful way to engage the research. It is also anticipated that using a grounded theory and community participation would also assist in obtaining local support, buy in and ownership of the final product. Whether or not there is full consensus, it is important to involve the community. For example, an ISR private lands, Inuvialuit Land

Administration Application Report (2005) notes that the public involvement in the development projects in Inuvialuit Settlement Region including Aklavik, is necessary to ensure getting the different views and opinions, in a way that does not compromise showing respect to the local opinion, culture, language, and traditional protocols. This is consistent with McBride and Ndunguste (2001) who state, "What may be a "best" or "notable" practice for one community might be unsuitable for another. Since the Aboriginal communities and organizations will determine which practices to adopt and make work for them, the focus should be on what creative ideas these models offer that can be incorporated in the "next practice". It was within the spirit of community involvement with the realization that the end product would be owned by the community for their respective implementation that his research was conceived and engaged.

Thus, the review of literature from different perspectives in sections 9.1, 9.2 and 9.3 explains why the ACESDP researchers chose the grounded theory approach as the most appropriate choice for ACESDP research project.

## **10. International Context**

This section explores the international context of this study – how can people of Aklavik benefit (directly or indirectly) from international connections related to trade, socio-political aspects, cultural exchanges and sharing of other common practices like the traditional way of living, spirituality, healing and art as practiced by indigenous people across the globe.

According to the NWT Bureau of Statistics (2008), about 88 % of Aklavik's citizens are Aboriginal People of Canada. In 2007, the percentage was even higher - 95 %. This is a significant percentage to justify exploring the "global aboriginal" / indigenous

connection between different communities of the world, from a socio-economic point of view (see section 10.2).

In the past, even the Canadian Government acknowledged the indigenous way of life of the people of Western Arctic region. Historian William Morrison states, “The federal government had based its policy with respect to the Indians and, even more, the Inuit of the Yukon and Northwest Territories on the position that the less their indigenous way of life was interfered with, the better (Morrison, W. 1998, pp.158).

But it must be kept in mind that the people of Aklavik participate in modern economy and use latest technology too despite their traditional values and economic activities. For instance, the community has electricity, cars, wireless internet and communications technology and many other modern world conveniences. For this reason, the following sections will focus only on some predominantly aboriginal or indigenous “modern” communities across the globe which have similar modern-traditional mixed economic structure.

Besides analyzing the global “aboriginal” viewpoint, economic and communal relations with other Arctic communities (Alaska, etc.) and the effects of global climate change are also discussed.

### **10.1 Aboriginal and Indigenous People of the World**

Most dictionaries define “indigenous people” as those people who are the native or original inhabitants of a land. This definition is also found on the United Nations global teaching and learning project website known as UN - Cyber School Bus (2009), which also identifies an important shared value found amongst indigenous people - namely, their relationship with the land and their natural environment for food, wellness, spirituality as well as identity. It is noteworthy that UN has created a permanent forum on indigenous issues, known as UNPFII. It is difficult to estimate the total population of

indigenous people in the world due to difficulties in defining “indigenous” exactly. Nevertheless, the Assembly of First Nations website mentions that there are about 370 million indigenous people in the world, constituting about 5.5 % of the world’s population (AFN, 2009).

The UN Department of Economic and Social Affairs’ Division for Sustainable Development website displays a core UN publication called “Agenda 21” adopted in 1992. This is a “comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment” (Agenda21, 1992). An important chapter in this publication, titled “Recognizing & Strengthening the Role of Indigenous People & Their Communities”, outlines some basic social, economic, legal and political principles that the world needs to follow towards the sustainability and integration of indigenous communities. These are listed in Appendix-O.

UNEP (2009) website mentions some important characteristics of the indigenous people related to global sustainability, which the ACESDP researchers also found prevalent in the community of Akalvik. One such characteristic is that indigenous cultures are intricately linked to nature and their environmental biodiversity is “deeply embedded in their productive activities and spiritual lives”. The website acknowledges that indigenous people have “developed a wealth of traditional knowledge for managing their environment in a sustainable way”. In today’s world, sustainability of the ecosystem and the bio-sphere has become extremely important. Leading Businesses as well as governmental agencies are striving to create a “green” image for themselves and their products; and this theme usually occupies the central position in most marketing activities. The new found importance of bio-sphere sustainability may have tremendous implications for the indigenous or aboriginal “brand”, which is well known for its sustainable practices. For instance, products manufactured in various entrepreneurial ventures explained in sections 7.1.2 and 7.1.4 can be marketed to different countries under the “Arctic aboriginal” brand.

Ironically, UNPFII (2009) asserts that “indigenous peoples are among the first to face the direct consequences of climate change, due to their dependence upon, and close relationship, with the environment and its resources”. This was found to be quite true by ACESDP researchers in the case of Aklavik. This point is explored further in section 10.5.

Another important emerging aspect related to the world’s indigenous population groups is their mutual support and “strength in unity”. The fact that they have common shared values concerning the land and bio-sphere brings them together to leverage each other’s strengths. For instance, the current National Chief of the Assembly of First Nations in Canada, Chief Shawn Atleo (who is also the chancellor of Vancouver Island University, a partner sponsor of ACESDP) went to India to participate in “Janadesh 2007 march” to support the cause of the indigenous people of India who are known as Adivasis (AFN, 2009).

## **10.2 Indigenous Socio-Economic and Traditional Living Models**

This section studies briefly the socio-economic models of three important indigenous groups in the modern world, who have maintained their distinct identity despite participating to varying extents in the modern economy. The three models are strangely found to be very similar.

### **10.2.1 Aboriginal People of US**

Rebecca Adamson, the founder of First Nations Development Institute and First Peoples Worldwide aptly summarises the Aboriginal traditional socio-economic model in an interview published in a non-profit US based magazine - “YES” (2009):

- 1) The role of the financial sector or economy in the world should be to provide livelihood to people in a dignified manner, solely for supporting their household needs and sustaining human development, rather than for hoarding money.
- 2) The economy should provide for the people and be harnessed for the well being of the society. The goal should be community betterment and not making money.
- 3) Giving away of excess wealth is promoted so as to inculcate a sense of redistribution of resources amongst community members. Giving of a gift to someone is a way of teaching the value of sharing and also to maintain the continuity of the redistribution chain. If “A” gives to “B”, then “B” will want to give to “C”, and so on the chain continues.
- 4) Fear is what drives one to consume one’s resources or hoard money. The economic model should be such that it provides a safety net to anyone who falls below the poverty line, so that people are no longer driven by fear to hoard money or consume more resources.

The economic principles explained by Adamson above, in response to a question about America’s failing economy, point at the feasibility of a “spiritual” facet of economics, in which, *economic activity is just a tool for fair redistribution of wealth and resources for the good and betterment of all*, rather than a tool for making money and hoarding it. The ACESDP researchers noted during their 2 months of stay at Aklavik that the values associated with traditional economic activities in Aklavik were very similar to those expounded by Ms. Adamson, indicating a strong historical relationship and common value systems between the native people of Canada and US.

### **10.2.2 Aborigines of Australia**

Another example, in an international context, of traditional or indigenous socio-economic model is the case of Australian Aboriginal people. The Australian National



University's (ANU) Centre for Aboriginal Economic Policy Research (CAEPR) located in Canberra conducts research on Australian Indigenous people's issues by dividing them into four broad categories (for the current 2009-2011 plan):

- Economic, cultural and social circumstances
- Economic development aspirations and sustainable futures
- Governance, policy and the state
- Education and learning for life

Source: CAEPR, 2009

Appendix-P shows these four themes in detail, providing an important feedback on how researchers tackle these challenging socio-economic issues aimed at integrating the Aboriginal Australian communities with mainstream Australians, while respecting their diverse value systems at the same time. Theme-2 is the most relevant to ACESDP project. Although a detailed review of CAEPR's research and strategic plans are beyond the present scope, their approach is nevertheless academically significant for future detailed research.

Keen (1994), in his book "Aboriginal Economy and Society" explains in detail the pre colonial economic models of a seven different Australian Aboriginal communities, and the technologies they used for hunting and living. Of course, their environment is very different from the Canadian Arctic; but there are many commonalities related to hunting, trapping, fishing, use of traditional tools (e.g. Most Aklavik residents still use traditional knives for cutting their fish), relationship with the land and spirits of ancestors, value systems, etc. One example of the economic and social value of such connections between Australian and Canadian Aboriginal people is the joint commercial value of Aboriginal Art of the two countries, explored and marketed by an Australian Magazine called "Realtime" (Realtime, 2009).

The most important aspect of the Australian Aboriginal values is strikingly the same as those of the Canadian Arctic communities (as well as other Canadian Aboriginal

communities) – the reverence for and deep relationship with the “Land” or the “Spirit of the Land”. “The Land is not just the soil or rocks or minerals, but a whole environment that sustains and is sustained by people and culture. For Indigenous Australians, the land is the core of all spirituality...” (Australian Government Culture Portal, 2009). It is relevant here to note that Figure-5 in Appendix-A shows that the third most important theme for the people of Aklavik was the positive relationship between community’s sustainability and traditional activities, much like the value system of Australian Aborigines.

Another interesting point is the increased interest in Aboriginal Cultural Tourism by Australian retirees and overseas visitors (Australian Government Culture Portal, 2009). Aklavik community leaders and tourism entrepreneurs can explore the possibility of building connections for mutually complementary joint ventures with their Australian counterparts to enjoy economies of scope.

### **10.2.3 Māori of New Zealand**

The indigenous people of New Zealand are known as Māori, which literally means “people of the land”. Like other indigenous groups including people of the Canadian Arctic, the Māori had a sacred relationship with the land and the natural world, and there were strict spiritual and ethical guidelines for exploitation of natural resources. Appendix-Q explains some interesting transformations which the Māori community has undergone since their renaissance in 1970s, in order to integrate in the modern economy and socio-political structure. One of their strengths is their adaptability and openness in integrating the modern technology innovatively in their traditional economic activities (Teara, 2009).

One interesting example of infrastructure development in Maori communities, through governmental and academic universities’ participation, is the Maori alternative energy management program. The government and universities provide the knowledge and resources to the Maori communities for developing energy solutions on their lands

which are “green” and CSR (Corporate Social Responsibility) compliant (NIWA, 2009). In fact, the current ACESDP study is one such example of a partnership between the government of Canada, a University and the community.

#### **10.2.4 Ancient Indigenous people of India**

Though heavy migration and high population densities have dissolved most indigenous communities in India, the philosophy or ancient value system of people of India, dating back several thousand years, still prevails. Their values were very similar to the Canadian Aboriginal people: people had a special spiritual relationship with the land and the spirits of the ancestors; the Earth was personified and revered as the universal “mother”, etc. “Ayurveda” or the science of medicinal plants and herbal remedies was and is, even today, widely practiced by many Indians as well as foreigners. The same is true for the ancient “indigenous” knowledge of “Yoga”, which is globally practiced by millions. It is noteworthy how Yoga and Ayurveda have become global brands today supporting many businesses. The spread of Yoga and ancient Indian meditation techniques is evident in the usage of many Sanskrit (ancient Indian language) words in English, like Karma, Guru, Pundit, etc. Of course, there were many differences too, e.g. the ancient Vedic society was predominantly vegetarian (Vedic Society, 2009) and the Hindu society mainly a farming culture, while the Canadian Arctic communities have always depended on meat obtained from hunting, trapping and fishing for survival. But this could be attributed to environmental differences and availability of food, or simply different historical development of food and survival related practices.

#### **10.2.5 Global Indigenous Brand**

As the world awakens to the harsh reality of ecosystem and biosphere sustainability issues, the aboriginal people from different continents, and especially developed countries like US, Canada and Australia, can play a very important role in helping the world in finding the right balance between modern technology and human needs, and the sustainability. This is because they have always expounded and lived in compliance

with the sustainability principles, as described in this section 10.2. This issue is discussed further in section 10.4. If marketed properly, there is great potential for CSR compliant aboriginal owned and operated businesses throughout the world in different fields ranging from harnessing alternative energy to music, art and healing, especially if these communities put up a united front. Perhaps, the only resource lacking in the Aboriginal communities is qualified HR. Thus, education and training methods which integrate their traditional knowledge and modern technology are likely to be the building blocks of Aboriginal economies.

### 10.3 Arctic Communities of Canada and Alaska

**Trade:** Greg (2007) sums up the relationship between Alaska and Canada: “Alaska's relationship with its next-door neighbour, Canada, is one of the state's most important international partnerships. Approximately 1,500 miles of common border and many shared interests, including significant commercial and cultural ties, drive this long-standing, multi-faceted connection. There is extensive cross-border trade and, in recent years, Alaskans and Canadians have teamed up to pursue a variety of business ventures and to jointly promote tourism.”

The Government of Canada website (Canadainternational, 2009) mentions the following key facts related to Canada-Alaska trade for 2007-2008 period:

- 1) Canada's role in Alaskan economy directly accounts for more than 3100 jobs and \$ 165 million in payroll annually.
- 2) Canada is Alaska's fourth largest export market.
- 3) Canada received 12% of the state's total foreign exports, worth \$516 million. Because of continuing strong commodity prices globally, bilateral trade between Alaska and Canada grew by 14% in 2007, reaching \$994 million.

- 4) Bilateral Canada-Alaska trade in metals was valued at \$422 million.
- 5) In 2007, Alaskan fish and seafood exports to Canada amounted to \$96 million, a growth of 14% over the previous year.
- 6) The state (Alaska) imported \$87 million worth of petroleum and coal products — 18% of its total purchases from Canada in 2007 — making it Alaska’s leading Canadian import. In return, Alaskans sold \$25 million in fuel oil to Canada during the same period.
- 7) Alaska imported \$63 million worth of equipment in 2007, the third largest import sector from Canada after energy. All told, all machinery imports from Canada that year were valued at \$59 million. Alaskan businesses continue to rely on Canadian suppliers to keep their state and its resource industries running.
- 8) Tourism facts: 95,800 Alaska visits by Canadians, \$79 million spent; 99,400 Alaska visits to Canada, \$49 million spent.
- 9) Merchandise trade facts: Exports to Canada: \$516 million, Imports from Canada: \$478 million, Bilateral trade: \$994 million.

Source: Canadainternational, 2009

As far as history goes, Aklavik was, at one time, the hub of trade in the region for different Pacific and Arctic communities. Beaufort Delta Education Council’s website (2009) reports: “Traditionally, Gwich’in and Inuvialuit gathered here [Aklavik] to trade for goods from as far away as the Pacific and Arctic coasts. The Hudson’s Bay Company set up a post across the channel in 1912 to trade for furs. By 1918, Aklavik was a permanent settlement and the centre of a thriving trapping economy based on local muskrats and white fox from the Arctic.”

**Culture:** During the course of ACESDP research, the researchers had the opportunity to participate in the Circumpolar Northern Games at Inuvik and meet people who had

come to take part in the games from all over the Canadian Arctic as well as Alaska. Talking to those people highlighted the notion of a common heritage and way of living, which is strongly prevalent amongst the people of the North. Many Elders shared wonderful stories of brotherhood and communal relationships in the past as well as present between the native people of Alaska and Canadian Arctic, especially Northern Yukon and Northwest Territories.

Kofinas and Braund (1996) studied four different communities for the purpose of defining Arctic Community Sustainability. Besides Aklavik, they included a Northern Yukon community and two communities from Alaska. They emphasized five elements common to all four communities, which are:

1. Use of, and respect for, the land and animals in their homelands.
2. A cash economy that is compatible with, and supports, continued local use of the land and animals.
3. Local control and responsibility for what is done in village homelands and what happens to resources used by the community.
4. Education of younger people in both traditional knowledge and western science, and education of the outside world about community goals and ways of living.
5. A thriving culture that has a clear identity and is based on time (spent) on the land and language, which honours and respects elders.

Source: Kofinas and Braund (1996)

These issues, presented in detail in Appendix-R, show the strong cultural connection between the Arctic communities of Canada and Alaska. Also, the issue of global warming is equally important for both people, as explained in section 10.5.

Considering the proximity and strong cultural ties between Alaska and Arctic Canada, it is strongly recommended that export of merchandise and products manufactured in businesses identified in sections 7.1.2 and 7.1.4 to Alaska be explored in greater detail during the feasibility studies in the next phase of ACESDP.

#### 10.4 International Context of Sovereignty and Control of Resources in the Arctic

Canada's Arctic region, including Northwest Territories, is rich in oil and natural gas deposits, gold and diamonds. NRCAN (2009) aptly remarks - "a principal driver of future economic opportunities for northern Canadians will be the responsible development of mineral and energy resources". Also, due to global warming and melting of polar ice, the Arctic region is becoming increasingly accessible to many global players who are interested in the exploitation of its resources and control of the region, including rights of passage or transit through the summer sea. The different states asserting their interests in the Arctic are: US, Canada, Russia, Iceland, Denmark, Finland, Sweden and Norway. Even non-Arctic states like China, Japan and South Korea are showing an active interest in the region. All this activity creates challenges for the sovereignty and security of the Canadian Arctic borders (Huebert, 2009).

Rob Huebert, a senior research fellow of Canadian International Council and Canadian Defence and Foreign Affairs Institute recommends that the Canadian government take the following steps to address the sovereignty and security needs of Canada's Arctic:

- First, Canada must improve its decision-making process on Arctic affairs. It needs to create a Cabinet committee, chaired by the Prime Minister, which is focused solely on the Arctic. Only by ensuring that the Prime Minister is continuously engaged in Arctic issues will attention to the region be maintained.
- Secondly, we must improve Canadian surveillance and enforcement capability. Only the ability to know who is in our Arctic region and what they are doing there will allow us to control those actors and their activities. Outside actors will be unable to operate in the Canadian Arctic undetected or unrestricted. In order to achieve this capability, the Canadian government will have to provide the financial resources necessary to acquire, build and maintain the infrastructure and equipment.
- Finally, Canada must cooperate better with its Arctic neighbours. Cooperation with other Arctic states, particularly the United States and Russia, will be

essential to develop an international Arctic framework that will serve as a guideline for rules of engagement.

Source: Huebert, 2009

This suggests that the Federal Canadian government is interested in the sustainability and well being of remote Arctic communities since the citizens of these communities act as the guardians of the land and resources which is critical for sovereignty. Thus, Aklavik community members should consider and explore all forms of economic developmental support they can get from the Federal agencies for indirectly maintaining sovereignty of the region by living there.

### **10.5 Global Warming and Climate change issues for Arctic communities**

Nature Canada reports that due to global warming, temperatures in the Arctic region are increasing twice as fast as elsewhere in the world, resulting in fast melting of Arctic polar ice caps, jeopardizing the Arctic region's as well as the whole planet's ecosystem. Arctic's summer ice retreated to record low levels in 2007 and 2008. Due to these changes in the Arctic region's ecosystem, Polar Bears and many other wildlife species including a variety of fish like Char and Cod are decreasing in numbers and threatened with extinction in the near future (Nature Canada, 2009). This directly affects the traditional activities like hunting and fishing. The worst affected people are those living in remote areas that are dependent on such traditional practices for their food.

A short term positive effect on these communities will be the opening of sea trade routes in summers (as the polar ice caps melt) especially with a point of view of easier access to the oil and gas reserves in the Arctic region. But in the long term, "losing a permanent feature of the planet risked accelerated warming, changing patterns of circulation in the oceans and atmosphere, and having unknown effects on ecosystems through the acidification of waters" (Shukman, 2009).



UNPFII, 2009 reports some effects of global warming on Arctic communities:

Indigenous people in the Arctic region depend on hunting for polar bears, walrus, seals and caribou, herding reindeer, fishing and gathering not only for food to support the local economy, but also as the basis for their cultural and social identity. Some of the concerns facing indigenous peoples in the region include the change in species and availability of traditional food sources, perceived reduction in weather predictions and the safety of traveling in changing ice and weather conditions, posing serious challenges to human health and food security.

In North America, some indigenous groups are striving to cope with climate change by focusing on the economic opportunities that it may create. For example, the increased demand for renewable energy using wind and solar power could make tribal lands an important resource for such energy, replacing fossil fuel-derived energy and limiting greenhouse gas emissions.

Source: UNPFII, 2009

When the ACESDP researchers spoke to some Elders in Aklavik, they voiced their concerns regarding the receding ice, as a result of melting of ice. Their other major concern is the possibility of thawing of “permafrost” (the frozen soil beneath snow and ice) which causes their houses to sink a few centimetres every year, especially as they lack good gravel foundations. This problem is significant as it threatens the sustainability of their community. Also, the melting of permafrost would end up releasing large amount of carbon dioxide and methane into our atmosphere. The thawing of permafrost also results in “buckled highways, destabilized houses, and “drunken forests” of trees that lean at wild angles” (Physorg, 2009).

An important incident in the history of Aklavik is the severe flooding in 1950s. Johnson (2009) reports that “Erosion of the Peel Channel banks lead to melting permafrost and

severe flooding” which prompted the Canadian government to begin construction of the town of Inuvik so that Aklavik’s residents could migrate to Inuvik. This event has been explained in detail in section 1.1 (see also Photo 1.1.1).

United Nations Secretary-General Ban Ki-moon aptly says – *“I am convinced that climate change, and what we do about it, will define us, our era, and ultimately the global legacy we leave for future generations. Today, the time for doubt has passed” (UNPFII, 2009).*

Mary Simon, the President of the Canada’s National Organisation for Inuit people (who are the vast majority of permanent Arctic community populations) summarizes the effects of global warming on economic sustainability:

The Arctic is at the center of this climate crisis. The rate of warming in the Arctic in recent years is unprecedented and will continue. The Intergovernmental Panel on Climate Change has identified the Arctic as one of the most vulnerable regions of the world.

Our efforts to foster sustainable economic growth and environmental performance must be made mutually reinforcing. The real threat to economic well being is uncertainty. Investors will not be attracted to developing or for that matter developed countries if they have little confidence as to what states will do in relation to fundamental policy choices surrounding climate change. The costs of uncertainty must be fairly and fully assessed against the costs of the mitigation and adaptation.

Source: Simon, 2009

To sum up, there is enough scientific evidence to suggest that global warming really threatens the sustainability of Arctic communities, not 50 or 100 years from now on, but in the near future - probably the next decade. Therefore, the issues related to global warming must be kept in mind when planning any long term economic development projects in communities such as Aklavik.

## **11. Project Reflections**

This section explores some limitations of the ACESDP study and methodology and presents recommendations for future research. Personal reflections of the four ACESDP researchers are also presented at the end of this section.

### **11.0 Limitations**

Although the four ACESDP researchers and Aklavik community business leaders and other mentors spent several months in the planning phase of this project, the researchers could invest only one month in collecting primary data in the field, due to lack of funding as well as time constraints. This and other uncontrollable extraneous factors resulted in some limitations of this research project, which are briefly discussed below:

- 1) In our opinion, the best possible approach to such a research project involving economic development planning for a remote community is participatory research, which involves community members at all stages of the research study. The greatest advantage of this method is that it provides the community a sense of participation and ownership, besides training opportunity for community members too. All these factors increase the chances of successful implementation of the economic development plan. However, constraints related to time, funding, logistics and distance, complicated further by the fact that the study was being conducted during summer when most community members are busy in traditional activities, or are away for vacation, forced us to reject such an approach. As a result, we could not have as many grass-root level focus group sessions as we ideally wanted. Although the questionnaire survey exercise enjoyed an excellent

sample size (50) to population size (about 200 households) ratio of about 1:4, we cannot lay the same claim to focus group representation. Some important members could not form part of the focus groups as they were away from Aklavik; either out on the land engaged in traditional activities, or away on vacation. The main disadvantage being that lack of involvement of key members affects the quality and quantity of sustainable economic development ideas, and also decreases the sense of ownership and enthusiasm for the plan emanating from key community figures. After all, it is this sense of ownership and enthusiastic leadership that are the key ingredients required for materializing the ideas advocated in the ACESDP plan.

- 2) The idea behind conducting questionnaire surveys during ACESDP research was to find out what Aklavik residents felt about various socio-economic issues and community development using both open ended and close ended questions. Care was taken to keep the setting of the questionnaire session neutral and ask all open ended questions before the close ended ones, in order to avoid leading the subjects in any way. However, despite all precautions, it is not possible for the interviewer to maintain a perfectly neutral or non-leading environment. Thus, some of the factors which could have influenced the subjects, during the questionnaire answering/filling session, are: the fact that one of the researchers present in most interviews was from the community of Aklavik and the subject's personal relationship with him may have influenced or coloured their thoughts while answering the questionnaire; the fact that all other three researchers were non-Canadians with English as their second or third language; the fact that not the same researcher conducted all questionnaire/interview sessions, which introduces an element of inconsistency in the process; the fact that the questionnaire sessions were conducted at different times of the day, and on different days – something that again affects consistency; and lastly, the fact

that some economic development ideas had already begun to circulate amongst community members after the researchers had spent a few weeks at Aklavik, so that responses for questionnaires conducted later may have been affected by these rumours. Apart from these prominent factors, there may be many other trivial, yet significant factors that inevitably affect the responses of the subjects (e.g. subject's mood, presence of other people around subject at the time of the session, subject's anticipation for monetary compensation for participating in the questionnaire session, etc.). It may be noted that subjects' participation in questionnaire sessions was unpaid and voluntary.

- 3) Our simplified Excel model for analysing qualitative and quantitative data lacks finer mathematical treatment of data like calculating standard deviations and other measures of dispersion, correlation coefficients between different variables, etc. In fact, huge amount of analytical data can be created by studying correlations between different variables. For instance, it would be interesting to explore differences in opinions and responses to certain questions based on gender, age group, marital status, health status, socio-economic status, and many other similar parameters. This study did not conduct any such analysis due to lack of time, and also the fact that the guidelines from ACESDP steering committee clearly wanted the researchers to focus on economic development ideas for the community instead of delving deeply into social, psychological or anthropological research on the community. Having said that, some parametric relationships and Carl Pearson correlation coefficients would have been worth exploring as well as relevant, for better understanding of the community; and this is one important limitation of this study.
- 4) Another important limitation was lack of availability of in-depth and current secondary data on Aklavik. The researchers found archival records to be quite obsolete in several areas and had to rely on verbal discussions with

community members to collect up-to-date data related to infrastructure, traditional subsistence activities, culture and other resources in the community.

- 5) Lastly, the researchers would have liked to do preliminary feasibility studies on some of the business ideas that emerged from the community members/focus groups. Although section 8.1 does an elementary SWOT analysis of these projects, we would have preferred an in-depth feasibility analysis conducted in the field, by visiting potential sites for businesses and other entrepreneurial ventures, talking to prospective managers or people who wished to own these businesses, studying related regulatory regime, studying potential markets for buyers and suppliers, etc. Without this exercise, the Aklavik Community Economic Sustainable Development Plan is sort of incomplete, because the Plan has yet to undergo feasibility testing before the community follow the ACESDP and moves towards preparing business plans. However, lack of time and funding were the main reasons why this exercise was not completed by the time of writing of this report. It is, however, our understanding that the community will indeed exercise due diligence in adopting this draft ACESDP plan and conduct feasibility studies in the next phase of this alive and very dynamic community economic development project.

### **11.1 Future Research Recommendations**

With regard to research projects that are about community socio-economic development issues in remote locations, it is very important to obtain community support and community involvement in the project as early as possible. Our experience has taught us that a key to engaging community research is to have a community champion/leader that is responsible for championing the project at the community

level. The community champion/leader for this research project was Billy Archie Contracting and Consulting and it was through his efforts that much of the initial community consultations were engaged to seek support from the community. It is therefore recommended that early engagement and support be obtained from the community to engage community research.

Researchers must also start to build community support and seek financial support very early in their research project planning stages. The cost to travel, live and engage community research in remote communities is very high; therefore, every effort must be made to find partners that are willing to support the research with in-kind or financial support. It is therefore recommended that researchers seek out and establish partnerships as early as possible to secure adequate financial support for their research project.

This research project used a grounded theory methodology but if the research team had enough financial resources, a more appropriate methodology would have been the use of community-based participatory research and development. A community-based participatory research method would have benefited the community in several ways including: assisting in training local people in research practices; providing more resources to the community; potential for community ownership of the research and outcomes; potential for building relationships among community organizations, researchers and partners; help in logistics; and, providing the community with hands on research to help it understand and address relevant research issues which are of concern to community members. Research into community socio-economic issues is not a static, sterile or isolated process. It is about dynamic socio-cultural and economic inter-relationships and must be treated with respect, and all efforts should be made to engage and involve the community. It is therefore recommended that, depending on the purpose of the research, use of community-based participatory research be given a high priority as a method of conducting the research.

Given the high cost of doing research in remote communities, it is also recommended that every effort be made to use Communications Informatics (if it is available) in the research to help reduce costs, provide fast communications and allow for fast feedback from the community and research team.

Finally, especially for community socio-economic development research, it is recommended that research be not just academic but also practical, functional and usable so that it serves a community's needs.

## **11.2 Reflections**

This section contains individual reflections written by the four ACESDP researchers based on their experiences while conducting the research.

### **11.2.1 Reflection: Abdulkader Mahairi**

I think this internship allowed me to learn and acquire some new competencies besides sharpening some others that I had before as well. Thus, I would like to talk about some skills and competencies that I think I had improved in myself, beside the interesting experience that I had.

First, the competencies like; skills, knowledge, and building relationships. Regarding skills, I developed managerial skills in administering the fund I got besides spending it wisely in the needed activities. Additionally, in many occasions, I had to keep working on my research paper, meeting stakeholders, and planning for the next move at the same day, which needed a lot of advanced time management skills as well. In regards to knowledge, I had a chance to enhance my knowledge in developing plans, writing proposals and working with officials. In addition, visiting some remote communities in northern Canada allowed me to understand a lot of cultural aspects related to Aboriginal way of living in Canada. In terms of relationships, I had an amazing



experience to develop life-long relationships with different stakeholders, with whom I had worked on this project.

Second, I would like to talk about my professional and personal skills because I believe they acted as accelerators for my performance success, such as desire to lead, problem solving and continuous improvement. First the desire to lead I had the desire to lead a change for better conditions for Aklavik community by developing up a plan for sustainable economic development. In terms of problem solving, I tried to break down the project problems into simple components, in order to identify the required steps and tasks to do in an organized way. For instance, I and my team members broke the plan down into some achievable tasks, small wins, like identifying the current resources and looking for potential ideas for matching the local needs with those resources one by one. In that way, we had the outline of our plan in front of us. In addition, we committed to update and modify it accordingly throughout the whole process to come up with the best one for the community as possible.

In conclusion, I feel that this internship journey was a good learning experience for me to apply my knowledge and skills that I acquired. I am more confident now about using my knowledge and skills in any future opportunities related to developing and implementing business plans.

### **11.2.2 Reflections: Arvind Chauhan**

This four month research project followed an intensive ten month of graduate coursework for MBA/MScIB program. Before starting the internship, I wasn't very sure if all the skills I had developed during the ten month coursework period (and earlier in my life) would continue to be used and fine tuned during the internship project. However, as the internship started, the learning curve continued monotonically with a steep positive slope. As the ACESDP progressed, I increasingly found that I was frequently using, developing and fine tuning the following skills, some of which had been developed earlier during the coursework period:

- 1) Working in a team and coordinating a wide range of work;
- 2) Adapting to a new and different environment (as compared to what I am used to) while living and working at Aklavik and Inuvik;
- 3) Researching and data mining skills;
- 4) Meeting new people and building positive productive relationships;
- 5) Ability to comprehend social and psychological issues;
- 6) Managing stress, people, time, work schedule, travel, etc.;
- 7) Exploring and learning different CAQDAS software, and Excel modelling;
- 8) Writing, formatting and editing skills;
- 9) Verbal communication skills in English, which is my second language;
- 10) Web designing, video, photo editing and internet browsing skills.

I can now confidently assert that most of the above listed skills are part of my fully developed set of competencies.

I feel honoured and humbled by the love and openness which the people of Aklavik showered on me and my team members. I also got the opportunity to meet many extraordinary people who had come from far off places in the Arctic, to Inuvik, for attending Circumpolar Northern Games. Trying out new foods was an interesting experience too. But what had the greatest impact on me during this project was the pristine natural beauty of the Arctic region and Mackenzie Delta, its wildlife and the traditional way of life of the people living in remote communities there. This is something I will never forget.

I take this opportunity to thank Bonita Russell, Dan McDdonald, Brook Pearce, Duncan Phillips, Billy Archie, Danny Greenland, Aklavik community people and my team members, other stakeholders including staff and faculty at VIU, and my family for providing their support and guidance throughout this period.

### **11.2.3 Reflections: Edwin Kolausok**

Working on this research project has been exciting and very rewarding. This was an important project for the people of Aklavik who wanted to develop an ACESDP which involved their community members. I felt honoured to work on a research project that was supported by visionary community leaders and which would not only be an academic study but also produce a practical community economic development plan that could help the community work towards its economic sustainable development vision.

I worked hard with Industry Sponsor Billy Archie Contracting and Consulting to secure support and partners for the project. An enormous amount of energy and time was consumed in trying to convince governments outside of the community to partner in the project. On the contrary, I was pleasantly surprised to find the opposite existed in the south where MITACS Inc. was eager to participate in a research project that explored community economic development. Vancouver Island University was also open to reaching out and engaging meaningful economic development research that would be meaningful to Aboriginal communities. Even after securing partnerships, I found that the most difficult obstacles were the very government agencies that were established to support community self-reliance as they were either not available in the community nor appeared very enthusiastic or interested to actively help the community with community based research and planning. After many meetings, letters, presentations and proposals, we finally received support for the research project but it came late and had additional reporting and administrative paper burdens attached to it.

When we finally engaged the research project and Applied Business Project, I noticed that many of my skills were tested on a daily basis. My communication skills both verbal and written were constantly required and I was able to improve these skills with each survey, focus group meeting, council presentation, government meeting and report produced. My research skills in obtaining, reviewing and analysing relevant reports also

increased. My skills in using communication technology such as communication informatics also increased. Despite there being very few comprehensive community economic development reports available on Aklavik, I was able to find materials that were not readily available on the Internet or published. I found that working closely with community leaders and gaining their support and confidence for engaging the research helped to build trust which then assisted in obtaining relevant reports that only the groups possessed. My skills in negotiating and budgeting were also tested as we had limited funds for travel, lodging and field work. This work greatly assisted in my competencies in planning, research, coordination, communication, budgeting, writing, analysis, and understanding the complexities of community economic development.

In reflecting on the research process, I have learned an incredible amount about the complexities and hard work that it takes to engage community research. From the work to complete the Ethics proposal through to developing the thesis and methodology and final report, I was learning during every step of the process. I also found that using the grounded theory was probably the best methodology choice, given our limitations, as it allowed for community input and the necessary flexibility to conduct research that was relevant to the community given that we were actually doing two things. We were engaging research which would require its own academic report and we were producing an ACESDP product that was designed to be used by the community for its future community economic development planning. I also realized through the work on the research project that it would take a committed community leadership that had a vision, respect for diversity, an understanding of its own socio-cultural-economic needs and which sought partnerships to accomplish its vision. Through various meetings I was impressed with and convinced that the current leaders in Aklavik are serious in their commitment to a united and cooperative community economic development strategy. But as my own work in helping to secure human and financial resources to complete the project informed, the lack of adequate financial and qualified human resources in remote communities is definitely an issue that can hold back progress. Despite this, I was very happy to see that visionary leaders are still working hard with limited

resources to advance their collective community through economic development planning.

In conclusion, I am also well aware that the ACESDP produced is at the very least a start at producing a community economic development plan for Aklavik. It has its pros and cons and limitations but the most important thing for me is that it is a product that outlines the community's economic development desires. Without understanding and respecting community people's history, desires and input, it is difficult to develop a collective vision. The ACESDP is a step in the right direction. I thank all the people of Aklavik, IRC, GNWT-ITI, MITACS, VIU, AIB, Hamlet of Aklavik, ACC, IEF and my MBA colleagues, professors, staff, supervisors and family for having the privilege of serving and working on this project.

#### **11.2.4 Reflections: Gaganjot Singh**

I feel honoured that I got the chance to work on ACESDP with a group of very talented people. This project has contributed not only towards increasing my academic knowledge and skills but also towards increasing my awareness about aboriginal cultures and their way of living.

During the initial phase of this project I engaged with the community members of Aklavik to complete the ACESDP surveys. I was overwhelmed by the warmth with which the members of the community received us and the involvement with which they responded to the survey questionnaires. I learnt and experienced that aboriginal communities have high context culture and relationships play a very important role in doing business in these communities. In addition, people have a high degree of mutual respect and tolerance for other cultures, which I not being from the same culture felt. I also learnt that living off the land activities forms an integral part of their tradition and elders want their future generations to carry on this tradition. Like every other community, residents of Aklavik also have their challenges but their motto "Never Say

Die” keeps them pushing forward to overcome these challenges. I believe that this motto will be passed on to the future generations which would make Aklavik thrive in future.

Working on the ACESDP also gave me the opportunity to go north of the Arctic Circle and experience the life up there. I would like to thank the people of Aklavik for inviting me to the Shingle Point games which at the same time gave me the opportunity to experience the beautiful northern wilderness.

Looking from an academic point of view I used inter-personal, research, consulting, analytical and business report writing skills to develop the ACESDP. Some of the courses such as Effective Manager and Research and Consulting were quite beneficial for providing input for this project. The analysis of the qualitative data was challenging as it requires a lot of patience and diligence. Moreover, coming from an engineering background I was always involved in quantitative analysis in the past but this project gave me the opportunity to work on the qualitative side and helped me to develop the related knowledge and skills.

Finally, I would like to thank our internship supervisor, coordinator, the faculty of management at VIU, MITACS, my team members and people of Aklavik including our industry sponsor for all the guidance, support and encouragement they gave us to develop the ACESDP.

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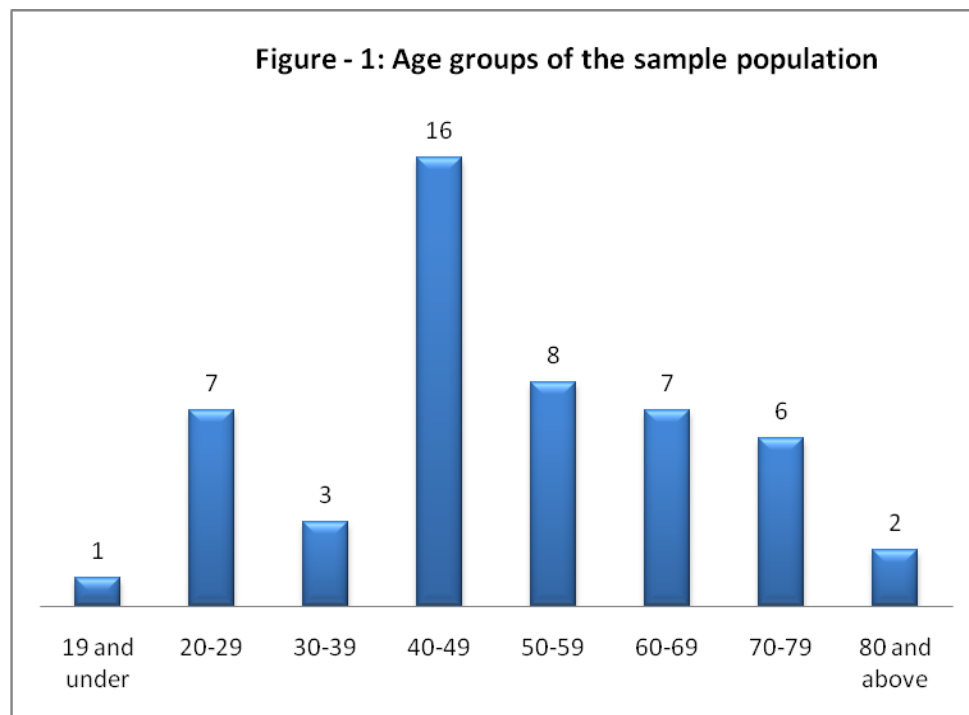
# Appendix

## Appendix – A

### Quantitative and Qualitative Data Analysis Results based on the Questionnaire Responses (sample size = 50)

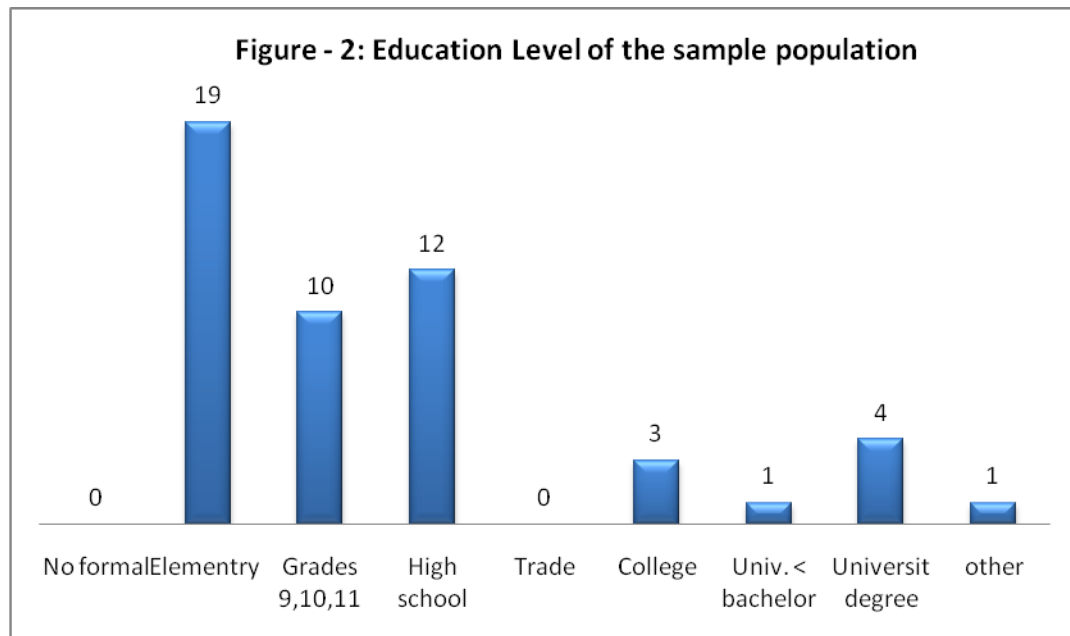
Table – 1: Age groups of the sample population

Age group	# of subjects from the sample
Less than 20	1
Between 20 and 30	7
Between 30 and 40	3
Between 40 and 50	16
Between 50 and 60	8
Between 60 and 70	7
Between 70 and 80	6
Greater than 80	2



**Table – 2: Education Level of sample population**

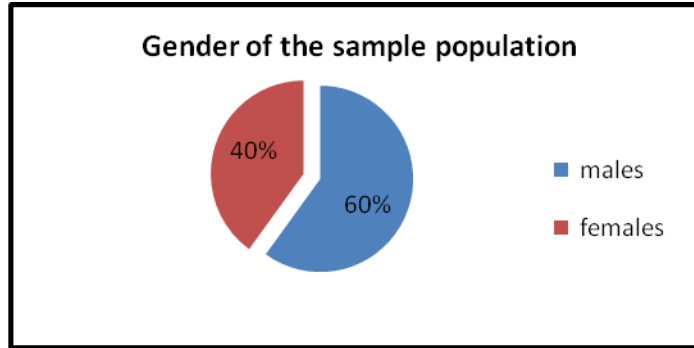
<b>Education Level</b>	<b># of subjects from the sample</b>
No formal	0
Elementary	19
Grades 9,10,11	10
High school	12
Trade	0
College	3
Univ. < bachelor	1
University degree	4
other	1



**Figure – 3: Males and Females in the sample population**

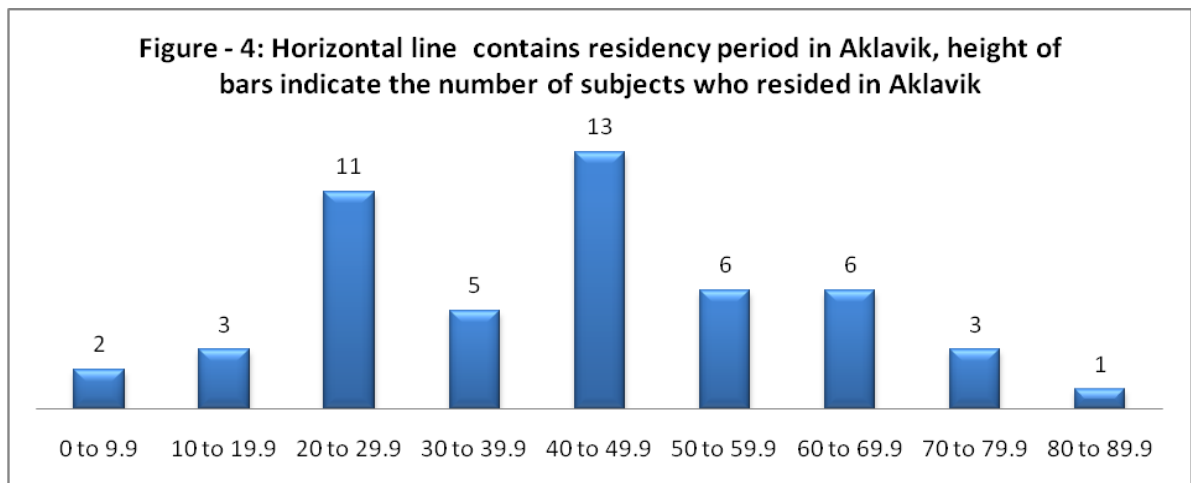
Males: 30

Females: 20



**Table – 3: Residency period of the subjects in Aklavik**

Residency period	# of subjects from the sample
0 to 10	2
10 to 19.9	3
20 to 29.9	11
30 to 40	5
40 to 50	13
50 to 60	6
60 to 70	6
70 to 80	3
80 to 90	1



**Table – 4: Responses toward Likert Scale based questionnaire statements**

<b>Question (sub-questions from questions 32 to 37)</b>	<b>Negative Response</b>	<b>Neutral</b>	<b>Positive Response</b>
Economic development is important for the future good of our community.	0%	6%	94%
There are good employment opportunities for people in the community.	68%	8%	24%
Government is doing enough work to help develop economic opportunities.	74%	14%	12%
Industry is doing enough work to help develop economic opportunities.	66%	20%	14%
Aboriginal groups are doing enough work to help develop economic opportunities.	48%	16%	36%
The tourism industry will provide long-term employment opportunities	28%	14%	56%
I would work in the tourism industry if I was offered employment in that industry	24%	6%	68%
It is important to share my culture with tourists	2%	4%	92%
It is important to make tourists welcome in our community.	0%	2%	96%
Tourism helps to promote our culture.	2%	6%	90%
Education and Training opportunities are important to help people prepare to be employed in economic development activities.	0%	2%	96%
The government and industry provide enough training programs for the community.	70%	12%	16%
If I had the opportunity I would upgrade my skills in computer information technology?	6%	6%	86%
Traditional activities help to preserve our culture.	0%	2%	96%
Traditional activities promote community development.	4%	8%	86%
Traditional activities can help develop good self-esteem in our people.	0%	2%	96%
The level of health care services in our community is satisfactory.	36%	12%	50%
There is enough being done to promote healthy living and health care in our community.	34%	14%	50%
The health care system in our community can benefit from using modern technology such as video or Internet to enhance local services.	4%	6%	88%

**Table – 4 continued:**

Community housing needs to be improved.	4%	0%	94%
Modern home construction is adequate for our community.	32%	6%	60%
Traditional housing such as log home structures is better for our community.	20%	34%	44%
The economic rent scales used in our community are working well.	72%	16%	10%
The economic rent scales used in our community should be more flexible.	2%	10%	86%
The cost of operating housing in our community can be reduced by upgrading homes and using energy saving devices.	0%	0%	98%

**Table – 5: List of codes related to *social life* aspects, identified from responses corresponding to open ended questions 2 to 28 of the questionnaires.**

<b>Social aspects - Code name or textual description</b>	<b>Code #</b>
Healthcare is inadequate	Code-1
Housing needs more attention	Code-2
Cleanliness & Garbage is an issue	Code-3
Concern for Alcoholism	Code-4
Concern for Drug abuse	Code-5
Concern regarding Vandalism	Code-6
Concern regarding gambling	Code-7
Nepotism needs to be reduced	Code-8
Hamlet Council can help in addressing issues	Code-9
Good leadership is required for change	Code-10
A united effort by the community can lead to positive change	Code-11
Government needs to involve community in funding, planning, investing,etc	Code-12
Politicians forget their promises after elections	Code-13
People of Aklavik and their values are a strength to this community	Code-14
Family, Community life and social events are good	Code-15
Celebrating	Code-16
Meeting people is considered positive	Code-17
Relaxing at home	Code-18
Enjoys sports	Code-19
Watch TV	Code-20
Old structures, buildings, equipment should be removed	Code-21
People happy with ACESDP survey - opinion of interviewer	Code-22
Respondents nervous with survey initially - opinion of interviewer	Code-23
Respondent cynical about Aklavik's future	Code-24



**Table – 6: List of codes related to *socio-economic* aspects, identified from responses corresponding to open ended questions 2 to 28 of the questionnaires.**

Road infrastructure needs to be upgraded	Code-25
Financial support programs are abused, community needs more accountability	Code-26
Cost of living needs to be reduced	Code-27
Rent is too high	Code-28
"If you find work, your rent goes up"	Code-29
If employed, the rent goes up, so people don't want to work.	Code-30
Lose home because rent not paid	Code-31
Need more training programs	Code-32

**Table – 7: List of codes related to *economic* aspects, identified from responses corresponding to open ended questions 2 to 28 of the questionnaires.**

Training programs help community's sustainability	Code-33
Education & Training programs aspired for	Code-34
Create work opportunities including entrepreneurial ventures	Code-35
Create Jobs	Code-36
Economic development is important for sustainability	Code-37
Oil & Gas industry can help community's economy	Code-38
Other industries which can help community's economy	Code-39
Computer literacy & Internet help community's sustainability	Code-40
Uses computers & Internet	Code-41
Retain youth in Aklavik	Code-42
Keep youth busy and constructive, create more facilities for youth	Code-43
Need more activities for kids	Code-44
Education needs more attention	Code-45

**Table – 8: List of codes related to *tourism*, identified from responses corresponding to open ended questions 2 to 28 of the questionnaires.**

Tourism industry can help community's economy	Code-46
<i>Things of Interest to Tourists (a)</i>	<i>Code-47</i>
<i>(b)</i>	<i>Code-48</i>
<i>(c)</i>	<i>Code-49</i>
<i>(d)</i>	<i>Code-50</i>
Website should be designed to promote tourism	Code-51
Signs put up at different places can promote tourism	Code-52

**Table – 9: List of codes related to *traditional economic and social activities*, identified from responses corresponding to open ended questions 2 to 28 of the questionnaires.**

Land resources good for sustainability	Code-53
Manage Land (agriculture) better	Code-54
Manage Fisheries better	Code-55
Manage Hunting Game better	Code-56
A changing of lifestyle from trapping to job	Code-57
Living off the land is good	Code-58
Traditional activities help community's sustainability	Code-59

<i>Popular traditional activities (Fishing)</i>	<i>Code-60</i>
<i>Hunting</i>	<i>Code-61</i>
<i>Berry picking</i>	<i>Code-62</i>
<i>Trapping</i>	<i>Code-63</i>
<i>Whaling</i>	<i>Code-64</i>
<i>Story Telling</i>	<i>Code-65</i>
<i>Language teaching</i>	<i>Code-66</i>
<i>Arts &amp; crafts</i>	<i>Code-67</i>
<i>Music and Dance</i>	<i>Code-68</i>
<i>Other...</i>	<i>Code-69</i>

**Table – 10: The number of times each code came up in open ended questions 2 to 28 of the questionnaires (depicted graphically) – See section 4.6 for explanation**

Code #	Number of instances	Total score depicted graphically
Code-1	9	
Code-2	43	
Code-3	14	
Code-4	111	
Code-5	75	
Code-6	13	
Code-7	9	
Code-8	16	
Code-9	3	
Code-10	24	
Code-11	24	
Code-12	60	
Code-13	2	
Code-14	35	
Code-15	7	
Code-16	3	
Code-17	3	
Code-18	14	
Code-19	2	
Code-20	12	

**Table – 10 continued:**

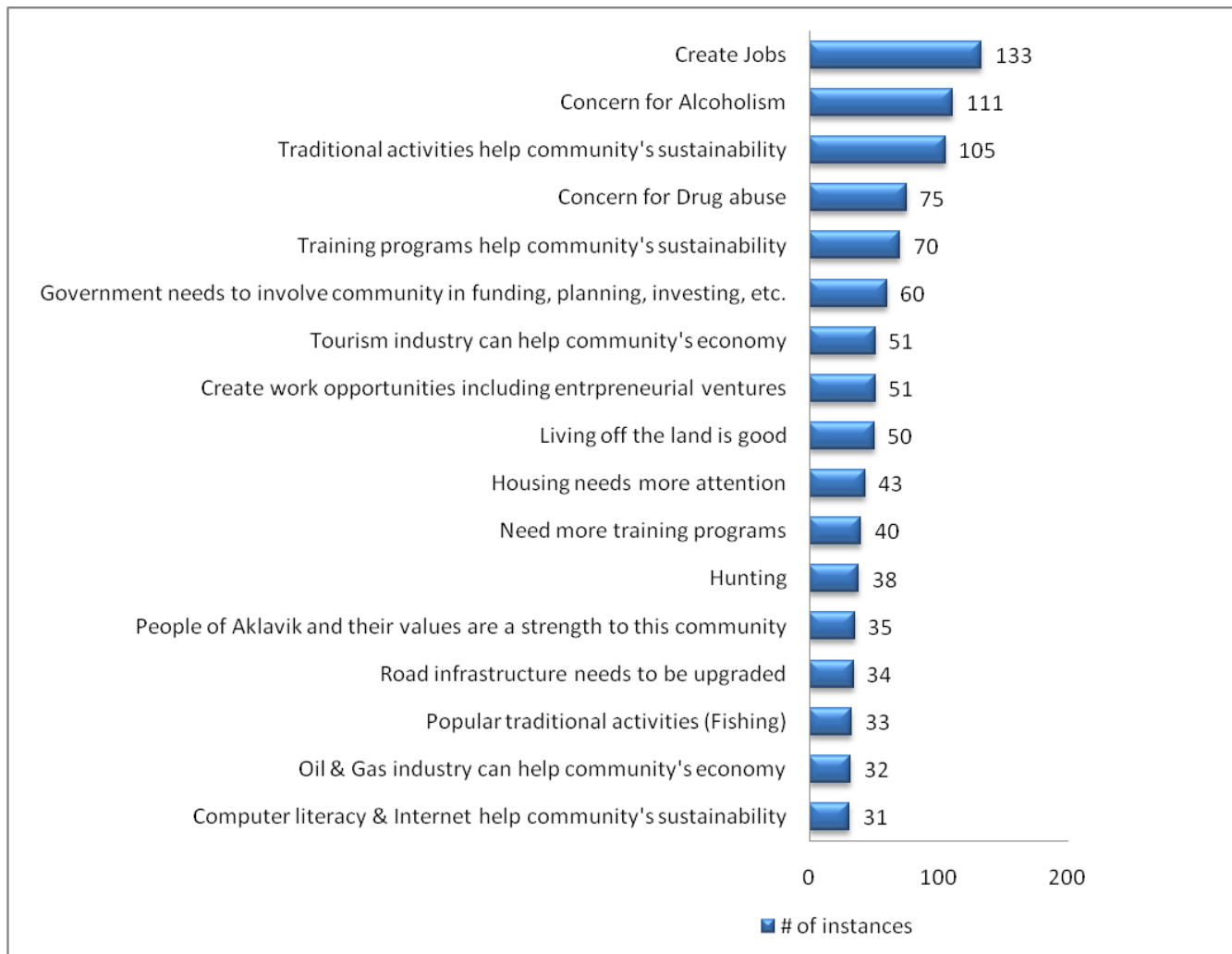
Code-21	2	
Code-22	5	
Code-23	0	
Code-24	10	
Code-25	34	
Code-26	22	
Code-27	18	
Code-28	21	
Code-29	21	
Code-30	15	
Code-31	1	
Code-32	40	

Code-33	70	
Code-34	0	
Code-35	51	
Code-36	133	
Code-37	22	
Code-38	32	
Code-39	1	I
Code-40	31	
Code-41	-3	III Negative
Code-42	5	
Code-43	16	
Code-44	21	
Code-45	7	
Code-46	51	
Code-47	0	
Code-48	0	
Code-49	0	
Code-50	0	
Code-51	20	
Code-52	4	
Code-53	1	I
Code-54	2	II
Code-55	2	II
Code-56	4	
Code-57	2	II
Code-58	50	
Code-59	105	

**Table – 10 continued: Popular Traditional Activities**

Code-60	33	
Code-61	38	
Code-62	20	
Code-63	14	
Code-64	28	
Code-65	15	
Code-66	26	
Code-67	29	
Code-68	20	
Code-69	0	

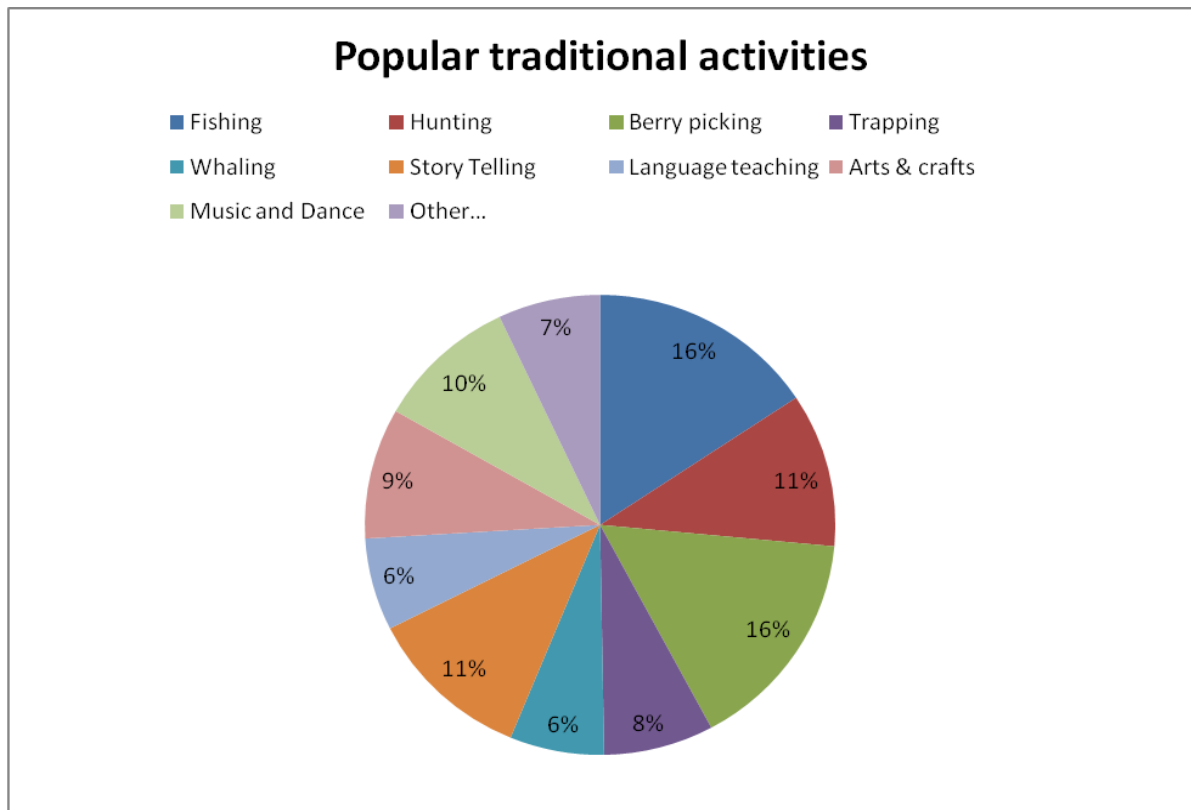
**Figure – 5: Top 17 codes which came up most prominently in the open ended questions**



**Table 11: Number of subjects in the sample who participate(d) in traditional activities**

Popular traditional activities	# of subjects of the sample
Fishing	29
Hunting	20
Berry picking	29
Trapping	14
Whaling	12
Story Telling	21
Language teaching	12
Arts & crafts	17
Music and Dance	18
Other...	13

**Figure – 6: Popular Traditional Activities**



## Appendix – B

Licence No. 14552  
File number 12 410 848  
Monday, July 06, 2009

### 2009 Northwest Territories Scientific Research Licence

**Issued by:** Aurora Research Institute – Aurora College  
Inuvik, Northwest Territories

**Issued to:** Mr. Edwin D Kolausok  
Vancouver Island University  
Box 50102  
RPO Terminal Park  
4B - 1533 Estevan Road  
Nanaimo, BC  
V9S 5X1 Canada  
Phone: (250) 740-1675  
Fax: (250) 740-6575  
Email: arcticworld@hotmail.com

**Affiliation:** Vancouver Island University  
**Funding:** GNWT ITI  
Accelerate BC (a division of MITACS)  
Inuvialuit CEDO (TBC)  
Billy Archie Contracting & Consulting

**Team Members:** Arvind Chauhan  
Abdulkader Mahairi  
Gaganjot Singh  
Billie Archie  
Don McDonald

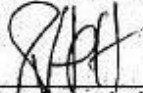
**Title:** Aklavik Community Economic Sustainable Development Plan

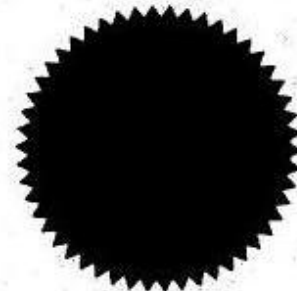
**Objectives:** The goal of the research project is to research and compile the requirements for the production of an Aklavik Community Economic Sustainable Development Plan (ACESDP) for the community of Aklavik.

**Dates of data collection:** July 6 to December 30, 2009

**Location:** Aklavik

Licence No. 14552 expires on December 31, 2009  
Issued in the Town of Inuvik on Monday, July 06, 2009

  
\_\_\_\_\_  
Pippa Secombe-Hett,  
Director, Aurora Research Institute



## Appendix – C



May 11, 2009

Dan McDonald  
First Nations Studies  
Vancouver Island University  
900 Fifth Street  
Nanaimo, British Columbia  
V9R 5S5

Dear Dan:

The Committee for Research Involving Human Subjects (CRIHS) is pleased to grant approval for the project titled 'Aklavik Community Economic Sustainable Plan,' submitted April 28, 2009.

Please be aware of your obligation to carry out the research as stated in the proposal. Guidelines as posted on the website at <http://www.mala.ca/research/committees/crihs/crihshome.asp> must be followed for all submissions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ruth Kirson".

Ruth Kirson, Chair  
Committee for Research Involving Human Subjects (CRIHS)

CRIHS Reference No. 2009-032-VIUF-MCDONALD  
Date of Approval May 11, 2009  
Date of Expiry May 10, 2010

As researcher(s) I (we) hereby agree to carry out the research in an ethical manner as outlined in the approved proposal submission. If I (we) need to make changes to the methods and/or recruitment and consent procedures, I (we) will request an amendment from the CRIHS. If the project runs longer than one (1) year, I (we) will submit a request for continuing review (renewal) to the Ethics Officer one (1) month prior to the expiry date indicated above. At the end of the project, I (we) will notify the Ethics Officer to close the study.

A handwritten signature in black ink, appearing to read "Dan McDonald".

Dan McDonald, U-C Professor, First Nations Studies

MAY 22, 2009

Date



## **Appendix – D**

### **Suggested Introduction Protocol**

My name is (name of interviewer) I am an MBA/MScIB graduate student from the University of Vancouver Island. I am working on an approved research study to research, compile and produce an Aklavik Community Economic Sustainable Development Plan (ACESDP) for the community of Aklavik, Northwest Territories, Canada.

The study involves information gathering by using interviews to obtain opinions from local people to help inform the research. Information from this interview will be used to complete the final research report, but under no circumstances will your name or identifying characteristics be included in the report. Your name will be kept confidential. The research has been licensed by the Aurora Research Institute – Aurora College at Inuvik, as well as approved by the Ethics Review committee at Vancouver Island University.

Can I interview you for this research study? [If the person does not wish to do an interview, thank the person and leave.]

[If the person agrees to do the interview, thank the person, and then administer the paper or computer based interview questionnaire.]

### **Debriefing Protocol**

Thank you for participating as a research participant in the present study concerning your views of community economic sustainable development for the community of Aklavik. The present study will provide information to assist in producing an Aklavik Community Economic Sustainable Development Plan.

If you have any questions regarding this study, please feel free to ask the researcher. You can also contact Mr. Billy Archie, Community Coordinator and Liaison, in Aklavik at 978-2148 or members of the Aklavik Steering Committee whom are available by contacting the offices of the Aklavik Indian Band, Aklavik Hamlet or Aklavik Community Corporation. You can also contact the lead researcher, Mr. Edwin Kolausok by email at

arcticworld@hotmail.com or by telephone at 250-740-1675 or Professor Dan McDonald, Vancouver Island University, Nanaimo, B.C., Telephone: 250-753-3245, Extension: 2187, Email: Dan.McDonald@viu.ca.

Thanks again for your participation.

### **Notes for researchers/interviewees**

Things to remember during the interview:

1. At the start of the interview, provide background information to the project.
2. Re-assure the interviewee that confidentiality of interview participant will be protected.
3. Throughout interview take notes.
4. Identify any action to be followed up on by the research team.
5. Request permissions to follow up, if necessary, by telephone, face to face or by Email.
6. Once the interview is completed, thank the interviewee, enter any additional field notes and move onto the next household.

After the Interview:

1. Write up Contextual interview notes.
2. Complete fact sheet information and enter into database.
3. Identify action points.
4. Check and edit file or transcript and archive for coding.
5. Arrange to follow up by telephone, face-to-face or Email if necessary to clarify any important information.
6. Enter factual content information from interview into database.
7. Save transcript and notes in one WORD file and make a back up on an external storage device. Enter data into excel model for review, analysis and interpretation.

## Appendix – E

### Questionnaire

1. How long have you lived in Aklavik?

Since \_\_\_\_\_ or \_\_\_\_\_ years.

2. In your view, what does this community need more of, and why?

3. In your view, what does this community need less of, and why?

4. In your opinion, what are the things that can make Aklavik a sustainable\* community?

5. What does Economic well-being mean to you?

6. What role would Economic development\* play with regard to your community's sustainability?

**\*Sustainable** means: "Environmental, economic and social well-being for today and tomorrow" (International Institute for Sustainable Development, 2009). **Economic development** means increase in the standard of living (Wikipedia, 2009).

7. Where do you see your community in 5 years from now? In 10 years?

8. In your opinion, what are the strengths of your community, or what are the things that make Aklavik a good place to live?

9. Describe the state of healthcare available in your community.

10. What do you think about the state of housing and rent in your community. Please also compare traditional (such as log home structures) versus modern housing.

11. In your opinion, what are some (list 2-3) of the most pressing problems being faced by your community, and how can these problems be addressed?

12. If there was one thing you could change about your community, what would it be?

13. In your opinion, what role should the Federal Government, acting as an agent of change, play in the future of your community?

14. In your opinion, what role should the Territorial Government, acting as an agent of change, play in the future of your community?

15. In your opinion, what role should the Aboriginal Groups, acting as an agent of change, play in the future of your community?

16. In your opinion, what role can the Oil & Gas industry play in the future of your community?

17. In your view, what role can tourism play in the future of your community?

18. In your viewpoint, list some of the things which visitors and tourists would find interesting in the Aklavik region.

19. What are your ideas about promoting tourism in the Aklavik region?

20. Which other industries, besides Oil & Gas and Tourism, do you think can play a significant role in improving the economy of your community?

21. Which traditional activities have you participated in during the last 3 years (please tick)?

- Fishing
- Hunting
- Berry picking
- Trapping
- Whaling
- Story Telling
- Language Teaching
- Arts and Crafts
- Music and Dance
- Others: \_\_\_\_\_

22. How can traditional activities help your community sustainability?

23. What, in your opinion, is the role of education and training programs towards contributing to your community's sustainability?

24. What, in your opinion, is the role of computers and internet technology towards contributing to your community's sustainability?

25. Would you like to upgrade your education level or skills, given the opportunity? If yes, then list the education or training programs you would like to attend.

26. Describe a typical day you went through last week.

27. Do you use computers and/or internet at home or work? If yes, then what for?

28. Is there anything else you would like to tell us?

### **Section: Personal information**

29. In what age group are you?

- 19 and under
- 20 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 - 69
- 70 - 79

80 and over

30. Sex:

Male

Female

31. What is your education level?

No Formal Education

Elementary

High school certificate or equivalent

Apprenticeship or trades certificate or diploma

College, CEGEP or other non-university certificate or diploma

University certificate or diploma below the bachelor level

University certificate or degree

Other, please specify: \_\_\_\_\_

Using the following rating scale:

**SD**=Strongly Disagree, **D**=Disagree, **N**=Neutral, **A**=Agree, **SA** = Strongly Agree

32. How would you rate the following statements about economic development?

a. Economic development is important for the future good of our community.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
b. There are good employment opportunities for people in the community.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
c. Government is doing enough work to	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

help develop economic opportunities.					
d. Industry is doing enough work to help develop economic opportunities.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
e. Aboriginal groups are doing enough work to help develop economic opportunities.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

33. Using the same scale, how would you rate the following statements about tourism?

a. The tourism industry will provide long-term employment opportunities	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
b. I would work in the tourism industry if I was offered employment in that industry	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
c. It is important to share my culture with tourists	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
d. It is important to make tourists welcome in our community.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
e. Tourism helps to promote our culture.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

34. Using the same scale, how would you rate the following statements about education and technology?

a. Education and Training opportunities are important to help people prepare to be employed in economic development activities.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
b. The government and industry provide enough training programs for the	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA



community.					
c. If I had the opportunity I would upgrade my skills in computer information technology?	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

35. How would you rate the following statements about the traditional economy?

Traditional Economy (activities such as hunting, fishing, berry picking, trapping, art & crafts)

a. Traditional activities help to preserve our culture.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
b. Traditional activities promote community development.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
c. Traditional activities can help develop good self-esteem in our people.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

36. How would you rate the following statements about healthcare in your community?

a. The level of health care services in our community is satisfactory.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
b. There is enough being done to promote healthy living and health care in our community.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
c. The health care system in our community can benefit from using modern technology such as video or Internet to enhance local services.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

37. Using the same rating scale, how would you rate the following statements about Housing?

a. Community housing needs to be improved.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
b. Modern home construction is adequate for our community.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
c. Traditional housing such as log home structures is better for our community.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
d. The economic rent scales are working well.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
e. The economic rent scales should be more flexible.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA
f. The cost of operating housing in our community can be reduced by upgrading homes and using energy saving devices.	<input type="radio"/> SD	<input type="radio"/> D	<input type="radio"/> N	<input type="radio"/> A	<input type="radio"/> SA

***Thank you.***

## **Appendix – F**

### **Sample of responses to open questions**

**Question:** In your view, what does this community need more of, and why?

Answer: In my view this community needs more of accountability because too many times we hear of abuse of programs. We need more people working. More employment opportunities. More training in areas like self-esteem training. More requirements for income support people to take courses or programs that will help them to develop confidence to move away from abuse of the system and become more confident and productive. If more courses could be offered here for personal development and the requirement that those on income support be required to take these courses.

**Question:** In your view, what does this community need less of, and why?

Answer: Alcohol abuse. It seems like a good portion of the people are either addicted to drugs or alcohol. The community needs less gambling.

**Question:** In your opinion, what are the things that can make Aklavik a sustainable community?

Answer: I don't know.

**Question:** Where do you see your community in 5 years from now? In 10 years?

Answer: I don't know. I might be dead by then.

**Question:** In your viewpoint, list some of the things which visitors and tourists would find interesting in the Aklavik region.

Answer: Carvings, art and crafts, paintings. Culture, language and people. Albert Johnson's grave. It is a good attraction.

## **Appendix – G**

### **Sample of interviewer's comments**

“This interview was done starting at 2:45 pm. We conducted the interview with an elderly gentleman. He was home alone in a small one bedroom home. A small puppy was tied up on the steps and it was eating when we arrived. The elder had his tv on and the radio. His home was dark as it was very hot out. The gentleman was very quiet and passed on a lot of questions. The interview ended at 3:15pm.”

“When going door to door during the evening we asked the head of the household to do an interview and he said his home was under renovations so it would be better if we interviewed him at his work place. We arranged a better time to meet and told him that we would come to his office to conduct the interview. On Monday, July 13, 2009 we went to his office and asked if it was a good time to conduct the interview. He said it was fine with him. The interview was conducted in an office in the Aklavik administration building. The interviewee wanted the door shut as he felt more comfortable in providing his opinions in private. After the interview, the interviewee told us a lot more about his ideas and opinions related to other matters but since we did not have his permission to record the extra information, we went back to the questionnaire and re-asked some of the questions.”

“The interview was conducted in the elder's home. He invited us in and we sat at his kitchen table. He spoke of the saw mill and how it could create a lot of work for the town. His home was clean and well kept with all the furniture and appliances.”

“The interview was conducted in the home of a community leader. He was the only individual home during the interview which started at 9:05pm. During our random home sample visit, the interviewee asked that we come back during this time as it was more convenient for him. The interviewee offered us tea, muktuk and roast caribou. We could not refuse the offer and out of respect we ate a small portion. At this time of the evening it was hot and the sun was shining bright. The interviewee was happy to say that he enjoyed his culture and country foods. He sat on his couch in the living room with a coffee table and large TV in it. The interview ended at 10:45pm.”

“This interview was with a person in the late 50’s. He was watching T.V. when I came in and requested for an interview. He left the couch and came to a table to do the interview. The T.V. was still on the background. He recently moved into a public housing facility. He was to the point and took some time to answer questions. He wasn’t hesitant to pass on certain questions. This questionnaire was done on July 10 in the afternoon from 3.45 to 4.30 pm.”

## **Appendix – H**

### **FOCUS GROUP INTRODUCTORY DEBRIEFING AND SESSION PROTOCOL AND STRUCTURE**

A focus group involving a group of invited elders from the community will be conducted to gather elder's opinions on the topic of community economic development. A researcher will facilitate the focus group discussion using specific questions formulated to compliment the individual questionnaires produced to obtain information from the broader community. This will be done to maintain consistency with the objectives of the research. The focus group session will be conducted in a meeting room in the community.

#### **Structure of Focus Group Session:**

Introductions – Welcome Elders (5 min.)

Overview of the research project – to obtain community opinions from participants on their ideas related to community economic development. (5 min.)

The facilitator will use the Facilitated/Interview Focus Group Protocol to engage the Focus Group facilitation process.

#### **Facilitated Interview/Focus Group Suggested Protocol:**

The Interview/Focus Group Protocol allows the researchers to probe more deeply into the opinions and ideas that community elders perceive about community economic development in the community of Aklavik. An open-ended format of the interview protocol will allow the elders to offer information about community economic development that might not be revealed through a structured individual questionnaire format.

Open-ended responses from participants in the focus group will be sought through the use of questions asked by the facilitator. The following is a sample script (protocol) for the group facilitator, and an item bank of interview/focus group questions for them to use in administering the focus group sessions. We recommend that items 1 through 4 from the item bank be used then no more than 2 to 3 additional questions from items 5

through 12 of the item bank be used. This will help to keep the discussion focused on key areas of study.

This focus group protocol can be used as a supplement to the community questionnaire that will be administered separately. The facilitated focus group can: (1) gather information to help interpret the participant's responses; and (2) provide information on ideas that supplement the broader elder's opinions about their ideas on community economic development.

Phrases in italics are instructions or suggestions for the facilitator to use to help explain the focus group objectives and next steps.

### **Sample Introduction/Conclusion for Focus Groups:**

Welcome the participants. Ask the participants to introduce themselves.

The facilitator will then introduce the session saying:

"Thank you for attending this session today. *[Provide a brief description of the research study and explain why it is important for the participants to provide their opinion and ideas fully and thoughtfully he questions.]*

We've invited you to this session so that we can learn from you what your thoughts are regarding community economic development and if you have any ideas related to community economic development. This is an open discussion. We want to know what thoughts and ideas are regarding community economic development. This will help us learn about your experiences. It will also help us understand some of the ideas you may have on potential community economic development activities in your community.

We are focusing on your experiences related to traditional and modern community economic development activities.

This session will be recorded so that we can study what you have said, but no names will be identified from this group in our research report. Your experiences and ideas are important and we will keep your identity strictly confidential and we will not be telling others who said what in this session. Please say your name when you have something to say so that when we are listening to the tape again we will know who is speaking and we can relate your comments to your ideas throughout the session.

At the conclusion of the focus group session, briefly summarize the main experiences and ideas made in the discussion. Seek general agreement that the summary reflects what participants have shared. The facilitator can say something like this: "What I heard you say today was ...(summarize main points)...Did I leave anything out in the summary? Is there anything that you want to amend or add?"

Thank you for participating in this session.

*A week or two after the focus group session write a brief memo to the participants with a summary of the session and provide some actions that will be taken as a result of the discussion, if applicable. This will help to reinforce the value of their participation.*

**Suggested Interview /Focus Group Questions:**

1. What is your overall opinion on the value of traditional economy activities like fishing, hunting, and arts and crafts?
2. What are some ideas that you have related to traditional economy? For example, do you have any suggestions regarding traditional economic activities that could be undertaken in the community? Do you have any ideas on cultural tourism that are important to your community?
3. What is your opinion of the value of modern economic activities such as oil and gas, mining, tourism and small business in your community?
4. What are some ideas that you have related to the modern economy? For example, do you feel that mineral, oil and gas resource development will provide economic opportunities for your community?

*Questions 5 through 12 are questions of general interest.*

5. What are some training programs that you think are important for enhancing the traditional economy?
6. Do you think that modern technology like computers or the Internet is important to use to promote the traditional economy?
7. Do you feel that it is important to involve elders in the school to share knowledge about the traditional economy with youth?
8. Are there traditional economy training and awareness programs that you are aware of that are working to promote the traditional economy?
9. Do you think that enough is being done to promote the traditional economy in your community?
10. What are some training programs that you think are important for enhancing the modern economy?
11. Do you think that modern technology like using computers or the Internet is important to use to communicate regarding employment and training programs?
12. Do you think that using conventional means such as posters and resource people in the community is important to promote employment and training opportunities?



## **Appendix – I**

### **Posters and radio announcements for creating ACESDP public awareness**

#### **Poster for invitation of community elders:**

Notice of Aklavik Research Project and  
Open Invitation to Community Elders to Participate in a Focus Group Session

Location: Aklavik Hamlet Council Chambers

Date: July 17, 2009

Time: 4:00-6:00pm

#### **Research Project Overview:**

Graduate students from Vancouver Island University are in Aklavik to undertake a research project that seeks to obtain the views of local people with regard to community economic sustainable development. An Aklavik Steering Committee composed of members from the Aklavik Hamlet Council, Aklavik Indian Band and the Aklavik Community Corporation has been created to help facilitate the research project. The research project is seeking the views of local elders to help inform and create an Aklavik Community Economic Sustainable Development Plan that may be used to assist in future planning initiatives by the community. We invite you to attend this session and to share your views.

This focus group session seeks the views of community elders and your participation in this session is greatly appreciated.

For more information contact Billy Archie, Aklavik Research Project Sponsor and Community contact for the project at: 978-2148.

**Poster for informing and inviting business people:**

Notice of Aklavik Research Project

And

Invitation to Community Business Members to Participate in a Focus Group Session

Location: Aklavik Hamlet Council Chambers

Date: July 16, 2009

Time: 4:00-6:00pm

Dear \_\_\_\_\_(Business)

Fax Number: \_\_\_\_\_

You are invited to participate in the above noted Focus Group Session.

Research Project Overview:

Graduate students from Vancouver Island University are in Aklavik to undertake a research project that seeks to obtain the views of local people with regard to community economic sustainable development. An Aklavik Steering Committee composed of members from the Aklavik Hamlet Council, Aklavik Indian Band and the Aklavik Community Corporation has been created to help facilitate the research project. The research project is seeking the views of local people to help inform and create an Aklavik Community Economic Sustainable Development Plan that may be used to assist in future planning initiatives by the community. This focus group session will seek the views of business people regarding community economic sustainable development. We invite you to attend this session.

For more information contact Billy Archie, Aklavik Research Project Sponsor and Community contact for the project at: 978-2148.

## **Appendix – J**

### **Themes that emerged from the 4 focus group sessions**

**The following themes (not in order of priority) were common and raised in some capacity in all four focus group sessions:**

1. Culture and language preservation is important
2. All-Weather Road to Aklavik Mountains
3. Aklavik needs jobs and more local training programs
4. Housing needs improvement especially rental rate structure
5. There is need for a local Healing Center
6. The town needs to be cleaned up, Aklavik beautification is important
7. Aklavik used to have a Fur Shop and Sawmill why not look into these opportunities
8. Tourism Development is important
9. The environment and wildlife are important to protect
10. Traditional Economy & Cultural Support Programs are important
11. The community needs to work together
12. The roads and sidewalks need to be fixed up
13. Education is important but our youth need more employment opportunities
14. Alcohol and drugs are causing problems so we need community solutions
15. Leadership working together will better our community
16. Income Support

## Appendix – K

	A	AD	AE	AF	AG	AH	AI	AJ	AK
1	Question # from Questionnaire	0029	0030	0031	0032	0033	0034	0035	0036
2	Q.1	38	27	75	45	55	45	20	24
3	Q.29	2	3	6	3	4	3	1	6
4	Q.30	1	0	0	1	1	0	0	1
5	Q.31	1	1	1	1	2	2	1.9	5
6									
7									
8	Q.32 a	2	2	2	2	1	2	1	2
9	b	-1	-2	-1	-1	-1	-1	-1	1
10	c	-2	-2	-2	-1	-1	-1	-1	-2
11	d	-1	-2	-1	-1	-1	-1	-1	-1
12	e	1	0	-1	-1	1	-1	-1	-1
13	Q.33 a	-1	0	0	1	1	1	1	2
14	b	1	2	1	1	0	1	1	1
15	c	-1	2	1	1	1	1	1	1
16	d	1	1	1	1	1	1	1	1
17	e	1	1	1	1	1	1	1	1
18	Q.34 a	1	1	2	1	1	1	1	2
19	b	-1	-2	-1	-1	-1	-1	-1	0
20	c	1	1	1	1	1	1	1	1
21	Q.35 a	1	2	2	2	1	1	1	2
22	b	1	1	1	1	1	1	1	1
23	c	2	2	2	1	1	1	1	2
24	Q.36 a	-2	0	-1	-1	-2	-1	-1	1
25	b	1	-1	-1	1	1	0	1	0
26	c	1	1	1	1	1	1	-1	1
27	Q.37 a	1	2	2	2	2	1	2	2
28	b	-1	0	1	-1	2	-1	1	1
29	c	0	0	0	-1	0	0	1	1
30	d	0	-2	0	-1	-1	-1	-1	-1
31	e	1	1	1	1	1	1	1	1
32	f	1	1	1	1	1	1	1	1

## Appendix-L

### Aklavik's Infrastructure Profile

(Source: NWT Bureau of Statistics, 2009 and consultations with community leaders)

#### **Educational Infrastructure:**

Maximum Grade	12
Community Learning Centre	Yes
Aurora Campus	None
Aurora Research Centre	None
Career Centre	None

#### **Transportation Infrastructure:**

Primary Highway	None
All Weather Access Road	None
Winter Access Road	Yes
Marine Re-supply Facility	Yes
Airport	Yes
Air Terminal Building	Yes

#### **Housing Infrastructure:**

Private Housing(rented)	18
Public Housing(rented)	145
Staff Housing(rented)	8
Private(owned)	77

#### **Communication Infrastructure:**

Postal Service	Full
Connectivity Speed	256kbps and high speed internet
Satellite or Land Line	Satellite
Television(Satellite/Cable)	Satellite
Telephone Features Available	Full

#### **Business Infrastructure:**

Government Financing	None
Chartered Bank Branches	None
ATM Service	2
Grocers	2

**Recreation Infrastructure:**

Community Hall	1
Arena	1
Curling Rink	1
Gymnasium	1
Swimming Pool	1

**Tourism Infrastructure:**

Lodges/Outfitters	0
Accommodations	1
Campgrounds	0
Parks	0
Restaurants	2
Visitor Centre	0

**Electricity Infrastructure:**

Type of Electricity Supply	Diesel
Supplier of Electricity	NTPC – Northwest Territories Power Corporation

**Health Infrastructure:**

Hospital	No
Health Centre	Yes (4 Nurses)
Health Station	No
Women's Shelter/Transition House	None

**Judicial Infrastructure:**

Number of Police Officers	3
Correctional Facility	None
Young Offenders Facility	None

**Municipal Infrastructure:**

Fire hall	Yes
Sanitation	Trucked
Waste Disposal	Solid/Sewage
Road System	Gravel

## Appendix-M

Consent Form

Number \_\_\_\_\_

### **A Study on economic sustainable development in the community of Aklavik: Views of Aklavik Adults. Survey conducted in Aklavik.**

You are invited to participate in a questionnaire interview with Edwin Kolausok and Gaganjot Singh/ Interviewer students from VIU). This research study has been designed to document the views of Aklavik adults regarding community economic sustainable development. These interview responses may be used by our research team to develop an Aklavik Community Economic Sustainable Development Plan (ACESDP) for the community of Aklavik.

What will I be asked to do?

The study is interested in your opinion. Your participation in this interview is voluntary. You may answer as many or as few questions as you have time or interest in answering. You can withdraw from the interview at any time during or after the interview and for any reason. If you withdraw from the interview, you may request that any data that you have contributed be returned to you or destroyed. Primary data that is collected will be securely stored at VIU, accessed only by researchers and destroyed after seven years. Aklavik advisory committee has been established to participate in and verify the plan which when confirmed will be owned by the community of Aklavik.

### **Option of Anonymity/Confidentiality**

You have the option of having your name and organization identified or of remaining anonymous for the purposes of this interview. If you wish to remain anonymous you will not be identified by name, and every effort will be made to ensure that specific remarks will not be identifiably linked with specific questionnaire respondents. You may be asked to have your interview recorded, and no names will appear on transcripts or the audio tapes if you wish to remain anonymous.

Yes\_\_ No\_\_ I agree to have my name/organization identified or

Yes\_\_ No\_\_ I wish to remain an anonymous participant in this questionnaire interview.

Yes\_\_ No\_\_ I wish to have this interview audio recorded.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Participant's name

\_\_\_\_\_  
Participant's Signature

Our research team agrees to use the information provided in this interview in accordance with the terms outlined above.

Date	Researcher's name	Researcher's Signature

If you have any questions or require further information regarding this research project please contact:

Community Coordinator and Liaison: Billy Archie, 978-2148, Aklavik, NT.

Principal investigator/researcher: Dan McDonald, Vancouver Island University, Nanaimo, B.C., Telephone: 250-753-3245, Extension: 2187, Email: [Dan.McDonald@viu.ca](mailto:Dan.McDonald@viu.ca)

Student Supervisor: Bonita Russell, Vancouver Island University, Nanaimo, B.C., Telephone: 250-753-3245, Extension 2849, Email: [Bonita.Russell@viu.ca](mailto:Bonita.Russell@viu.ca)

Co-researcher/ Interviewer: Edwin Kolausok, Contact through Billy Archie, 978-2148 in Aklavik or directly by email at [arcticworld@hotmail.com](mailto:arcticworld@hotmail.com)

Co-researcher/ Interviewer: Abdulkader Mahairi, Contact through Billy Archie, 978-2148 in Aklavik or directly by email at [mahayri@hotmail.com](mailto:mahayri@hotmail.com)

Co-researcher/ Interviewer: Arvind Chauhan, Contact through Billy Archie, 978-2148 in Aklavik or directly by email at [20.arvind@gmail.com](mailto:20.arvind@gmail.com)

Co-researcher/ Interviewer: Gaganjot Singh, Contact through Billy Archie, 978-2148 in Aklavik or directly by email at [gaganjot.bassi@gmail.com](mailto:gaganjot.bassi@gmail.com)



## Appendix-N

### Price comparison between Aklavik, NWT and Nanaimo, BC of a basket of goods

Product	Size/Volume	Price (Aklavik)\$	Price (Nanaimo)\$**	Price Difference	Prices Nanaimo***	Prices Aklavik****
Milk	1 litre	4.67	1.55	3.12	100	301.29
Juice	1.89 litre	10.87	3.34	7.53	100	325.44
Bread	Loaf	4.88	3.84	1.04	100	127.08
Eggs	12 eggs	4.19	2.87	1.32	100	145.99
Potatoes	1 Kg	10.61	1.7	8.91	100	624.11
Apple	1 Kg	10.28	2.5	7.78	100	411.2
Banana	1 Kg	7.02	1.16	5.86	100	605.17
Tomatoes	1 Kg	8.28	2.41	5.87	100	343.56
					<b>Average</b>	<b>360.48</b>

The number 360.48 highlighted in the above table means that the average price of a basket of goods in Aklavik is 3.6 times of that in Nanaimo, BC.

\* Price of the basket of goods taken from Northern store Aklavik.

\*\* Price of the basket of goods taken from Wal-Mart Nanaimo.

\*\*\* Price of the basket of goods at Nanaimo after converting to a common base of 100.

\*\*\*\* Price of the basket of goods at Aklavik after adjusting to common base of 100.

## **Appendix-O**

(Source: Agenda21, 1992. Recognizing & Strengthening the Role of Indigenous People & Their Communities. [Internet] Available from: [http://www.un.org/esa/dsd/agenda21/res\\_agenda21\\_26.shtml](http://www.un.org/esa/dsd/agenda21/res_agenda21_26.shtml). Last accessed 20 October, 2009.)

### **Recognizing & Strengthening the Role of Indigenous People & Their Communities**

#### **Basis for action**

26.1. Indigenous people and their communities have an historical relationship with their lands and are generally descendants of the original inhabitants of such lands. In the context of this chapter the term "lands" is understood to include the environment of the areas which the people concerned traditionally occupy. Indigenous people and their communities represent a significant percentage of the global population. They have developed over many generations a holistic traditional scientific knowledge of their lands, natural resources and environment. Indigenous people and their communities shall enjoy the full measure of human rights and fundamental freedoms without hindrance or discrimination. Their ability to participate fully in sustainable development practices on their lands has tended to be limited as a result of factors of an economic, social and historical nature. In view of the interrelationship between the natural environment and its sustainable development and the cultural, social, economic and physical well-being of indigenous people, national and international efforts to implement environmentally sound and sustainable development should recognize, accommodate, promote and strengthen the role of indigenous people and their communities.

26.2. Some of the goals inherent in the objectives and activities of this programme area are already contained in such international legal instruments as the ILO Indigenous and Tribal Peoples Convention (No. 169) and are being incorporated into the draft universal declaration on indigenous rights, being prepared by the United Nations working group on indigenous populations. The International Year for the World's Indigenous People (1993), proclaimed by the General Assembly in its resolution 45/164 of 18 December 1990, presents a timely opportunity to mobilize further international technical and financial cooperation.

## Objectives

26.3. In full partnership with indigenous people and their communities, Governments and, where appropriate, intergovernmental organizations should aim at fulfilling the following objectives:

(a) Establishment of a process to empower indigenous people and their communities through measures that include:

1. Adoption or strengthening of appropriate policies and/or legal instruments at the national level;
2. Recognition that the lands of indigenous people and their communities should be protected from activities that are environmentally unsound or that the indigenous people concerned consider to be socially and culturally inappropriate;
3. Recognition of their values, traditional knowledge and resource management practices with a view to promoting environmentally sound and sustainable development;
4. Recognition that traditional and direct dependence on renewable resources and ecosystems, including sustainable harvesting, continues to be essential to the cultural, economic and physical well-being of indigenous people and their communities;
5. Development and strengthening of national dispute-resolution arrangements in relation to settlement of land and resource-management concerns;
6. Support for alternative environmentally sound means of production to ensure a range of choices on how to improve their quality of life so that they effectively participate in sustainable development;
7. Enhancement of capacity-building for indigenous communities, based on the adaptation and exchange of traditional experience, knowledge and resource-management practices, to ensure their sustainable development;

(b) Establishment, where appropriate, of arrangements to strengthen the active participation of indigenous people and their communities in the national formulation of policies, laws and programmes relating to resource management and other development processes that may affect them, and their initiation of proposals for such policies and programmes;

(c) Involvement of indigenous people and their communities at the national and local levels in resource management and conservation strategies and other relevant

programmes established to support and review sustainable development strategies, such as those suggested in other programme areas of Agenda 21.

### **Activities**

26.4. Some indigenous people and their communities may require, in accordance with national legislation, greater control over their lands, self-management of their resources, participation in development decisions affecting them, including, where appropriate, participation in the establishment or management of protected areas. The following are some of the specific measures which Governments could take:

- (a) Consider the ratification and application of existing international conventions relevant to indigenous people and their communities (where not yet done) and provide support for the adoption by the General Assembly of a declaration on indigenous rights;
- (b) Adopt or strengthen appropriate policies and/or legal instruments that will protect indigenous intellectual and cultural property and the right to preserve customary and administrative systems and practices.

26.5. United Nations organizations and other international development and finance organizations and Governments should, drawing on the active participation of indigenous people and their communities, as appropriate, take the following measures, inter alia, to incorporate their values, views and knowledge, including the unique contribution of indigenous women, in resource management and other policies and programmes that may affect them:

- (a) Appoint a special focal point within each international organization, and organize annual interorganizational coordination meetings in consultation with Governments and indigenous organizations, as appropriate, and develop a procedure within and between operational agencies for assisting Governments in ensuring the coherent and coordinated incorporation of the views of indigenous people in the design and implementation of policies and programmes. Under this procedure, indigenous people and their communities should be informed and consulted and allowed to participate in national decision-making, in particular regarding regional and international cooperative efforts. In addition, these policies and programmes should take fully into account strategies based on local indigenous initiatives;
- (b) Provide technical and financial assistance for capacity-building programmes to support the sustainable self-development of indigenous people and their communities;

(c) Strengthen research and education programmes aimed at:

1. Achieving a better understanding of indigenous people's knowledge and management experience related to the environment, and applying this to contemporary development challenges;
2. Increasing the efficiency of indigenous people's resource management systems, for example, by promoting the adaptation and dissemination of suitable technological innovations;

(d) Contribute to the endeavours of indigenous people and their communities in resource management and conservation strategies (such as those that may be developed under appropriate projects funded through the Global Environment Facility and the Tropical Forestry Action Plan) and other programme areas of Agenda 21, including programmes to collect, analyse and use data and other information in support of sustainable development projects.

26.6. Governments, in full partnership with indigenous people and their communities should, where appropriate:

(a) Develop or strengthen national arrangements to consult with indigenous people and their communities with a view to reflecting their needs and incorporating their values and traditional and other knowledge and practices in national policies and programmes in the field of natural resource management and conservation and other development programmes affecting them;

(b) Cooperate at the regional level, where appropriate, to address common indigenous issues with a view to recognizing and strengthening their participation in sustainable development.

## **Means of implementation**

### **A) Financing and cost evaluation**

26.7. The Conference secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about \$3 million on grant or concessional terms. These are indicative and order-of-magnitude estimates only and have not been reviewed by Governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes Governments decide upon for implementation.

## **B) Legal and administrative frameworks**

26.8. Governments should incorporate, in collaboration with the indigenous people affected, the rights and responsibilities of indigenous people and their communities in the legislation of each country, suitable to the country's specific situation. Developing countries may require technical assistance to implement these activities.

## **C) Human resource development**

26.9. International development agencies and Governments should commit financial and other resources to education and training for indigenous people and their communities to develop their capacities to achieve their sustainable self-development, and to contribute to and participate in sustainable and equitable development at the national level. Particular attention should be given to strengthening the role of indigenous women.

## **Appendix-P**

(Source: CAEPR, 2009. Recognizing & Strengthening the Role of Indigenous People & Their Communities. [Internet] Available from: [http://www.anu.edu.au/caepr/faq/research\\_areas.php](http://www.anu.edu.au/caepr/faq/research_areas.php) Last accessed 20 October, 2009.)

### **Theme 1. Economic, cultural and social circumstances**

**Lead researchers:** Dr John Taylor and Dr Boyd Hunter

This research theme contributes directly to the policy discourse on 'closing the gaps' between Indigenous and other Australians across a range of social indicators. Since its inception in 1990, a core focus of CAEPR's research has been the tracking of change in Indigenous social and economic circumstances at national, regional and local levels. Notable in the current plan is a major population project sponsored by the Ministerial Council on Aboriginal and Torres Strait Islander Affairs. This is examining regional change in Indigenous social indicators, establishing measures of residential segregation and migration in metropolitan areas, and developing a typology of short term mobility and its consequences for service delivery.

### **Theme 2. Economic development aspirations and sustainable futures**

**Lead researcher:** Professor Jon Altman

This theme explores innovative ways to improve livelihood opportunities for Indigenous people through economic engagement with the market and the customary sectors appropriately enabled by the state. Much of the focus is regional and remote Australia and on Indigenous communities located on the significant Indigenous estate. The theme addresses two crucial issues: the provision of economic development opportunity for Indigenous people in geographically remote contexts; and the provision of economic development opportunity that acknowledges the diversity of Indigenous aspirations and their fundamental difference (in many instances) from those of mainstream Australians.

### **Theme 3. Governance, policy and the state**

**Lead researchers:** Dr Will Sanders and Dr Janet Hunt

This theme examines governance and public policy relating to Indigenous Australians at a number of different empirical and conceptual levels. It includes research on

Indigenous community governance, examining successful organisations within diverse service delivery areas, particularly regionalized local government. It also pays attention to the larger policy environment in which these local and regional organisations operate, dominated by Commonwealth and State/Territory governments. In addition it recognises the growing role of non-state actors in Indigenous governance and policy. The theme notes the complexity of state organisation in Indigenous affairs and the indeterminacy and frequently changing nature of policy. Conceptually, the theme asks whether organisational complexity has benefits for Indigenous affairs as well as costs, and whether policy indeterminacy and change are inevitable or can be lessened. The theme seeks in the first instance to analyse state policy towards Indigenous people and, in light of this, to formulate possibilities for improvement where this seems possible.

#### **Theme 4. Education and learning for life**

**Lead researchers:** Dr Jerry Schwab and Dr Inge Kral

This research theme focuses on the effective delivery of education, the development of evidence-based education policy and the social context of literacy and life-long learning among Indigenous Australians. It includes research on all levels and sectors of formal education and training, but also extends to consideration of non-formal contexts and learning across the lifespan. Research under this theme involves both qualitative and quantitative methodologies and is anchored by an understanding that learning is fundamentally social and situated and can be found and enhanced both inside and outside the classroom. In addition, CAEPR research in this area is framed by an awareness that education and training are most effective when linked to the local social, cultural and economic contexts of everyday life. Several of the current projects in this theme involve collaborations with government departments, Indigenous organisations and communities and involve ground-breaking research that addresses post-school skills acquisition and youth pathways to employment through land management, media and other community-based arenas of learning.



## **Appendix-Q**

(Source: Teara, 2009. Recognizing & Strengthening the Role of Indigenous People & Their Communities. [Internet] Available from: <http://www.teara.govt.nz/en/maori/5>. Last accessed 20 October, 2009.)

### **Urbanisation and renaissance**

Following the Second World War, many Māori elected to move from their tribal and rural communities to find work in the bigger centres. While some Māori attempted to bring traditional institutions into the cities – by establishing urban *marae* for example, urbanisation brought major change to the Māori world. Older tribal structures lost influence, and urban-based Māori became educated in western institutions.

Āpirana Ngata died in 1950, and a new breed of leaders emerged in the context of the rapidly urbanised Māori communities.

### **The rise of modern protest**

During the late 1960s there was a growing awareness of the impact of colonisation on Māori, and urban protest movements such as Ngā Tamatoa (the young warriors) emerged. This and other groups of mainly urban Māori spearheaded protest, in the 1970s, about loss of land and culture. In 1975, led by Dame Whina Cooper, thousands of Māori from all over the country walked the length of the North Island, from Te Hāpua down to the nation's capital, Wellington. In a powerful and innovative way the land march embodied Māori protest over ongoing land alienation. Political activism continued at Waitangi, and in 1977–78 the Ngāti Whātua people occupied Bastion Point above Ōkahu Bay in Auckland. The tribe had been evicted from the bay in 1951, after continuing alienation of their land by the Crown from 1870.

The Waitangi Tribunal, designed to address perceived breaches of the Treaty of Waitangi, was established in 1975. The tribunal became a forum for the expression of much Māori protest and anger over the impact of European colonisation. Its findings have led to settlements which have returned some assets to tribes.

### **Renaissance**

The Māori renaissance since 1970 has been a remarkable phenomenon. Major claims regarding the historical dispossession of tribal estates have been brought before the Waitangi Tribunal; the management of tribal or Māori-owned assets has been

rearranged; a Māori-language education system has been established; and Māori have started major industry initiatives including fishing, aquaculture and farming.

There is now a wide range of Māori-owned enterprises such as television and radio, businesses and tourist ventures. Additionally, there is significant political representation, and an increasing number of individuals are gaining international reputations for their achievements. Today, Māori people can be found in a wide array of pursuits and activities throughout the country and the world.

### **The challenge of the 21st century**

Numerous challenges lie before Māori. These include the incidence of certain diseases, such as diabetes, heart disease and cancers. Although more Māori are becoming educated, literacy rates are still a cause for concern, housing is poor in certain areas of the country, and unemployment rates have been consistently higher than for *Pākehā*. The state of the Māori language and the application of Māori cultural knowledge in modern New Zealand life are still debated. Finally, there is the question of the identity of Māori as a distinct people in an increasingly diverse yet integrated society.

Māori now represent a major and influential dimension within New Zealand's society and culture. While a great deal has been written about the negative effects of colonisation upon Māori, at times Māori have exhibited great inventiveness, ingenuity and resourcefulness, sometimes in very hostile circumstances. Some historians have praised 19th-century *pā* design as innovative and effective. The creation of ocean-going craft to cross vast distances is almost iconic in world history.

### **The art of adaptation**

Māori were very quick to draw on elements of European culture to enrich their art. In the 19th century, carvers rapidly replaced their stone tools with metal chisels, while women introduced dyed wool into their weaving. More recently carvers such as Cliff Whiting have carved in particle board, artists have used oils, glass and metal, and Māori have made the guitar central to their music.

For the last 200 years Māori have adapted western techniques and new media to the ongoing and highly creative development of their art. Even the contemporary restructuring of the Māori world – in the establishment of new institutions and organisations, the prosecution of claims before the Waitangi Tribunal, and the achievement of a degree of political representation and influence – demonstrates an ability to change, transform and grow.

## **Appendix-R**

(Source: Kofinas and Braund (1996). Defining Arctic Community Sustainability. [Internet] Available from: <http://www.taiga.net/sustain/lib/reports/sustainability.html>. Last accessed 22 October, 2009)

Kofinas and Braund (1996) mention the following issues pertaining to community sustainability which came up in their research on Arctic communities of NWT (including Aklavik), Yukon and Alaska.

### ***Subsistence***

- *healthy land & resources*
- *unimpeded access to resources*
- *continued harvest & use; "maintain the activity"*
- *continued traditional respect for land & animals*
- *Oil development on PCH calving ground threatens sustainability of community (OC, A, AV)*

### ***Wage employment***

- *need to enhance/expand the local economy; help ensure economic stability*
- *flexible jobs (allow for time on the land and suited to local skills)*
- *work with oil industry (K)*
- *eco-tourism (scenario); preserve & enhance the renewable resource economy (ren. res. jobs) (OC)*
- *tourism & recreation (non-consumptive) w/ limited resource development of timber & mining) (AV)*
- *difference between "jobs" and "cash" (harvester support programs, renewable resources ventures, tourism) (OC)*

### **Local Control/Self-Determination**

- *maintain control & responsibility over what is done & how it is done*
- *full & equal participation in fish and wildlife management processes & decisions (OC)*
- *guarantee rights to harvest and manage resources (OC)*
- *no restrictions on use of land and waters (K)*
- *develop effective co-management regime for homelands (K)*
- *desire to remain a sovereign nation (over land and village) under tribal government (AV)*
- *need local control of education to improve it (AV)*

### **Communication/Education**

- *education is the key to better employment*
- *educate younger people in both traditional knowledge and western science*
- *schools must provide appropriate curriculum (industry & subsistence)*
- *Need to educate outside world about Native "world view"*

### **Culture**

- *preserve & enhance the culture, identity and values*
- *time on the land*
- *language*
- *honor & respect elders (care for them; involve them in community decisions; learn from them)*

### **Infrastructure**

*The additional goal of "improved infrastructure" was mentioned by the community members of Arctic Village. They noted that sustainability required*

- *adequate housing (# & condition)*
- *clean water*
- *airport repair; church restoration; road repair*
- *lower fuel costs; use of alternative energy technologies*