Secretariat of the
Convention on Biological Diversity

CBD

22 May 2007
International Day for Biological Diversity

Biodiversity and Climate Change

Presentation by Dr. Ahmed Djoghlaf
Executive Secretary
Convention on Biological Diversity

Norwegian Parliament

Trondheim, Norway
30 October 2007

[Please check against delivery]

United Nations Environment Programme
413 Saint-Jacques Street, Suite 800
Montreal, QC H2Y 1N9, Canada
Tel.: +1 514 288 2220
Fax : +1 514 288 6588
http://www.cbd.int
secretariat@cbd.int

22 May 2007
International Day for Biological Diversity

Biodiversity and Climate Change

Climate change is perhaps the most serious threat to biodiversity as we know it today. The Arctic region is warming at roughly twice the rate of the rest of the world. Arctic species, and the traditional human cultures of this region, are based on ecosystems in which ice, snow and permafrost are key components. The Arctic has long functioned as Earth's air conditioner, cooling the planet with reliable stores of sun-reflecting sea ice.

The Arctic is an extraordinarily interconnected region – what happens around the North Pole affects the entire planet. The Arctic ecosystem as a whole, as any other ecosystem is not isolated from the rest of the globe. It grades into warmer southern regions of the world and interacts with them.

The Arctic is the breeding and feeding ground for a large number of migratory bird and sea mammal species. It is home to some of the world's largest fish stocks, is essential in maintaining the dynamics of global ocean currents and weather patterns, and represents a wealth of genetic variation far exceeding the relatively low number of resident species found in the high north year round.

Arctic warming continues

A new report prepared by an international team of scientists and issued by the National Oceanic and Atmospheric Administration of the United States of America on 17 October, concludes that while some elements of the complex Arctic climate system and its associated ecosystems showed a stabilization in warming, observations collectively indicated that the overall warming of the Arctic as a whole continued in 2007.

One dramatic change has been the reduction in the extent of summer sea ice, which at the end of the melting season in September this year was at a record low – 23 per cent below the previous record, set in 2005 – representing an area more than three times the size of Norway. It was 39 per cent below the average over the period 1979 to 2001. The thickness of sea ice in the Arctic has decreased by 40 per cent. On land, the annual surface temperature over areas north of 60° N was 1.0C above the mean value for the 20th century in 2006.

Unlike previous years, when there have been hot spots and cold spots at different times in the Arctic, the temperatures have remained above average throughout the whole Arctic and all at the same time.

The remarkable increase in the rate of melting in the past two or three years has led to a revision of estimates of when the Arctic might be wholly ice-free in summer. Early predictions by the Intergovernmental Panel on Climate Change of the United Nations (IPCC), based on computer models of global warming, suggested that as climate change advances, this might happen by 2080. But now scientists are increasingly thinking that the models have seriously underestimated the rate, and it may happen much earlier.

Another indicator of climate change is the condition of permafrost, the ground that has been frozen solid for centuries. Permafrost all around the Arctic started warming up in the 1970s and 1980s, but the warming slowed by the mid-1990s and showed almost no change by 2000. This shows that whatever is causing the permafrost to get warmer, it is consistent around the hemisphere, from Alaska to Greenland to Siberia.

Arctic biodiversity has a global impact, since hundreds of bird species and several marine mammal species migrate from the Arctic to all parts of the Earth except the interior of Antarctica. Some reindeer and caribou herds, on which local populations depend, have declined up to 80 per cent, while some goose populations have doubled, contributing to overgrazing.

Polar bears, seals and walrus are already suffering from changes in ice patterns. The United States Geological Survey suggests two-thirds of the world's polar bear population could be gone by mid-century if predictions of melting sea ice hold true.

Indigenous and local communities

The Arctic is extremely vulnerable to projected climate change and its impacts. Although the number of people directly affected is relatively small, many native communities will face profound changes that impact on traditional lifestyles.

The livelihoods and cultures of coastal Arctic indigenous people are inextricably linked to sea ice. Sea ice is important in relation to ocean circulations such as the Gulf Stream and is also important for the food chain. Nearly four million people live in the Arctic, including indigenous peoples. Impacts are already being felt. Hunters in western Greenland are replacing dog teams with motorboats because of a lack of solid ice.

Approximately 400,000 indigenous people inhabit the Arctic Region with many communities relying on the use of local biodiversity resources. In a poem, Nils-Aslak Valkeapää, a Saami artist, described the very close attachment to his land,

> *in these cold lands we migrate, day after day*
> *year after year, for now at least*
> *we trek this barren tundra from generation to generation*
> *and over time we become a part of this land where our roots spread*

This close relationship between indigenous communities and their land, source of food and spirituality may soon be lost, dramatically affecting the lives of indigenous communities. And as the environment changes, it is important to note that entire cultures are affected. The Saami, are already observing changes in species composition within reindeer pasture land. Indigenous and local communities across the Arctic are changing their hunting practices and are noticing more insects in response to warmer weather.

Foreign Minister Frank-Walter Steinmeier of Germany stated last week, "There is a 'cold war' at North Pole that we have to prevent. Climate change is a threat to worldwide peace and security." Climate change and the biodiversity crisis pose dire challenges to humanity and are indeed both becoming security issues as they could lead to conflicts between nations or groups around the world, trying to survive in an increasingly hostile natural environment.

The CBD and the Arctic

The Convention on Biological Diversity, in close partnership with the United Nations Framework Convention for Climate Change (UNFCCC) and the Government of Finland convened a series of Ad Hoc Technical Expert Group meetings on biodiversity and climate change, the most recent of which was held from 13 to 16 September 2005. These meetings revealed the importance of: ensuring the conservation of habitats to reduce CO_2 emissions; identifying and conserving biodiversity which is especially sensitive to climate change; preserving intact habitats to facilitate the long-term adaptation of biodiversity and fully

integrate biodiversity considerations into climate change mitigation and adaptation plans.

The Convention on Biological Diversity will continue to work on Arctic wildlife through decision VIII/30 of the eighth meeting of the Conference of the Parties, which mandates particular attention to the links between biodiversity and climate change in vulnerable regions and ecosystem. The Convention on Biological Diversity also selected 'Climate change and biodiversity' as the theme for this year's International Day for Biological Diversity, held 22 May, during the International Polar Year.

The Convention on Biological Diversity will also continue to support the protection of traditional knowledge in the Arctic Region. Under Article 8(j) of the Convention on Biological Diversity, Parties are committed to respect, preserve maintain and promote traditional knowledge, innovations and practices, as well as the participation and involvement of indigenous and local communities.

All the provisions of the Convention and its work programmes should guide Parties in addressing the serious biodiversity challenges facing the Arctic region. The relationship between biodiversity loss and climate change should be further addressed, including the consequences on marine biodiversity of the accelerated melting of the glaciers. The Arctic has, since the start of the Convention, contributed substantially towards issues related to indigenous and local communities and the protection of traditional knowledge.

The CBD and the Arctic Council

There is a strong need to enhance collaboration to address the biodiversity challenges at regional and sub-regional levels based on the excellent example of the Conservation of Arctic Flora and Fauna (CAFF), and also the Arctic Monitoring Assessment Programme (AMAP) and the programme for the Protection of the Arctic Marine Environment (PAME).

The Arctic Council, chaired from 2006 to 2008 by Norway, may enhance its contribution to advancing the biodiversity agenda by sharing its experience, the lessons learned and best practices with other regions of the world and in particular developing countries. The experience the arctic region can offer to the other regions of the world will enhance the implementation of the objectives of the Convention.

In doing so the Arctic region may also wish to enhance the Convention's programme regarding the relationship between climate change and biodiversity, including on issues related to adaptation. The Circumpolar Protected Areas

Network can play a major role not only in reducing biodiversity loss, but also in helping to restore fisheries, for example. This, in turn can positively impact local communities.

I would like also to see the Arctic Council take the lead in integrating as a matter of high priority the 2010 Biodiversity Target -- to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth -- into its regular activities.

The Secretariat of the Convention on Biological Diversity (CBD), in partnership with Carleton University, is organizing a series of regional and sub-regional workshops aimed at capacity building for indigenous and local communities in support of the enhanced implementation of the CBD Guidelines on Biodiversity and Tourism Development with the view to support and strengthen indigenous and local initiatives in this area. A first 3-day workshop is planned for the Arctic region, in recognition of the International Polar Year 2007-8, and will consider the distinct challenges of remote rural Arctic destinations, including such issues as the impact of and adaptation to climate change. This first workshop will be hosted on 19-23 November 2007 in Canada, the host nation of the CBD Secretariat and a world leader in indigenous tourism. The Secretariat is also organising in March 2008 a workshop on climate change, biodiversity and indigenous and local communities as a contribution to the discussion of the 2008 meeting of the Indigenous Forum on Indigenous issues on climate change, as well as the preparation of the next meeting of the Conference of the Parties to be held in Bonn in May 2008.
