THE CLIMATE CHANGE PROJECT

Impacts and Adaptation Measures for the Hunters, Trappers and Communities of Eeyou Istchee
Whapmagoostui 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 Whapmagoostui workshop, held in October 2009. We would appreciate it if you could give us feedback during the next workshop, planned for June 2010.

CLIMATE CHANGE IN WHAPMAGOOSTUI – RESULTS OF THE WORKSHOP

The workshop was held in October 2009 with 3 participants from the community who 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	• The intensity of the sun is very high. • It is more difficult to predict the weather now. The stars were used as markers for temperature. • In the past, the length of seasons used to vary. • There is underground water coming out from the bank, before there was only one outlet, now there are several water outlets coming out from the bank.	• There are mudslides along the Great Whale River and trees falling as a result. The permafrost seems to be melting. • Something is happening under the community. Is it the permafrost? • Areas where permafrost is melting can be very dangerous for the hunter, they can fall. • Houses are deteriorating much faster. • There are health issues.
Water temperature/ level/tides	• 30 years ago didn't see sand banks now we see them. • Bottom of river also changing and pathways are shifting. • The water level is lower.	• With more sand banks coming in, you must find your way now.
Snow	• The snow is different every year. Sometimes there is a lot and sometimes not. • Sometimes there is less snow on the coast then inland.	
Wind	• Now sometimes the wind comes and has an effect on the water level, it pushes the water up like a high tide. There used to be wind of up to 90 miles an hour and it would have the same effect of creating like a high tide. Today, the same thing happens but only with a 50 mile wind.	
Ice (lakes and rivers and in general)	• Small creeks are no longer frozen, there is snow on top but it's not frozen under the snow. • Ice is not as hard as it used to be. • Depending on the slush and thickness of ice, melting will be faster or slower. • Layers in the ice are softer and thinner. • Ice breaks much earlier, in early May.	• There are a lot of accidents on those creeks. • People no longer travel on the land. More and more build airstrips on their trapline close to their camps. It is more expensive and hunting activities are more localized in the areas where the plane can land. • In spring we lost two very experienced hunters that fell through the ice.
Ice (bay)	• The Inuit hunt in the bay and observe that ice is thin and very soft.	• Travel routes are closer to the shore, where there are dangerous areas. In this time of year they used to be able to go out into the bay, but now they can't anymore.
Coastal erosion	• Across the river at shoreline, there use to be sand, now it's all mud.	• On the river shore when you set up nets they get caught in the mud. • Muddy river shores are dangerous for children at low tide.

TOPIC	CHANGE/OBSERVATION	IMPACTS
Animals	• Swans are seen more often, even here in the village. • A red breasted bird as big as snow goose was killed. It was never seen before. • There are more mice. • A huge bird was seen. People thought it was a black bear sitting on the ice, they were going to hunt it, but when they approached, it flew off.	
Geese and waterfowl	• The flight patterns have changed. We don't see snow geese anymore. Geese go inland now. • Baby ducklings have a slower growth and baby snow geese are starting to have too much lice. We can't eat them. • During migration the geese fly at night. • The geese are skinny now when they come back from the north. • The Inuit say there are no more ducks in areas of the bay.	• With eelgrass disappearing, there is no more food for the waterfowl. Now the ducks taste different. • In some areas, we used to see ducks migrating in the fall; there were many in bay, but no more. Now you can kill only 6-10 where before you would get 50 and more.
Fur-bearing animals	• There are more foxes. • The quality of fox's furs is not the same. • Foxes are not scared.	• Why do we see more and more skinny animal? Why does fish have burnt spots? Why do animals all of sudden all get sick?
Polar bear	• There are more and more polar bears. • Polar bears are not afraid.	• Polar bears come close to the camps and are dangerous.
Bear	• Black bears behave differently and come very close to camps.	• Bears are more dangerous.
Caribou and moose	• There are less caribou because there is less vegetation. • Caribou becomes fatter when mosquitoes go away. Now the insect season is longer and the caribou can't get fat.	• The taste of caribou has changed. It used to taste better. • Caribou are very impacted; they are skinnier and have less meat.
Fish and marine mammals	• The fish are smaller. At the mouth of the river we see more sucker and less white fish. • Before there were many different kinds of seals and there was a current where they liked to play in. They are not seen anymore. • At the mouth of the river water is getting shallow. Beluga no longer come in. • The bigger fish is not found in certain lakes anymore. • Recently there seems to be more sightings of sturgeon and sea dogs.	• Now when they boil fish you don't see that white nutritious stuff anymore. • Fish are not as healthy as before.
Plants, berries and trees	• Trees look sick; there is that rusty colour on them. • There is less vegetation, especially less eelgrass. Eelgrass was much higher a long time ago. It is food for ducks and geese.	• Browning of the trees may affect water, the land and animals as it falls. It might affect the geese as they feed along the Great Whale River. • Offspring of geese don't have time to grow to their fullest potential. Usually the vegetation is at its fullest potential when eggs hatch. Now the vegetation is dying when eggs hatch. They don't get the necessary nutrients needed to grow. • Now the ducks taste different.

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.

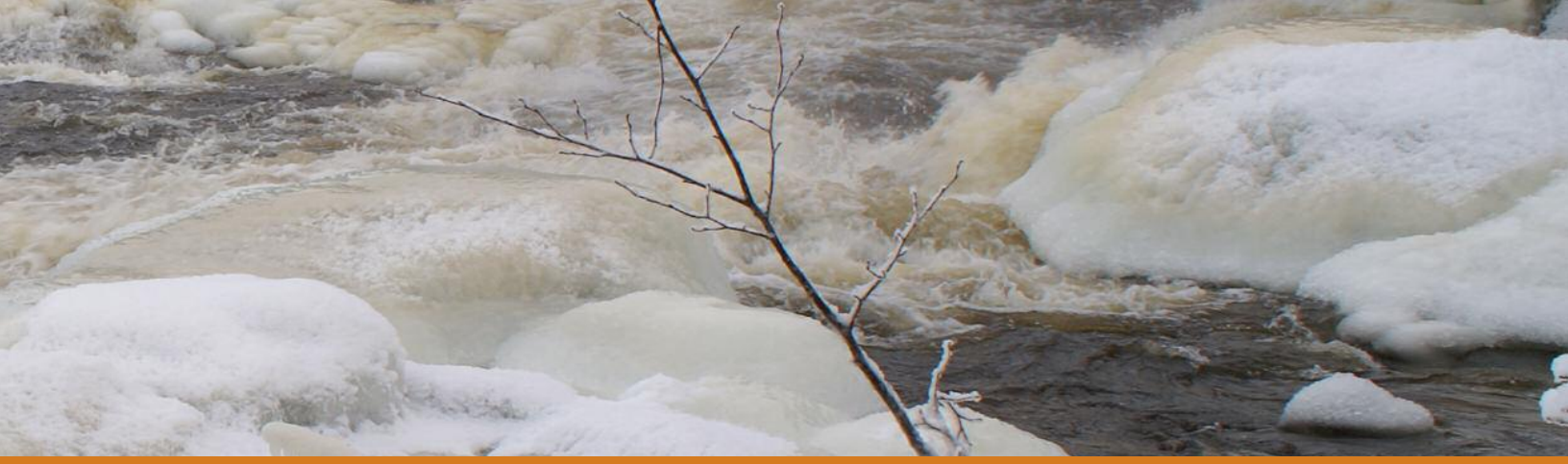
HOW CAN WE MONITOR CLIMATE CHANGE?

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 Whapmagoostui:

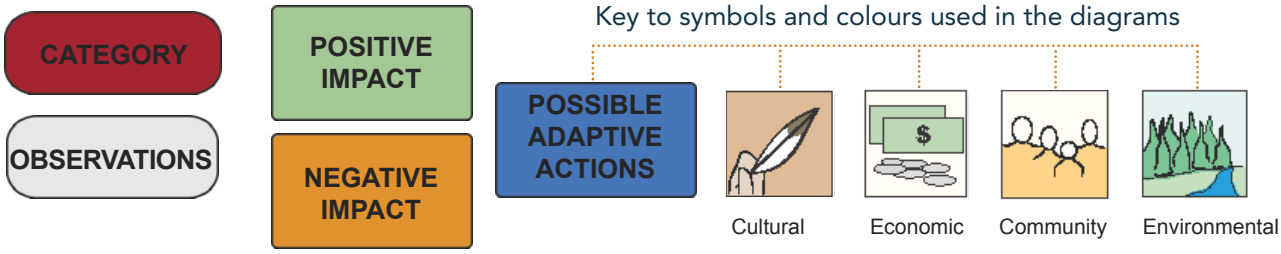
- Early openings in the bay ice
- Changes in snow quantity and quality
- Geese moulting early
- Appearance of new animals
- Changes in animal behaviour

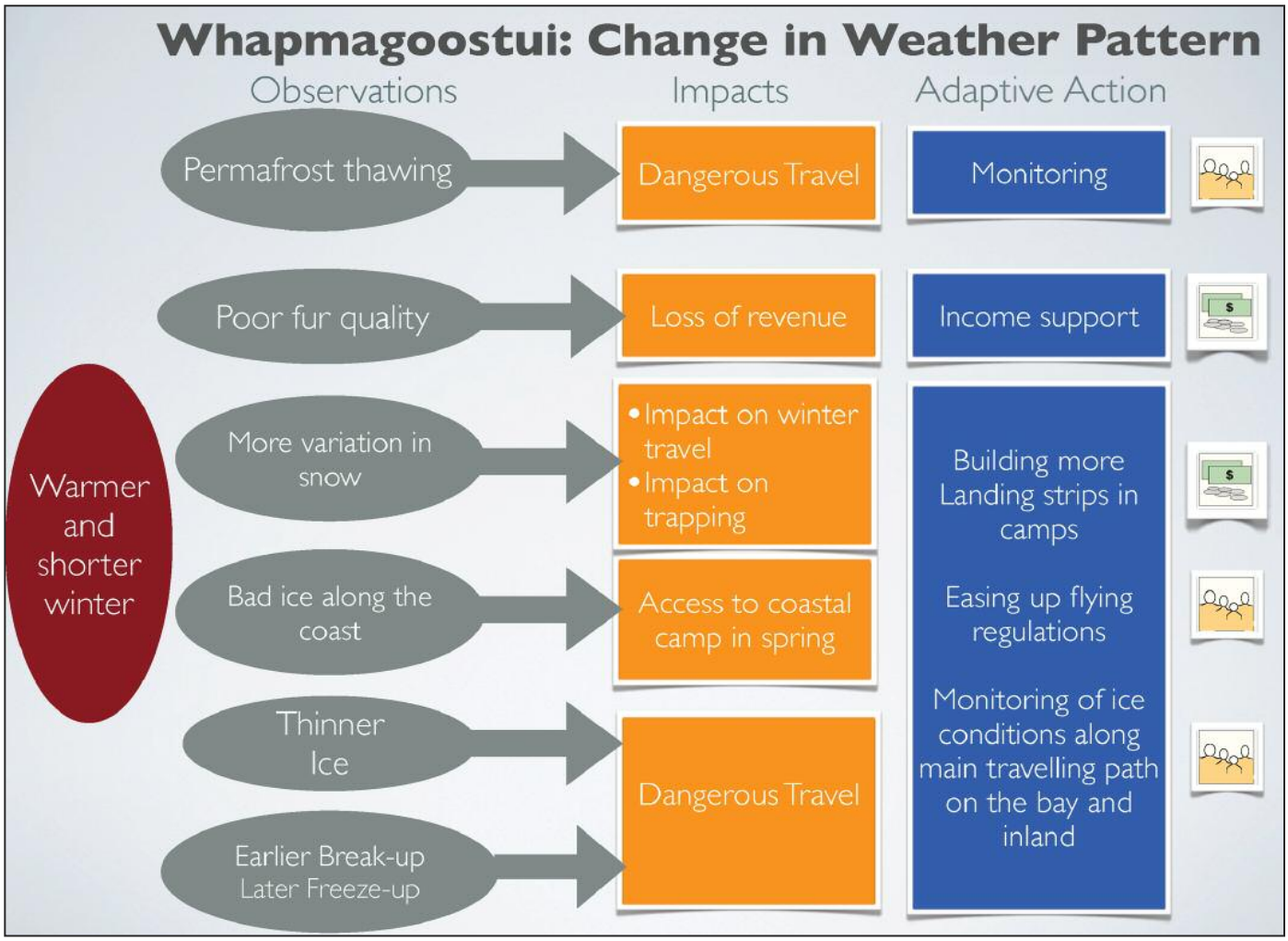
Potential adaptive actions were identified by the project team and are illustrated in this influence diagram.



INFLUENCE DIAGRAMS ON CLIMATE CHANGE

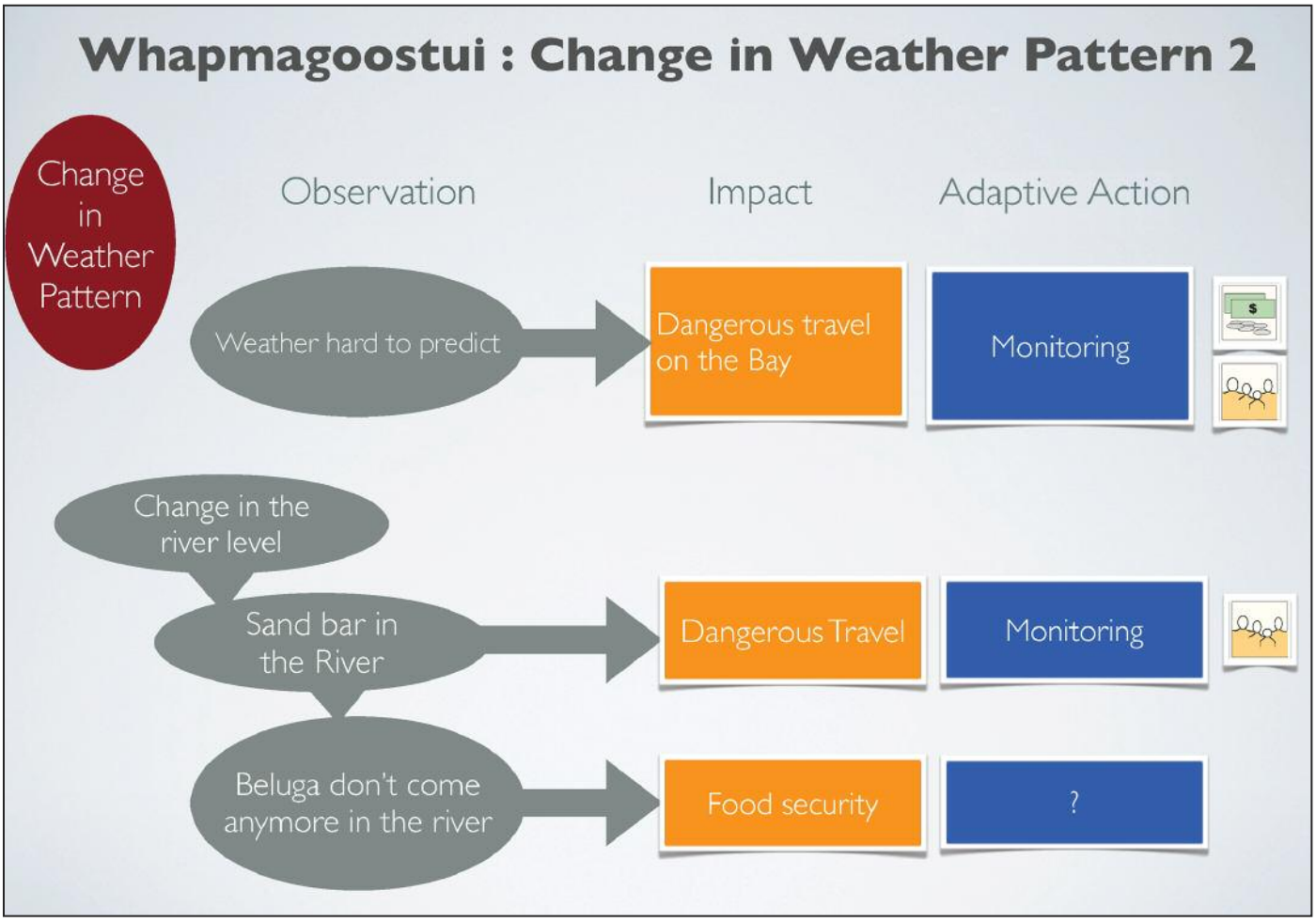
NOTE ON THE INFLUENCE DIAGRAMS. The influence diagrams propose a summary of the observations, impacts and possible adaptive actions of climate change that were discussed during the workshop held in Whapmagoostui in the fall of 2009. A follow-up workshop will be held in the spring of 2010 to complete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





Influence diagrams adapted from Center for Indigenous Environmental Resources Inc. 2006. Climate Change Planning Tools for First Nations.

INFLUENCE DIAGRAMS ON CLIMATE CHANGE

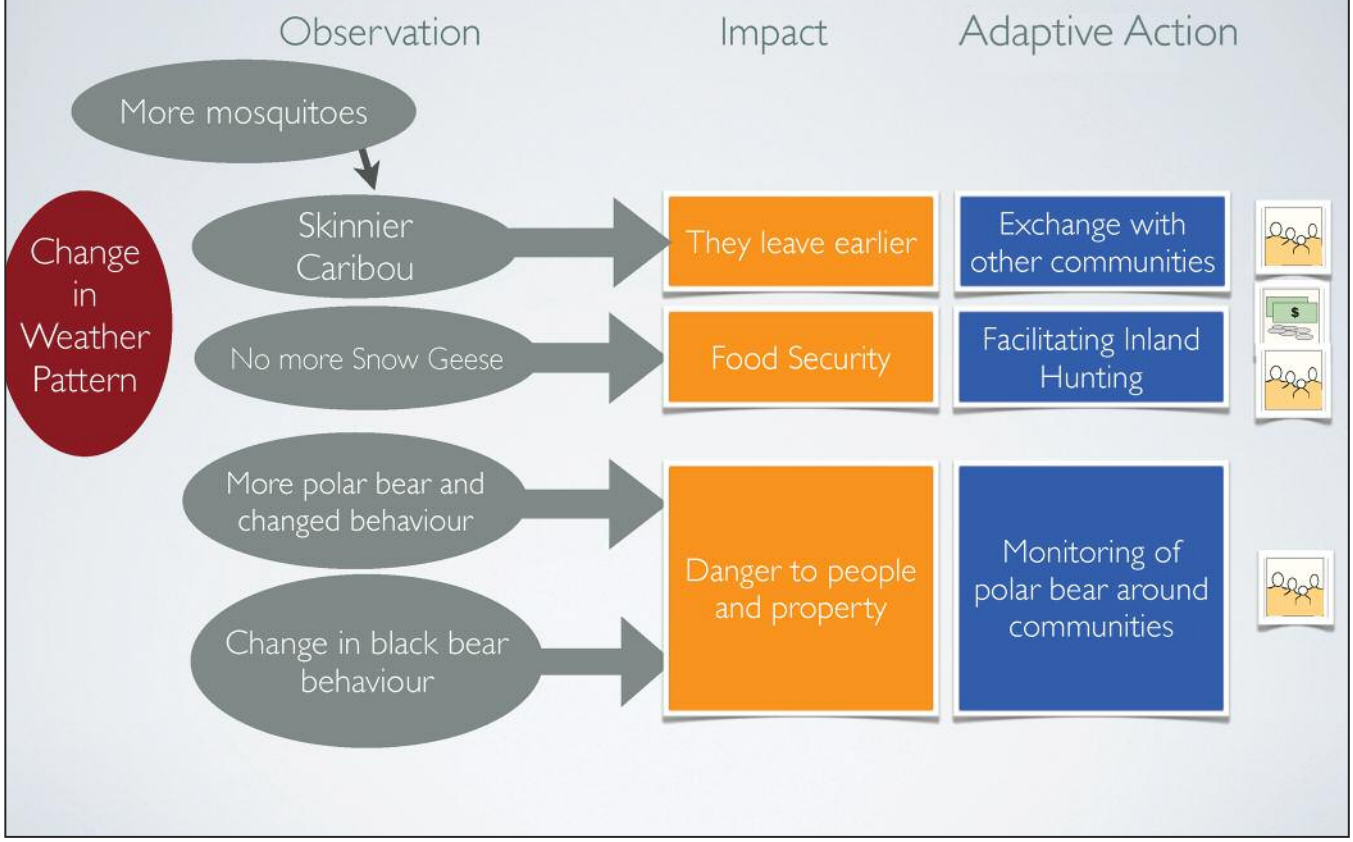


What I have known to date and have observed is that everything has changed and nothing is the same anymore. And, the fall is not the same anymore when I compare it to when I was young.

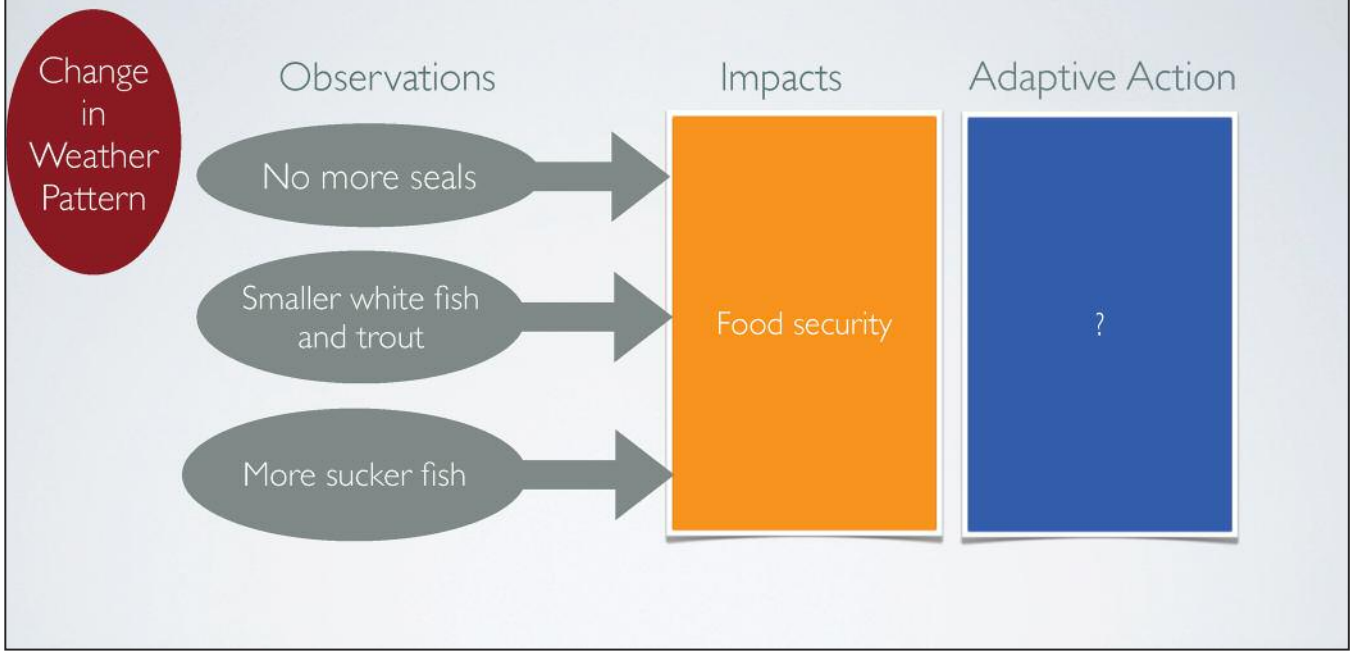
In the past, mosquitoes and black flies usually came out of hibernation and were present only far after the spring season had settled in. These insects were never seen until summer had fully arrived, sometime in second week of June. In comparison to the past, mosquitoes and black flies are present even during the spring when the snow had disappeared and the ice had dissolved. They come out of hibernation as soon as the temperature becomes warm during the spring season.

Observations from workshop participants

Whapmagoostui: Animal Behaviour 1



Whapmagoostui: Animal Behaviour 2



Next Steps...

The project team will be visiting Whapmagoostui 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.

Calm winds were the norm in the past and these are becoming rare today. It is has even come to the point that fisherman have to wait for the winds to calm down before venturing out into the open by boat. West and north winds are becoming rare while east and south winds are increasing in frequency.

Beavers, porcupine and ptarmigan depend on the snow to keep warm during the cold winter season. As a result of less snow during the winter today, these animals begin to lose body fat. When there is little snow during winter, the porcupine gets cold and begins to lose fat reserves and becomes thin. When there is a lot of snow during the winter, the porcupine will usually retain fat reserves and makes very good eating when caught.

Observations from workshop participants

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