

# Adapt or Mitigate?

## A Note on Some Competing Incentives Created by Northern Climate Change

WILLIAM G. MORRISON

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The recent "Climate Change in the Circumpolar North" conference held in Whitehorse was a great success on many levels. The multi-disciplinary nature of the event was extremely valuable and I learned a great deal about both the hard scientific evidence on the warming climate, and the particular problems facing our Northern communities. As an economist I was particularly interested in one of three conference themes, "Responding to Climate Change in the North." Within this there were presentations that informed us in several topics including

- Alternative (clean) sources of energy;
- Products and measures to promote energy efficiency;
- Specific effects of climate change how communities are responding to these changes; and
- Education and awareness programs about climate change.

While all the sessions were valuable, by the end of the conference I realised that there was an important set of issues relating to these topics that was not being discussed. Therefore I now wish to bring these issues to the fore by pointing out some potential conflicts and incentive problems that might arise in a Northern response to climate change. The principal argument can be stated fairly simply: there is an inherent tradeoff between the notion of actions aimed at adapting to climate change and actions aimed at mitigating the causes of climate change. That is, in the extreme, if Northern communities were entirely successful in implementing measures that allowed them to adapt to the warming climate, then there would be no need for mitigation. Similarly, if actions aimed at mitigation were completely successful, there would be no requirement that communities adapt. The fact that either sorts of action are unlikely to be one hundred percent successful does not eliminate the inherent conflict between them.

Add to this the realisation that causes of climate change are global phenomena while specific circumpolar effects (loss of permafrost for example) and the responses to them originate from within the Northern regions, and we have some tradeoffs to discuss. Should Northern communities cease all efforts

to adapt to climate change? This would surely aid in efforts to lobby the rest of the world for stronger mitigation measures. The pitch would be “We are facing biological, social, cultural and economic hardships that are a direct result of climate change. The only way to stop this is to mitigate global warming.” Surely this would be a stronger position than stating, “We are experiencing changes in our climate, but look at all the marvellous ways we have been able to adapt!”

I can anticipate the reader thinking, “Wait a minute! Surely the adoption of alternative clean sources of energy and the promotion of energy efficiency are forms of adaptation that are directly contributing to reductions in greenhouse gases emissions?” However (and contrary to popular belief) this is by no means clear. The reason is that in many, if not most cases, the attraction of clean fuels or energy efficiency is viewed as being derived from the cost savings that directly accumulate to the individuals and institutions involved. However this sort of economic incentive creates its own direct and indirect problems. First, the direct effect of reducing the price of a good is that the quantity demanded of that good will increase. If you provide drivers with fuel-efficient vehicles and lower congestion on the highways, you have successfully reduced the price of travel. Therefore we expect people to travel more. Second, even if individuals do not increase their demand for the good(s) in question, as long as alternative fuels and energy efficiency saves people money, those savings must show up somewhere in the production and consumption of other goods. Production and consumption of these goods requires energy and resources that are likely to generate their own set of external effects on the environment.

In contrast to economic incentives from new technologies, there is one form of adaptation to climate change that is consistent with mitigation: education. In the global system of market-driven economies, the one thing that can really have an impact on reducing the amount of emitted greenhouse gases is the preferences of consumers. If the source of consumer demand for fuel-efficient automobiles becomes the “warm glow” individuals experience as a result of helping the world environment, then we will have a basis for mitigating greenhouse gas emissions. Note that this sort of consumer power can extend beyond our borders to countries that export goods and services to Canada. However it should also be stated that educational programs are longer-term measures that might not satisfy those who feel we need swift deliberate action today. Nevertheless the “greening” of preferences requires education programs that promote awareness of the issues and marketing programs that create an association between individual actions and community benefits. Surely there can be no better place to start these sorts of programs than in the North.