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TOWARD INSTITUTIONS OF UNITY FOR THE GLOBAL COMMONS

by Soedjatmoko

The concept of a global commons — the shared resources of the planet — should spark an awareness of the need for international solidarity to manage and protect our common heritage. However, to cope with the technical and political complexities of this challenge, we may need institutions and mechanisms to represent not only the interests of governments but also those of concerned publics, scientists, and other constituencies.

As this century comes to a close, we are becoming more aware that we are the trustees of the global commons — those regions of the earth's crust and atmosphere in whose protection and preservation all living creatures have a stake. Such physical resources as climate, tropical rain forests, seas, soils, and other essential components of planetary life support can be efficiently monitored and managed only on a regional and international basis. The concept of a global commons can be broadened to also embrace such nonphysical and unseen resources as knowledge, communication, space, and radio frequency spectrums. Here too, some form of international cooperation and management seems essential.

Our experience with the commons of English country towns in the eighteenth and nineteenth centuries illustrates this need for human solidarity to ensure the survival of common resources. Such commons suffered destruction by individual farmers who enlarged their herds without regard for the grazing needs of neighboring farmers. Ultimately, the resources of these commons were exhausted by a few, to the detriment of all. And so it will be with the global commons. If nations continue to overload the atmosphere with carbon dioxide, to overfish the seas, or to destroy



An enlarged view of a microchip.

tropical rain forests, while ignoring larger, international interests, these commons will inevitably suffer irreversible damage.

How are we fulfilling our collective role as trustees of the global commons? The present state of the world environment would suggest, in all likelihood, that the earth's trustees are in need of a new apprenticeship. The information that has been generated in the eleven years since the United Nations Conference on the Human Environment (Stockholm Conference) still has major gaps, evidence of the degree to which we have become prisoners of our academic inclination to approach a problem as immensely complicated as the environment primarily along single disciplinary lines. Such narrow approaches — however much they deepen understanding of particular facets of a problem — will avail us little in trying to unravel the tightly knit web of social, political, economic, technological, and ecological forces ensnaring most environmental issues.

At the national level, the difficulties that hinder effective implementation of environmental action plans have proven to be much greater than expected. Among these are the inadequate data base and the lack of analytical tools with which to clarify the different trade-offs between economic and environmental imperatives, to reconcile the differential impacts of environmental intervention on regions and populations, and to develop the technological and other solutions that might accommodate such conflicting interests. The most crucial and difficult problem has been dealing with the profound and complex linkages between environmental deterioration at the national and global levels and the special needs posed by the persistent, deep poverty in the poor countries of the world. Environmental policies that have not taken into account the food and energy needs of the poor — and their general economic and social interests — have failed. Similarly, those ministries or agencies established solely for the environment have proved incapable of dealing with indifference and hostility or of reconciling conflicting policies and bureaucratic interests and equally powerful commercial and vested interests.

These national problems testify to our failure to formulate policies that address critical management issues adequately and to develop effective tools for managing and monitoring the environment. They also highlight the failure of educational systems to develop the necessary manpower and management expertise for this task. As a result, our collective capacity to monitor and manage environmental change has not kept pace with the rate of environmental deterioration in many areas. Many Third World countries can make only the crudest guesses about the extent of exploitation, depletion, and deterioration of their natural resources. Without an improvement in this capacity, their ability to develop a sustainable and appropriate resource base and environmental management policies is sharply limited.

Nor have we been able to arrest environmental deterioration on a global scale. Millions of hectares of the world's forests are disappearing each year. Six million hectares are lost annually to deserts and another million or more are paved over or otherwise lost to urban sprawl. Moreover, in the process, species that might have been priceless weapons against human hunger and disease are disappearing at a frightening rate.

Environmental crises are not new. The desolate wastelands in various river basins in the world, once the locations of great ancient civilizations, are mute testimony to this fact. What is unique about the current crisis, however, is its rate and scale. Deterioration that might have taken centuries in the past is now compressed into a few decades and occurs worldwide. For example, the carbon dioxide content of the atmosphere has increased by one-tenth, mostly in the last twenty years, and the Greenhouse Effect is awaited with fear and uncertainty. The present crisis illustrates the folly in seeing environmental problems only in national terms. Building taller smokestacks to ameliorate pollution in one country feeds acid rains in another.

Another factor is equally disturbing. We are witnessing once again the emergence of the view that developers and preservers of the environment are rival players — one is seen as champion of human advance, the other as guardian of virgin wilderness. Sadly, this view is gaining popularity (not so much in the Third World, where it was once widespread, as in the First) among policy makers who hold that environmental concern and control are desirable only until they interfere with the progress of business and industry and with efforts to overcome the economic recession. This view ignores evidence that production patterns that pay little heed to environmental degradation or resource depletion may create irreversi-



Anarctic ice floe.

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ble environmental havoc and are themselves ultimately doomed to failure.

In addition to this change in viewpoint, interest in international cooperation has declined over the last decade. Ironically, this waning interest occurs at a time when we face the most serious environmental problems of this or any age. These problems exist in a world where many human activities have potential international repercussions. For example, the international fluidity of the economic system has grown; inflation, interest rates, and unemployment are not confined by national boundaries. A similar dynamic applies in the fields of aviation, meteorology, and public health.

In the environment, as in other fields in this age of interdependence, new forms of international solidarity are required. In recent decades, humanity has gained access to new territories and space through advances in science and technology. The arctic and antarctic regions, extra-atmospheric space, and ocean depths can now be explored and exploited — but only through considerable financial, technical, and economic efforts that entail more international cooperation. The recent meeting of the arctic peoples and the increasing attention given to the northern polar region very much remind us that once-inaccessible territories have become a major consideration in developing a global commons policy.

In the use of outer space, international law has kept pace with humankind's progress through the first United Nations resolution on outer space (entitled International Cooperation on the Peaceful Use of Extra Atmospheric Space), but the notion of space as a global commons is threatened. Indeed, there is a dangerous trend toward the use of outer space for military purposes. Moreover, many technicalities have made the distinction between military and nonmilitary uses of space difficult to establish. Military satellites, for instance, have been useful for monitoring and implementing disarmament policies, whereas civilian satellites are capable of serving military purposes.

As for the biosphere, we are only beginning to grope with the implications of present-day human activity on such components as the ozone layer and the global climate. The same can be said for the protection of our natural heritage, for species conservation has not yet been considered in its full ecological context.

In the oceans, deterioration of the marine environment continues despite the adoption of a United Nations convention concerning the definition of a global commons zone for the oceans and their resources. In both the Pacific and Atlantic oceans, for example, coral reefs are dead or dying for causes not yet known. The implications for marine ecology and, by extension, for human life are serious, and it is imperative that these life-sustaining reefs be considered another part of the global commons.

In many ways, then, the pace of destruction of the global commons is tragically outstripping man's knowledge of these very same commons. This holds particularly true for those global commons that are nonphysical in nature. For example, knowledge developed within specific cultural contexts is fast disappearing from the earth in the wake of advances in modern technology and ways of life.

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Skylab 4 (1974).

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Each year, another human culture disappears, and too often its last living exponent dies without putting key knowledge of traditions and practices on record. Yet, traditional knowledge about medicinal plants, energy-conserving architecture, food crops, and many other kinds of technical, social, or organizational experience still offers valuable help for present-day living.

Information and communication could also be considered new forms of the unseen global commons. In these areas, the major problems involve equality in distribution and access. The developed world controls 75 percent of the television programs, 50 percent of the film industry, 60 percent of the record and cassette industries, and 89 percent of computerized commercial information. These figures raise concerns not only about the balanced production of a common resource but also about its equal consumption.

The most fundamental and important environmental challenge in this second decade after the Stockholm Conference is the development of improved ways of

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managing the global commons. In many ways, the most important breakthrough on the environmental front would be the creation of innovative and imaginative management tools. A management tool kit for the national and international policy planner of the 1980s should contain ways to respond more flexibly, to adapt to the unexpected and the uncertain, and to break down bureaucratic rigidities. The 1959 Antarctica Treaty offers one model of the management of a global commons, with its board of directors and its provision of present and future international cooperation in station and expedition activities. This kind of management, beneficial for the countries directly involved, has also been a means of territorial demilitarization and environmental protection (species conservation). The treaty expires in 1989, and some member states have suggested to the United Nations General Assembly that Antarctica be opened to a "wider international concert."

Management strategies must particularly recognize the intimate links between environmental problems and the problems of the poor. The future shape of the global environment will be determined by, among other factors, millions of decisions made by poor farmers and villagers. Our ability to manage this environment will hinge on our capacity to incorporate those decisions into our scientific and technological planning.

Three particularly important dimensions to the development of appropriate environmental management policies at the global and regional levels have emerged. First, we must prepare planners and decision makers to manage complex interactive systems. Environmental issues cannot be solved one at a time. Such attempts in the past have too often triggered other, more stubborn problems. A multiple approach is necessary for dealing with many different aspects and levels of the problem simultaneously.

One barrier to the multiple disciplinary approach is single-issue politics, which can divert valuable human and material resources away from broader and more complicated issues. Whatever their other merits, we must recognize that at times single-issue politics can be essentially a "cop-out," an abdication of broader, interrelated responsibilities that entail responses at different levels of power and sophistication. As individual nations, we will have to develop political constituencies for a multi-disciplinary approach to environmental management. Another important element of global environmental planning will be the development of new forms of public education — of global learning.

Second, both government and intergovernmental systems must learn to cope with new conflicts of interest. For example, in the communications field, extreme difficulties and much inconclusive debate have ensued over criteria for assigning priorities for the use of limited resources. Regarding satellite use, for example, who should determine the relative importance, based on what standard, of the various needs of meteorology? of navigation? of broadcasting? of remote sensing? Obviously, we need new management systems to cope equitably with competing demands.

Third, consideration should be given to adopting international legal instru-



A fermentation facility in West Bengal for producing biogas from cow manure.

ments to help regulate and enforce sounder environmental practice on a global basis. International law must be extended to cover a variety of human uses of the biosphere. Perhaps the effort to codify the law of the sea marks a valuable beginning in this direction, but it is significant that this effort really has very little to do with some of the broader, more long-term environmental considerations of marine resource use.

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Given the reluctance of so many governments to establish legal measures for enforcing environmental practices, we may well have no choice but to start at the international level in establishing standards and agreements and hope that national governments eventually follow suit.

This call for international decision making is made recognizing that certain pressing environmental problems are too global in their implications and may impinge too disastrously on the lives of all humanity to be left untended. Therefore, we must begin to design global and regional management mechanisms to address

problems that threaten irreversible change and damage. By their very nature, these problems are the toughest and most complex. But if ignored in favor of the more immediate or the more solvable, they would only become bigger, more cancerous, and less solvable during the lives of our children.

To accept such responsibilities, however, and to cope with their complexities, we may need an institutional response that far exceeds the capabilities of present international bodies. We must question whether our present intergovernmental bodies have proved sufficient for the task. Regardless of increased future cooperation between the United Nations and other international agencies, we may need the kinds of institutions and mechanisms that would represent not only the interests of governments but also those of concerned publics, scientists, and other experts — institutions, in other words, capable of representing and managing the affairs of the many constituencies of the global commons.

Such institutions must encourage thinking that seeks neither the ideal nor the merely possible solution but, rather, the most desirable one. Finding desirable solutions to our environmental and resource needs will be challenging and could entail balancing a country's sovereign rights regarding its own natural resources with responsibility and accountability for the transnational and global impact of each country's resource use. For example, certain pollution-abating policies and massive interventions in riverflows for irrigation purposes that have affected the regional or global climate or access to shared resources will force us to face these problems.

Barbara Ward, with her usual unforgettable eloquence and perspicacity, left us this invaluable message in the foreword that she wrote just before her death for the book *Down to Earth* (partially written by her and completed by Erik Eckholm):

No matter how much we try to think of ourselves as separate sovereign entities, nature itself reminds us of humanity's basic unity. The vision of unity shared by so many of the great philosophers and so central to all the great religions is recognized now as an inescapable scientific fact. Could it be the vocation of this generation to give the planet the institutions of unity and cooperation that can express this insight?

Barbara Ward's words define the institutions we seek for the closing years of this century and set the resolve of all who wish to save both the environment and humanity's share in its benefits.

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