



## INDIGENOUS PEOPLES

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### Introduction

Indigenous peoples are the most threatened residents of the Arctic region in the light of climate change. Their living is closely interlaced with nature which makes them especially vulnerable. The Arctic environment is at a state of irreversible change. The consequences of climate change include general warming, changes in ice and sea level, coastal erosion and thawing permafrost. The impacts on the indigenous communities are vast: culture, society, health and harvesting activities are influenced as well as infrastructure, transport and the basis of economy.

The Arctic marine area plays an important role in the living of many indigenous groups (e.g. in terms of hunting, fishing and travelling). The changes occurring in the Arctic marine pose a new threat for the traditional usage of the sea. For example, disappearing sea ice affects many species that are dependent on ice cover (e.g. polar bear, seal and whale) which makes the hunting activities of indigenous people complicated while rapid weather changes, occurrence of thin ice and severe weather conditions can make hunting dangerous. The role of the changing Arctic marine environment can be best understood by presenting the overall picture of indigenous communities. Therefore, after the situation of Arctic indigenous peoples has

shortly been introduced, the general impacts of climate change together with legal and policy framework will be discussed in greater detail. The challenge that will be examined at the end is to find effective ways to support Arctic indigenous peoples to adapt to the consequences of climate change.

### An Overview of the Arctic Indigenous Peoples

Out of the total population of 4 million residents in the Arctic approximately 10% are indigenous.

**Figure 1: Indigenous population of the Arctic**  
 (Source: AHDR, 2004, p. 29. Available online [http://hdr.undp.org/en/reports/regionalreports/other/arctic\\_2004\\_en.pdf](http://hdr.undp.org/en/reports/regionalreports/other/arctic_2004_en.pdf))

Indigenous Population of the Arctic Region				
Arctic Region or Country	Date	Population (1,000) Total	Indigenous	Share of indigenous (%)
USA (Alaska)	Census 2000	627	98 (119)*	15.6 (19.0)
Canada: Arctic region	Census 2001	130	66	50.8
Denmark: Greenland	2003	57	50	88.1
Iceland	2003	288	NA	
Denmark: Faroe Islands	2003	48	NA	
Norway: Arctic region	2003	463		
Sweden: Arctic region	2003	254	50**	~5
Finland: Arctic region	2003	188		
Russia: Arctic region	Census 2002	1982	~90***	>4

Notes:  
 \* Just American Indians & Alaska Natives (American Indians & Alaska Natives and some other race)  
 \*\* Estimate for Nordic Saami (AMAP, 1998)  
 \*\*\* Estimate author (D. Bogoyaviensky, Census 1989 = 77)

Indigenous people in the Arctic belong to various groups (e.g. Inupiat, Yup'ik and Aleut in Alaska, Inuit in Greenland and Canada, Saami in Fennoscandia and Chukchi, Even, Evenk and Nenets in Russia) and there is a great variation of cultural, historical and economical backgrounds among them. The Arctic marine area plays a substantial role for many of the indigenous peoples. According a



recent study<sup>1</sup>, out of the Inuit, Saami and people of Chukotka as many as 74% perform fishing, 31% hunt sea mammals, 21% hunt Walrus and 42% hunt seal or ugruk.

Climate change is not the only cause of change in the Arctic. Most of the indigenous groups in the region have already undergone significant changes due to the globalization of the western way of life, state policies, modern transport and the introduction of mixed economic systems. It is important to note that these factors often occur simultaneously with climate change and in some cases it is difficult to separate the consequences of climate change from the other elements.

Indigenous peoples have traditionally been adaptive and resilient to change. However, the current and projected rate and scope of climate change in the Arctic presents a whole new threat as it is occurring faster than any other phenomenon that indigenous people have observed. Furthermore, the adaptive capacity of the indigenous peoples has altered as they are often more dependent on the outside world than in the past. The great variety of the legal, political, cultural and economical diversity among the Arctic countries influences the ability of the communities to cope with the changing environment.

### The Impacts of Climate Change on Indigenous Communities

Climate change impacts on indigenous communities in a variety of ways as presented in the figure 2a-b. Climate change causes and is projected to cause further changes in ice and snow conditions, waters' temperatures rise, permafrost thawing, coastal erosion, rising sea level and general warming. These consequences of climate change have an impact on indigenous harvesting activities, availability of resources, economy, society, culture and health. This is due to strong interrelation between indigenous cultures and environment inhabited by these groups. Additionally, housing, infrastructure and transport connections of coastal indigenous communities are

seriously affected with rising maintenance costs and sometimes even the necessity of relocation.

Figure 2a. Selected impacts of climate change on indigenous coastal communities.<sup>2</sup>

Elements of climate change	Harvesting /availability of resources	Infrastructure and transport
<b>Changing ice and snow conditions</b>	<ul style="list-style-type: none"> <li>- changing accessibility to some species:</li> <li>- species living on the edge of ice, e.g. polar bears fewer in autumn</li> <li>- more polynyas make fishing easier</li> <li>- decreasing populations</li> <li>- changes in harvesting cycles</li> <li>- harder to build igloos</li> </ul>	<ul style="list-style-type: none"> <li>- travel on ice possible for shorter time and more dangerous (thin ice)</li> <li>- some communities dependant on ice to maintain connection with population centres</li> <li>- better sea access to coastal settlements</li> </ul>
<b>Warming waters</b>	<ul style="list-style-type: none"> <li>- sea mammals and fish species shift to other locations or change in numbers</li> </ul>	<ul style="list-style-type: none"> <li>- in some cases necessity to travel longer distances to reach the resources</li> </ul>
<b>Thawing permafrost, coastal erosion, rising sea-level</b>	<ul style="list-style-type: none"> <li>- decreasing fish and migratory duck populations</li> </ul>	<ul style="list-style-type: none"> <li>- damage to: houses, roads, power lines, water supply and sewage systems</li> <li>- some communities likely to be relocated</li> <li>- permafrost or ice-based food storages may be damaged</li> <li>- danger for water supply (lake drainage, greater water run-off in spring and lower in summer)</li> </ul>
<b>General warming, intensified storms, other</b>	<ul style="list-style-type: none"> <li>- mitigation options limited due to impacts on terrestrial species (reindeer herding affected by snow and river conditions)</li> <li>- health of harvested animals worsened due to appearance new insects and species</li> <li>- shorter and/or less frequent trips affecting harvesting success</li> </ul>	<ul style="list-style-type: none"> <li>- uncertainty of the weather, more storms</li> <li>- houses not prepared for warmer temperatures</li> </ul>

<sup>1</sup> See Ties to Nature Table 1, SLiCA, index of tables, March 2007, p. 48, available at <http://www.arcticlivingconditions.org/>

<sup>2</sup> Please note that only the most vital of many concurrent factors have been mentioned. Table based partly on tables available in ACIA, 2005, pp. 667, 1000, 1004.

Figure 2b. Impacts of climate change on indigenous coastal communities.<sup>3</sup>

Elements of climate change	Economy	Society and culture	Health
<b>Changing ice and snow conditions</b>	<ul style="list-style-type: none"> <li>- travelling and harvesting become more expensive</li> <li>- replacing country food with imported food is very expensive</li> </ul>	<ul style="list-style-type: none"> <li>- ice as an integral part of indigenous territory</li> <li>- for some Inuit groups danger of the destruction of hunting culture (basis of distinctive social and cultural features)</li> <li>- in some cases sharing systems in decline</li> </ul>	<ul style="list-style-type: none"> <li>- possible rise in accidents during harvesting and travelling on ice</li> <li>- rise in imported products, possibility of such health problems as diabetes, obesity, cardiovascular diseases</li> </ul>
<b>Warming waters</b>	<ul style="list-style-type: none"> <li>- loss of important food sources (as above)</li> </ul>	<ul style="list-style-type: none"> <li>- decrease in hunting and fishing success and/or frequency of harvesting activities and consequent transfer of traditional knowledge</li> </ul>	<ul style="list-style-type: none"> <li>- less country food (as above)</li> </ul>
<b>Thawing permafrost, coastal erosion, rising sea-level</b>	<ul style="list-style-type: none"> <li>- rising costs of infrastructure maintenance</li> <li>- high costs of settlements relocation</li> <li>- higher costs of food preservation</li> </ul>	<ul style="list-style-type: none"> <li>- damage to sacral sites and cemeteries,</li> <li>- changing landscape causes estrangement to the environment</li> <li>- place names referring to landscape features no longer accurate</li> <li>- traditional knowledge no longer useful</li> </ul>	

Elements of climate change	Economy	Society and culture	Health
<b>General warming, intensified storms</b>	<ul style="list-style-type: none"> <li>- rising costs of infrastructure maintenance</li> <li>- savings on heating</li> <li>- more jobs expected in the Arctic due to agriculture, tourism and resource extraction</li> <li>- increased need for expensive technologies to ensure travel safety</li> </ul>	<ul style="list-style-type: none"> <li>- traditional knowledge no longer useful</li> <li>- migration of settlers from the south may cause acceleration of acculturation process</li> <li>- re-timing of some traditional festivals</li> <li>- possible affects on transfer of traditional knowledge to younger generations</li> </ul>	<ul style="list-style-type: none"> <li>- insects and animal species from the south bring new diseases</li> <li>- inadequate housing causing more illnesses</li> <li>- UV radiation causing skin burns</li> <li>- possible rise in accidents and less wholesome wild foods (as above)</li> </ul>

### Legal and Policy Framework

The political and legal systems vary significantly among the Arctic countries. A common trend in the region is the empowerment of indigenous peoples through new structures of governance as well as devolution of legislative powers.

Indigenous peoples are increasingly involved in political processes. The main models of new governance structure are public government and different forms of ethnic self-government. Public government is often used in areas in which indigenous peoples are in the majority (e.g. in Greenland and Nunavut) while in the areas where they are a minority, dual systems of governance prevail (indigenous arrangements coexist with public governments).

Human rights, such as the language and cultural rights of indigenous peoples are increasingly recognized. Interestingly, the Human Rights Committee (HRC), a monitoring body established by the International Covenant on Civil and Political Rights, has started to perceive well-established indigenous peoples as peoples in the meaning of Article 1 to the Covenant. As a consequence, peoples within the meaning of the Article have a right to self-determination and for example a right

<sup>3</sup> Ibid.

to dispose of their natural resources. Yet, this is still a recent development of which legal implications are unclear.

A question of land rights is especially important from the indigenous point of view. Indigenous peoples are often highly dependent on nature as it is a key element of their culture and livelihood. Several land claim agreements between the state governments and indigenous peoples have been established, mostly in North American Arctic but the question is subject to debate in many Arctic countries. The International Labour Organization Convention 169 is a treaty aiming at further recognition of the land rights of indigenous peoples. So far, out of the eight Arctic countries only Denmark and Norway have ratified the convention. To implement the obligations of the Article 14 of the Convention, Norway has adopted an institutional mechanism to identify and recognise Saami rights to land and water areas (Finnmark Act, 2005). Also, preparatory work for possible legislation on the Finnmark fishing rights, in particular the fishing rights of sea Saami, has started in Norway.

There has been co-operation between the Arctic countries since 1980s. The Arctic Council is especially important from the indigenous perspective as indigenous peoples are defined as permanent participants in this inter-governmental forum and they must be fully consulted before decision-making in the Council.

## **Perspectives on the way forward: adaptation options**

In light of the most recent discoveries on climate change impacts, it appears that present means of adaptation are insufficient. The following suggests ways which could support indigenous peoples to adapt to the consequences of climate change.

- **Governance and legal instruments**

New governance structures, devolution of legislative powers, new arrangements on land and natural resources management, adjustment of the existing national laws (regulating e.g. traditional harvesting to adjust better to the changing climate conditions). These are important solutions to be further developed at a national level.

Empowerment of indigenous groups together with taking into account specific indigenous perspective forms the basis for successful adaptation.

International legal instruments. Several international treaties aimed at protecting the indigenous peoples' rights have already been adopted. Also, the awareness of a link between human rights and climate change is increasingly recognized. An indication of this development is a petition to IACHR filed by the Inuit, who claim that US climate policy violates their human rights. Even if the attempt eventually may prove unsuccessful, it may have other positive effects such as strengthening the position of indigenous peoples in general by attracting the attention of international community, media and the public.

- **Livelihood and economic adaptation**

Traditional measures. Some traditional mitigation and adaptation measures may still be applied (e.g. changes to harvesting methods and timing, adjusting cultural features to new conditions). However, indigenous cultures have undergone significant changes and some traditional means of adaptation are no longer available. Foremost relocation, which might have been a feasible option some decades ago, is presently limited by permanent settlement, development of elaborate infrastructure and lack of financial resources.

Modern technology and information. The use of modern technologies together with providing more precise weather and health information may prove valuable. Various forms of state support for communities (both programmes and gov. transfers) would be highly useful for climate change adaptation if directed towards the improvement of living conditions and the preservation of hunting culture in changing environment.

New branches of industry and trade. Indigenous economies are likely to be further supplemented by formal economic activities, such as tourism or resource extraction (although the cooperation with non-indigenous governmental or business actors is often required). This brings business and new jobs

into the region. On the other hand, environment and indigenous identity may be in this way endangered. Finding balance between these aspects is probably the greatest challenge for indigenous sustainable development in the Arctic.

Eventually, since climate change is a continuous process that has various effects on different areas, adaptation measures need to be tailored for specific local conditions and adjusted to continuously altering conditions.

### Some strengths and weaknesses

#### Strengths:

- Traditional adaptive capacity of indigenous peoples with application of traditional knowledge,
- Existing indigenous governance regimes (e.g. Nunavut, Greenland, Saami parliaments) that constitute a good example to be followed,
- Existing international instruments (e.g. ILO Convention 169 and UN Declaration on Indigenous Peoples Rights).

#### Weaknesses:

- Special relation with environment makes indigenous people more vulnerable,
- High speed and the extend of occurring changes in the Arctic marine environment,
- Social problems (e.g. alcoholism, unemployment and poverty) among some groups,
- Limited, especially financial, resources available for indigenous communities,
- Significant regional diversity – requires policy-making on a local level since in some aspects region-wide policy would fail to take into account the special characteristics of indigenous groups and locally specific climate conditions.

### Questions for discussion

Key questions for discussion could be, for example:

- Uniqueness: what are the specific features of indigenous peoples that must be taken into consideration when designing policies that aim at supporting them in the adaptation process?
- Content: In which way state policies have had or could have a negative impact on indigenous adaptive capacity?
- Approaches: how can the specific policies be designed, what kind of involvement is expected by both indigenous groups and states? What kind of governmental programs could be established to protect indigenous cultures and livelihoods?
- Transatlantic contribution: how can transatlantic policies and cooperation support the climate change adaptation of indigenous peoples in the Arctic?

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**ARCTIC TRANSFORM**  
**Transatlantic Policy Options for Supporting Adaptations in the Marine Arctic**

For additional information about the project, please refer to the project website:

<http://www.arctic-transform.org>

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<sup>4</sup> This policy brief is abridged from the full Arctic Transform background paper on indigenous peoples.