

GLOBAL CLIMATE CHANGE: PUBLIC RESPONSES

(Notes from Dr. William Johnson's presentation at the Friends of the Bethel University Library's Forum: "Christian Responses to Global Warming" on May 7, 2006)

Imagine a giant oil tanker traveling at 25 knots. It has built up so much momentum that it cannot be stopped in a short distance (unless, of course, it hits a rock or iceberg—there is some evidence of abrupt climate changes in prehistory). This portrays the world's use of fossil fuel and emissions of greenhouse gases, except that the speed is actually increasing, toward 30 knots. This momentum is not only technological, but also social, political, and economic, since modern life itself rests on energy consumption.

To slow this "tanker" down to 10-15 knots will require responses that are **(a) technologically efficient, (b) economically affordable, and (c) politically practical**. These three must come together to be effective.

The public debate in the media is dominated by the "extremists" on either side--Ruddiman 184-185 & Revkin. They frame it as a competition between inevitability on one hand, and denial or "accommodation" on the other. Neither position encourages or stimulates the search for practical means to make progress on the issue. Serious scientists, who are convinced that the threat is real, are also honest about the uncertainties and difficulties of prediction. The debate actually confuses many people, and so they rank climate change rather low on their scale of worries.

New energy technologies, to be efficient and cost-effective, must provide a high and stable level of energy with a declining production of greenhouse gases, and steadily reduce the energy consumption per unit of production.

The problem with "renewable" energy sources is that they are not emission-free, in view of what it takes to manufacture them—solar panels, windmills, ethanol, coal processing. We must make the entire cycle of technology energy efficient and emission-limited. We can learn to reduce energy use relative to output, but this also calls for energy-intensive investments and major changes in life styles of the wealthy nations and in the ambitions of developing nations like China and India.

Economic costs of energy technologies and changes in consumption patterns should clearly produce additional benefits, fairly distributed among governments, businesses, and consumers worldwide.

Economic costs include the research, development, and manufacture of new technologies and the displacement of consumption and employment patterns, which must fall on governments, corporations, and consumers alike around the world. These must be balanced against the costs that climate warming would impose, which is even harder to calculate. What is necessary is an

economic plan to ensure that costs and benefits are fairly distributed, that more will be paid by those who can most afford it, and that the harm will be minimized on the least advantaged. Further, it should generate sustainable wealth on a wide scale.

Politics is necessary to apply the technological and economic choices worldwide, and effectively limit greenhouse gas emissions.

Politics also has the task of setting worldwide limits on greenhouse gas emissions, with steady reductions over time. But even if it were possible to agree on such limits, there is no agency to enforce them, and many incentives to violate them.

Politics, as “normally” practiced today, concentrates on resolving current conflicts with current knowledge and resources, and is not well suited to long-range solutions to gradually developing situations. Elected officials’ political incentives rest on the short run: one’s term of office, the current fiscal year, balancing costs with obvious benefits. Preventive measures that begin today will only gradually take effect and benefit future generations more than current ones. Willingness to sacrifice for an uncertain long term is not a current political virtue. The economic forces that protect the known status quo are much stronger politically than those which advocate possible change at an uncertain cost.

The Kyoto Treaty of 1997 committed the industrialized nations to reduce carbon dioxide emissions to 1990 levels by 2010, mainly by cutting consumption of fossil fuels--Ruddiman, 182-183. The treaty’s importance is mainly symbolic, to represent the concerns for global warming but not to make serious steps to prevent it. It opened the debate on the issue and drew media attention to it but did not by itself constitute a solution.

Effective responses can occur only with a global consensus for change, based on nongovernmental organizations, socially responsible corporations, religions, and constructive news media, to advocate and support government policies. We see signs of it developing today, but it must become much stronger to successfully slow the “momentum” of the oil tanker. These forces must work to understand the scientific knowledge and publicize it in a way that is honest and conveys its urgency so that all can understand it and view progress as possible and beneficial.