

**MANAGING TOWARDS SUSTAINABILITY IN THE ARCTIC:
SOME PRACTICAL CONSIDERATIONS**

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I'd like to thank our conference sponsors, and particularly Dr. Ingo Winkelmann, for arranging this very timely conference. I'd also like to say that it is an honor to be discussing this very important topic with such a distinguished group of speakers.

Our first charge is to assess "the main threats to sustainable development in the Arctic Region." I think it will be hard to make such an assessment without first taking a look at the concept of 'sustainable development' in the Arctic context.

Various indigenous peoples lived sustainably in the Arctic region for some thousands of years prior to the first exploitation of Arctic resources on behalf of more economically powerful population centers outside the region.

The commercial exploitation of Arctic resources through whaling, the fur trade, the industrialization of certain areas, and the development of oil and gas, has not, overall, been sustainable. Even in the 17th Century we saw the commercial extinction of the Spitzbergen and Greenland Bowhead Whale populations by Dutch and English whalers, and there are many other instances where the fragility of the Arctic system has been revealed.

Despite this history, the Arctic – protected until recently by its very remoteness and its hostile climate -- has been relatively less altered by human activity than most regions of the earth, and contains many basically intact ecosystems that continue to provide a sustainable subsistence resource to Arctic communities.

In this region, the ideal of sustainable development that "meets the needs of the present without compromising the ability of future generations to meet their own needs," must be seen as a project, and a commitment, to "manage towards sustainability" for the future.

Yet, even the prospect of a future Arctic in which the pattern of development is sustainable is, in fact, in danger. The chief danger comes from the combined impacts of climate change and global economic forces.

As we now know, climate change is already directly impacting the Arctic environment in countless ways, from melting sea ice and permafrost to eroding shorelines and altering tundra vegetation. These changes are expected to continue, and may even accelerate, likely resulting, within our childrens' lifetimes, in major ecosystem shifts, including significant population declines of ice-dependent species.

These impacts will diminish the capacity of the Arctic marine ecosystem to provide the ecosystem services necessary for sustainable community life and culture in the Arctic.

Just to give one example among many: Inuit families in northern Alaska have long kept fish and caribou meat cold in natural refrigerators, dug as much as 4 meters into the

permafrost. Nowadays, natives throughout the north slope report that their natural refrigerators are failing as the permafrost melts.

Over the same time period in which these direct impacts of climate change are being felt, the combination of melting sea ice and global economic factors will likely result in more intense use of the Arctic marine system.

We can expect new oil and gas development in frontier regions such as the Northern Barents and Beaufort and Chukchi Seas. Shipping is already increasing in certain regions, and though transcontinental shipping routes will likely take some decades to develop, their economic efficiency will eventually prove compelling.

Tourism, and particularly cruise tourism, is already on the increase in Greenland waters, and the first large cruise ship stopped in Barrow, Alaska last year. Commercial fishing is already expanding north in the Barents Sea, and may move to the high Arctic as fishery stocks respond to thermal changes in the ocean.

These accelerated activities will place new stress on the very physical and natural systems of the Arctic already stressed by rapid climate change; and they will also add new stresses to the infrastructure of northern communities. At the same time, they will bring economic activity that could, if managed properly, provide benefits.

The second question we were asked to address was, in paraphrase, “How can existing international institutions address the challenges to sustainable development in the Arctic?”

Before we ask how, we need to first assess whether current legal and institutional frameworks are sufficient to “manage towards sustainability” in the Arctic.

Of course there already exists a fabric of legal, regulatory, and cooperative arrangements that apply to the Arctic and are relevant to the issue of sustainable development, including, most importantly, the United Nations Convention on the Law of the Sea.

Although the U.S. is not a party to the Law of the Sea, its stated policy is to recognize its provisions as customary international law. I am happy to say that, with the change of administrations and the new leadership in Congress, we have high hopes that the U.S. will be able to ratify the Law of the Sea soon.

In addition, the Arctic nations have, over the past 12 years, established an innovative cooperative approach to issues in the Arctic, in the form of the Arctic Council.

Though it is not a regulatory body, the Arctic Council has been very successful at identifying issues of importance to the conservation of the Arctic environment and the well-being of Arctic peoples, and in developing assessments that have become the basis for cooperative action by the Arctic governments. In this respect, we can cite, among others, the 1998 AMAP Assessment of Arctic Pollution Issues, the 2001 assessment

Arctic Flora and Fauna, Status and Conservation, and the 2004 Arctic Human Development Report, and the 2004 Arctic Climate Impact Assessment.

A unique and very significant aspect of the Council is that it provides for active participation by the indigenous peoples of the Arctic, who are represented by six “permanent participants.”

The question remains whether this fabric of hard and soft law institutions, coupled with national regulation, is sufficient to achieve sustainable development in the face of the emerging challenges.

This question can be looked at as a legal issue, a practical matter, or a political problem. Our challenge is to address it in a way that leads towards a useful assessment of the strengths and weaknesses of current arrangements, and to potential pathways to improving or establishing new arrangements in areas that appear essential.

In this respect, much of the recent debate has been at best misleading. The media’s treatment of the issue of territorial claims has at times conveyed the impression that the Arctic is a new “wild west”, without law, but with gunboats at the battle stations.

There have also been some well-intentioned, but not equally well-informed calls for an “Antarctic-style” treaty for the Arctic.

Naturally these views have called forth a somewhat indignant defense on the part of a number of international lawyers and scholars, who have pointed out that there is indeed a body of law and an institutional framework that “covers the Arctic.” In response, those who call for new institutions have argued that there are “gaps in the legal regime” that at present limit its effectiveness.

Perhaps, instead of inquiring whether there are gaps in the legal regime, we should look more closely into the regulatory framework in the Arctic with regard to various sectors of human activity. And in fact, some good work has been done recently along these lines, through the so-called “Arctic Transform” project, which was briefed to the European Commission just last week in Brussels. This effort produced some very constructive recommendations directed at improving the regulation of shipping, fishing, and oil and gas development in the Arctic.

However, there is room to doubt whether improvements of traditional sectoral management approaches can be sufficient to assure the conservation of Arctic ecosystems and the ecological services they provide.

The current state of the world’s oceans does not offer much support for the adequacy of sectoral management, which has, after all, been the fundamental basis of most marine management until very recently. In many seas, from the Mediterranean and the Baltic to the Coral, and in ocean basins from the North Atlantic to the South Pacific, historical management techniques have left fisheries badly depleted or even commercially extinct,

habitats significantly degraded, and the water and benthic environments severely polluted.

I'd like to argue for a somewhat different approach, which starts with a more careful look at the management challenges in a changing Arctic, and then inquires into the adequacy of existing institutions and frameworks to meet these management challenges.

The Arctic, although very large in area, remains the smallest of the world's ocean basins, and in some important respects bears the character of a "semi-enclosed sea". Among other characteristics, it is virtually landlocked for much of its periphery, with a deep basin surrounded by very large continental shelves, a limited exchange of deep water with the Atlantic and Pacific Oceans, and a recirculating current that carries ice, marine organisms, and wildlife around the system.

Most of the development we expect – the oil and gas operations, new shipping, expanding ship-based tourism, and commercial fishing, will be taking place in the same extensional space – the broad coastal zone surrounding the Arctic basin.

This gives rise to the question of whether the management of these activities should and can be integrated, and if so, according to what purposes and principles.

A number of the more promising contemporary marine management efforts are embracing the concept of ecosystem-based management. EBM approaches have five main distinguishing features:

- Focus on the ability of the ecosystem to support human well-being through the provision of ecosystem services;
- Geographical scope of management set by natural boundaries;
- Integration of management across sectors, recognizing the interactions of human activities;
- Management attention to cumulative impacts of activities over time, space, and scale; and
- Acknowledgement that there will be tradeoffs among services that should be made explicit as part of the planning process.

One can see that the EBM approach holds a certain promise in helping to address the management challenge in the Arctic. It could provide a basis for improved sectoral approaches, as well as helping to inform a process of spatial planning for areas of the Arctic likely to come under stress from multiple activities.

Norway and Canada have already moved significantly towards the ecosystem-based approach. Norway's "Integrated Management" plan for the Barents Sea embodies a highly sophisticated integrated spatial planning approach, and Canada's 1997 Oceans Act sets out as fundamental principles sustainable development, integrated planning, and precaution.

A key question is whether a more integrated management approach can be brought forward through the existing governance framework, or through some politically realizable improvement to it. This question is currently being explored in the context of the Aspen Institute's Commission and Dialogue on Arctic Climate Change. It is hoped that the Commission will be prepared to make preliminary recommendations touching on these matters by late spring.

Some preliminary observations on this point: First, a desire to move towards a more integrated, ecosystem-based management approach in the Arctic does not prescribe just one institutional context – one can conceive of an integrated management effort that is coordinated among institutions, and national governments, for instance.

Second, there is no legal deficiency that by itself would prevent the Arctic nations from cooperating in a new more integrated management effort.

Third, efforts to change the Arctic Council so that it could become a management entity might actually diminish its value as a forum, which would be regrettable. Instead, it might be more strategic to consider how the Council, as a high-level forum, could contribute to a more integrated management framework in the Arctic.

A second, and related question, is whether the political will exists to make a move in this direction. Interestingly, there appears to be a growing sense among governments that there is a new reality in the Arctic; that it represents a special management challenge, and that cooperative or coordinated management across boundaries may be an important part of the solution.

Evidence of this emerging sentiment may be found in the new U.S. "Arctic Region Policy," in the recent European Commission Communication "The European Union and the Arctic Region," and even in the Ilulissat Declaration.

The U.S. National Security Directive, for example, notes that increased human activity in the Arctic "is expected to bring additional stressors to the Arctic environment, with potentially serious consequences for Arctic communities and ecosystems." It also instructs the Secretary of State to "consider, as appropriate, new or enhanced international arrangements for the Arctic to address issues likely to arise from human activity in that region, including shipping, local development and subsistence, exploitation of living marine resources, development of energy and other resources, and tourism."

The European Commission communication calls for the development of "a holistic, ecosystem-based management of human activities, ensuring that the latter are administered in a sustainable way, integrating environmental considerations at all levels."

The Ilulissat Declaration, while it rejects the need for "a new comprehensive legal regime to govern the Arctic," at the same time declares a stewardship responsibility for the five Arctic states. It commits them to taking "steps in accordance with international law both

nationally and in cooperation among the five states and other interested parties to ensure the protection and preservation of the fragile marine environment of the Arctic Ocean.”

The third question we were asked to address was in some ways the most interesting of all – how can the international community contribute to future sustainability in the Arctic?

How ought we to consider the roles, in caring for the future of the Arctic, of the Arctic nations, and of the larger international community?

Again, this depends on how we conceptualize the fundamental issue. It is both a legal and a practical matter.

If we consider that the future of the Arctic is to some degree dependent on pressures, trends, and choices that come from outside the Arctic region, we must admit that the broader community has a role in determining the fate of the Arctic.

Similarly, the fact that developments in the Arctic, such as the melting of the Greenland ice sheet, or the release of the vast methane reserves held in ice crystals beneath the sea floor and tundra, would have significant impacts worldwide, makes it clear that the broader international community has an interest in the environmental fate of the Arctic.

In addition, we must consider that all nations share certain rights, for instance to navigation and fishing, that are considered to be applicable in the Arctic as in other maritime areas.

At the same time, it is clear that the nations whose national jurisdiction covers large parts of the Arctic have an important role to play. And within this group of nations, there are five coastal states that have asserted, in the Ilulissat Declaration, a special set of rights and responsibilities.

Perhaps the best we can do with all of this is to make some preliminary observations on the role of the international community.

It is clear that the international community, and Europe in particular, cannot be excluded from contributing to the future management of the Arctic. This is not to say that “management towards sustainability” in the Arctic requires a global treaty regime – rather, that, within the vision of a sustainable Arctic, there are elements that cannot happen without international cooperation.

In fact, to achieve even the goals set out in Ilulissat, the Arctic coastal states will need the help of the International Maritime Organization and of shipping flag states.

To achieve a conservation-oriented fisheries management regime, the Arctic coastal states will need the cooperation of nations with distant water fishing fleets.

To “buy time” for the Arctic, by reducing short-term pollutants, such as black carbon, that are accelerating the regional warming trend, the Arctic nations need the cooperation of Europe and ultimately China.

To avert an unrestrained global climate change which would destroy the Arctic as we know it, the Arctic nations need the cooperation of the full international community.

Finally, to achieve true sustainable development in the Arctic of the future, the goal of conserving this important human and natural resource must be shared by the international community.