



CLIMATE CHANGE AND INDIGENOUS PEOPLES

Fact Sheet

Climate change, global warming, greenhouse effects...these are all terms to describe a change that is taking place on our planet earth. In Canada, climate change is often associated to northern Aboriginal communities where the effects seem more visible. However, the truth is that Indigenous Peoples across Canada and around the world are also affected by climate change. In fact, climate change jeopardizes the survival of Indigenous communities worldwide, even though Indigenous peoples contribute the least to greenhouse emissions.

CLIMATE CHANGE

Scientists agree that climate change is real and that if nothing is done to reduce the emissions of carbon dioxide and other greenhouse gases which are believed to lead to global warming, average global temperatures will continue to rise. It is not just increasing temperatures that concern scientists, but what the increases may bring. This is why it is important to study the impacts of climate changes and to develop appropriate adaptation strategies, where Indigenous Peoples should play a key role.

www.abc.net.au/reslib/200710/r194556_737903.jpg



Water availability is expected to be one of the most profound impacts of climate change. It is predicted that precipitation patterns will change and crop and livestock production capabilities in many areas will be altered, impacting the overall food production. Furthermore, northern forests may also be affected by reduced moisture and forest fire hazards will increase. Changes to wildlife habitat and ecology are also predicted.

HEALTH

MAJOR DETERMINANTS OF HEALTH AMONG INDIGENOUS PEOPLES INCLUDE

- ❖ Lifestyle changes
- ❖ Social changes
- ❖ Society changes
- ❖ Environment changes

These determinants also influence each other. For example, environmental factors, such as climate change, and contaminants, influence the traditional lifestyle of many Indigenous Peoples.

Further, it is very likely that if climate change continues as predicted, disease rates will rise and increase the number of deaths and illnesses due to infectious diseases. For instance climate change may also threaten hundreds millions of people, who currently are not at risk, by extending the range of mosquitos to new geographical areas, therefore increasing the risk for malaria and dengue.

EFFECTS OF CLIMATE CHANGE

Indigenous Peoples are often dependent and closely connected with the environment and its resources, making them among the first to face direct consequences of climate change. Further, climate change tends to worsen some of the already existing issues that Indigenous Peoples face such as the losing land and resources, the exclusion in political and economic areas, discrimination, unemployment, and violation of human rights.

WEATHER

CLIMATE CHANGE MAY MEAN

- ❖ Severe winds
- ❖ Hail, snow and ice storms
- ❖ More droughts in some areas and more floods in others
- ❖ Lower lake and river levels
- ❖ Unpredictable weather conditions
- ❖ Early melting of ice
- ❖ Stronger UV light
- ❖ Melting permafrost



Location	Environment Effects of Climate Change	Impacts on the Indigenous Peoples
Africa's Kalahari Desert	Rising temperatures, dune expansion and increased wind speeds which have resulted in a loss of vegetation, and negatively impacted traditional cattle and goat farming practices.	Forced to live around government drilled bores for water and depend on government support for their survival.
Himalayas (high altitude regions)	Glacial melts is resulting in more water in the short term, but less in the long run as glaciers and snow cover shrink.	Affecting hundreds of millions of rural dwellers who depend on the seasonal flow of water.
Amazon	Deforestation and forest fragmentation and consequently, more carbon released into the atmosphere worsening and creating further changes. Droughts in 2005 resulted in fires in the western Amazon region and this is likely to occur again as rainforest is replaced by savannas.	Huge affect of the livelihoods of the Indigenous peoples in the region.
Arctic	Deforestation and forest fragmentation and consequently, more carbon released into the atmosphere worsening and creating further changes. Droughts in 2005 resulted in fires in the western Amazon region and this is likely to occur again as rainforest is replaced by savannas.	Posing serious challenges to human health, food security, local economies and their cultural and social identity, as well as safety concerns for traveling in changing ice and weather conditions
Finland, Norway and Sweden	Rain and mild weather during the winter season often prevents reindeer from accessing lichen, which is a vital food source. This has caused massive loss of reindeers, which are vital to the culture, subsistence and economy of Saami communities.	Reindeer herders are being forced to feed their herds with fodder, which is expensive and not economically viable in the long term.
Canadian Boreal and Sub-boreal Forest	The Mountain Pine Beetle in Western Canada has devastated millions of pine trees as a result of warmer winters. Increased stands of dead trees are being logged at rapid rates.	Eco-system damage from salvage logging threaten flora and fauna including already endangered species, traditional foods and medicines. Salvage logging reduces ground cover, increased road building; destabilizes hydrology patterns which impacts water quality for fish habitat & human consumption. Habitat loss for large ungulates; which affects community food supplies for hunting fishing, trapping, gathering of wild foods and loss of non-timber forest resources.

ADAPTATION

ADAPTATION IN THE CONTEXT OF CLIMATE CHANGE INVOLVES

- ❖ Taking steps to minimize negative impacts of future climate change.
- ❖ Taking advantage of new opportunities presented by this change.
- ❖ Trying to achieve sustainable adjustments to future changes in the global climate

Indigenous peoples are known for being adaptable and coping with change using creative ways. The same is true when it comes to climate change where traditional knowledge and other technologies are used to find solutions, which may also help society at large cope with current and future changes.



Here are some examples of Indigenous Peoples worldwide responding to climate change (from the United Nations Permanent Forum on Indigenous Issues).



Location	Adaptations
Bangladesh	Villagers are creating floating vegetable gardens to protect their livelihoods from flooding.
Vietnam	Communities are helping to plant dense mangroves along the coast to diffuse tropical-storm waves.
Central, South American and Caribbean regions	Indigenous peoples are shifting their agricultural activities and their settlements to new locations which are less susceptible to adverse climate conditions. For example, Indigenous peoples in Guyana are moving from their savannah homes to forest areas during droughts and have started planting cassava, their main staple crop, on moist floodplains which are normally too wet for other crops.
North America	Some Indigenous groups are striving to cope with climate change by focusing on the economic opportunities that it may create. For example, the increased demand for renewable energy using wind and solar power could make tribal lands an important resource for such energy, replacing fossil fuel-derived energy and limiting greenhouse gas emissions. The Great Plains could provide a tremendous wind resource and its development could help to reduce greenhouse gas emissions as well as alleviate the management problem of the Missouri River hydropower, helping to maintain water levels for power generation, navigation, and recreation. In addition, there may be opportunities for carbon sequestration.

DRAWBACKS AND DIFFICULTIES OF RESPONDING TO CLIMATE CHANGE

While short-term adaptation activities are underway, resource and capacity constraints limit the planning of long-term adaptive strategies. Here are some examples of obstacles that need to be addressed:

- ❖ Various legal and institutional barriers
 - Issue of human rights and inequality to Indigenous peoples.
- ❖ Lack of financial resources among Indigenous communities.
- ❖ Transfer of technological capacity needed.
- ❖ Migration away from their traditional lands whether chosen or forced.
 - Double discrimination as both migrants and as Indigenous peoples.
 - Vulnerable to irregular migration such as trafficking and smuggling due to sudden displacement by a climactic event, limited legal migration options and limited opportunities to make informed choices.
 - Migrate to cities for economic reasons and often ending up in urban slums.
- ❖ Adaptations may have undesirable direct and indirect consequences for Indigenous communities.
 - Biofuel is a means of reducing greenhouse gas emissions but may lead to an increase in monoculture crops and plantations, and an associated decline in biodiversity and food security.

GETTING INVOLVED

Enhancing and supporting the adaptive capacity of Indigenous peoples will only be successful if it is integrated with other strategies such as disaster preparation, land-use planning, environmental conservation and national plans for sustainable development.

GLOBAL RESPONSE TO INTERNATIONAL EXPERIENCE

- ❖ International cooperation is important in tackling common problems.
- ❖ Indigenous peoples should be assisted in developing means for effective international cooperation, advocacy and other actions.
- ❖ Indigenous peoples should set the standards or criteria by which situations are assessed and change or progress measured.

FOR MORE INFORMATION

The information given has been adapted from the following sites and documents:

- [United Nations Permanent Forum on Indigenous Issues- Climate Change](#)
- [WHO- Social determinants and Indigenous health: The International experience and its policy implications](#)
- [Climate Change, Health, and Vulnerability in Canadian Northern Aboriginal Communities](#)
- [Health Canada- Climate Change and Health](#)
- [First Nations Mountain Pine Beetle Impact Assessment](#)

Call us Toll-Free at
1-866-960-5223 for more environmental health resources.