Snow, Sand, Ice, and Sun: Climate Change and Equity In the Arctic and Small Island Developing States

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The crisis consists precisely in the fact that the old is dying and the new cannot be born.

—Antonio Gramsci

When we unite for a moral purpose that is manifestly good and true, the spiritual energy unleashed can transform us.

—Al Gore

Introduction

United Nations (“UN”) Secretary General Ban Ki-moon has called climate change “the moral challenge of our generation.” At the plenary session of the United Nations Framework Convention on Climate Change (“UNFCCC”) Conference of the Parties (“COP”) XIII meeting in Bali, Ban told assembled delegates that “the situation is so desperately serious that any delay could push us past the tipping point, beyond which the ecological, financial, and human costs would increase dramatically.”

Ban Ki-moon, Al Gore, and many others argue that unless the world embraces this moral challenge, the burden of climate change will fall on the most vulnerable regions: areas like the Arctic and Small Island Developing States (“SIDS”). Their call for moral clarity echoes what people in some of the world’s most vulnerable regions have been saying for some time, that there needs to be a recognition that the impacts of climate change are being felt by parts of the world that currently lack the resources to cope with the rapid change they are experiencing.

This Article explores some of the similarities between the Arctic and SIDS as they confront the challenge of climate change. Both regions have been identified as among the most vulnerable to climate change effects yet they have contributed least to global greenhouse gas (“GHG”) emissions. Responses to the effects of climate change in these regions raise important questions of equity. The Article examines how this issue of equity is being addressed, both legally and politically, through an example of a human rights challenge in the Arctic and the development of an alliance between the Arctic and SIDS called Many Strong Voices (“MSV”).

Links between the Arctic and Small Island Developing States

At first glance, the Arctic and SIDS appear to have little in common. One is cold, the other is mostly hot. One is seen as an empty and pristine wilderness, untouched by human activities or, alternatively, as a storehouse for vast mineral wealth, ripe for exploitation. The other is portrayed in vacation posters as a gentle, tropical paradise where the living is easy, the sun always shines, and the beaches are endless.

But look more closely and you find some interesting similarities. Both regions are homelands to a diverse number of Indigenous Peoples who, to varying degrees, have been colonized over the last several centuries. People in both regions continue to rely on natural resources—animals, fish, and plants—and the environment. In both regions, traditional knowledge continues to inform decision-making and many people retain a connection to the environment through a body of traditional knowledge developed over the centuries.

Another more unfortunate similarity is that the effects of climate change are greater and more noticeable in the Arctic and SIDS than elsewhere around the globe. The 2005 Arctic Climate Impact Assessment (“ACIA”) predicted that the Arctic will feel the effects of climate change sooner and more severely than other regions of the earth. It also emphasized the relationship between Arctic climate change and Arctic biophysical processes to global climate. The 2007 Report of the Intergovernmental Panel on Climate Change (“IPCC”) echoed and amplified the ACIA findings:

Arctic human communities are already adapting to climate change, but both external and internal stresses challenge their adaptive capacities. Despite the
The resilience shown historically by Arctic indigenous communities, some traditional ways of life are being threatened and substantial investments are needed to adapt or re-locate physical structures and communities. The report also identified similar effects on small islands: Small islands, whether located in the tropics or higher latitudes, have characteristics which make them especially vulnerable to the effects of climate change, sea-level rise and extreme events. Sea-level rise is expected to exacerbate inundation, storm surge, erosion and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities.

In the SIDS, the adverse effects of sea level rise and continued climate change seriously threaten sustainable development. Many small islands are already confronting risks from environmental hazards including coastal flooding, cyclones, and storm surges.

**Voices from Vulnerable Regions: Observing Climate Change in the Arctic and SIDS**

While the scientific consensus on the impacts of climate change on vulnerable regions like the Arctic and SIDS has been building over the last few years, people who live there have long observed environmental changes.

In the Arctic, many of these observations are recorded in the groundbreaking study, “Voices from the Bay,” published by the Canadian Arctic Resources Committee and the Community of Sanikiluaq in 1996. That study looked at Inuit and Cree experiences in the huge watershed of Hudson Bay. It found that Indigenous Peoples had been noticing “highly variable” weather in the northwest corner of the bay since the 1940s.

There used to be more clear, calm days, winters were colder, and low temperatures persisted longer. By the early 1990s, weather changes were quick, unexpected, and difficult to predict. Blizzards, for example, would occur on clear days in the Chesterfield Inlet area, but on days when environmental indicators suggested a blizzard, it would not materialize.

The dilemma of traditional knowledge failing in light of changing environmental conditions was summed up by Helen Atkinson from the Cree community of Chisasibi, Québec:

> We cannot make predictions anymore. We don’t know if the water is going to freeze or not. We used to know what was going to happen at certain seasons but, with all the changes in the climate and different qualities of water, we can’t make those predictions anymore.

SIDS have always been vulnerable to extreme weather events and other environmental disasters, however there has been increasing recognition of the threat posed by climate change.

And like Arctic residents, people in the South Pacific know that climate change is not a future event but a present reality.

The effect of global warming is now being felt in every aspect of the lives of people who live in the Pacific. Reliable statistics now show that the western Pacific is becoming progressively drier while the eastern Pacific is becoming progressively wetter. Where once we could expect steady rainfall throughout the year, we now receive most of our rainfall in a short period often resulting in floods. These floods, followed by droughts, ruin our food supplies and hurricanes leave us without crops for up to three months. They also cause sedimentation in our lagoons.

Ben Namakin is in his mid-20s, works for the Conservation Society of Pohnpei in Micronesia, and observes:

> During my childhood days in Kiribati, we never experienced severe sea flooding. There were storms, but they weren’t that bad. As the sea levels continue to rise in Kiribati, several king tides hit the island. Saltwater intrusion affects the quality of water in wells, floods taro patches, gardens, and puts stress on plants/trees which are very important to the life and culture of an I-Kiribati. . . . Serious storm surges cause coastal erosion, floods grave yards, and in 2006, led to the collapse of the beautiful Dai Nippon causeway. This incident bore huge costs on the people of Kiribati. They had to build new homes with their own finance, and dig up their deceased relatives from their graves and bury them further inland.

This kind of local knowledge and observation is important to developing a complete picture of what is happening in vulnerable regions. The ACIA report, sponsored by the Arctic Council, is groundbreaking in two significant ways. First, it brought together the latest scientific research and analysis and looked at the implications of climate change on a single region of the Earth. Second, it incorporated the observations and traditional knowledge of the Arctic’s Indigenous Peoples. The ACIA showed clearly that the rate of climate induced change in the Arctic was twice that of the rest of the world. While the Arctic has the lowest GHG emissions of just about anywhere in the world, the report indicated that the highest price will be paid by the Arctic’s Indigenous Peoples, many of whose cultures are directly threatened by these rapid climatic changes.

Indigenous Peoples’ observations were systematically integrated into the ACIA, making it the first such study to recognize the value of indigenous knowledge. The report’s authors ensured that local voices were heard and local information was incorporated in the final results. From northern Russia to Alaska to the Canadian Arctic, Greenland and Sapi, where the indigenous Saami have traditionally herded reindeer throughout the northern parts of Norway, Sweden, Finland, and the Kola Peninsula in Russia, people were reporting changes that were affecting the very structure of their lives and threatening their economic and cultural survival. A reindeer herder talked about the uncertainty.

> Our income diminishes because of climate change, of course, and in a very drastic way. Even my wife has said that it would be time to forget the reindeer. But I tell her always: ‘Tamara, we depend on these reindeer.
If there are no reindeer, we have nothing to do here either.15

Uusaqqak Qujaukitsoq is a hunter in northern Greenland. He described the changes in his region:

Sea-ice conditions have changed over the last five to six years. The ice is generally thinner and is slower to form off the smaller forelands. The appearance of aakkarneq (“ice thinned by sea currents”) happens earlier in the year than normal. Also, sea ice, which previously broke up gradually from the floe-edge towards land, now breaks off all at once. Glaciers are very notably receding and the place names are no longer consistent with the appearance of the land. For example, Sermiarssuusaq (“the smaller large glacier”), which previously stretched out to the sea, no longer exists.16

Since Inuit throughout the Arctic use winter ice for travel and hunting, the issue of thickness can be a matter of life and death. Most Canadian Arctic communities have lost hunters whose snow machines have clashed through thin ice where there always used to be thick ice. In the Canadian Arctic, a pilot project employing remote observation satellite technology is being used to supplement hunters’ environmental knowledge.17

**Ethical Considerations**

This question of imbalance between regional contribution and regional impact is supposed to be addressed in the UNFCCC, Article 3, which states that “[t]he Parties should protect the climate systems for the benefit of the present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”18 However, current disparities are stark:

The imbalance of responsibility for global warming is striking when comparing across nations. Average global carbon emissions approximate one metric ton per year (tC/yr) per person. In 2004, U.S. per capita emissions neared 6 tC/yr (with Canada and Australia not far behind), and Japan and Western European countries range from 2 to 5 tC/yr per capita. Yet developing countries’ per capita emissions approximate 0.6 tC/yr, and more than 50 countries are below 0.2 tC/yr.19

Another dramatic example of the striking inequities between contributors and impact is highlighted in the 2007 United Nations Environment Programme report “Global Outlook for Ice and Snow” that looked at the relationship between melting ice and snow and its effects on the major rivers of the Himalayas-Hindu Kush-Tian Shan-Tibet region and concluded that “1.3 billion people could be exposed to risk of increased water shortages.”20

Because developing countries (and the Arctic) have had the lowest emissions, the fewest resources available to tackle the problems created by climate change, and are most vulnerable to impacts, Article 3 of the UNFCCC contains another important principle to guide global decision-making. It states that the “specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change . . . should be given full consideration.”21

Professor John C. Dernbach echoes the views of many people in the SIDS and Arctic when he writes that “equity for developing and vulnerable countries would counsel for stabilizing and reducing atmospheric GHG levels as soon as possible. That would, after all, reduce or avoid negative impacts to the most vulnerable (e.g. Inuit peoples [sic], Africa, small island states).”22

There are questions of equity involved not only in the discussion of how the effects of climate change are distributed, but how responses and solutions will be developed. Not everyone will be affected equally and not everyone will have the same resources to manage effects and adapt.

If all humans were contributing equally to climate change, the emergence of winners and losers might be considered an inevitable outcome of human development. However, all humans are not contributing equally. The drivers of global environmental change—such as fossil fuel consumption, urban and coastal development, industrialization, deforestation, and other land use changes—are also inequitable and can be disproportionately attributed to some nations, regions, and social groups. In general, higher consumers of energy are making a more substantial contribution to climate change than are lower energy consumers. Moreover, all humans do not have an equal voice—or in some cases any form of representation—in key decisions about energy usage patterns, land use changes, industrial emissions, and so forth even though these decisions affect the integrity of the ecological systems on which all humans and all other species depend. Equity is thus at the heart of the climate change issue.23

This question of equity is being addressed in several ways. Two of these ways, involving the Arctic and SIDS, are discussed below.
THE INUIT AND HUMAN RIGHTS

In 2005, sixty-two Inuit in the Canadian and Alaskan Arctic regions filed a petition with the Organization of American States Inter-American Commission on Human Rights. Led by Sheila Watt-Cloutier, the petition requested "relief from human rights violations resulting from the impacts of global warming and climate change caused by acts and omissions of the United States."24 Erroneously reported in the media as a lawsuit, the Inuit were not seeking financial compensation but wished to demonstrate the link between global warming and its impact on their human rights. The petition requested a hearing, which took place on March 1, 2007, and asked for the commission to make an "onsite visit to investigate and confirm the harms suffered" by the people it named. The petition singled out the United States, the world’s largest GHG emitter, because it has "repeatedly declined to take steps to regulate and reduce its emissions of the gases responsible for climate change."25

The petition argued that United States is in breach of both human rights law and its international environmental obligations. The impacts of climate change—"caused by acts and omissions"—by the United States violate the Inuit’s fundamental human rights protected by the American Declaration of the Rights and Duties of Man and other international instruments. These include their rights to the benefits of culture, to property, to the preservation of health, life, physical integrity, security, and a means of subsistence, and to residence, movement, and inviolability of the home.26

As redress, the Inuit requested that the Commission prepare a report “declaring that the United States of America is internationally responsible for violations of rights affirmed in the American Declaration of the Rights and Duties of Man and in other instruments of international law.”27 They called for the United States to adopt “mandatory measures to limit its emissions of greenhouse gases”28 and work towards global limits. The petition also called for the United States to “take into account” the impact on the Inuit “before approving all major government actions” and to work with the Inuit on “a plan to protect Inuit culture and resources.”29 Finally, it called for “a plan to provide assistance necessary for Inuit to adapt to the impacts of climate change that cannot be avoided.”30

To date, other than holding a hearing, the Commission has taken no action. However, the very fact that the Inuit filed a petition garnered enormous attention in the United States and around the world. As a tool to publicize the situation facing one of the world’s most vulnerable regions, the petition was a success.

More recently, lawyers for the Alaskan Native coastal village of Kivalina, which is being forced to relocate because of flooding caused by the changing Arctic climate, filed suit in U.S. federal court “arguing that 5 oil companies, 14 electric utilities and the country’s largest coal company were responsible for the village’s woes.”31

The human rights implications of climate change are being explored in a number of different fora outside the Arctic and SIDS context. In January 2007, the African Union issued a declaration on climate change and development that called on the international community to meet its obligations to cut greenhouse gases and strengthen African institutions to help them address impacts and adaptation.32

In November 2007, just prior to the UNFCCC meeting in Bali, members of the Association of Small Island States (“AOSIS”) meeting in the Maldives signed the Male’ Declaration on the Human Dimensions of Climate Change. The declaration calls for the UNFCCC to assess the human rights implications of climate change, asks the UN High Commissioner for Human Rights to “conduct a detailed study into the effects of climate change on the full enjoyment of human rights, which includes relevant conclusions and recommendations” and for the UN Human Rights Council to hold a special debate on climate change and human rights.33

In March 2008, the Advisory Council of Jurists of the Asia Pacific Forum released a study that said climate change will have “‘catastrophic’ effects on the physical and social landscape of the Asia Pacific” and recommended that “the right to a healthy environment be protected by human rights law.”34

MANY STRONG VOICES – THE ARCTIC AND SMALL ISLAND DEVELOPING STATES WORKING TOGETHER

Our rights, our human rights that we share with all of you—to live as we do and to enjoy our unique culture as part of the globe’s cultural heritage, are at issue. The Arctic dimension and Inuit perspectives on global climate change need to be heard in the corridors of power.35

There are voices always heard, and voices seldom heard, in the discussions about climate change. People in vulnerable regions are usually among the latter. However, as this Article has shown, there are ways for these voices to be heard—in the scientific research and in political lobbying. “Given the similar levels of impact, peoples of the Arctic are working together with people in the small islands of the South Pacific, Caribbean and elsewhere to cooperate on ensuring that the moral imperative of taking action on climate change is heard.”36

In 2004, representatives of the Inuit Circumpolar Conference, SIDS, and UNEP/GRID-Arendal began discussing the need for a joint effort to raise awareness about the effects of Climate Change in the world’s most vulnerable regions. Although small in number, the people of the Arctic and SIDS had participated vigorously in a number of international negotiating processes, including the UNFCCC.

In August 2005, Premier Hans Enoksen of Greenland urged Environment Ministers from twenty-five countries meeting in Ilulissat to “bring vulnerable regions of the globe together so that we may learn from each other and work with each other internationally.”37 Premier Enoksen went on to say that “the Arctic, the Small Island Developing States, low lying states, and sub-Sahara states in Africa need to help each other.”38

These discussions led to the development of the Many Strong Voices programme.39 With support from the government of Norway, the Walter and Duncan Gordon Foundation in Can-
MSV participants agree with one of the key conclusions of the 2006 Stern Review: “An effective response to climate change will depend on creating the conditions for international collective action.”

This action must happen on a number of fronts. For vulnerable regions and peoples, it means lobbying at the UNFCCC negotiations, focusing on the equity and human rights implications of climate change. It means pushing for a post-Kyoto agreement that recognizes the special circumstances and needs of the people in the Arctic and SIDS. The Arctic Climate Impact Assessment was referring to the people of the Arctic, but the words can be applied to all vulnerable regions. For people “whose future is at stake, having the ability to make choices and changes is a matter of survival, to which all available resources must be applied.”

**Conclusion**

Over the next five years it will:

- Carry out comparative climate change vulnerability and adaptation research in the SIDS;
- Exchange knowledge to help develop regionally-appropriate climate change adaptation strategies;
- Produce communications, outreach, and education tools that will raise the profile of their regions, highlight their concerns, and enable communities to outline their own solutions; and
- Combine regional research, the design of adaptation strategies, and communications efforts to increase the visibility of these regions, enhance their influence on global dialogues on reducing greenhouse gas emissions, and facilitate the articulation of their adaptation needs.

An important focus of attention, though not the only one, is on negotiations leading to a post-2012 climate change accord to replace the Kyoto Protocol. Participants in the Many Strong Voices are working together to ensure that their voices are heard in discussions on emissions reduction and adaptation in the process outlined in the Bali Action Plan, which was produced at the December 2007 COP. MSV produced a common message and position for the last COP and called for:

- Agreement to achieve a peak in global GHG emissions by no later than 2020, and an eighty percent reduction in global emissions by 2050.
- Ways to ensure that indigenous and other people from vulnerable regions can provide meaningful input into the UNFCCC’s ongoing work on adaptation.
- Adequate funding from major emitting nations to provide the resources necessary for adaptation at regional and local levels in vulnerable areas.

**Endnotes: Snow, Sand, Ice, and Sun**

6. Working Group II, id.
7. Vulnerability is determined by the level of exposure to a risk, how sensitive the region is to it, and what capacity is available to adapt.
8. Voices from the Bay: Traditional Ecological Knowledge of the Inuit and Cree in the Hudson Bay Bioregion 29 (Canadian Arctic Resources Committee 1997) [hereinafter Voices from the Bay].
15. Huntington & Fox, id. at 90.
16. Huntington & Fox, id. at 84.
ENDNOTES: INTERNATIONAL POLAR YEAR continued from page 7


12 Antarctic Treaty, id. art. I.

13 Antarctic Treaty, id. art. III.

14 Antarctic Treaty, id. pmbl.


16 Antarctic Treaty, supra note 11, pmbl.

17 Gould, supra note 9.

18 Behr et al., supra note 8.


22 Gould, supra note 9.


26 Young, id.


32 Timo Koivurova, Background paper prepared for the joint seminar of University of the Arctic Rectors’ Forum and the Standing Committee of Parliamentarians of the Arctic Region (Feb. 28, 2008, Arctic Centre in Rovaniemi, Finland), available at www.unea.org/Timo_Koivurova_FINAL_web_g0Nj.pdf (last visited Apr. 16, 2008).

33 The Inuit Circumpolar Council (ICC) is the body that represents all Inuit from Alaska, Canada, Greenland, and Chukotka on matters of international importance. See generally About ICC, Inuit Circumpolar Council website, http://www.inuit.org/index.asp?lang=en (last visited Apr. 20, 2008).

34 Arctic Climate Impact Assessment, supra note 1.


39 The International Arctic Science Committee is a non-governmental organization whose aim is to encourage and facilitate cooperation in all aspects of Arctic research, in all countries engaged in Arctic research and in all areas of the Arctic region. See The International Arctic Science Committee website, http://www.arcticcouncil.org/iasc (last visited Apr. 17, 2008).

40 SAON, supra note 37.

41 Behr et al., supra note 8.

42 Gould, supra note 9.

ENDNOTES: SNOW, SAND, ICE, AND SUN continued from page 12


22 Dernbach, id.


25 Petition, id. at 6.

26 Petition, id. at 5.

27 Petition, id. at 7.

28 Petition, supra note 24, at 7.

29 Petition, supra note 24, at 7.

30 Petition, supra note 24, at 7–8.

ENDNOTES: MANAGING ARCTIC FISH STOKES continued from page 13

1 S.J. Res. 17, 110th Cong. (2007).
4 Reuters, id.
5 S.J. Res. 17.
6 S.J. Res. 17.
10 ‘New Ocean Ethic’ is Recommended, N.Y. TIMES, July 29, 2003, at F2.

ENDNOTES: CLIMATE CHANGE AND BIODIVERSITY IN POLAR REGIONS continued from page 16

12 IPCC SUMMARY FOR POLICYMAKERS, supra note 10, at 5.
13 IPCC SUMMARY FOR POLICYMAKERS, supra note 10, at 12.
14 The Arctic Council is a high-level intergovernmental forum that provides a mechanism to address the common concerns and challenges faced by Arctic people and governments. It is comprised of the eight Arctic states (Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, Sweden, and the United States of America), six indigenous peoples organizations (Aleut International Association, Arctic Athabaskan Council, Gwich’in Council International, Inuit Circumpolar Conference, Russian Association of Indigenous peoples of the North, and Sámi Council) as permanent participants, and official observers (including France, Germany, the Netherlands, Poland, United Kingdom, non-governmental organizations, and scientific and other international bodies). About Arctic Council, Arctic Council website, http://arctic-council.org/article/about (last visited Apr. 13, 2008).
15 ACIA, IMPACTS OF A WARMING ARCTIC: ARCTIC CLIMATE IMPACT ASSESSMENT, supra note 3.
19 Convention on Biological Diversity art. 8(j), June 5, 1992, 31 I.L.M. 818 (stating that “each contracting Party shall, as far as possible and as appropriate: Subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.”).