



## Convention on Biological Diversity

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INTERNATIONAL EXPERT MEETING ON RESPONSES  
TO CLIMATE CHANGE FOR INDIGENOUS AND  
LOCAL COMMUNITIES AND THE IMPACT ON  
THEIR TRADITIONAL KNOWLEDGE RELATED TO  
BIOLOGICAL DIVERSITY -THE ARCTIC REGION  
Helsinki, 25-28 March 2008

### COMPILATION OF CASE-STUDIES ON CLIMATE CHANGE AND BIODIVERSITY CONSIDERATIONS IN THE ARCTIC

*Note by the Executive Secretary*

#### I. INTRODUCTION

1. The present note is a compilation of a number of case-studies on climate change and biodiversity considerations in the Arctic. The examples illustrate, *inter alia*, the consideration of observed and potential impacts of adaptation and mitigation measures on biodiversity-related traditional knowledge and indigenous and local communities in the Arctic region, more specifically the risks and consequences of climate change, mitigation and adaptation solutions on ecosystem services and human well-being.

#### II. CASE-STUDIES

##### **1. Finnish Environment Institute Research Programme on Biodiversity**

2. The Finnish Environment Institute Research Programme on Biodiversity includes a climate change theme focused on northern environments and their communities and different conservational and management methods that can be used to promote species ability to cope with climate change.

3. The aim of the programme is to analyse the effects of climate and land use changes on species. Studies are based on various climate and land use scenarios. Modelling techniques are used to study the changes in the distribution of target species as well as threats they are facing.

##### **2. Beaufort Sea Project for Climate Change: Impact and Adaptation to Climate Change for Fish and Marine Mammals in the Canadian Beaufort Sea**

4. Canada is completing a study on the vulnerabilities and potential adaptations to climate change for marine fish and marine mammals in the Canadian Beaufort Sea including an additional study on the potential impacts of climate change on key ringed seal habitat variables. Ringed seals are the major food of polar bears, and are important species for traditional and subsistence hunting.

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5. Based on existing scientific research for environmental impacts in the Canadian Beaufort Sea, this Project examines climate change and impacts on fish and marine mammals in the Canadian Beaufort Sea region, subsistence uses by the Inuvialuit, and the management of these species by the Fisheries Joint Management Committee and other government agencies and departments.

6. Funding for this project comes from the Climate Change Adaptation Fund, the Fisheries Joint Management Committee, the Arctic Institute of North America, and the University of Calgary's Department of Geography. This research is implemented by consultants and biological and GIS specialists; in cooperation with the Fisheries Joint Management Committee, Inuvialuit and government organizations, research scientists and academic institutes, and interested parties.

### **3. *Norwegian Arctic Climate Impact Assessment***

7. Norway has established the Nor-ACIA secretariat, which is a Norwegian follow-up of the Arctic Climate Impact Assessment (ACIA). The ACIA is an international project of the Arctic Council and the International Arctic Science Committee (IASC) to evaluate and synthesize knowledge on climate variability, climate change, and increased ultraviolet radiation and their consequences. The results of the assessment were released at the ACIA International Scientific Symposium held in Reykjavik in November 2004.

8. The offices of the Nor-ACIA secretariat are within the Norwegian Polar Institute in Tromsø. The Norwegian Polar Institute is Norway's central institution for research, environmental monitoring and mapping of the Polar Regions. Climate research is the area that engages the most researchers at the Norwegian Polar Institute. The Norwegian Polar Institute is investigating these climate changes and understanding the consequences they have for the unique polar environment. Also, within the Biodiversity Programme of the Institute, a major focus is the potential effect of climate change on populations and communities.

### **4. *Inuit Observations on Climate Change***

9. The International Institute for Sustainable Development (IISD) and the Hunters and Trappers Committee of Sachs Harbour initiated a project to document the effects of climate change in the Arctic and communicate it to Canadian and international audiences. The project team worked in partnership with specialists from five organizations to develop an innovative method for recording and sharing local observations on climate change.

10. The project took place on Banks Island in Canada's High Arctic. The approach, involving Inuvialuit hunters and trappers, combined participatory workshops, semi-structured interviews, community meetings and fieldwork to better understand the extent of local knowledge of climate change.

### **5. *Many Strong Voices***

11. Many Strong Voices is a collaborative programme to ensure the well-being, security and sustainability of coastal communities in the Arctic and small island developing States (SIDS) in the face of climate change. Both regions are vulnerable to the impacts of climate change in similar ways. Many Strong Voices brings the two together to take collaborative and strategic actions on climate change mitigation and adaptation. The programme involves the participation of international organizations, government agencies, non-government organizations, Indigenous Peoples' organizations, research institutes, communities and individuals.

12. The collaborative actions aim to build capacity to strengthen the role of these vulnerable regions in negotiations on greenhouse gas mitigation and on climate change adaptation, raise awareness about the

effects of climate change on vulnerable regions, increase understanding of needs and solutions and take action on adaptation.

**6. *ECORA – Integrated Ecosystem Approach to Conserve Biodiversity and Minimize Habitat Fragmentation in the Russian Arctic***

13. ECORA is a project sponsored by the Global Environment Facility (GEF) and was initiated by the Conservation of Arctic Flora and Fauna (CAFF) Working Group of the Arctic Council and the Russian Federation. ECORA is using an integrated ecosystem management (IEM) approach to conserve biodiversity and minimize habitat fragmentation in three selected model areas in the Russian Arctic.

14. The model areas selected for this project are Kolguev Island in Nenets Autonomous Okrug, the Lower Kolyma River Basin in Yakutia (Sakha Republic), and the Beringovsky District in Chukotka Autonomous Okrug. ECORA aims to secure the integrity of these areas, which is currently threatened by pressures such as climate change, while supporting livelihoods of indigenous and local peoples.

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