

NEW TRENDS IN INTERNATIONAL LAW: THE CHALLENGES OF THE ECOLOGICAL AGE

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I am glad to have this opportunity to talk about the future of international law, although I am mindful of the difficulty of dealing adequately with this subject within the limits of available time. The most I can hope to do here is to outline the general way in which I see the picture and hope you will trust that evidence and reasoning exists to support the conclusions. One of the things about the future, which is important to appreciate is that ideological differences exist between different political systems at the present time, particularly the difference between the Communist and the liberal-democratic political systems. This difference will, in my judgment, have a diminishing effect on the development of international law. I feel this is true not only because ideological perceptions of the world and of national interests seem to me to be of declining

importance in the principal states of the world, but more fundamentally because all nations are going to be faced increasingly with a common set of functional problems which will induce them to grasp the central role of cooperation in working out common responses to these problems.

Even today differences in social, economic, technological, and geographical position seem much more important than differences in ideology in the international system. Disagreements about legal doctrine between the poorer, developing countries and the rich, developed countries are likely to become very much more prominent in the years immediately ahead. These disagreements are likely to assume a variety of forms. The poorer countries will seek to limit the economic advantages that might accrue to the richer

countries from unencumbered exploitation of their technological advantages.

One finds this already in relation to current discussions over how the mineral wealth of the oceans shall be treated from a legal point of view. The more developed countries have tended to favor approaches allowing technologically advanced countries to derive the principal benefits. The poorer countries have either favored allowing the international community as a whole to manage the process of exploiting ocean minerals and other resources, thereby deriving some of the revenue by having it divided among all countries of the world, or they have favored approaches allowing the extension of territorial sovereignty far to the seaward. This would give governments, regardless of their level of industrial development, much more of a role in authorizing and benefiting from exploitation of offshore resources, whether it be fishing resources or mineral resources.

These kinds of conflicts will also be reflected in increasing demands from the African, Asian, and Latin American states for revisions of the structure of international trade and for what amounts to a system of progressive taxation in world society. Under such an arrangement richer, high GNP countries will be expected, as a matter of obligation rather than as a matter of policy, to devote a fixed percentage of their national income to alleviate poverty and to facilitate economic development in the poorer countries. In this respect it is, I think, of some significance that the Teheran Declaration of Human Rights in 1968, which is the most recent statement of aspiration in international affairs, imposes such an obligation on richer, developing countries, and that the revised Charter of the Organization of American States moves strongly in the direction of imposing upon the United States an obligation to provide a certain amount of money, free from any control on the part of the

donor government, for the purposes of developing the poorer countries.

These kinds of pressures for change in the governing legal structure of the world are quite predictable and, in all probability, could be handled reasonably successfully within the existing structure of international society. What is somewhat doubtful is the ability of the existing structure to cope with the wider functional pressures that are building up in international society, pressures that continue to be only very dimly appreciated at the present time. In my judgment, these pressures arise from interconnected and cumulative threats that are beginning to imperil human survival and even to endanger the habitability of the planet as a whole. If regarded in the most optimistic possible way, they are likely to produce a steady deterioration in the quality of national and international life unless very meaningful responses occur very shortly. Mankind is confronted, for the first time in human history, with a world-order crisis of planetary dimensions. Our future depends, first of all, on whether the governments of principal national societies are able to organize themselves to meet these new kinds of problems.

The four interrelated and cumulative threats are as follows: first, the continuing human tendency to resolve disputes among groups by recourse to violence—and here I mean to emphasize the central importance of the persistence and pervasiveness of war as a human institution for as far ahead as we can see. There is nothing about the structure of international law which seems to offer any realistic prospect of effectively moderating the role of war except insofar as governments exercise rational and prudent self-restraint in the pursuit of their objectives and in the interests of their own survival. The second threat arises out of the growth of world population at a very alarming rate, both in terms of areas subjected to

particular population pressures and in relation to the impact of the aggregate world population upon the carrying capacity of the earth's life support systems. There is now a growing body of evidence, for instance, that when the world population reaches the threshold of six or seven billion, which it is expected to do in the last decade of the 20th century, there will be great pressure on existing oxygen supplies: some marine biologists at the University of California have estimated that the maximum oxygen-carrying capacity of the world is 5.8 billion. Whether they are correct or not is not really my point. My point is rather that the growing expectation of greater population places the whole basis of human existence on the world and national level in jeopardy. The third threat seems to me to derive from the prospect of shortages of critical, renewable, and nonrenewable resources which will be beginning to be felt by the end of the century. This will be accentuated to the extent that the poorer countries are successful in achieving their goals of modernizing their own society, that is, by achieving industrial development of their own at a rapid rate. And, of course, the rising demands for production created by an increasing population—which seeks an ever-higher standard of living—is the dynamic underpinning of the dangers that seem to me to derive from an ever-growing spiral of demands upon a fixed stock of resources. Fourth and finally, the pressures of technology on a scale more and more global in dimension are causing a wide variety of environmental problems of widening scope. Many of us are familiar with the fact that large bodies of water such as Lake Erie are virtually dead at the present time as a consequence of long-sustained pollution—long-sustained cumulative process of pollution that at no point was thought to imperil the Great Lakes in the manner it now obviously has imperiled them—a peril

that turns out to be virtually irreversible once certain thresholds of deterioration have been crossed. There is a growing body of evidence which suggests that the same dangers are mounting in relation to the oceans of the world; an ever-rising number of the most respected oceanographers are warning about the danger of irreversible catastrophes being caused by continuing present rates of pollution of the oceans. And this danger arises not only from polluting the oceans so that fish and other living organisms are put in jeopardy, but also by contaminating the small marine micro-organisms underlying the whole process of photosynthesis responsible for the production of most of the world's oxygen supply. There is already evidence, for instance, that the DDT concentrations in the ocean are impeding photosynthesis in a way that leads to decreases in the production of oxygen.

These four kinds of threats seem very serious at the present time and will become, almost assuredly, worse with each passing year. The longer we defer any kind of acknowledgment of their existence and their importance, the more difficult it will be to take constructive and rectifying action in a noncatastrophic way. At this point in my presentation, it may appear that my remarks have little, or nothing at all, to do with international law.

International law is bound to be influenced by the endangered planet situation, in part because the basic legal doctrine and political institutions are incapable of coming to terms with these emerging threats. The basic allocation of legal authority in world society is based on two overriding principles. The first principle is based on ideas of ownership of real property—the principle that land and water within land entrusts national governments with virtually exclusive authority to govern their own territories in accordance with their own policies. The second principle is based on ideas

of freedom—the principle of freedom of the oceans and freedom of outer space which essentially supposes that all beneficial uses may be made without the need for a pattern of common regulation since one is dealing with an arena of such abundance that there is no need to allocate authority among governments. Perhaps the simplest way to dramatize the ill-suitedness of these two principles is to borrow Garrett Hardin's illustration of the historical experience of overgrazing the English commons in the 18th and 19th centuries.

In English country towns the pastureland was held in common among the farmers who resided in the towns, and they could graze their cattle as they saw fit on the common pastureland. The idea of a common pasture parallels the idea of freedom of the ocean. In the 18th and 19th centuries, increases in the animal population on these pastures gradually came to place pressure on their carrying capacity. A condition of abundance was converted into one of scarcity. Also, on the commons, private ownership of the animals was combined with public ownership of the grazing land. The essential element in what Hardin calls the tragedy of the commons is a consequence of the combination of private and public ownership becoming highly unstable and disruptive in a situation of growing scarcity. Even in conditions of scarcity each farmer had a greater incentive to increase the size of his own herd rather than to exercise self-restraint to promote an idea of limitation based on community welfare—an aggregate figure for the separate herds. It is not surprising that farmers continued to increase the size of their herds and that English pastureland was eventually destroyed. The logic leading up to this end is what has been called the tragedy of the commons: the drive by farmers for maximum revenue based on maximum herds collided with the public interest in maintaining limited herds so that the pastureland

could sustain its aggregate animal population.

International society is entering into a comparable phase in its development. We are living now in the early years of what I have labeled as the Ecological Age. The *Torrey Canyon* oil spill can be considered the Hiroshima of the Ecological Age and the Santa Barbara blow-outs the Nagasaki. These occurrences are the early warning signals, in effect, of the impending inability of the permissive system by which the oceans are used to cope with the kinds of problems being created by modern technology. The *Torrey Canyon* incident was, in part, caused by the desire to cut operating costs by registering an unseaworthy oil tanker in a state with liberal registration standards. Such a substandard registry conflicted with the public interest in maintaining the purity of the oceans. Furthermore, in this setting, the results were aggravated by ecological ignorance—the oil pollution really caused less damage than did the efforts to disperse the oil through the use of chemical detergents. These detergents did a considerable amount of seemingly permanent damage to marine life in the area most immediately affected.

The challenge is aggravated by the fact that international society has experienced two major transformations in a very short historical interval: the first transformation was brought about by the development of nuclear weapons and the initiation of the nuclear age, which can be conveniently associated with the Hiroshima atomic explosion in 1945. The second major transformation can be associated with the year 1967—the time of the *Torrey Canyon* disaster. Before 1945 international society had several centuries to absorb changes in technology, and even the initiation of the nuclear age had been preceded by a considerable period of warning of difficulties to come. World War I and World War II provided strong

indications of the destructiveness of modern warfare and made many aware that war was an expensive and often self-destructive way of resolving central conflicts in international society.

Therefore, if one looks at the long sweep of international history, it becomes clear that from the period of 1648 to 1914—from the Peace of Westphalia to the outbreak of World War I—the period which the state system emerged and developed, there was a long buildup of attitudes and modes of coordinating behavior which seemed to correspond to the basic requirements of a tolerable social and political existence. And in that long pre-nuclear period, even the institution of war was not, by and large, an overly costly and destructive way of resolving conflicts and providing some method of change among contending political forces within international society.

The basic allocation of authority between territorial sovereignty and freedom of use, community use, seemed to work out quite well. Most events were relatively local and could be territorially confined. The oceans were sufficiently abundant to accommodate the use of all. World War I underscored the dangers of uncontrolled warfare as an instrument of national discretion. The legal efforts since World War I have basically been an attempt to both moderate and prohibit the recourse to war under conditions where it is increasingly costly. As indicated at the outset, I am very skeptical about the significance of these legal efforts to eliminate war or even to alter greatly the role of war in international society.

The evolution of nuclear weapons carried further the intensification of weapons of destruction and made very plain to all who were rational that catastrophic consequences would follow from large-scale nuclear warfare. In contrast to the issues of the nuclear age, the problems emerging in relation to the Ecological Age are not yet understood

as presenting basic challenges to the ways in which governments handle their affairs and coordinate their activities. The problem is, first of all, that the oceans are insufficient to satisfy all demands, that is, the tragedy of the commons problem being played out on and beneath the high seas. There is also the related problem of the nonlocalness of domestic affairs as, increasingly, events and policies enacted with territory have a bearing on the welfare of the world. If we take at all seriously the view, and I think we should, that the world has a limited carrying capacity in terms of world population, then what different national governments do with respect to population policy is very important to the welfare of all our national societies. It is also of very great importance what governments do and do not do on their territory with respect to nuclear testing or contamination of the atmosphere through radioactive explosions. The impacts of such a matter are obviously not confined to the territory of the state making the decision to test these weapons, regardless of the locus of the event.

One critical development is that the poorer parts of the world are becoming even more crowded. Most of these increases in population have two characteristics. First, they are concentrated in the poorer countries in Asia, Africa, and Latin America; and second, these increases are concentrated in cities—most of the net increase in world population between now and the year 2000 will be reflected in the growth of urban population. Cities in conditions of poverty are the greatest source of world disease, and there are growing dangers of epidemics. Unsanitary urban conditions are likely to become even more dangerous in the decades ahead. We know that modern medicine has practically no defense against these outbreaks of contagious disease. For instance, the Asian flu that has swept around the world in recent years has not been dangerous to very

many people. However, there is no necessary reason, medical or genetic, why the flu has been relatively benign in the last few years. Epidemiologists predict that within the next few decades there will be a lethal strain of virus that will spread throughout the world. Many of these developments point in the same direction, namely, that one can no longer expect the welfare of any part of the world to be upheld by even the most enlightened of national governments. Imprudent governments may endanger the welfare of mankind by acts undertaken within their territory.

The obsolescence of the state system is obvious also in relation to the oceans. One serious problem is the impact of hard insecticides on the quality of the oceans. It is evident that national policy and priorities bearing on choices such as whether to make agricultural production more costly or less successful may have a considerable ecological significance. Such choices by principal governments might well determine whether the oceans can sustain the delicate ecological balance. A decision reached by a government as to whether or not to prohibit DDT is not only of national significance but, increasingly as well, of world significance. Thus, in terms of thinking about the capacity of the international legal order to cope with the problems of the future, we are confronted with a very dangerous situation in which the basic attitudes of self-reliance that have guided national governments for several centuries seem inadequate to cope with the emerging problems of an endangered planet. These basic attitudes have grown up in a world situation in which separate states were essentially meaningful units of political life. In early times the ideals of national sovereignty with respect to national territory really did represent a fairly rational allocation of governmental authority, and governments could safeguard the welfare of their own societies by adopting more or less

enlightened policies and by being vigilant about the protection of their independence and territorial integrity.

In the present setting then, if my general interpretation is generally correct, no matter how enlightened national governments are with respect to these four areas of threat, nothing these governments do alone is capable of assuring national welfare and of guaranteeing physical survival over any long-term period. Similarly, competition among states using the oceans may jeopardize common interests in maintaining and developing this extraordinary resource of mankind. A great deal of evidence is beginning to be gathered that demonstrates the limited ability of present institutions to cope with the kinds of problems that are characteristic of this early phase of the Ecological Age.

The most dramatic inference from my presentation is that a world of sovereign states with traditions of competitive rivalry is doomed to extinction. Such an inference may appear to be simplistic or apocalyptic, but it is the inevitable outcome of the analysis. The challenges of the Ecological Age add up to an adaptive challenge, which goes to the roots of human existence. The social and political institutions and supportive values we have are not, at the present time, capable of meeting this challenge.

At the present, our political agenda is badly outdated and obsolescent. Our political agenda and, therefore, the world-order problems that we try to deal with have been exclusively defined by the problems of man in society, of men in different societies having different ends, human groups in collectivities competing and conflicting with one another, and, under certain circumstances of perceived interest, cooperating with one another. This political focus assumes that it is reasonable to take for granted the environment within which society and social and political affairs are conducted. So long as the

relations of men and nature can be taken for granted, it follows that human society can expect to experience indefinite expansion. The whole commitment to increasing the gross national product at the national and world level every year is an expression of belief in the essential limitlessness of man's existence on earth. The force of my argument is that we need to plan the institutional arrangements, the norms, and procedures for conducting human affairs within a limited environment. We need to accept, as best we can, the finiteness of man as a creature of the world and the finiteness of man's environment. A recently published book, *Agenda for the Nation*, published by the Brookings Institution to guide the transition from the Johnson administration to the Nixon administration, illustrates how out of step our most influential commentators are with this new order of world problems. This book attempts to cover all the issues that should be on the agenda of the new administration. None of the articles is devoted to any aspect with which we have been concerned. The ecological hazards are, in other words, not part of the spectrum of political relevance that is perceived by our leading policymakers and decision-makers. Part of this crisis of adaptation is revealed by a failure of awareness, a failure reflected in the unwillingness to create a new agenda of political action, an agenda appropriate for an endangered planet.

In contrast to this sense of concern, there are some hopeful signs. For instance, President Nixon's address of 1969 on population policy displayed an unprecedented awareness of the political importance for the world and for the United States of curtailing the continuing population expansion expected by the end of the century. Patrick Moynihan in a speech to the NATO Council on 21 October 1969 on the creation of a Committee on the Challenges of Modern Society acknowledged

the emerging ecological crisis as being the overshadowing issue of our times. Moynihan's specific assignment was to make the case for widening the role of NATO to include environmental problems. There is, thus, evidence that the U.S. Government is becoming aware of the importance of ecological challenges to national well-being. But it is essential that a comparable awareness develop in other major societies of the world. The character of the problem is one that requires a coordination of effort among sovereign states. Such coordination can only take place if a common sense of the ecological crisis forms in different parts of the world during the same general historical time. In this connection, one of the most important side benefits of the Apollo mission has been to present the world with visual images of the unity of the earth and, therefore, to foster recognition of the world as a reality of its own. This presentation of unity as the dominant image of global reality corresponds closely to the requirements for coordination of effort on a functional level. Unless political perceptions begin to envision the world in terms of its functional unity, in the same way that one sees the world from outer space, the prospects of evolving the kinds of approaches needed to deal with these common problems facing mankind seem virtually nil.

My own feeling about the present situation is that the first urgent task that follows from the acceptance of an endangered planet argument is to revise the political agenda by putting this new ecological category of problems into sufficient focus so that government officials begin to understand that their own performance depends on developing responses to these challenges. In this vein, the most urgent tasks before international lawyers, in my judgment, are to try to clarify the governing standards and functional institutions that might be appropriate for an endangered planet and to direct an increasing amount of

attention to trying to show, for instance, that matters of world population can no longer be entrusted exclusively or indefinitely to the relative degree of enlightenment of different national governments. We need, instead, a common world policy reflecting differences in ideology, culture, religion, and ethical values. And this common policy must be evolved relatively rapidly for the benefit of all mankind. The demonstration of these functional pressures will itself help us to develop an awareness which may arouse constructive responses and will help governments to see that an increasing percentage of the really serious problems facing them cannot be dealt with by reliance in a sovereignty-centered, competitive system of world society. We need to work toward a much more cooperative set of functional regimes—structures able to work cooperatively and to deal with common interests in a way which will protect the interests of all members of the international community. Voluntary action on behalf of the world interest is not enough because of the contradictory tensions between egocentric and community values—the tensions that produce the tragedy of the commons. It is not enough to point out that en-

lightenment is necessary for all; different states have different interests and, therefore, different sets of priorities. In regard to these ecological problems, the interests of the less developed countries in maximizing development lead them in a direction opposite to that taken by the more developed countries that do not have to operate under the same kind of domestic pressure. Thus, one of the most important adjustments to the current international setting would involve the recognition that the real differences in national priorities result from differences in national position, and that differences need to be accommodated in new legal doctrine that purports to work for the entire community of states, and in the design of institutions appropriate to deal with these emerging ecological challenges.

The final point I wish to make is that the traditional ideas of citizenship and loyalty need to be reconsidered in light of the imperatives of the Ecological Age. In particular, we need to make people more sensitive to the increasing dependence of all peoples on the exercise of a certain kind of global sanity. All society is now so interdependent that it is no longer rationally possible to contemplate going it alone in the international system.

