

Your Personal Responsibility for Earth*

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. . . the tender flower of objectivity is really crushed by what is taken to be the necessity of the moment.

Garrett Hardin

In the 20th and 21st centuries, Earth has been regarded as a supply of resources to promote perpetual economic growth. The thinking was that, if a resource were depleted, human ingenuity and creativity would soon find an acceptable substitute at a reasonable cost. The other species with which humans shared the planet were viewed as just components of the resource base. However, humankind recently has become aware that it is also just a component of the biospheric life support system that has maintained conditions favorable to the genus *Homo* for approximately 2 million years. Humankind is now beginning to realize that its activities (e.g., anthropogenic greenhouse gas emissions) have a major influence on global climate. In addition, if "business as usual" continues, it will soon accelerate the positive feedback loops that will put climate beyond human control. Eilperin (2009) states: "Human-generated greenhouse gas emissions have helped reverse a 2,000-year trend of cooling in the Arctic, prompting warmer average temperatures in the past decade that now rank higher than at any time since 1BC. . ." Only a few non-scientists seem disturbed by this situation. Perhaps individuals have lost the sense of a personal responsibility for the integrity of the biosphere. Some illustrative ways to correct this lack of responsibility follow.

(1) Develop a systems perspective

Hardin (1985) states: "The basic insight of the ecocitizen is that the world is a complex of systems so intricately interconnected that we can seldom be very confident that a proposed intervention in this system of systems will produce the consequences we want." The US Congress has been working on legislation to avoid deleterious global climate change. However, rarely are members of Congress exposed to a perspective of how the global climate system works. Unfortunately, special interest groups (i.e., lobbyists) are most likely to be focused intently on one component of an extremely large, complex system. Members of Congress are then expected to integrate this fragmented information – an elusive goal since the debates generally focus on the fragments.

(2) Develop a high level of environmental/ecological literacy for integrating disparate bits of information

(3) Numeracy

The evidence of climate change studies consists of both numbers and the analysis of numbers. One must understand the enormous changes that can occur in both ecosystems and agricultural systems following a 1° to 2°C shift in the global mean temperature. Although Al Gore and the Intergovernmental Panel on Climate Change have accomplished much on climate literacy and numeracy, public debates and town meetings show how very far citizens and their representatives have to go.

(4) Become familiar with science as a process

"It's only a theory" is often stated, which implies that the premise is just a guess when, in fact, it is a carefully structured statement based on a body of evidence.

(5) Do not be fooled by the "balanced view" tactic

The US news media often imply that a major disagreement exists among scientists about a specific issue (e.g., the role of anthropogenic greenhouse gas emissions on global climate change). In actuality, scientists give most weight to the preponderance of evidence, but the news media usually give equal time to deniers and believers, even when deniers number only a few and believers number in the thousands. This situation gives the impression that scientists are confused even though the National Academy of Science, or its

equivalent in other nations, has stated for decades that anthropogenic greenhouse gas emissions have had a major influence on global mean temperatures for decades.

(6) Corporations and their lobbyists have set up a number of institutes with impressive names and staffed by people with impressive titles to advocate a variety of special interests. A number of very useful, objective organizations, such as the Earth Policy Institute, exist. Individuals must be environmentally literate enough to identify false or misleading information and become immune to its destructive influence. Hardin (1985) called environmental literacy the mental shields and “Filters Against Folly.” When individuals use fear rather than reason to persuade people and shout slogans to prevent discussion – beware! Hardin (1985, p. v) remarks: “Ecology’s most profound insights call for far-reaching modifications of long-standing social arrangements. It takes intellectual independence to achieve and voice such insights, as well as financial support to make the intellectual work possible.”

Conclusions

Financial globalization moved quite rapidly during the last part of the 20th century and the first part of the 21st century, but protection of the biospheric life support system has not. Individuals can do much to protect and nurture the biospheric life support system, as can sovereign nations through taking a leadership role. Even though this challenge is formidable, both individuals and sovereign nations must effectively address global climate and other system-level problems that will determine the future of humans and civilization.

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