

BANQUET ADDRESS

EDUCATION FOR ECOLOGICALLY SUSTAINABLE DEVELOPMENT

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*The Biosphere is the basic life  
support system of the planet upon which  
all biological, social, and economic  
activity is dependent.*

*The choice is not between preserving ecological systems  
or preserving economic systems.  
For as biological and social beings,  
we need both.*

*The creation of ecologically sustainable  
societies in every part of the globe  
is the most critical environmental  
challenge of our time.*

I have been asked to speak today about a new effort in international environmental education, an effort to bridge the gap between the developed and the developing world, between the rich and the poor, between our understanding of the environmental problems that threaten the stability of societies around the world and our "will" to do something about it. I have been asked to tell you about the new World Council For The Biosphere and its sister organization, the International Society For Environmental Education (WCB-ISEE) (Davis 1984). But, this is an embryonic effort and a description would of necessity be limited to a mixture of boring organizational details and untested idealism. Therefore, what I intend to speak about is how we arrived at the point where we felt that a new effort in environmental education was needed. Being an American, I will approach this evolutionary tale from my vantage point. As I proceed, those of you who come from other parts of the world, from other cultures, might consider the evolutionary history of environmental thinking in your countries. Then we'll see if we have arrived at the same conclusions when I've finished.

In any nation, the history of environmental concern is best understood when one views other aspects of the nation's past (see Davis and Tanner 1982). The history of the United States is one of rather rapid expansion across a wilderness bountiful with natural resources; vast forests, exceptionally fertile prairies, rich mineral deposits, great rivers, and fisheries. Our settlement of this wilderness might have been less dramatic had it happened a millennium or two earlier. But occurring when it did, it marked us as a nation of technological opportunists with the means to utilize these resources rapidly, and we sometimes destroyed them before moving on to new frontiers.

Concern about dwindling natural resources kindled the development of the American Conservation Movement. The history of this movement can be divided into three periods (Stapp 1974, Swann 1975, Kirk 1977):

1. The Awareness Period - This period, approximately 1864-1900, was influenced by such astute and politically active writers as George Perkins Marsh (*Man and Nature*), John Muir (*The Mountains of California*), John Wesley Powell (*Explorations of the Colorado River of the West and Its Tributaries*), and John Burroughs, author of twenty five nature books. The objective of the writings and teaching of this period was the replacement of the frontier ethic of resource exploitation with a new ethic, one favoring the conservation of natural resources.
2. The Preservation Period - From 1901 until approximately 1910, the American Conservation Movement was dominated by the thinking and great influence of one man - President Theodore Roosevelt. An avid outdoorsman and conservationist, Teddy increased by at least five times the amount of federally protected land, established the first wildlife sanctuaries, and created America's first conservation management agency, the U.S. Forest Service.
3. The Management Period - Started by Roosevelt, the management period extends to the present day. It has been marked by the development of government resource agencies such as the U.S. Soil Conservation Service, the U.S. Bureau of Land Management, and the U.S. Fish and Wildlife Service. The objective of management programs has been the wise use of our natural resources.

Thus, the Conservation Movement started with an educational emphasis. Once the new conservation ethic began to take hold in our society, we developed a corps of professionals (the managers) who were to learn how to make the "ideal" of the conservation ethic a reality. We also developed a corps of professional and paraprofessional educators who carried the message of soil conservation, water conservation, forest conservation, and wildlife conservation to every sector of our society.

Their message was a positive one. It was simple. It was nonthreatening. Let us protect this bountiful land of ours. Let us plow on the contour to retard soil erosion. Let us alternate crops to preserve soil fertility. Let us allow marginal lands to remain fallow as reserve for future generations. Let us set aside refuges for our wildlife. Let us construct dams to keep our valuable freshwater resources from flowing unused to the sea. The focus was on things, on the soil, on the water, on birds and the deer. The focus was local and personal. The problem is here and it is under our control. It was an age of easy answers, an age of innocence, an age that could not last.

The age of innocence ended in 1962 with the publication of Rachel Carson's book, *Silent Spring*. The message was negative; it triggered unprecedented concern about toxic chemicals in our air, water, and land. The message was complex, so complex that years would pass before it would be fully comprehended. The message was frightening and threatening to many sectors of our society. *Silent Spring* initiated the environmental movement, a movement that focused on processes rather than things - ecological processes, economic processes, political processes, etc. It focused on pollutants and how they disrupted ecological systems; it focused on endangered species and the loss of genetic heritage; it focused on the preservation of wilderness - not as refuges for animals, but as valuable ecosystems in their own right; it focused on big industry and on development as the enemy of the environment.

As concern grew during the 1960's, the U.S. government responded by passing landmark environmental legislation such as the Endangered Species Act, the Wilderness Preservation Act, and the National Environmental Policy Act and by establishing the U.S. Environmental Protection Agency and the President's Council on Environmental Quality.

By the late 1960's, we began to realize that national responses were not adequate for many environmental problems. We realized that pollutants can and often do spread worldwide, traveling on currents in the atmosphere and oceans. We began to be concerned about pollution of the seas, acid rain, and destruction of the ozone layer. We began to realize that environmental degradation can also be carried on economic currents. The loss of soil productivity in one part of the world will stimulate markets in other parts of the world. Market stimulation will tempt farmers to exploit their land in the quest to maximize profits. Thus soil destruction in Africa can lead to soil destruction in Iowa. We began to recognize the global nature of environmental systems and realize that international cooperation was needed to preserve the life support system of the planet — the Biosphere.

In June of 1972, representatives of the world's nations convened in Stockholm to consider the health of our "Only One Earth." The United Nations Conference on the Human Environment was a watershed event in the development of international understanding of the nature of environmental degradation. Of course, representatives from the U.S. and other developed nations came to Stockholm with an agenda that viewed the environmental crisis in terms of pollution, endangered species, and the loss of wilderness and open space. They called for constraints on the activities of industry and a movement toward a more "natural" way of life.

Much to their surprise, however, this view was not shared by representatives from the developing countries. Their view was stated eloquently by Indian Prime Minister Indira Gandhi, who chastized the West for its elitist attitude toward development and pointed out that *"poverty is the worst form of pollution."* (Emphasis added.) The developing nations viewed economic development as their only hope for escape from the dehumanizing influence of abject poverty. Herein lies the watershed. For the first time, these widely divergent views were aired and discussed in a global forum. For the first time, *development* was placed in its proper perspective as a component of environmental issues, as a source of the problem and as a means to its solution.

Much has happened since 1972. We have made great strides in our understanding of ecological systems and the impacts that human activities have on these systems. We have learned a great deal about the human, social, and economic costs wrought by these impacts. We are beginning to understand how the degradation of ecological systems can have international and even global repercussions.

Since Stockholm, many governments in both the developed and the developing nations have recognized that they must take steps to curtail the destruction of their ecological resource bases and have created legislation, agencies, and programmes to address this concern. Non-government agencies that have been active in conservation issues for years have taken up the fight for environmental quality, and new NGO's have arisen in virtually every region of the globe to address environmental issues of local, regional, and international concern. At the international level, the United Nations created the United Nations Environmental Programme (UNEP) to promote and coordinate the quest for global environmental quality.

So, with all of this progress in knowledge and understanding and this response from governments, nongovernmental organizations, and the UN, how much progress have we made toward the goal of Stockholm "to safeguard and enhance the environment for the benefit of present and future generations of Man"?

In 1982, on the tenth anniversary of the Stockholm conference, the Governing Council of the United Nations Environmental Programme convened the Session of a Special Character in Nairobi, Kenya, to review progress toward that goal set in Stockholm and to set new directions for future action. There was general agreement in Nairobi that though we have learned a great deal since 1972 about how our natural environment functions, little of this new knowledge has found its way into decision-making processes in business, industry, and government. The developed countries still view economic development as the prime enemy of the environment, while the developing countries continue to say "first we will industrialize, then we will worry about such luxuries as a clean environment."

Further, agencies created during the 1970's, in both the developed and the developing world, lack the financial support and the political and economic power to effect essential changes. There seems to be a lack of "will" in the halls of governments. Dr. Mostafa Tolba, Executive Director of the United Nations Environmental Programme, stated the problem bluntly in his opening address to the Session of a Special Character. He lamented that "governments have not matched ... developing environmental knowledge with deed," and warned that "the magnitude of the problems we are facing cannot allow a repeat lackluster performance on the scale we have seen over the previous years."

Dr. Tolba challenged the Session delegates to consider how our expanding knowledge of the environment can be converted to improved political and economic decision making. They responded with the Nairobi Declaration that reaffirms the goals of Stockholm, details a new Action Plan, and calls for an increase in "*public and political awareness of the importance of the environment through information, education, and training.*" (Emphasis added.)

It was these very same sentiments, arrived at independently, that led a small but renowned group of environmental scientists, led by Nicholas Polunin, to initiate a global educational effort called the "World Campaign for The Biosphere." And it was this "Campaign" that led to the creation of The World Council For The Biosphere and the International Society For Environmental Education.

By the formation of this new international organization we intend to mobilize the international community of environmental educators, to link these educators to some of the world's foremost experts on the environmental problems of our time, and to promote and support the development of a new generation of environmental education materials and programmes. This new generation of materials and programmes will focus on the issues involved with development (underdevelopment as well as overdevelopment) and the maintenance of our global life support system — The Biosphere.

THE WORLD COUNCIL FOR THE BIOSPHERE ultimately will comprise 15 outstanding individuals selected for their concern *for* and experience *with* biosphere issues; their global perspective; and their scientific, technical, or educational experience. The Council will serve as a forum for the identification and discussion of issues at the interface of development and the Biosphere. Functioning as a "think tank," it is charged with resynthesizing our understanding of the relationship between development and the complex dynamics of the life support systems of our planet; with generating new approaches, new ideas, and new ways of knowing and understanding; and with establishing dialogue, coordination, and cooperation between scholars and practitioners of development and scholars

and practitioners of Biosphere protection. The Council will advise the members of ISEE on the topics, issues, concerns, and problems that should be addressed by new educational materials and programmes.

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|-----------------------|-------------------|
| Edward Ayensu         | Nicholas Polunin  |
| Reid Bryson           | Leon de Rosen     |
| Lynton Keith Caldwell | M. S. Swaminathan |
| Mohamed Kassas        | John Vallentyne   |

ISEE will serve as a research and instructional network, gathering information, organizing it into educational materials and programs, and disseminating the results to a wide variety of target audiences through the world.

Thus we are following the advice of Rene Dubos who challenged us to "Think Globally, but Act Locally." The job, *EDUCATION FOR ECOLOGICALLY SUSTAINABLE DEVELOPMENT*, is a big one. But, we think we have the ideas, the motivation, and the horses to get the job done. We invite you to join us.

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