



THE CLIMATE CHANGE PROJECT

Impacts and Adaptation Measures for the Hunters, Trappers and Communities of Eeyou Istchee
Waskaganish Community Report – April 2010

Have you noticed changes in the weather, changes on the land, the ice and the snow?

Is climate change affecting you and your activities on the land?

Are you afraid of driving your skidoo on the ice in the bay or on the rivers?

WHAT IS THE PURPOSE OF THE CLIMATE CHANGE PROJECT?

- To improve our understanding of the consequences of climate change on the land and on people in Eeyou Istchee - hunters and trappers and other community members;
- To find out where we should be especially careful and find solutions to problems that are created by climate change.
- To encourage Cree participation in finding solutions.

Concerns over climate change and its impacts for the Cree of Eeyou Istchee have been expressed in various community meetings and discussions over the last few years.

Scientists have been studying the effects of climate change over the world and are now in a better position to forecast what is coming our way in the next few years if the warming trend continues.

Also, the knowledge of our elders, hunters and trappers who have spent their lives on the land is precious for our understanding of climate change. It can help us define ways to adjust to change and cope with the impacts.



The CLIMATE CHANGE PROJECT is a joint initiative of the Cree Trappers Association (CTA), the James Bay Advisory Committee on the Environment (JBACE) and the Cree Regional Authority (CRA) and it is funded by Indian and Northern Affairs Canada (INAC).

The project is taking place in three selected communities: Waskaganish, Whapmagoostui and Mistissini.

So far, workshops have been taking place in each of the communities, as well as individual interviews. The observations presented in this report were discussed during the Waskaganish Workshop, held in September 2009. We would appreciate it if you could give us feedback during the next workshop, planned for June 2010.

CLIMATE CHANGE IN WASKAGANISH – RESULTS OF THE WORKSHOP

The workshop was held in September 2009 at the Kanio Kashee Lodge. A total of 13 participants from the community were present and shared their knowledge and observations on changes in the climate over the years.

Here is a summary of observations made by participants, and a few examples of impacts that these changes in weather patterns have on land use.

TOPIC	CHANGE/OBSERVATION	IMPACTS
Weather Patterns	<ul style="list-style-type: none"> • The cold weather only starts in January. • The creeks thaw early in March, and Spring comes early in the bay. • The weather seems to come from the south. • The freeze up is different and the ice melts faster. 	<ul style="list-style-type: none"> • People used to leave late in August to their trapline. Now they leave sometimes up to mid-October. • Some trails can't be used anymore. We have to find new routes and make new trails.
Water temperature/ level/tides	<ul style="list-style-type: none"> • Tides are not as strong as before. • Currents are especially strong in some areas of the bay. 	
Snow	<ul style="list-style-type: none"> • It settles later in winter and melts faster in the spring. There is less snow overall and there are changes in the thickness of the snow. • There are less snowstorms but they are stronger. • There are no more snowstorms in springtime. 	<ul style="list-style-type: none"> • Hunters don't have snow to make their blinds.
Rain	<ul style="list-style-type: none"> • There is less rain than before but there can be heavy rain in December. • Thunderstorms are less frequent but more powerful. • There is more freezing rain. 	<ul style="list-style-type: none"> • When there is freezing rain in the fall it freezes the willow and the moose cannot eat as much. • When there are less storms, the growth of plants is slower.
Wind	<ul style="list-style-type: none"> • Winds are more frequent and come from the North-West. They seem to be stronger with big gusts of up to 100 km. • There used to be tornados back then. 	<ul style="list-style-type: none"> • Strong winds blow trees down and roof tops off. • When there are strong winds the water levels are higher. The blue geese feeding grounds are lost, so the geese move to inland lakes and wetlands in the fall.
Ice (Lakes)	<ul style="list-style-type: none"> • Ice on the lakes freezes earlier than on rivers and stays frozen longer, but the freeze up is still late and the thaw early in spring. 	
Ice (Bay)	<ul style="list-style-type: none"> • There are gradual changes in the bay ice: it freezes solid later (Jan & Feb), • Ice is breaking up earlier. The currents open the ice earlier and ice along the coast is also breaking earlier. • Water is warmer and ice along the coast breaks earlier. There are more and more areas with open water in May. • Water coming out of the river is warmer and it impacts the bay. • Although it varies with the amount of snow in a given winter, there is no more piling up of ice in May in front of the community in the bay; the ice just melts. • Known openings in the ice are getting larger and the ice is thinner every year. 	<ul style="list-style-type: none"> • Transportation on the bay in winter is different now - trails in spring and winter are affected. We can only go in December to the trapline; that is a month later than it used to be. • Travel is dangerous – river mouth is most dangerous spot. There are dangerous places because the ice breaks up earlier, making travel impossible. The travel season on ice is reduced to one month only. • People have fallen through the ice. Because of such an incident the CTA started the helicopter monitoring program during school break and goose break. • Winter travel and trapping are impacted.

TOPIC	CHANGE/OBSERVATION	IMPACTS
Coastal Erosion	<ul style="list-style-type: none"> Started ten years ago. Strong wind, high tide and strong storms, especially in the fall. Occurring more often now. Wind always from North-West. There is also river erosion along the Rupert. 	<ul style="list-style-type: none"> Cause coastal erosion.
New animals	<ul style="list-style-type: none"> Animals move more than before and are less scared. New animals are appearing or increasing such as pelicans, coyotes, racoons, bald eagles, egrets, vultures, cranes, swans, long neck geese, frogs, porcupines, belugas. More sightings of wolves looking for food near community. 	<ul style="list-style-type: none"> Geese don't land on the shore of Rupert Bay because of the eagles.
Geese	<ul style="list-style-type: none"> All the geese used to come up North between April & May but now the long neck geese travel North in June; some have problems flying as they already start moulting. Geese no longer have any landing area on the shores around the bay. There are less geese around the bay in the fall. 	<ul style="list-style-type: none"> Hunters kill less geese now because their feeding ground disappeared. Several outfitters have abandoned their outfitting camps (#37, #38, #39, #40).
Fur-bearing animals	<ul style="list-style-type: none"> The beaver seems to decline all the time. The lynx, marten and rabbit populations have also decreased. 	
Polar Bear	<ul style="list-style-type: none"> Polar bears hit the coast for 10 years. now. There are more sightings on Charlton Island in winter and spring time. 	<ul style="list-style-type: none"> Ransack the camps. Dangerous for people.
Bear	<ul style="list-style-type: none"> Elders say when the weather is poor, there is less vegetation, fewer blueberries. So the bears don't have enough food and scavenge near community and shore land. With early thaws, bears come out early, because their dens get flooded; or because they lack food and are near campsites. 	
Moose	<ul style="list-style-type: none"> Moose are now seen along the shores of the bay. Before there was no moose in that area. 	
Fish	<ul style="list-style-type: none"> Fish populations have changed. Fish is affected by climate change because it does not have a place to cool off when the water gets too warm. Sturgeon is not as big as before but it shows up in areas where it was not caught before. Whitefish comes in about 2 weeks later than usual in the last 2-3 years. It is not as big and fat as before. 	<ul style="list-style-type: none"> People no longer go out fishing in the bay.
Plants, berries and trees	<ul style="list-style-type: none"> Wetlands are drying up and there is an overgrowth of vegetation. There are less birch trees around the bay and some plants grow higher. The vegetation grows rapidly and blueberries grow more. 	<ul style="list-style-type: none"> Geese don't feed along the shore anymore because of the vegetation growth. This has affected ptarmigan and rabbit food as well.



WHAT CAN BE DONE TO RESPOND TO IMPACTS OF CLIMATE CHANGE?

Many of the impacts of climate change are affecting land use, hunting practices, and most of all travelling on the territory. Each community will have to identify areas of risk and find ways to ensure conditions are safe for everyone.

The first task to consider is a way to keep track of changes that are occurring because of climate change. There needs to be a good monitoring system in place in each community so that the proper measures can be taken on time, at the right locations.



HOW CAN WE MONITOR CLIMATE CHANGE? Each community has its own challenges when it comes to climate change. The land is not the same from one community to another and the conditions are specific to each area. But there are nonetheless signs of climate change and these have to be watched closely.

Examples of climate change indicators in Waskaganish:

- Early openings in the bay ice
- Changes in snow quantity and quality
- Geese moulting early
- Appearance of new animals
- Changes in animal behaviour



Potential adaptive actions were identified by the project team and are illustrated in this influence diagram.

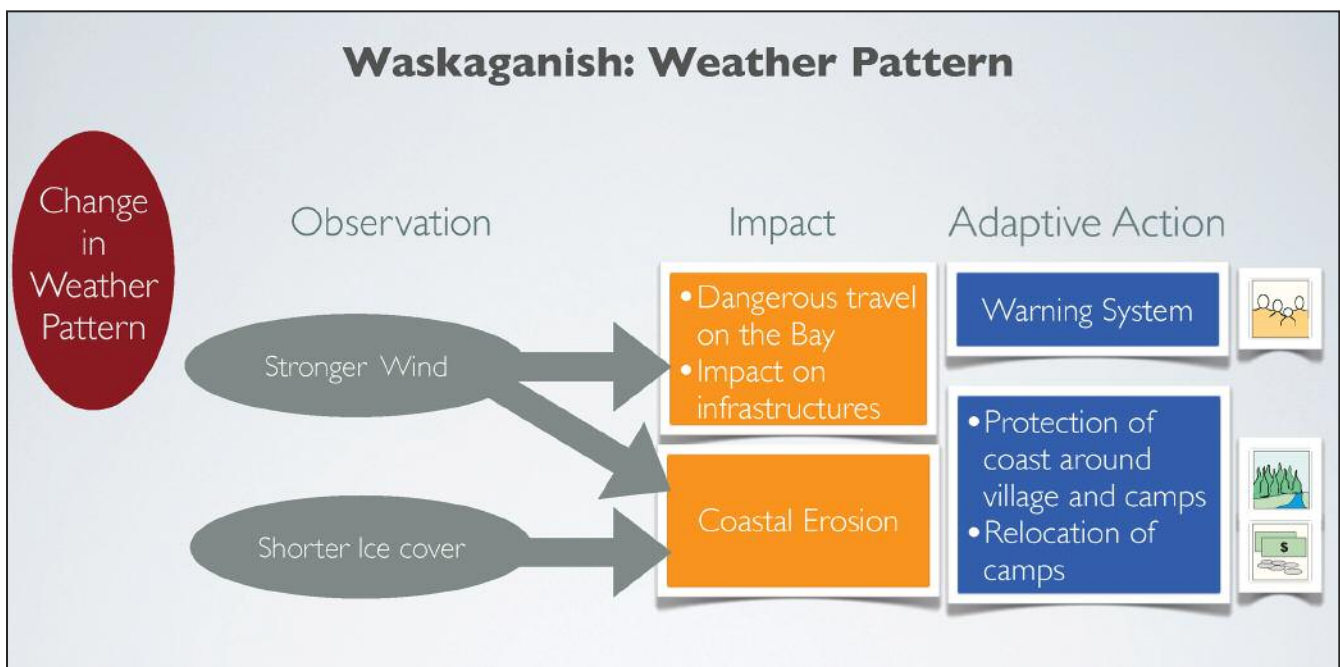
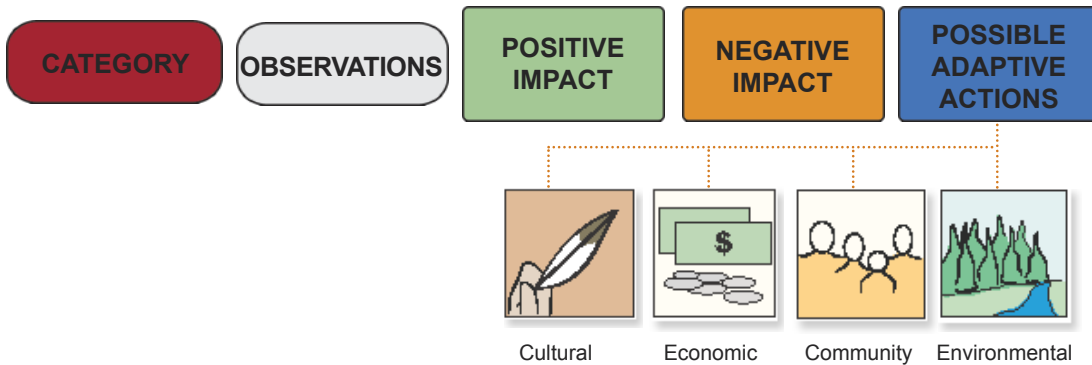


INFLUENCE DIAGRAMS ON CLIMATE CHANGE

OBSERVATIONS, IMPACTS AND POSSIBLE ADAPTIVE ACTIONS FOR WASKAGANISH

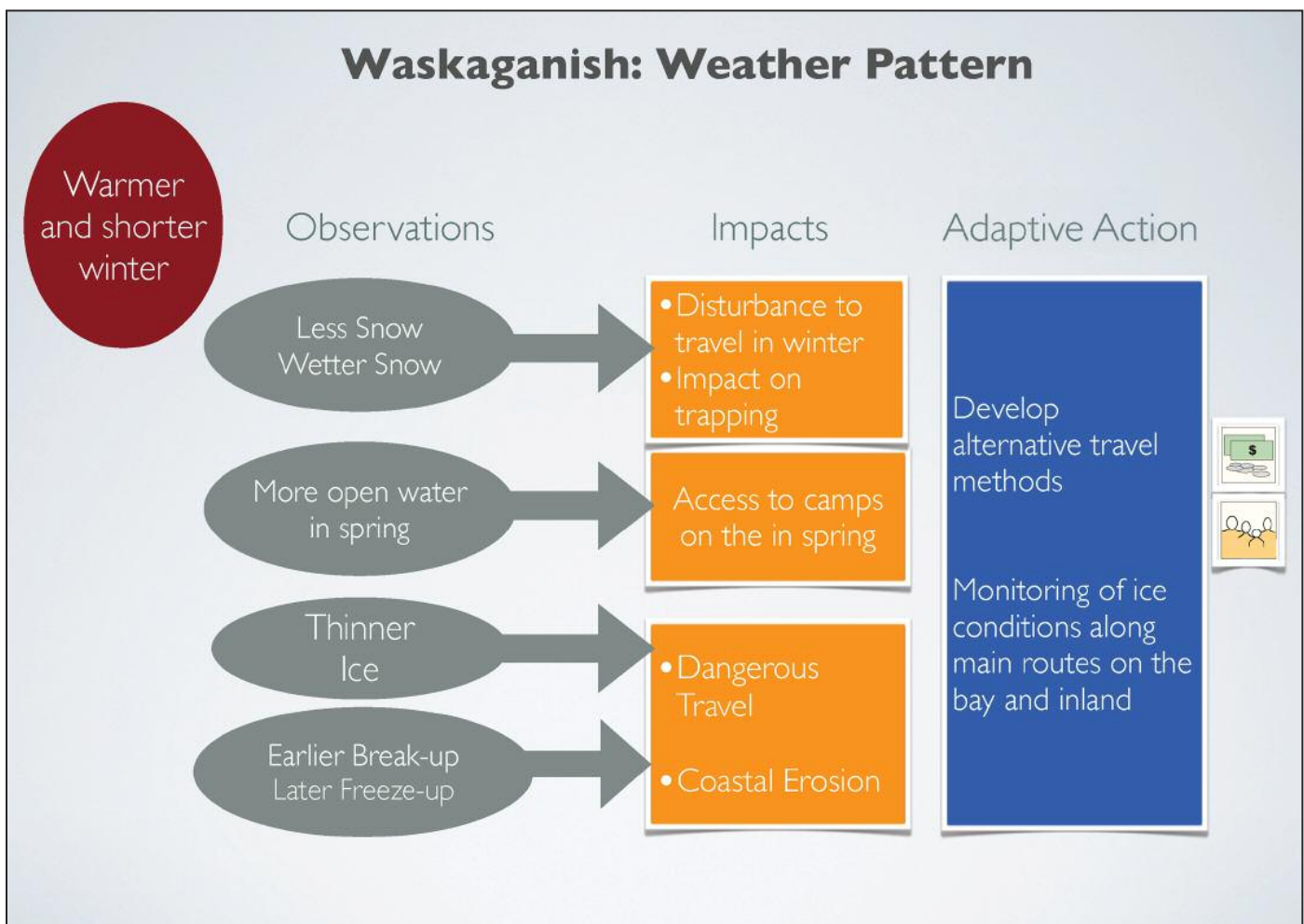
NOTE ON THE INFLUENCE DIAGRAMS. The influence diagrams propose a summary of the observations, impacts and adaptive actions of climate change that were discussed during the workshop held in Waskaganish in the fall of 2009. A follow-up workshop will be held in the spring of 2010 to complete and validate these influence diagrams.

Key to symbols and colours used in the diagrams





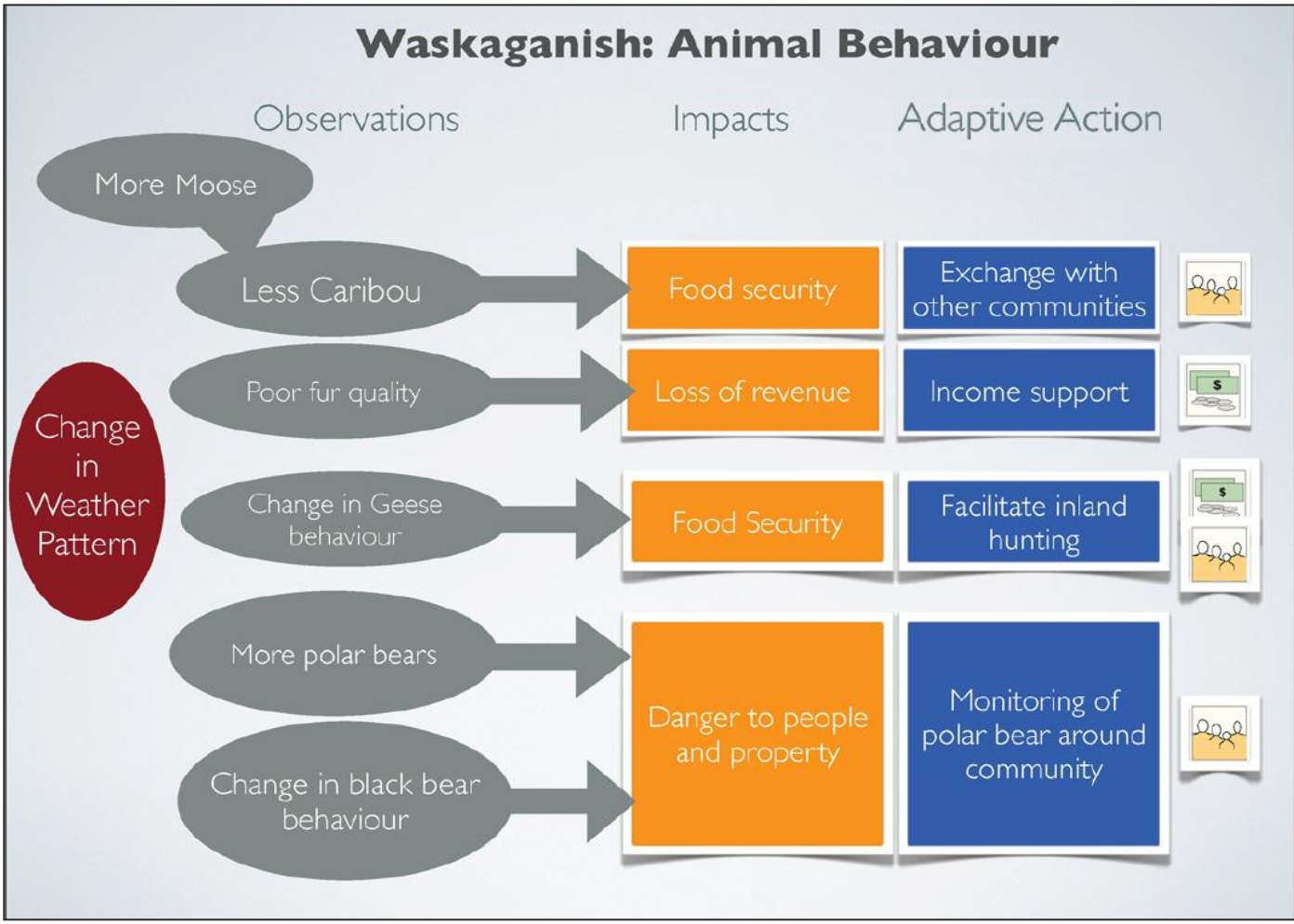
INFLUENCE DIAGRAMS ON CLIMATE CHANGE



We have wet weather, then dry weather, then bad weather for a day or two; it s very common now to have that. We used to have like two straight weeks of sun in the old days...

When snow fall is minimal during the winter season, little or no snow cover on the ice makes it impossible to navigate on the bay since skidoo machines do not have enough traction to haul all the supplies to or from the island. Lack of snow cover on the ice out in the bay can restrict hunting activities.

Observations from workshop participants



Foxes and wolves would always flee from man's tracks on the snow, today their track marks are observed to follow along man's tracks.

Moose population has been increasing over the past 10 years and more have been sighted along the James and Rupert Bay coasts. Moose were usually not very abundant along the coast. Even the woodland caribou have been sighted closer to the bay.

Observations from workshop participants

Next Steps...

The project team will be visiting Waskaganish again in June 2010. We would like to validate the information gathered during the workshop, and receive your feedback and comments. We would especially like to discuss adaptive actions that could be undertaken in the community to monitor climate change.

In the meantime, if you have any questions/suggestions/comments, or if you simply wish to know more about this project please contact us.



Wolves and fox were very fearful of man 20 or so years ago. Now they come into the camp grounds and are very bold. They even come into the community of Waskaganish seeking food.

Moose population has been increasing over the past ten years and more moose have been sighted along the James and Rupert Bay coasts. Moose were usually not very abundant along the coast, but even the woodland caribou have been sighted closer to the bay. This is a new development first observed for the past 20 years.

In recent years (approximately 10 years) I see more and more trees standing crooked, bent by the weight of the snow.

Cranberries and other berries are not as abundant all over the Island as it used to be 10 years ago.

Observations from workshop participants

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