

## **Arctic Meltdown puts Heat on Policy Implications**

*By David J. Keeling*

Interneccine scientific struggles over defining and measuring global climate change are obscuring more important questions about the policy dimensions of such change. Aggravating the problem are ostrich-like government attitudes toward climate change that completely fail to focus attention on the more serious challenges facing society. Individuals, organizations, and governments can deny or promote interminably the premise that humans are significantly implicated in the climate changes we are now experiencing. However, the reality is that humans will be impacted by climate change in significant ways whomever or whatever is determined to be the culprit. The real focus of the debate, therefore, should be about its policy implications and what should be done to plan for its eventuality. With the International Polar Year just underway, desperately needed is a significant effort by policy makers to address the enormous political, economic, and environmental challenges facing governments by a melting Arctic.

Geographers have frequently pointed out that the key to planning for global climate change - or war, the economy, or the environment for that matter - is understanding its spatial dimensions. They have also demonstrated time after time that geographic ignorance about the peoples and places targeted by governmental and other policies often precipitates policy disasters. How different might the outcome of the Iraq war have been, for example, if policy development and implementation by the US government had been driven by a detailed and finely nuanced geographic analysis of Iraq's peoples, places, and resources? After all, geography is to space as history is to time, and we are frequently reminded that we study history to avoid repeating its mistakes. So why is there no mantra in the popular lexicon that argues we should study geography to avoid making stupid and costly policy mistakes in and about places!

Global climate change is inevitable. Its implications for humankind, however, are not inevitable. Urgently needed is a meaningful focus on the policy implications of climate change by governments and scientists across the planet. This requires understanding the geography of climate change in ways that can shed light on the critical policy questions that need to be asked. For example, melting Arctic ice likely will open up the northern sea lanes between Europe and Asia for at least two months annually. A cursory examination of the globe highlights the dramatically shorter shipping distance between the major ports of Europe and East Asia across the Arctic than via the Suez Canal.

The policy implications of a possible boom in shipping across Arctic waters are significant. Geopolitics, environmental concerns, and economic relationships all factor into issues that need to be considered by policy makers. For example, both Russia and Canada view their northern sea routes as sovereign territory. The US treats these waters as international areas and thus open for free passage. There are still considerable disagreements between the US and Canada over territorial rights in the Arctic Circle, with the Canadian Prime Minister in 2006 issuing a blunt "hands off" warning to its southern neighbor. Complicating the geopolitics are US Geological Survey estimates that at least a quarter of all undiscovered oil and natural gas might be found in the Arctic region. Other complications related to an increase in Arctic shipping include the enforcement of fishing rules, smuggling and piracy concerns, and environmental protection in this very ecologically sensitive area.

The International Polar Year is highlighting the environmental fragility of both the Arctic and Antarctic regions. Yet the scientific attention paid this coming year to these regions

will come to naught if policy makers across the planet do not recognize the long-term implications of climate change in the Arctic. The US government should take the lead in developing policies that recognize the complexity of issues facing the Arctic. It should work towards an international consensus that recognizes the Arctic as the common heritage of humankind. It should find ways to engage those countries most impacted by climate change in the Arctic in a way that leads to meaningful, geographically informed policies and shared responsibilities. Anything less will send any hope we have of coping with the long-term implications of climate change in the region melting away as fast as the Arctic ice.

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