Nikan Oti: Future – Understanding Adaptation and Adaptive Capacity in two First Nations

Final Research Project Report to the Prairie Adaptation Research Collaborative

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Willie Ermine, MEd. Ethicist/Researcher

Indigenous Peoples Health Research Centre, First Nations University of Canada

Dave Sauchyn, PhD. Research Coordinator

Prairie Adaptation Research Collaborative, University of Regina

Jeremy Pittman, Research Assistant

Prairie Adaptation Research Collaborative, University of Regina

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ABSTRACT

This report provides an overview of the findings from the Prairie Adaptation Research Collaboration project, Nikan Oti: Future – Understanding Adaptation and Adaptive Capacity in Two First Nations. Two community case studies were undertaken with the intent of understanding adaptation and adaptive capacity and specifically how communities make adjustments to their natural or human systems that will minimize their risks and position them to take advantage of new opportunities that climate change may present. Three basic objectives guided this community case study: Understanding and enhancing adaptation and adaptive capacity in support of climate change decision making; to examine and enhance community adaptation strategies; and to enhance adjustments in human systems in response to actual changes in climate and environment. Primary research with Elders from the two communities reveals significant socio cultural changes impacting the people resulting in some degree of maladaptation as adjustments were attempted. James Smith Elders identified a catastrophic cattle die-off in their community history and the resulting introduction of the welfare system as having a domino effect that led people into dependency. The particular concerns of the Shoal Lake Elders were the changed behaviours of their youth but they also identified other issues that were a result of changing lifestyles in the community. Community resources such as philosophies, culture and a deep seated spirituality provide elements of hope that the people from both communities can facilitate adaptive strategies as the future is negotiated.

EXECUTIVE SUMMARY

Two community case studies were undertaken with attention given to understanding Adaptation and Adaptive Capacity in two First Nations in Saskatchewan. Primary research involving Elders from the two communities of James Smith and Shoal Lake Cree Nations was undertaken as part of project entitled *Nikan Oti: Future – Understanding Adaptation and Adaptive Capacity in two First Nations*. Both communities had gone through significant changes as they shifted from largely traditional subsistence economies to contemporary mainstream lifestyles. The communities continue to experience changes not only in climatic and environmental terms, but also in their socio-cultural dimensions. These changes speak of shifts and tensions at deeper levels of human capacity and are in themselves portals, albeit in a socio-cultural sense, to the examination of how humans adapt to fundamental changes to their reality.

The Elders from both communities established historical benchmarks as they committed to a discourse on change and adaptation experienced by their people. The Elders from the James Smith and Shoal Lake Cree Nations understand that opening the field of memory to the old people's experiences provides wider latitude to the history of adaptation and change in the community. From this process, the Elders can illustrate long term change and identify the aberrations in community life. The James Smith Elders focused on the narrative of the community's history with the intent of teaching youth about the value of understanding community. Similarly, the Shoal Lake Elders looked to the teachings of their ancestors that speak of legacies and inheritance, for the guiding thoughts as they look to the future.

Changes brought on by lifestyle influences and shifting eras produced altered realities and in some cases considerable harm to the people in both communities. Community maladaptation is the people's inability to facilitate or enable appropriate responses to particular challenging events that have befallen people resulting in subsequent negative change. James Smith Elders identified a catastrophic cattle die-off in their community history and the resulting introduction of the welfare system as having a domino effect that led people into dependency. The particular concerns of the Shoal Lake Elders were the changed behaviors of their youth but they also identified other issues that were a result of changing lifestyles in the community. The communities experienced challenges as a result of these historical changes and there is general concern about lasting effects to the people.

The James Smith and Shoal Lake Cree Nations looked inward to find the resources they need to facilitate positive changes to their communities. This adaptive capacity pointed to their cultural and spiritual resources that have guided them through tumultuous changes in the past and the Elders believe that these resources are their primary claim to adaptive capacity. The Elders from the two First Nation communities had faith in the inherent strengths of their own people and believed that time-honoured philosophies of their ancestors would enhance their adaptive capacity. The James Smith Elders saw two adaptation strategies for their community. First was to instil the 'drive' of their ancestors to the next generations and secondly to focus on their own

capacity to model the virtues that they wanted the young people to adopt. The Shoal Lake Elders believed that adaptation hinged on their people's deep seated spirituality and philosophy. They saw value in having a land philosophy and the people's capacity to 'intent' the future for the benefit of future generations.

The two communities of James Smith and Shoal Lake also envisioned the adjustments needed in their community systems that would enhance the people's capacity to negotiate the future. The James Smith Elders saw changes happen in their community and recognized that dependency and a general deterioration of values stymied the people's progress. As counter measures, the James Smith Cree Nation Elders identified education, skills development and values teachings as the necessary adjustments that the community would have to make to prepare the next generations for the future. In the Community of Shoal Lake, the Elders had deep concerns about the challenges that their youth were facing in time of shifting lifestyles. The Elders looked deeply at their own roles and responsibilities to repatriate the youth to a knowledge system that they believe enhances their adaptive capacity for the future. A part of this strategy for community adjustment was to focus on the youth solutions that would include youth centered programming.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	Ι
ABSTRACT	Π
EXECUTIVE SUMMARY	III
TABLE OF CONTENTS	V
Introduction	1
Research	2
Objectives	3
Primary Research Method	4
Methodology	5
Benchmarks for Change	6
Old People of the James Smith Cree Nation	6
Shoal Lake Ancestors	8
Changes in Community	10
James Smith Cree Nation Changes	10
Shoal Lake Cree Nation Changes	11
Maladaptation	14
James Smith Shift to Dependence	14
Shoal Lake Youth Challenges	15
Adaptive Capacity	17
James Smith Cree Nation Resources	17
Spirituality	17
James Smith Cultural Practices	18
Work Ethic	19
Shoal Lake Cree Nation Resources	21

Spiritual Life	21
Examination of Past Community Adaptation Strategies	23
James Smith Cree Nation Strategies	23
Possessing Drive	23
Modelling the Virtues	25
Shoal Lake Cree Nation Strategies	26
Land Philosophy	26
Path to the Future	27
Adjustments in Human Systems in Response to Actual Changes	28
James Smith Cree Nation Systems	28
Education and Skills	28
Enhancing Values	29
Shoal Lake Cree Nation Systems	30
Elder Roles	30
Community Focus on Youth	31
Youth Programming	32
Project Deliverables	33
DISCUSSION	35
CONCLUSION	37
REFERENCES	38

INTRODUCTION

Duerden (2004) has written that "what we need to know, and what lies fairly in the perview of social scientists, is how human activity will respond to change. From the standpoint of affected populations, the important questions are "What will the impact be on way of life?" and "How shall we adapt (p. 210)?" In this respect, Elders from the James Smith and Shoal Lake Cree Nations committed to a discourse on understanding adaptation and adaptive capacity as part of a research project entitled "Nikan Oti: Future – Understanding Adaptation and Adaptive Capacity in two First Nations." The Elders met in two separate focus groups held in Nipawin and James Smith Cree Nation, Saskatchewan on March 04 and 05, 2008.

The issue of climate change has become a growing concern and the central thesis of this paper is that understanding adaptation and adaptive capacity in the context of climate change can be enhanced by attention given to the human dimensions of change in socio cultural contexts. Much of the research on climate change focuses on scientific observations organized in a temporal and spatial manner, with less attention given to the heart and soul of human experience as change is negotiated.

Indeed, Indigenous people, and Elders in particular, have begun to add their voices and observations to the body of knowledge on climate change. This has particularly been the case in northern regions where livelihood activities often remain tied to the land. For example, Berkes and Jolly (2001) write about working with the Inuvialuit of Sachs Harbour in Canada's Western Arctic to analyze adaptive capacity of the people in that community. In March 2001, the Nunavut Tunngavik Incorporated hosted a two-day workshop in Cambridge Bay bringing together Elders and hunters from the region to discuss climate change issues. In 2003, the Department of Resources, Wildlife and Economic Development of the Northwest Territories attended the Dene Nation Elders Gathering in Rae-Edzo to initiate discussions on climate change and develop a series of regional workshops with Elders around this issue. Further south, the Model Forest Association hosted a workshop on climate change at the Little Black River First Nation Community Hall in Manitoba in January 2003. All of these initiatives point to the growing need for collaboration between western scientists and Indigenous communities to understand and address climate change issues. The research undertaken with Shoal Lake and James Smith Cree Nations (see Isi Askiwan - Ermine et al. 2005; Isi Wipan – Ermine et al., 2007) and this research project are intended as contributions to this process.

RESEARCH

This research examined two First Nation communities for adaptation and adaptive capacity and specifically how communities make adjustments to their natural or human systems that will minimize their risks and position them to take advantage of new opportunities that climate change may present. Ideally, this research contributed to the Call objectives by addressing the topics of (a) case studies of adaptation experiences, both successful and those that have resulted in maladaptation or lack of adaptation, and (b) identification of barriers and incentives to adaptation, including the role of governments and institutions.

This research is an extension of a recently completed CCIAP project that involved Elders from these same two communities. The Elders in that study clearly saw the importance of sustaining connections to the land and environment as a foundation for maintaining cultural continuity and as the basis for healthy individuals and communities. The Elders also identified the need to repatriate youth from their communities to traditional environmental and cultural knowledge. In their view, when the people become disconnected from the land, the lines of communication between the natural and social worlds are severed resulting in maladaptation or lack of adaptation to environmental and social phenomenon. The Elders acknowledge that the adaptive capacity, or the potential to facilitate or enable effective community responses to climate change, or any change, is determined by how well the culturally determined environmental ethic can find continuity in their youth.

This research proposed to contribute to an understanding of adaptation and adaptive capacity. The goal was to have a broader understanding of these ideas in general and specifically how these ideas are specifically relevant to First Nations communities. First Nations communities are not only exposed to climatic and environmental changes but also to socio-cultural changes brought on by mainstream influences. The impacts of these exposures are particularly important to understand relative to First Nations communities in boreal forest regions. The two First Nation communities in this study are in an area that is forecast to experience substantial climate and related change over the next several decades. The people in these two communities are living in a largely rural setting where environmental change will be experienced by them first-hand. This research proposed to engage First Nations perspectives and western methods in science and technology in a reciprocal process of learning that will greatly enhance understanding of human responses to climate change by examining First Nation responses to socio cultural changes. Though largely qualitative, the research attempts to show how science and technology can enhance community aspirations for minimum risk adjustment in response to actual or expected changes.

This project also builds upon research being conducted by two team members (Dr. David Sauchyn and Dr. Mary Vetter) on the environmental parameters of climate change in the southern boreal forest, which encompasses the location of these two communities. CCIAP funding is not required for these research projects; however, the results will inform the proposed study by providing the palaeoclimate and biophysical evidence of climate change in the region. In particular, the paleoclimate and paleovegetation research defines the range of extremes and variability that have been experienced over the past several hundred years, thus suggesting the extent to which future climate change might modify the landscape and vegetation.

OBJECTIVES

There are three objectives that will guide this research.

- (1) Understanding and enhancing adaptation and adaptive capacity in support of climate change decision making
- (2) To examine and enhance community adaptation strategies
- (3) To enhance adjustments in human systems in response to actual changes in climate and environment

The first objective involved the examination of how communities make adjustments to their natural or human systems that will minimize their risks and position them to take advantage of new opportunities that climate change may present. The project involved the examination and documentation of adaptation strategies that focus on transmission of environmental knowledge and the influencing of socio-cultural behaviour in the community. Sustained adaptive capacity, relative to these two communities, will be dependent on their success in enabling effective community responses to climate risks.

The second objective documented the scientific evidence of climate change and presented it to the community in terms that local people can understand. A part of understanding adaptation and adaptive capacity is the manner in which we interpret and present western scientific terms and concepts for the consumption of communities and particularly in cross-cultural settings that involve First Nations. The primary purpose of this evidence is to examine alternate land use possibilities with a consideration of how the communities use the land, water and flora and fauna in contemporary contexts. Adaptation in these two communities refers to adjustments that each makes to their natural or human systems that will minimize their risks and position them to take advantage of new opportunities that climate change may present.

The third objective was to create curriculum materials from research findings that present and help transmit community strengths and traditional environmental knowledge to enhance learning outcomes in the youth from both communities. This involves the consolidation of research

outcomes such as reporting, science data, GPS mapping, Elder transcripts, videos and other deliverables envisioned from this and previous projects.

PRIMARY RESEARCH METHOD

A First Nations traditional knowledge forum or an Elders circle was identified as the most appropriate method to use for exploring the issues of adaptation and adaptive capacity with the Elders of the two communities of Shoal Lake and James Smith. This method was used not only because of the solid foundation laid by previous research initiatives with Elders (see Isi Askiwan - Ermine *et al.* 2005; Isi Wipan – Ermine *et al.*, 2007) but also in recognition of a number of important benefits.

First, the forum is compatible for documenting traditional knowledge that includes the primary research undertaken in this study. The format is also compatible with oral history research, participatory action research, ethnographic interviews, participant observation and community workshops or gatherings. In previous Elder circles, a First Nations traditional learning format the dialogue of Elders - was identified as the most appropriate method to engage with and enable Elders knowledge creation. This method is similar to the standard ethnographic method for gathering information in an open ended format (Briggs, 1986). First, by using the circle format, the Elders participate in a talking circle whereby dialogue is enabled and discussion sparks ideas and memories which may not otherwise surface in individual, one on one interview. Elder statements in the circle serve as a reminders and a catalyst for the next Elder in the circle to link up to what was said previously. This pattern ensured non-repetition and the whole circle dialogue created a narrative that is responsive to the inquiry given the Elders. As noted by Huntington (1998) "It also allows the participants in the interview to discuss and describe their understanding of the topics, and to make connections based on understanding rather than on the questions drawn up in advance by the interviewer (P. 5). The Elders circle provides an excellent forum for building relationships and enlivening collective knowledge. Second, in the interests of following traditional First Nations protocols for the request of knowledge, the forum provided a safe and respectful context in which the Elders could share their information. In this safe format, Elders can bring forward the collective wisdom of countless generations living in particular geographic locations, adding considerable depth to society's view of human adaptation and adaptive capacity. In 2007, members of the research team used the same format to record Elders' observations on climate change involving First Nations Elders from the two communities of Shoal Lake and James Smith in east central Saskatchewan This project was funded through the Prairie Adaptation Research Collaborative and the Indigenous Peoples' Health Research Centre, and was completed March, 2007.

METHODOLOGY

The methodology for Elders' Narrative focused on qualitative research methods. The qualitative methods of the study included documenting the Elders words as primary research. The project lead and a student from the community are fluent in Cree and conducted the interviews in either Cree or English, depending on the preferences of the Elders. The physical format of the focus group sessions incorporated the dialogue circle in which the Elders discussed issues. The dialogue circle was open for Elders to talk freely in their First Nations language and the process of the circle dialogues enabled the Elders to remind and support each other in recounting and articulating the traditional knowledge field of the issues. According to protocols commonly followed in First Nations communities, the Elders' focus groups were based on a spiritual foundation of prayers and involved implementing the necessary protocols for the transfer of information. The focus group sessions were audio recorded then transcribed and eventually lent to a process of data analysis for theme identification using the qualitative data analysis instrument atlas-ti using grounded theory approach. In this way, data collected from the focus group sessions were reviewed and units sorted and assigned to categories. Units were selected according to the following criteria: (a) it should be heuristic – that is, the unit should reveal information relevant to the study and stimulate the reader to think beyond the particular bit of information; (b) the unit should be the smallest piece of information about something that can stand by itself – that is, it must be interpreted in the absence of any information other than a broad understanding of the context in which the inquiry is carried out. The result of this process of analysis is a narrative of a dialogue of the James Smith and Shoal Lake Cree Nations Elders discussing the state of adaptation and adaptive capacity and related issues from the perspective of their communities.

The narrative of dialogue was used to inform further research into the spatial dynamics of change within the communities. Elders' observations of environmental change were used to select sites of traditional importance whose state or use by the community has undergone significant changes. Elders and local land practitioners were asked to accompany the research team to the sites in order to give further explanation.

Interviews were conducted with the Elders at each site. Conducting the interviews *in situ* allows for a more detailed description of change. The sights and surroundings often spark memories of change for the Elders that may not have otherwise been discussed. Also, visuals allow for a deeper understanding to be gained by the listeners, as the Elders often point at objects or landscapes to describe the world they knew and what this means for the world of today.

On site interviews were videotaped to capture the narratives of change for all members of the community. Videos were organized and spatially linked into a GIS by taking GPS readings at each site. The entire GIS was contained on a DVD that is playable in most household DVD players, in order to ensure that maximum exposure of community members to the DVD can be obtained.

UNDERSTANDING AND ENHANCING ADAPTATION AND ADAPTIVE CAPACITY

BENCHMARKS FOR CHANGE

The James Smith Cree Nation Elders committed to a discourse on understanding adaptation and adaptive capacity with a memory to the old people from the community that had influenced their lives. For the focus group Elders, these old people from the past were once the core of their communities and therefore, the traditional life of the old people, as much as can be pulled from memory, is the benchmark or the reference point from which they gauge the general nature of ongoing community change. Opening the field of memory and experience to include the old people's influence from the past provides wider latitude to the history of adaptation and change in the community for the purpose of this report.

The Old People of James Smith Cree Nation

The Elders from the James Smith Cree Nation are themselves the products of teachings and influence from an older generation of people that lived in a different time and essentially a different world. For example Mervin Burns tells us, "I was brought up from the old people that raised me." The ancestors from the previous generation had significant influence on the Elders through their teachings. Albert Sanderson relates that, "For me it's mostly the elders. My grandfather went to fight in the First World War. My uncle also went there. I used to listen to them." For the Elders, the old people of the past were their teachers and mentors. Albert Sanderson continues. He states, "At times I would ask them for things to do, how to do things and they would give me proper guidance. I used to ask the old man, the late Pat Brittain as he was called and I kept those things in my head as he had told me." The Elders recognized that the ways of the old people in the past had resulted in general well being. Elder Mervin Burns states, "we were pretty well off in those years I guess I can say. People were strong, healthy. There was all kinds of food available around here to eat. Just like the animals that are our sustenance and they eat medicinal food." In consideration of community continuity the Elders realized the importance of relaying the history of the people to the younger generations. This kind of continuity gave the people grounding to community existence. Elder Riley Burns tells us that, "It's important for us elders to keep their minds [youth] going back all the time. To see what happened and to appreciate what we have today."

The spiritual practices, or the resources of the community people to respond to the unknown, are deeply embedded in the culture of the James Smith Cree. Indeed, the Elders from the James Smith Cree Nation recognized they had a valuable inheritance from their ancestors. The people's spirituality and belief in a Supreme Being are continuous practices that have been observed in the community for many generations and Elder Riley Burns tells us that the continuity of beliefs

was a treasured gift from the ancestors. He states, "I think that was the greatest gift. The drives they had so much in our old people long ago were so strong in their belief, in their Creator. The Creator gave them strength to survive those storms and those starvation times." Elder Burns recognized that his own family line had a strong belief in the higher Power which they depended on for their well being. He states, "that was who they depended a lot on, my dad, mom, my grandpa." Presently, the Elders acknowledge that the belief in the Supreme Being is what has sustained the community people through many generations and through many changes. Elder Gertrude Sanderson tells us so much. She states, "To me our belief and value system has a lot to do with where we are today, our survival and determination to our Creator."

The Elders also saw value in relaying to the youth their own experiences that are part of the narrative of the community's history. For example, Elder Riley Burns relates harsh winter environments that people had to contend with before modern travel means. He states that "In my days when I was young I grew up here, just down there. That's where I grew up. Snow drifts were that high when I went to school. You walk out over the bush, the snow was that high. Those were hard times." Elder Burns reminds us that roads were not yet established in the era he was talking about and therefore there were also no snow ploughs in the community to remove snow. He states, "There was no road there, no snow-plough. We lived over there. We carried our groceries from the road up to there with a little sleigh sometimes." Making a living in such an environment with no modern conveniences was just as challenging. Elder Burns continues, "I once sawed wood one whole day and bring them across the river and those for \$2.50, all the way to Kinistino. That was something. I got to do that." With such challenging conditions, trying to maintain family life and well being was also very demanding. Elder Burns reminds us of the luxuries we take for granted now. He states, "We had a hard time. All we had was one pot to boil our coffee or tea and put that someplace else in tins cups and spill all the rest away then make soup, whatever you want to cook. That's all we owned, one blanket." The Elders had also experienced a change of eras from a time when the horse and wagon were the main means of travel to a period of motorized vehicles. Elder Riley Burns tells us that, "there were no vehicles them days. There was only one vehicle sometimes. Then the horses were going away that time too." According to the Elders, this crucial period of shifting eras and lifestyles presented numerous challenges. It seemed the community had forsaken their horse and buggy too soon. Elder Burns tells us that, "there [were] hardly any horses around to haul wood. You had to haul wood on your back. Some people had horses some didn't. We didn't. Those were hard times." During this time as well, the community of James Smith did not have electricity for their homes. Elder Riley Burns recalls that "there was no power, there was nothing. The only place I knew power was when I went to school - the boarding school. That's when I knew there was power. I didn't know what power was." The change of eras would present further challenges to the people of James Smith as the modern overtook the past.

The Shoal Lake Ancestors

The Shoal Lake Cree Elders approached their discussions on change and adaptation with a memory to the community's old people from the past. The Elders remember seeing many of the old people and the manner in which that previous generation had looked after the land in the Shoal Lake territory. Elder Emil Flett tells us "It is so that I have seen many of the old people. They have made the effort to carry this land in the best way that they could." Elder Clara Whitecap also remembers that the old people of the past were a gifted people with human capabilities to forecast the weather and even to look into the future. She tells us:

They were given gifts of foreseeing the future. They were told of the future path by somebody. I have no way of telling who told them these things, but they were powerful. They were never surprised at what was going to happen. They even had capabilities to forecast the weather, they knew those things.

It is so that living the Traditional lifestyle of the past presented challenges that made family life difficult but the old people still managed to raise their children and provide a living for them. Elder Clara Whitecap expresses gratitude for the life the ancestors nurtured in her. She states, "It has been a difficult path from where I came from. That was the only way that the old people could provide for me. It was the old people that gave me life." Elder Lillian Lathlin remembers that the ancestors looked after the young people in a good way and taught them good behaviors. She states that "young people received good attention. As night approached our fathers and mothers would call out at about 8:00 o'clock and we would have to go to bed." Elder Gilbert Flett also informs us that independence was one of the teachings that the old people focused on. He states "we received extensive training in the past. That is where I got my ability to look after myself." Besides instruction of behaviors and skills, the old people from the community had their own form of education to pass on critical knowledge of the people. Elder Clara Whitecap remembers receiving the community teachings and informs us that "it was old people that counseled me. I never went to school very much, instead I listened closely to their teachings and counsel." She remembers the particular instruction she got about what kind of knowledge to pursue and how to study ways of life that would make her a knowledgeable person and lead a sound life. Elder Whitecap states:

I wanted to go to school when others were going but I was not allowed to go. They told me that I was placed on this particular land to live my life and not in white peoples' places. They told me that this is where I would learn to live our traditional way of life, the grandfathers and the grandmothers. They told me to study the way of life because that is what will provide life path, as they counseled me.

Elder Whitecap also informs us that the old people followed indigenous rituals as part of their spirituality and as a means of living good ethical lives. Elder Whitecap states "It was through their own knowledge that they provided life for the children. They healed and they prayed and that was their source of accomplishment." Beyond the knowledge of healing through prayer, Elder Whitecaps also states that "they had resources like traditional tobacco that they used. They used traditional tobacco for their thanksgiving. They gave thanks to the Great Mystery. They also used the sweet grass from the land

as they sat in circles doing their prayers." Not only did the old people practice their indigenous beliefs but they also attended church services as part of their spiritual observances. Elder Harry Young informs us that "I also think about my grandfathers playing the organ in church. That is how I started working in the church too." These beliefs and practices were modeled and ingrained in the Elders through the years by the old people of the community that were their teachers. As an example Elder Lillian Lathlin informs us "we used prayer to a great extent when we were young as children" and that "it was common to say prayers to our collective Father. I did not understand what prayer was at that time."

Beyond these practices of the ancestors, Gilbert Flett provides further insight into the ways of the old people of the Shoal Lake past. He tells us for example that the old people were industrious and were generally self sufficient and secure. He states "The old people led good lives. Everyone knew everyone else. They had cattle, horses and people lived in a good way." The 'good way' was the independence and the hardy skills that animated people's capabilities and a sense of accomplishment. Elder Gilbert Flett provides us a glimpse of the industry and hardiness that were common traits in the past. He states:

The way I was brought up I always worked driving a team of horses to go and get fire wood. I worked for myself. I went for hay in the winter no matter how cold it was. We went to the meadows with a horse team. There were no roads and the horses had to clear the trail.

The Shoal Lake Elders acknowledge that living the traditional life of the past was a challenging way to live as compared to present lifestyles. Elder Clara Whitecap informs us that "It is our former lifestyle that used to be very challenging. That is where I was brought up. The old people experienced great difficulty in trying to raise me." Elder Phylis Flett also tells us "we were very poor in the past as we were being raised. I watched my mother and father work hard to provide for us in those hard times." The past that the Elders remembered was a time of challenging lifestyles in a natural environment and a time when the old people's mindset still influenced community knowledge. The Elders have fond memories of those times because of the community's natural order and the independence spirit of the people. As times changed, the Elders kept a good mind to the past era with an eye to the present conditions in the community. Elder Lillian Lathlin contemplates and states, "I also think considerably about this land because we found joy in living that life as we were growing up. Now that we are getting older there is much to be desired."

The Elders from the James Smith and Shoal Lake Cree nations understand that opening the field of memory to the old people's experiences provides wider latitude to the history of adaptation and change in the community. From this process, the Elders can illustrate long term change to aberrations. The James Smith Elders focused on the narrative of the community's history so that the youth can see that they are products of long term processes. The Shoal Lake Elders looked to the teachings of their ancestors that speak of legacies and inheritance to be carried on.

CHANGES IN COMMUNITY

In trying to understand adaptation and the adaptive capacity of a community, change is the key word. Any change in environment whether it is climate change or socio cultural change that takes place creates tensions and tests the capacity of the people to adapt to the shifting circumstances. Indeed, the Elders from the two communities had seen many socio cultural changes take place in their community over the course of their lives.

James Smith Cree Nation Changes

The James Smith Cree Elders have seen many changes take place in their community. Elder Mervin Burns states, "I guess I've seen lots of changes in my life." Many of these historic changes in the community had started occurring while the Elders were in residential schools. Elder Mervin Burns informs us that the things had deteriorated in the community while he was in the boarding school. Elder Burns remembers the changes he saw. He states:

As I left that school, I saw further changes as I arrived here. The people already had a different disposition. They were living a completely different life. Missing were the cattle that used to number greatly. Instead people were getting hungry. The cattle had apparently died off. Not many people had cattle anymore.

According to Elder Mervin Burns, the loss of livelihood resulting from the cattle die-off had a severe impact on the people. Without this livelihood the people lost their sense of independence and had to resort to social assistance from the government. Elder Burns tells us that "then the time came when the great hardships began to happen. Wa Waa! Welfare was now being given out...People were so happy." However, the issue of social assistance did not sit well with the old people of the community. The Elders remember that the old people saw the beginnings of destruction of a people through the welfare system that was now coming into the community. Elder Mervin Burns gives us insight into the thoughts of the old people at the time. He states:

The old people protested. That is how I saw it at the time. Our people will now be too lazy to work! At those allotted times, the people will come with hands wide open at that place, where this person lives now! They will provide for us. We will be pitiful. They will destroy all the men. There will not be any men anymore! It will come to pass that they will not even step out of their homes to go and cut wood. Wa Wa! That is what is happening now.

Elder Burns tells us that the old people protested against accepting social assistance for the people. The old people saw social assistance would destroy the people's independence and the largesse of the government was in effect destroying the spirit of the James Smith Cree Nation – the spirit that the community had relied on to pull through the many changes experienced up this point.

Shoal Lake Cree Nation Changes

The Shoal Lake Cree Elders said that great changes had taken place in the community since the time of their ancestors. For example Elder Gerald Bear sees the cultural changes in the community and simply states that "Much of the old traditions are now gone." The old ways of life and the traditional knowledge that carried the people through difficult periods were now replaced by something else. Elder Clara Whitecap said "others things have taken over now regarding our livelihoods. We are losing everything about lifestyle and the traditional ways. We are not doing any of those things as we live here." The Elders cherish the memories of the old people and the past lifestyles but also acknowledge that their words may be the only living link to that past. Elder Gilbert Flett tells us "I am very thankful that I can tell some of the stories of the past. The way we were brought up in the past has now disappeared." However, for the Shoal Lake Elders, the teachings they received from the old people and their own life experiences have instilled a way of looking at life that bodes well for the community. Indeed the community may need the wisdom of its Elders to guide them into the future because changes have impacted the people.

There are certain kinds of events happening in the community of Shoal Lake that are testing the peoples' capacity to adapt to change. One of the recent trends is to population growth that puts a strain on land availability and its use. Elder Lillian Lathlin tells us "we are also getting over populated in our land. It is my hope that we expand our base and for us not to lose any land for the lifestyle we have." The Elders also recognize that many of the community changes and the challenges they present are influenced by outside forces beyond their immediate control. One Elder remarked "since white people took over our lands, there have been various negative impacts and we have suffered in various ways." For example one of the impacts arising from outside policy is the development of village settings for community housing. The creation of urbanized contexts within the community has presented challenges for a forest people that had only known space and solitude in a traditional lifestyle. Elder Gerald Bear states:

Here in our community as in other communities and towns that I see, that we are too clustered. There are many children in those clusters even if there are 10 houses together. There are also many negative things that arise from that.

The adoption of different lifestyles also presents new and often unforeseen challenges that impact the community and that the people must deal with. Elder Lathlin tells us:

In our land, all over our land, there is considerable sickness with the old people and even with the young ones. There are many forms of sicknesses. We did not have these conditions as we were being raised and as we started having our own children.

The Elders are worried about new sicknesses because one of the sicknesses that remains in the memory is the global pandemic that must have impacted the Shoal Lake people. "there were considerable sicknesses that were not curable by us. Our medicine men had no cure for these.

Epidemics were new to them in the past. These left their devastation and I think about it sometimes." History has taught the people to be cautious.

Another recent development is the issue of old people in the community. One of the Elders said "there is clear lack of attention provided to our old people. It is only when they get severely sick that they receive attention and transported out. You should be looking after them every day." Recent trends in population growth and changing community contexts have altered peoples attitude to the old people with the effect that Elders feel left behind. Elder Phylis Flett states:

As for our elders, they should have a voice. They should be treated in good ways. Some of them are lacking that support. They should have somebody live with them. One of their children should live with them and provide for them.

Another of recent community trends is the diminished capacity of people to retain their traditional knowledge. For example, Elder Clara Whitecap informs us:

Now I don't see anybody with that kind of gift. None of that is left now. Others things have taken over now regarding our livelihoods. We are losing everything about lifestyle and the traditional ways. We are not doing any of those things as we live here.

For Elder Clara Whitecap who has a good memory to the past, a concerted but cautious effort to regain knowledge continues to be a part of her teachings. She addresses the leaderships and states:

My advice is that you do not jump to these things. You have to know what you are doing if you are going to jump at those things. Do not grab anything that you don't know about. You have to know the things that you will be involved in. That is my advice to you that are the leaders.

Indeed, one of the greatest challenges for the community is ensuring a good future for the next generations.

Perhaps one of the most distressing changes that is happening in the Shoal Lake Cree Nation involves the youth from the community. The Elders were greatly concerned that the youth are exhibiting behaviours outside of the norm in the community and seem defiant. As Elder Gerald Bear states that "today, the youth do listen to what they are told in terms of what to do. They only hear the words." Elder Bear also states that this youth behaviour of not listening to advise is also happening within the family. He states "that is the way with our children too. They deny us and do not even listen to the counsel we give them." Phylis Flett also tells us that even the grandchildren are also exhibiting this defiant behaviour. She tells us that "I keep trying on my part but it is just the same as talking to a tree when I talk to my grandchild. My grandchild talks about something else as I try to counsel. The grandchild does not listen. What I say goes in one ear and goes out the other and forgets."

Various attempts have been tried to corral the defiant youth behaviour and includes approaching the youth through the school system. Elder Lillian Lathlin informs us "It is difficult on the path that we are now travelling. We counsel considerably to our young people because we get invited to the school to speak. But still the children do not listen." The situation gets especially critical when the youth attitude extends outside the family and deteriorates into obnoxious behaviours. Elder Gilbert Flett states "presently, when children are be counselled they have incoherent responses and they even start swearing. That's not good." In some cases the defiant behaviour takes the form of vandalism involving groups of youth. Elder Gerald Bear informs us that "these youth that are there seem to compete against each other on who can do the most damage to see who can win." The Elders can see the plight of the young people having to face influences and challenges never experienced before in the community. Elder Harry Young tells us

Presently, our young people are now greatly challenged. They are faced with challenges such as drug abuse. They get fooled easy and that is part of the problem, we never faced that, maybe the problem was not there. Presently, the youth have to withstand that.

The Elders also point to the situation of jobs skills and the work ethic that the youth are generally lacking. Elder Young also states "they are not skilled to run their lives in good ways." Gilbert Flett also sees this situation of young people not having the work ethic and states "presently, the youth say they are men but they only know the book knowledge. They do not actually know how to work. Presently, the youth have a different nature to them." Phylis Flett also laments the neglect of teaching traditional skills to young people and how mainstream education has does not address that kind of development. She states "our young people will face difficulty if all they are shown are the white ways of life. They are also behaving like the white people in the ways of foolishness." There is a general recognition that the youth are bearing the impacts of a delicate transition period between the traditional lifestyles of the past and the emergence of contemporary urbanized influences in the community.

James Smith Elders identified cattle die-off and the resulting introduction of the welfare system as having a domino effect that led people into dependency. The particular concern of the Shoal Lake Elders was the changed behaviours of their youth but they also identified community issues that were a result of changing lifestyles by the people.

MALADAPTATION

The Elders from the James Smith and Shoal Lake Cree Nations have the view that when the people become disconnected from the land and natural contexts, the critical linkages that promote healthy lifestyles are severed and often result in community maladaptation, or the people's lack of adaptation to environmental and social phenomenon. The Elders acknowledged that the communities had been unable to facilitate and enable effective community responses to particular changes that had befallen them.

James Smith Shift to Dependence

The Elders from the James Smith Cree Nation spoke of a land mark change in the community involving the adoption of social assistance. Elder Burns tells us that the old people felt that the federal government had now extinguished the "flame in our homeland" and that the people were selling all their rights. Indeed, the old people were very saddened. Welfare made the people dependent and the work ethic that the people enjoyed was now in jeopardy. Elder Burns tells us that even the old skill of chopping wood was now gone. He states, "I never see an axe lodged on a log at any of these houses now. The youth are now so lazy that they can't even chop wood. Instead they break the axes that you lent to them to use (ha, ha)." The Elders said that the welfare system had reduced the people to incompetence. One elder said that, "people are now so incompetent. That is the big change, that what they call the modern time. Wa, Wa! It is pitiful what I see now this day." Presently, Elder Burns also sees the change in families and particularly the eating habits of children. He states, "I see a massive change! You go to the store and you see young people holding little bags. Their parents had gone to play bingo and they gave the children money to go and buy potato chips and pop. The potato chips and pop are now the baby sitters! That is the number one cause for sugar diabetes. Holy smokes, we are down for the next generation in the future. It is immensely pitiful." The Elders are so moved by these changes to the community that one elder said that, "that is quite a vision I see. I am deeply saddened!" The chain of events from boarding schools to farm crisis to social assistance had a severe impact on the people from the James Smith Cree Nation and particularly on the work ethic that was so much a part of the community history.

Capacities present in the community were greatly reduced by reliance on the welfare system. There was no longer a need for individuals to develop their own capacities in order to support their households. Many of the traditional capacities that had allowed First Nations people to survive the changes experienced in lifestyle and socio-economics were greatly reduced. Social assistance programs, if administered correctly, can be valuable assets to communities as they adjust occupancy characteristics to reduce exposure to stimuli that threaten livelihoods. When dependence on social assistance programs is fostered however, capacities necessary in adaptation and survival are diminished as individual community members fail to develop skills acquired through employment and the struggle to earn a living. In this case, dependence on the welfare system has removed capacities within the community related to survival in the local

environment, specifically the ability to chop wood used to cook and heat homes during the cold winters. Elders relied on themselves to survive the winters. Youth in the community no longer possess the skills and capacities to cope and must rely on capacities external to themselves to survive the extremely harsh winter conditions. Vulnerabilities to environmental stimuli (cold winters) that were easily dealt with by applying traditional capacities are increased (see Figure 1).

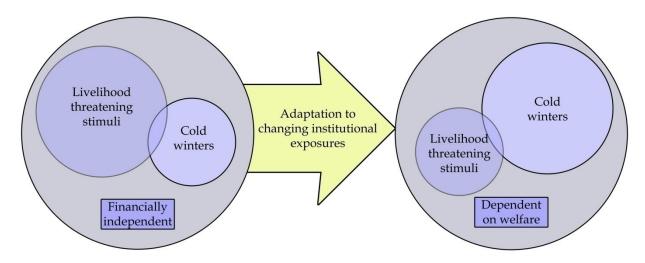


Figure 1. Changing nature of exposure following adaptation to the welfare system.

Shoal Lake Youth Challenges

The Elders from the Shoal Lake Cree Nation had a deep concern for the young people from the community that were involved with substance abuse. One of the most distressing developments in the community is the alcohol and drug abuse that has gripped the youth. Elder Lillian Lathlin clearly expresses how the Elders view these developments. She state:

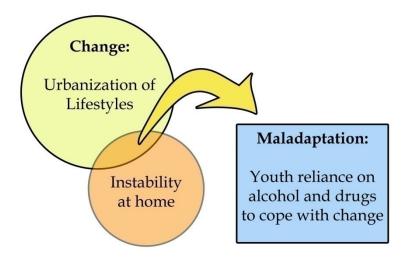
The alcohol, the pot smoking and those others various things that they make, they are destroying our children. They are also trying to take away our spirits, that demon spirit that haunts us here on our land."

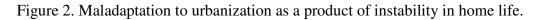
The community is losing ground to the substance abuse generally there is a fear for the youth. One Elder said "as for me I have many grandchildren, great-grand children. I am very fearful for our young people today." Elder Phylis Flett also indicated that the youth were caught in a domino effect of troublesome behaviours arising out of drug use. She states "I despise the smoking pot. Someone is selling it and we don't know who. Our youth are taking that lifestyle. They are starting to dislike each other and fight with each other."

Some of the Elders were not so quick to blame outside causes for the changes. Elder Gerald Bear for example insisted that adults had to take responsibility for their own youth and acknowledge

that they had failed to assist them in their time of need. He simply states "we have abandoned our children" Elder Bear identifies some of the internal community breakdowns that have impacted the youth. The Elder states for example "we show them many things that regrettable. We are guilty of so many things like separation, divorce and we even fail to give them the proper attention. They remain where we have no connection with them." He also sees how modeling has affected the youth. Elder Bear continues, "we are showing the youth how not to respect their parents and their relatives and all people. It is difficult to make connections with the youth because we have already done them considerable harm."

In other words, the youth are choosing alcohol and drugs as means of coping with the pressures associated with adapting to urbanized lifestyles because they lack the proper counselling to choose healthier coping strategies. Their ability to adapt and avoid maladaptation to the changing world around them has been greatly decreased by their lack of cultural and ethical guidance and education (see Figure 2). Instability in their home lives affects the health of the community and has been widely documented as decreasing adaptive capacity (Beckley et al., 2002; Parkins, 2001; Beckley, 2000).





Community maladaptation is people's inability to facilitate or enable appropriate responses to particular challenging events that have befallen people resulting in subsequent negative change. The James Smith Cree Nation Elders identified the introduction of social assistance to the people as a particularly damaging event that drove people to dependency. The Shoal Lake Elders pointed to the challenges faced by youth as the community shifts to more urbanized lifestyles.

ADAPTIVE CAPACITY

Both communities of James Smith and Shoal Lake have gone through and continue to experience tumultuous changes to their environments and socio cultural realities. These changes speak of shifts at deeper levels of human capacity and are in themselves portals, albeit in a socio-cultural sense, to the examination of how humans adapt to fundamental shifts in their lives. It is the coping mechanisms, the resources such as philosophy and the peoples' psychological capacity that guided the communities through changes that seem most insightful and substantial to discussions of the human response, or adaptive capacity, to global climate changes.

James Smith Cree Nation Resources

Spirituality

The Elders from the James Smith Cree Nation feel that they are a valuable resource for the spiritual well being of younger generations. Not only do they know that the belief system had sustained the people and given them adaptive capacity but they themselves now personify those same virtues of their ancestors. Elder Riley Burns reminds us that those spiritual teachings from the old people have impacted his own spiritual life. He tells us that "Today I use those things. I've become depending on the higher power, God as we understand him in the white man's world, the Life Giver, Our Father, for us Cree." Elder Alpheus Burns also acknowledges a Higher Being and states, "I believe strongly in the higher spirit. I talk to him every day, mostly every day." Indeed, Elder Alpheus Burns credits his belief for sustaining him through the difficult period in his life. He states "I guess faith and hope are what pulled me through the hard times in my life." It was very clear that the Elders in the focus group held strong spiritual beliefs that nurtured their capacity to love and respect humanity. Elder Esther Opoonechaw informs us "I strongly believe in the Creator and that's what makes me strong and to love each other and to respect other people." Elder Clifford Sanderson tells us that this spiritual belief includes a recognition that the destiny of the people lies in the hands of the Supreme Being. He states, "The Creator is one that owns our lives." The Elders acknowledge that the belief in the Supreme Being has helped the people and that many people continue to rely on divine assistance in their daily lives. For example, Elder Esther Opoonechaw states that "when one of my children or one of grandchildren, are getting into trouble or not getting home and I always pray to make them go home and sure the next morning they are home." The spiritual beliefs and the recognition of their inherent power motivates the Elders to teach their young people how to connect to that energy. Elder Esther Opoonechaw tells us for example that "I always try to teach my grandchildren to pray." Elder Blanche Sanderson reminds us that this spiritual practice is deeply embedded in their belief system. She states "there is no other thing that will give them life but to pray and ask the Creator to help them." Indeed, it is through the belief in the Creator and the practice of culture that Elder Alpheus Burns is able to walk today. He states "at one time I couldn't walk half a block. But through my culture and faith in a higher spirit, I believe in the power of prayer. That's what got me through." The belief system of the James Smith Cree continues to influence

the daily lives of the people and the culture of the people continues to provide various venues for their spiritual practice.

James Smith Cultural Practices

The Elders from the James Smith Cree Nation expressed their respect for First Nations ceremonial culture. The ceremonial culture of the people includes the various dances, pipe observances, the sweat lodge, medicinal practices and the various degrees of knowledge surrounding the spiritual structure. Elder Albert Sanderson tells us that what the people know of their spiritual culture was handed down through the generations of people in the community. He states, "that is what was given to us by the Creator and the Mother Earth. That is what the grandfathers and the grandmothers left behind for us." Elder Alpheus Burns also informs us that what he has learned about cultural practices was a result of his close association with different elders in different Cree communities. He states, "I spend a lot of time with elders in different communities. I go to a lot of ceremonies in different communities. That's where I learn to try and understand a little more of my culture." The old people of communities are generally the knowledge keepers and spiritualists that aspiring learners will go to for sacred knowledge. Elder Albert Sanderson also acknowledged the old people in guiding him to Cree knowledge besides knowing about other knowledge systems. He states, "also [know] your Cree culture he said to me. To be sure that is what I did." Elder Sanderson also stated that the Cree culture had a meaning in the lives of the Elders. She states, "our culture is very important to us." Elder Clifford Sanderson also states that "I am thankful about the discussion of culture. I am also trying to maintain that in the ways that I am able to because I am also fond of it." Elder Alpheus Burns was also beholden to culture. He states "I'm very glad I found my culture. I'm very thankful to the elders that helped me through." The Elders saw value in their culture because of their deep belief that their culture is the only thing that can assist them as they negotiate the future. Elder Clifford Sanderson states that, "that is the only thing that can assist us into the future as I think of it. That is what I have to stand up for as long as I am on this earth."

A part of the culture that the Elders were referring to included the ceremonialism of the Cree people. Elder Alpheus Burns tells us some of the ceremonies that he partakes in that are a part of Cree spiritual culture. He states, "I go to ceremonies. I go to the sun dances. I go into a sun dance once a year and I dance pow-wow. Through the winter I go to the round dances." Elder Clifford Sanderson also talks about the ceremonial sweat lodge that supported his people in the past. He tells us that the sweat lodge is "the only safe haven we have as a family as my old people used to tell me in the event of a pandemic. There were two of our grandfathers that defeated the last pandemic through their Cree culture. They took all their families into the sweat lodge and eventually survived." Similarly, Elder Riley Burns remembers his father telling him about the old people's abilities and that the sweat lodge was a medium for visionary practices by certain gifted people. He states "the medicine man had abilities. They had visionary experiences. If somebody was in the trap line or someplace, they knew, they could see, they dream, they go into these sweats."

The Pipe ceremony is also another ceremony of the Cree people that assists individuals and families in pursuit of well being. Elder Alpheus Burns tells us that, "I'm a pipe carrier. I don't carry but the pipe carries me. I just hold it. It was handed over to me a long time ago. It's gotten me through a lot of difficulties." The James Smith Elders believe that these cultural ceremonies are a rich resource and should have continuity into future generations. Elder Sanderson reminds us that the young people of the community hold the future of ceremonialism in the community. She states, "to show our young people no matter what happens, the support system from our families is very, very important. I always believe that we will never lose our culture because I see it in our young people today."

The use of medicinal plants was another aspect of culture that the people of James Smith relied on through the years. The people relied on their own medicines at a time when the availability of western doctors to treat various ailments was next to nil. For example, Elder Riley Burns tells us that her mother was the medicine person that provided the medicinal prescription for sick children. He states "when the baby got sick I'd come and see my mom, come and get the prescription. I'd come to the drugstore and the prescription how to look after the baby!" The medicinal plant knowledge was passed on but the Elders in the focus group seemed reluctant to use them. Elder Burns tells us "I was taught how to use these medicines by my granny. But I wouldn't want to treat anybody because I forgot how. I was also foolish when I was younger, Norman! I'd mix the wrong stuff, I'd get somebody crazy (ha, ha)! The Elders realize that they may be neglecting this kind of knowledge even as they received instruction where to find the medicinal plants. Elder Clifford Sanderson relates that he was told about the availability of the plants. He said "the old man said as he talked to me that we were only using half of our land on the north side. You are only using it for hunting purposes. To the south of your land is where the roots are present. Those roots will provide you with good health, as the old man told me."

Indeed the spiritual culture in its various forms sustained the people through many years and the Elders recognize that it was important for the community people to return to those teachings. Elder Riley Burns tells us that "their technology was good at that time too. Our medicine was good. Our medicine kept us going. We have to go back to some of those things." The ceremonial culture of the James Smith Cree had sustained the people through the years and the Elders considered this form of spirituality to be crucial for the continued well being of the community. It is certain that the practice of spirituality contributes to the development of values that focus on humanity.

Work Ethic

One of the virtues that sustained the community through various changes and a value that the Elders observed through the years was that of the work ethic. The work ethic, or the determination to be self sufficient, has a long history in the community because the old people in the community were known to have encouraged it. Elder Albert Sanderson remembers the words of his uncle saying, "don't let go of this job, that's a good job you have, he told me. Don't let go,

there is nothing here in the reserve. We don't have any jobs here." Elder Blanche Sanderson also acknowledges that her parents had instilled the work ethic in her through modelling techniques. She states, "we've got eleven grandchildren and there's three of them are out there working just as they had seen us do and just as our mom and dad had modeled to us." The Elders remember that the old people had already started to adapt to changing lifestyle and methods of livelihood to provide for their families. As Elder Burns tells us "They used both the white man's culture and our culture in order for us to survive. They had a powerful belief in the ways to give us life." The Elders also recognized that the training they had at residential school contributed to their knowhow and to their valuing of working for a living. Elder Mervin Burns said, "after I came out, all the stuff we did in school there, we were trained to do it, it was a farming school. It had pigs, horses, everything. We grow our own potatoes there, gardening, everything in a big quantity." The Elders also talked about educating themselves to be able to work at the many jobs they had. Mervin Burns tells us "I educated myself. I didn't get that from the residential schools, I had to work on it with the support of my old lady. With all her pushing, she got me through. I had to change jobs three times." Many of the Elders talked about the sense of independence and determination they achieved through their work ethic. Working to make a living was an accomplishment and a way that gave them pride. Elder Mervin Burns tells us "I worked outside for fifty years. I worked for the white people, Canada Safeway and the Okay Economy stores." Elder Albert Sanderson said, "I used to work at Tisdale where I worked as a welder." Elder Blanche Sanderson states "we worked, him and I both worked right through as our kids were growing up." Elder Clifford Sanderson clearly indicated the pride that they have for having the work ethic. He states, "at the age that my partner and I are at, we have always worked for a living. We did intense labour in Alberta and around here. We have never relied on welfare."

The Elders from the James Smith Cree Nation have a sincere interest that their youth should also adopt the work ethic and the notion of self sufficiency that has been part of the community for so long. Elder Blanche Sanderson tells us that they are trying to instill the work ethic in their children. She states, "that is what will help them live to work. They will have to provide for themselves and to make themselves strong." Another Elder also states "our kids seen us work and so they also do that. They work to raise their children." The work ethic and the independence it spawned was a virtue in the community of James Smith over many years. A considerable reason for that self sufficiency was the training and education that was nurtured by the teachers in the community. The continuing adaptive capacity of the James Smith people may hinge on how receptive the people are to skills development.

Shoal Lake Cree Nation Resources

Spiritual Life

It is clearly evident from the focus groups that the Shoal Lake Cree Elders have deep spiritual faith and rely a lot on prayer. They have an inherent belief in the power of prayer to move the energies in ways that give them comfort. As an example, Elder Clara Whitecap gave spiritual gratitude for the opportunity to share experiences with the group. She states "I thank the Great Mystery for giving me the strength to sit with you again. That he has given me life to come and share space with you." Elder Lillian Lathlin also tells us "I truly have much gratitude and I give thanks to the Almighty Father for the opportunity to sit together and to visit each other here." Beyond the blessed opportunity for experiences, the Elders also requested spiritual help in the words they had to say. One Elder said "as we sit here to meet I ask the Great Mystery to help me with the words I must speak."

Many of the Elders displayed deep inwardness and by their expressions revealed their inner most thoughts about the nature of their community existence. As a people, the honouring of the spiritual dimensions provided for a certain kind of guidance and safety as the people went about their lives. Elder Bear tells us "that has always been our experience that we were always taken care of." Indeed, the prayer life is one of the most important values that the Elders would like to be revitalized. Elder Clara Whitecap states "We cannot allow our ways to stop. You should be working on prayers. As long as we live, we should be putting effort into prayers." Indeed the Elders place substantial faith in their prayers for the well being of their community. Elder Phylis Flett tells us "I think considerably about those issues during the day. I pray about these every morning as I call out to the Great Mystery. I pray for the old people at night time also that they have good health. That is the way I want it."

The spiritual life of the Shoal Lake Elders meant that there was always recognition that life had meaning beyond the physical and that people had to transcend the earth bound gratifications. Elder Gerald Bear sees the need for higher levels of existence similar to the way the ancestors had lived their lives. He states "it is considerable how we are tied to earthly pleasures but it is dangerous because it will eventually destroy us. We see that already. We have to try and rise up and try to understand how we can assist the youth to live in good way, the way we have been treated by our parents in the past." The Elders have convictions about spiritual practice and in their understanding of the sacred ways of being and how the youth need to be taught these values. Elder Lillian Lathlin states:

Presently, the youth do not know how to pray because nobody teaches them. I want this to happen and therefore counsel my grandchildren, any of my grandchildren and even my great grandchildren when they enter my house. I counsel them in a way that the Almighty Father will assist us and when they have their own children." Elder Lillian Lathlin also uses her own quiet prayers to make requests for the youth in the community to be spiritually assisted in their struggle with negative influences. She states "I make pleas to the Almighty Father every day so that the children will change for the good, so that the good spirit can enter their being, the clean spirit. Those are my prayers."

Other examples of the inward nature of the Elders and how they try to influence events through their own prayer lives is in their struggle with outside forces that impact their community. Elder Emil Flett states for example "we have to rely on our Great Mystery for the support we need so that we are not displaced by the white man." Furthermore Elder Clara Whitecap expects that prayer should be channelled to assist with negotiations for the things the community needs from government. She states:

As long as we live, we should be putting effort into prayers. That is what can assist us to over-power the white people in the ways that they try to impose on us. Instead, we will be assisted in our dialogues with them for the things we need."

The notion that prayer can influence the way events unfold is also evident in the way the Elders expected results from the discussions they had relative to the research project. As an example, Elder Lathlin tells us "it is the case that I make request of the Almighty Father to take our words and bless them and for the workers to make progress with the discussions we had." The Elders certainly express the belief that a power beyond their own looks after their best interests as indigenous peoples and that their situation was kindred to other communities. Elder Whitecap states "it is our Father however that we have to request for assistance to us, for our discussions to go through. What are not alone in this because it happens everywhere and the people in all the lands require that same assistance." In the Elders' spiritual generosity, the researchers were also recipients of well wishes. One Elder said "it is also my wish that these people that come to talk with us will also have their requests bestowed."

The James Smith and Shoal Lake Cree Nations looked to their cultural and spiritual resources guide them through tumultuous changes they have and continue to experience (see Figure 3). The Elders believe that these resources they continue to rely on are their primary claim to adaptive capacity. The James Smith resources that enhance their adaptive capacity include their spirituality, their cultural practices and their history of work ethic. The Shoal Lake Elders point to their spiritual life as the foundational resource for adapting.

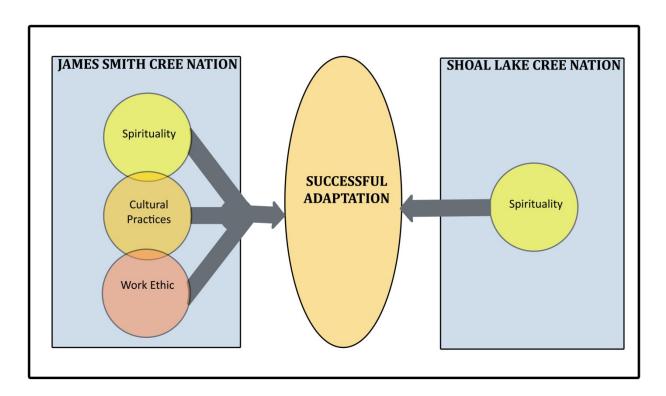


Figure 3. Summary of community identified adaptive capacities

EXAMINATION OF PAST COMMUNITY ADAPTATION STRATEGIES – WORLD VIEWS AND VALUES THAT SUSTAINED THE PEOPLE

The Elders from the two communities of James Smith and Shoal Lake Cree Nations had seen their old people, the ancestors, and had gauged the changes that took place in the community to that touchstone. They remembered the virtues that kept the community people grounded and responsive to their environments and saw the contemporary validity for maintaining these philosophies.

James Smith Cree Nation Strategies

Possessing Drive

The Elders in the James Smith focus group remembered that their ancestors possessed a certain kind of determination to make a living in a traditional lifestyle to ensure their families' well being. This 'drive' as Elder Riley Burns calls it is the determined effort to do the things necessary even if the conditions were difficult. Elder Riley Burns explains it in the following way:

Those drives that they had, those elders that I seen in my younger days when I was small. It was hard. Sometimes there was no food. They had to travel long distances but they always had faith. My grandpa or my dad, to bring the food whatever it was. No matter if it was storming, a blinding storm, they'd go and get something and bring it home.

The world of the Elders' ancestors was challenging because there were no modern conveniences and survival depended on having the determination and skill to harvest food from the natural environment. As Elder Burns explains, "You have to go out there to do them whether you like it or not to maintain that unity in the family in order to survive in those days." Individuals had to find their own spark of determination and the faith that they could do the things that were difficult to do. Much of this personal determination, or drive, was the result of teachings the Elders had from their old people. Elder Riley Burns tells us:

He was always telling me, put great effort, work hard, always keep moving, as long as you are alive! In the future, when they lay you down, you will rest. That is when you will rest. For now, a long as you are alive, keep moving, keep living in a good way.

Elder Burns credits the ancestors for instilling determination in the people of James Smith. He states "that's the drive that we have today that our parents left behind each and every one of us, on our own, in our ways."

The determination, or the drive, possessed by the ancestors was a valuable virtue and one that was instilled in the subsequent generations through different methods. Elder Clifford Sanderson recalls that his teachings stressed perseverance, or to continue efforts in the face of challenges he had to overcome. He states "I do not own any part of life but a partner of mine once told me not to give up. Do not give up. Therefore I cannot give up simply because I do not own anything." A crucial part of having determination is the ability to plan ahead. Elder Riley Burns tells us that his grandfather taught him the crucial skill of planning. He tells us the following:

They always planned a head. My grandpa used to say. When you wake up in the morning try and figure out the route you're going to take. Where ever you're going to walk to, you will hunt along the way or to find food on the way for your life that day. You have to put all that in order. Those are the things that he used to tell me about."

Another unseen characteristic of determination is having foresight and always being prepared for the worse, particularly in the natural environment where people have no control over the conditions. Elder Burns also remembers the teachings that stressed this ability. He states "in the month of January it was so cold that the animals never moved. My grandfather used to say, pull the snares, traps, when nothing would be killed. Those were things. You had to always prepare yourself to meet those hard times." The Elders remembered the determination of the ancestors and their own experiences of resorting to their inner drive and they thought of the youth from the community. They realize that they had to come up with the means to model and teach the same

kind of determination and drive to the young people if the people were going to safely navigate the future. Elder Riley Burns tells us:

Those are the drives I have today to keep driving. No matter if I'm not feeling good. I have to try and be the role model for my kids in order for them to drive. If I'm not the role model, then who's going to make them so.

The Elders indicate that they make attempts in their own families to teach about setting goals and looking to the future. Elder Burns said that "I try and stress that to my kids to drive for something all the time in the future, for something to keep on living. Not to give up, for them not to stop there. There is always something in the horizon that you can do, something that you can grab." The inner compulsion to survive and succeed in the midst of changes and new challenges holds great promise for understanding adaptation and measuring adaptive capacity. Beyond the inner drive is world of the spirit.

Modelling the Virtues

The James Smith Cree Elders clearly indicated that modelling of behaviours and ways of living have played a big part in the people's development over the years. The Elders kept referencing their old people's teachings and techniques of transmission as they discussed their community. One Elder said that the old people had given so much that she wondered where the community would be at today if it wasn't for the ancestors ways of living. She simply states, "if we didn't have our parents where would we be today, the heartaches, the things." Elder Riley Burns tells us "those drives that they had, those elders that I seen in my younger days when I was small. There was something in them that I admired in those people. What drove them so hard to get those stuff so that we could survive as little ones." The Elders remembered the actions of their ancestors and pin pointed the teachings they picked up which they now practice. Elder Blanche Sanderson said the following:

What kept me strong all this time was my parents. My dad was a traditional man and my mom was a lady and her dad was a lay reader and between them they were able to teach us faith between my mom and dad and we'd go to church and my dad would take us to ceremonies because my grandpa used to go into sweats."

Elder Burns also remembers the teachings of his father regarding family life. He remembers his father telling him that "if you want to live with this woman, you will be able to support her. You were given a brain to be creative in how you can support this woman." The resourcefulness of the ancestors also had an impact in the Elders. Elder Riley Burns tells us "I think that's what I got when I look at my parents. They tried so hard to improvise of the things they didn't have. They had other things they could use." The old people of the James Smith community had seen

how a community and family life can function in a good way and had modelled certain behaviours and teachings. The Elders picked up on the knowledge and now attempt to convey the messages to the youth of the community. Elder Clifford Sanderson informs us of the teachings he has passed on to his daughters. He states, "There are two daughters of mine that carry that knowledge now as it was given to me. One of my daughters uses those medicines. She is a teacher at Sturgeon Lake. One of them is a nurse. Both of them also sing sacred songs." Elder Riley Burns indicates that he is trying to model a good way of life for the benefit of his children. He states, "I have to try and be the role model for my kids in order for them to drive. If I'm not the role model, then who's going to make them so." Elder Albert Sanderson wants opportunities for the young people of the community. He states, "that's all I wish for. It is for those young people. They have lots of opportunities."

Shoal Lake Cree Nation Strategies

Land Philosophy

The Elders from the Shoal Lake Cree Nation have been blessed with wise and philosophical ancestors. They have come to know the mindset that pervaded their old people. Elder Phylis Flett states "I am getting old and I am beginning to think like an elder. It is these elders that model the ways and I follow their example." Elder Harry Young also tells us "I am getting older as well. I will be approaching 65. We are contributing as elders and I am blessed to think like one." Indeed, Elder Whitecap feels like she has had the burden of responsibility that goes with Eldership for the longest time. She states:

Presently, as I continue to follow my path in this community of Shoal Lake, I am the oldest amongst us who sit here. I am the oldest and I do not pretend to be young at eighty years on September 2nd. It seems I have been old for the longest time.

A part of the philosophical mindset or the wisdom that comes with old age is the uncanny ability to think and speak in metaphor. One of the images that the Elders constructed as a metaphor for their people is the idea of 'land'. That is, when the Elders talk about the land, they are talking about their own people. As an example, when life in the community was under respectable order and people were content, the Elders talked about his time as a beautiful period. Elder Emil Flett gives us this example in his own words. He states "I too have considerable experience in the way that I saw the land. I was shown how the land was and in the many ways of its beauty." As times and lifestyles changed, the Elders also saw the changes to the land. The oldest in the group, Elder Phylis Flett states "I have seen the changes that have happened in our land." Presently, the Elders see the extent that people have changed and remark "It is so that everything is looking different on our land." During this time of unprecedented change in the community, the people have neglected the wisdom of the Elders for the guidance needed. Elder Phylis Flett sees this in people and states "we do not know how the old people think and what they want. That is the way I see our land." Another Elder wanting better ways for the people remarked "It may sound like I am

complaining but I am not. I simply want better ways for our land." Even as the Elders sound off their frustrations and words of counsel for the betterment of the community, the metaphor resurfaces as a wakeup call to the community. Indeed, the Elders recognize and acknowledge their duty to care for the land (i.e. people). Elder Emil Flett tells us "we need to be the caretakers of this land where we had been placed to walk the earth." Finally, a part of that responsibility to take care of the land (people) is to ensure that the youth are equipped with the life skills necessary to create an optimum community once again. Elder Clara Whitecap states "the path that we have followed is not recognizable to them. It is true however that the young people we talk about will be guided into the future to see that land in the way that we saw it."

The Path to the Future

The Elders have a clear vision of the future and what must be done in the community. Elder Whitecap states:

That is my advice to you that are the leaders. Work for us people as we negotiate the future. Make your requests known so that we may continue to practise these ways. We have lost much in our community. Allow those things to make a comeback as it is our heritage. Make the allowance for us to have compassion that we are never out of the foods that we eat that we take from the land, in how we provide for the children. That is what I wish would come to pass.

For the Elder, the future of Shoal Lake Cree Nation rests in the youth from the community. What community decisions are made regarding the youth will determine the adaptive capacity of Shoal Lake people to safely negotiate the future of climate change. Indeed, the Elders clearly identify that there is a need to repatriate youth from their communities to traditional environmental and cultural knowledge. Considering the importance that the Elders have for the youth from the community, the final words should come from the matriarch of the Shoal Lake community, Elder Clara Whitecap. She states:

I speak for my children, grandchildren, great-grandchildren and the ones yet to be born. I relate to all the youth as my grandchildren. I relate to you all as my children. That is what we came to talk about. That has to be what transpires into the future.

The Elders from the two First Nation communities had faith in the inherent strengths of their own people and believed that time honoured philosophies of their ancestors would enhance their adaptive capacity. The James Smith Elders saw two adaptation strategies for their community. First was to instil the 'drive' of their ancestors to the next generations and secondly to focus on their own capacity to model the virtues that they wanted the young people to adopt (see Figure 4). The Shoal Lake Elders believed that adaptation hinged on their people's deep seated spirituality and philosophy. They saw value in having a land philosophy and the people's capacity to 'intent' the future for the benefit of future generations (see Figure 4).

ADJUSTMENTS IN HUMAN SYSTEMS IN RESPONSE TO ACTUAL CHANGES – COMMUNITY IDENTIFIED METHODS OF INCREASING ADAPTIVE CAPACITY

The Elders from the two communities saw the changes that have happened in their respective communities and felt the resulting tensions and strains that shifting circumstances were having on the people's well being. The Elders identified how their communities could make adjustments to their natural or human systems that will minimize their risks and position them to take advantage of new opportunities that climate change may present. Sustained adaptive capacity, relative to these two communities, will be dependent on their success in enabling effective community adjustments.

James Smith Cree Nation Systems

Education and Skills

The James Smith Elders were proud to discuss the hardy skills that their old people possessed and valued in times past. These were skills that spoke of determination and the adaptive capacity to survive in the seeming harsh natural environment of traditional lifestyles. These were the kind of skills that ensured the life of the people and sustained family lines to the present. Elder Riley Burns talks about the capacity of the old people to survive the natural environment. He states, "Grandpa used to go out as far as Choiceland to go and live, to go and hunt. The only blanket he carried was a piece of canvas. That's all he carried for his bed for the night in the winter time. That's the way he was taught, to keep driving." The Elders said that the people long ago were resourceful and learned skills from many people in the extended family. Elder Burns tells us "my granny came from up north over here. My grandparents were from Cumberland. My other granny came from Battleford on my dad's side. She was a Metis woman. I had two different cultures through my Metis grandmother and with the Cree. They taught me how to survive in the land." Elder Burns also acknowledged the skills that were learned from the non-native society. He tells us "they always had a drive. He learned that from a white man too because he went to a boarding school."

The Elders recognized that the people had to transform from traditional lifestyle to the modern ways in order to have parity with the times. They realized that the skill sets that carried the old people of the past had their value but that survival in the present society required the adoption of other important skills. The Elders talked about acquiring these new skill sets. "That's progress. I thought I would never see the day I could communicate. I could talk about what happened to me when I went to school. I press a button and right away it shows me there. I did go to school there.

All these things, just a press of a button, it's there." Elder Riley Burns states that "today technology is different. Today we have to have a different view of things because technology is so fast and sometimes I get left behind if I'm not up to where I am supposed to be." For the Elders that had seen different eras with different skill sets, adapting to new technology would only reaffirmed the resilience of the people to adapt. Elder Burns points to this transformation. He states "this old man here, I don't know how old he is, but I admire that he can operate that little telephone he's got. That's pretty good. He came a long ways that old man. I'm proud. That's technology." The Elders are also involved with computers even if they may be struggling with them. Elder Riley Burns tells us that "As old as I am, they are still trying to teach me how to use the computers. Not bad now you know. I've got to watch what I put down. I may inadvertently write swear words (ha, ha)."

The Elders of the James Smith Cree Nation place a high value on education. One elder stated that "education today is the most important thing." They see the limited opportunity for employment in the community, particularly for the young people. Albert Sanderson said "It is for sure that I start to see how there is nothing here. There are some youth who graduate and they return back home. There is nothing here! We have to go out there to get an education, to get training." Elder Burns also said that the youth have to be instilled with drive in order for them to succeed. He states, "that's what we have to keep up to teach our kids, to try and make them drive." The Elders also recognized that education alone would not sustain the people as the future is negotiated. The people would have to have something more powerful that would guide them into the unknown future.

Enhancing Values

Throughout the discussion, the Elders from the James Smith Cree Nation invariably talked about some of the things they regard highly, or values that they consider important to retain in times of change. One of the values that the Elders talked about is the idea of helping people. This value may have been particularly important when people from the community were experiencing hardships though their history and helping each other was crucial for their collective survival, particularly in the traditional lifestyle of the past. For the Elders, helping other people was a fixed value that the old people had displayed and taught. Elder Burns also remembered that the old people said that the helping hand did not see color in humanity. He states, "no matter what kind of white people, they helped them out. They used to help lots, those white people." Helping other people was born out of compassion. Elder Mervin Burns remembers a situation and how he practiced the value of helping that was ingrained in him by his old people. He said the following:

We were hauling potatoes from Punichy and we met an old man. Where are you going grandpa? "Things are not going as well and I am going to go and ask for some food for my wife and I." Okay, I jumped off and I loaded up 100 pounds of potatoes in his wagon. Wa Wa!, grandson, you have given me lots of potatoes! Wa Wa!, old lady, we will return and go fry potatoes"

he said. "As for you I give gratitude that you will have a long life." I made them real thankful for they were struggling with hunger.

The Elders felt this kind of value system contributed to bonding and nurturing of a coherent community. Elder Sanderson tells us that "we help one another and that's the love, the sharing, survival like sticking together at crisis." Indeed, the Elders think that it is an important value to be passed on to the youth. Elder Sanderson tells us that "as a First Nations people we tend to stay together looking after one another and that's very important to show our children." Helping other people is an ingrained belief that sees the good in all humanity. The Elders said that helping others has its virtues and gives pride to the people who practice it. Elder Riley Burns tells us the following:

You have to see the good in your fellow human beings, to try and help them in whatever way you can. That is what will take you a long way. You can walk anywhere if you see the good in other humans, even whatever happens, that is what will pull you through if you believe in other humans and you treat them in good ways and see good in them.

Another of the primary values is the worth that the Elders place on children. Wealth for the Elders meant having children and grandchildren as opposed to a wealth of material possessions. Elder Clifford Sanderson states that "presently, I do not possess anything but I do have many grandchildren, children and great-grandchildren. That is the kind of richness I have today even though I have no possessions." Similarly, Elder Opoonechaw also said "we're rich because we have our grandchildren." This particular way of seeing wealth is an intergenerational value that helps the people focus on the important thing in life. These values of having compassion to help others in times of need and finding wealth in the eyes of children were ingrained in the Elders by their own teachers and flowed out of their spiritual and cultural system. For the James Smith Cree Elders finding ways to transmit these values would be the task.

Shoal Lake Cree Nation Systems

Elder Roles

The Elders liken the unfolding of their community existence as a path to be followed with the interests of future generations always in mind. Elder Whitecap tells us for example, "the people will walk the path to help the children." It is clear that the Elders take this role of leading the youth into the future as a serious responsibility and will do their best to assist the people create a good future for the community. Elder Harry Young informs us "the way I live now is a gift to work on this life, life that was given to me. I will work on it with the best of my abilities." Indeed, the Elders link their deep seated spirituality to the favourable outcome of their intentions for the future. Elder Clara Whitecap states "I am very hopeful that I will be divinely assisted as I

sit here with you, that my words will be blessed in the ways I intend the future." Indeed, the Elders acknowledge their human frailties to accomplish the future they intend in light of their experiences with various challenges. Following this path of community existence has not been easy for the people of Shoal Lake and recent challenges have highlighted the continuing difficulties. Elder Lillian Lathlin tells us "it is difficult on the path that we are now travelling."

The Elders from the Shoal Lake Cree Nation see the critical roles they have to play to influence community life in ways that benefit future generations. They clearly see the path and clearly see that the community will succeed that the youth will take up the causes of the community. Elder Emil Flett states:

We will be blessed in our efforts and we will be guided as we walk our lives. The young people will be walking that path in the future and that nothing will steer them in another direction. It is a hard path that they have to follow.

Finally, Elder Bear sees hope that the compassion of the people will eventually find its way to assist the youth from the community. He states "we have to keep trying. We have to keep trying if we have love for our children, grandchildren and great grandchildren. That is the way." The compassion and perseverance Elder Bear was talking about was not short in the Elders from Shoal Lake. Indeed, the Elders' main concern was for the well being of the youth and they focused on certain identified behaviours that needed attention in the community. For Example, Elder Bear ponders about a way that the youth could be assisted in their struggle with alcohol influences. He states "there are many ways we could steer them so that they don't get into alcohol, that they could understand all these things." Certainly, the Elders want to assist the youth but also realized that the youth to leave behind those things that influence in negative ways." Elder Phylis Flett simply wants a cleansing of the community to remove all the incipient problems. She states I don't like to see this and it would be my wish that sort of thing is cleansed from our land."

Community Focus on Youth

Recognizing that the youth from the community face unprecedented challenges, coupled with a communication gap between generations, the Elders turn to finding ways to assist the youth in their struggles. Elder Bear addresses the Elders to come with ways to connect to the youth. He states, "I would like to know what the rest of you think in how we can connect to these youth. They are to be pitied. We do not pay enough attention to them. We may counsel them to a small degree but that is it. We do not sit with them enough." The Elders acknowledged that community adults have neglected the youth and that there had to be revitalized attention given to the youth in the name of compassion and love. Elder Bear continues, "If we could collectively meet our children, the youth, if we could sit with them they would see and have realization that we love

them and care about them...That is how we have to steer them, to give compassion to our children."

The Shoal Lake Elders are very clear about what they would like to see in their young people. For example Elder Harry Young states that "my wish is that our young people will have the skills and knowledge to look after their lives. They will have good minds and start the prayer life." Besides hoping that the youth develop good life skills and adopt an ethical life, the Elders also want to stamp out the negative influences that have gripped their children. Elder Lillian Lathlin states "It is also for the youth to leave behind those things that influence in negative ways." With the realization that the youth needed assistance in a time of need, the Elders examined reasons why the youth were exhibiting problematic behaviours.

Youth Programming

One Elder said that the community had to commit to creating activities for the youth if their defiance was to be stemmed. He states "we cannot do anything if the youth and children do not have any activities." Elder Gerald Bear also sees that there is no sports and other activities that bring the youth together. He states "we do not even have sport with some of them as we have played with them in the past. They have no dancing, nothing that brings them together for their enjoyment." The Elders were keen to identify some strategies that would prepare the youth for responsible adult roles. Indeed, the Elders see that part of the problem is that the youth have too much free time. One Elder said "presently they do not have anything they can focus on like jobs." Elder Phyllis Flett picked up on this situation and states, "our youth should be trained in the ways of making a living. That is what I really want to see." She also believes that girls should receive training in childhood development like babysitting courses that could be implemented in the community. She states "when pay days come along, the children get left at home to fend for themselves. There should be babysitters and there should be a babysitting club, baby sitting workshop where young girls can be taught." Indeed, the Elders would like to see family oriented activities that youth could take part in. Gerald Bear tells us "last week or two weeks ago they started a family night as an activity. If we do that sort of bonding, we can keep our youth busy. Other things should be started up to keep the youth occupied."

The James Smith Elders saw changes happen in their community and recognized that dependency and a general deterioration of values were hurting the people. As counter measures, the Elders identified education, skills development and values teachings as the necessary adjustments that the community would have to make to prepare the next generations for the future (see Figure 4). In the Community of Shoal Lake, the Elders had deep concerns about the challenges that their youth were facing in time of shifting lifestyles. The Elders looked deeply at their own roles to repatriate the youth to a knowledge system that enhance their adaptive capacity into the future. A part of this strategy for community adjustment was to focus on the youth solutions that would include youth centered programming (see Figure 4).

The Elders in both communities are touching upon many well documented indicators of adaptive capacity and providing techniques for ameliorating them within the communities. Education levels are widely used as indicators of adaptive capacity (Adger, 2003; Yohe and Tol, 2002; Beckley et al., 2002; Parkins, 2001; Maxim et al., 2001; Smit et al., 2001; CCSD, 2000; Markey and Vodden, 1997). Equitable access to education serves to increase adaptive capacity by providing individuals with knowledge and therefore more options when choosing adaptive strategies (Adger, 2003). Skill development has similar effects as education on levels of adaptive capacity. Information and skills provide the basis for making well informed, successful decisions regarding adaptation (Adger, 2003; Yohe and Tol, 2002; Beckley et al., 2002; Smit et al., 2001; CCSD, 2000). The possession of and access to cultural values and knowledge, which are increased through values teaching and solidifying Elders' roles in First Nations communities, are also key indicators of community and adaptive capacity (Mendis et al., 2003; Beckley et al., 2002; Markey and Vodden, 1999).

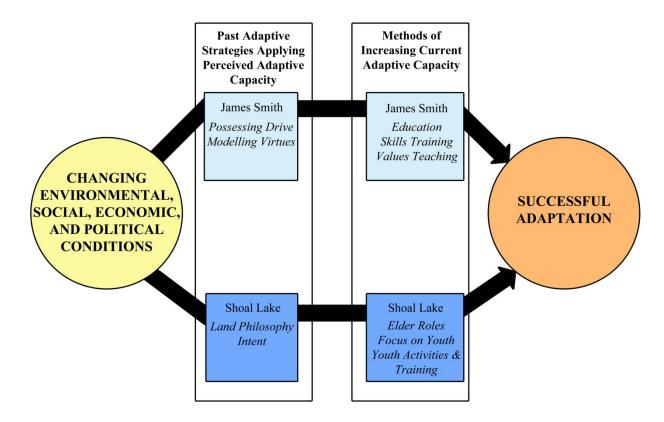


Figure 4. Community identified paths to successful adaptation

Project Deliverables

The third objective of this project proposed to engage First Nations perspectives and western methods in science and technology in a reciprocal process of learning that will greatly enhance understanding of human responses to climate change. The research focus on the community initiatives of two First Nations and how science and technology can enhance community aspirations for minimum risk adjustment in response to actual or expected changes. In this respect, the project created curriculum materials from research findings with the intent of presenting and helping transmit community strengths and traditional environmental knowledge to enhance learning outcomes in the youth from both communities. This involved the consolidation of research outcomes such as reporting, science data, GPS mapping, Elder transcripts, videos and other deliverables envisioned from this and previous projects. NOTE: The activities planned to achieve objectives (2) and (3) do not represent public outreach, since the target audience is not the general public. Rather the scientific information and curriculum materials will be delivered to the communities, and specifically youth, explicitly for the purpose of exploring and developing adaptive capacity and adaptation strategies.

The documentation and compilation of spatial knowledge on the mapping DVD can serve to be valuable assets to the communities. Local and traditional knowledge is captured and embedded throughout the maps in the form of video. Youth can be easily exposed to teachings concerning change and community response in a form they are familiar with. Watching movies on DVD is a common pastime for youth in the community. Most DVDs are produced far from Northern Saskatchewan and contain values and themes that are often at odds with traditional teachings. Local community members and Elders star in the videos found on the mapping DVD. Youth can view familiar faces discussing culturally relevant topics and conveying messages passed down for generations. It is a means of exploiting technology to improve continuity of knowledge and values within the communities.

Reconnection with the youth may also be aided by such efforts. Youth may gain respect for the words of their Elders when they see them on television. Television has proven to be a powerful global medium throughout much of the last century. Celebrities and other public figures often gain much exposure and respect by appearing on television. Importance and fame are often constructed based on this. Deeper appreciation for the teachings of Elders can be obtained when presented in this format. The inclusion of videos captured on the land will have a similar effect. It is likely that youth will be compelled to visit and experience firsthand the areas and practices discussed by their Elders in the video. The importance of the land and connection to it can be better understood by youth when the landscape is presented alongside teachings.

DISCUSSION

Understanding adaptation and adaptive capacity in the context of climate change can be enhanced by attention given to the human dimensions of change in socio cultural contexts. Much of the research on climate change focuses on scientific observations organized in a temporal and spatial manner, with less attention given to the heart and soul of human experience as change is negotiated. Duerden (2004) has written that "what we need to know, and what lies fairly in the perview of social scientists, is how human activity will respond to change. From the standpoint of affected populations, the important questions are "What will the impact be on way of life?" and "How shall we adapt (p. 210)?" As evidenced in the previous study (see Isi Wipan - Ermine et al., 2007) the two communities of James Smith and Shoal Lake Cree Nations went through significant changes as they shifted from traditional subsistence economies to contemporary mainstream lifestyles. The communities underwent changes not only in terms of their experience with the climate and the environment, but also to their socio-cultural dimensions. These changes speak of shifts at deeper levels of human capacity and are in themselves portals, albeit in a sociocultural sense, to the examination of how humans adapt to fundamental shifts to their reality. However, it is the coping mechanisms such as those embedded in the First Nations' philosophy and the peoples' psychological capacity that guided the communities through tumultuous changes that seem most insightful and substantial to discussions of the human response, or adaptive capacity, to global climate changes. Change and adaptation are largely cultural and psychological events and may also be addressed from that perspective (Grothmann and Patt, 2005). However, in the case of James Smith and Shoal Lake, it is in fact the same cultural changes, from a subsistence economy to contemporary convenience and their accompanying influences - an alternate mode of knowledge practice - that may undermine the peoples' capacity to adapt to climatic and environmental changes. Shifts from nature-oriented to urbanized mainstream lifestyles diminish the peoples' continuing knowledge about the natural environment as the primal background to climate events. The extent to which the people retain traditional environmental knowledge influences their positive response to change and also enhances their coping strategies. The Elders from the community of James Smith and Shoal Lake retain strong philosophies and community attitudes that would assist them with continuing adaptation strategies. What is crucial for these Elders is that the community has to find the ways that will transform their knowledge and teach the youth the skills that would assist the younger generations negotiate the future that may include substantial changes to the climate.

Many First Nations communities are undergoing similar and significant social, economic and political changes that have serious implications for social well being. While some changes are certainly unprecedented, First Nation communities have faced economic and social transitions in the past. However, the historical record, which is based exclusively on documented sources, has left serious gaps in our understanding of community responses to various social and health concerns. The knowledge held by Elders regarding the past responses and practices, past successes and failures, can be accessed to broaden our understanding of these historical processes and their impacts in contemporary contexts. The experience and knowledge of the

Elders would aid the historical understanding of social issues and may indeed create valuable inter-generational and cross-cultural communication surrounding health and healing and its preservation.

Deliverables of the project such as reports, Elder transcripts and the documentation and compilation of spatial knowledge on the mapping DVD can serve to be valuable assets to the communities for their future intentions. Local and traditional knowledge captured and embedded throughout the reports and maps in the form of video can close the generation gap and youth can be easily exposed to teachings concerning change and community response in a form that they are familiar with.

CONCLUSION

Two community case studies were undertaken with attention given to understanding Adaptation and Adaptive Capacity in two First Nations in Saskatchewan. Both communities of James Smith and Shoal Lake Cree Nations had gone through significant changes as they shifted from largely traditional subsistence economies to contemporary mainstream lifestyles. The James Smith Cree Nation Elders identified the introduction of social assistance to the people as a particularly damaging event that drove people to dependency. The Shoal Lake Elders pointed to the challenges faced by youth as the community shifts to more urbanized lifestyles. How they coped and the inherent resources they possess for making adjustments speaks of human capacity to adapt to fundamental changes in peoples reality such as what climate change may present.

The Elders from the two First Nation communities had faith in the inherent strengths of their own people and believed that time-honoured philosophies of their ancestors would enhance their adaptive capacity. The James Smith and Shoal Lake Cree Nations looked inward to find the resources they need to facilitate positive changes to their communities. This adaptive capacity pointed to their cultural and spiritual resources that have guided them through tumultuous changes in the past and the Elders believe that these resources are their primary claim to adaptive capacity.

The two communities of James Smith and Shoal Lake also envisioned adjustments in their community systems that would enhance their capacity to negotiate the future. The James Smith Elders saw changes happen in their community and recognized that dependency and a general deterioration of values stymied the people's progress. As counter measures, the James Smith Cree Nation Elders identified education, skills development and values teachings as the necessary adjustments that the community would have to make to prepare the next generations for the future. In the Community of Shoal Lake, the Elders had deep concerns about the challenges that their youth were facing in time of shifting lifestyles. The Elders looked deeply at their own roles and responsibilities to repatriate the youth to a knowledge system that they believe enhances their adaptive capacity for the future. A part of this strategy for community adjustment was to focus on the youth solutions that would include youth centered programming.

Understanding adaptation and adaptive capacity in the context of climate change can be enhanced by attention given to the human dimensions of change in socio cultural contexts. What is crucial for these Elders is that the community has to find the ways that will transform their knowledge and repatriate the youth to the skills that would assist the younger generations negotiate the future that may include substantial changes to the climate and environment.

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