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ON THE PROBLEM OF 'THE GLOBAL PROBLEMATIQUE': WHAT ROLES FOR INTERNATIONAL ORGANIZATIONS?*

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Finding that the connotation of the term 'the global problematique' is vague and amorphous, the paper puts forth a working definition that takes into account the indivisibly related complex of processes and problems within the world system that is generated by the increasing scale of human activity, viewed in the context of planetary life-support systems. It then examines the pattern of activities of international organizations in response to 'the global problematique', as also their significance for, and impact on, the broader pattern of global governance. It notes that international organizations play significant

roles in developing holistic perspectives of the global problematique, institutionalizing new areas of concern and new constituencies, defining the issues that constitute the collective policy agenda, and expanding the collective knowledge base to facilitate appropriate decisions. Yet the existing structure of the world system conditions and shapes the character, and circumscribes the limits, of this intervention in such a way as to produce rule-governed change within rather than transformation of the intergovernmental political system.

I. Introduction

In the summer of 1980, the United Nations is to commence what is being

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called a set of 'global negotiations'. These are to address, separately but simultaneously and comprehensively, matters related to energy, raw materials, trade, development, money and finance. The agenda for these negotiations is premised on two conceptions that go beyond any previous basis for North-South talks: (i) that the world economy is not simply a collection of separate national economies linked to one another by external interactions of varying degrees of intensity, but a single, integrated global system; and (ii) that the concern of these negotiations is not simply North-South transfers, but the effective management of the functional interdependencies that exist among the component parts of the world economy, to be sure with an eye toward more equitable distribution.

It is difficult to anticipate what will be the precise outcome of these negotiations, if indeed one can speak at all of such a thing as an outcome as though it were likely to be a discrete product. In the end, and if the past is any guide to the future, it may well be that what these negotiations signify will be as important as what they accomplish. What they signify is an increasing tendency for international organizations to define the international policy agenda in ever more holistic terms, and to maintain that such holistic perspectives are necessitated by the growing functional interdependencies among global processes and problems. These functional interdependencies, moreover, are taken to reflect fundamental changes in the material world. Both the tendency and the justification have been most clearly articulated in a series of international conferences that international organizations have initiated over the course of the past decade or so on various aspects of global issues. Thus, and not without irony, at a time during which the last remnants of the normative association of international organizations with world government finally disappeared from the scene, international organizations have become actively associated with the concept of global governance. In the words of one recent report, directed to the General Assembly of the United Nations, it sometimes appears that international organizations are being asked, unrealistically, 'to carry the whole burden of the agenda facing humanity'.¹

The material changes that are invoked as necessitating holistic perspectives and comprehensive policy responses are often described by the term 'the global problematique'. However, it isn't altogether clear just what this comprises. If memory serves correctly, the term was first coined when the limits-to-growth scenario momentarily captured international attention as expressing the essence of what used to be known as the world environmental

¹'Toward a New International Development Strategy', Report of the Scheveningen Symposium, UN Document A/34/467. For full text, see *Alternatives* V, 3, pp. 397-417.

crisis.² It then referred to a complex of problems and processes concerning the planet *itself*. Since then the list of constituent factors has grown apace. Simple inventories typically include the issues of world poverty, underdevelopment, economic dislocation, population growth, natural resource depletion, nuclear proliferation and world militarization, as well as alienation, disaffection and cultural malaise. In other words, the list now includes most everything that is problematical *on* the planet. And among the many criteria employed in considering these problematical things as being global in

²Aurelio Peccei of the Club of Rome generally is credited with introducing this term into popular discourse. However, I rather suspect that its recent revival in the context of the political economy of world development problems also may have been influenced by Louis Althusser's concept of 'the problematic'. The influence of Althusser's concept would be accounted for by virtue of the two critical roles it plays in Althusser's scheme. To define the term, a problematic is akin to a paradigm, though Althusser goes much further than would Thomas Kuhn in the direction of objectification. For any science, says Althusser, a problematic 'constitutes its absolute and definite conditions of possibility, and hence the absolute determination of *the forms in which all problems must be posed*, at any given moment in the science.' Then Althusser leaves Kuhn well behind. 'Any object or problem situated...in the definite structured field of the theoretical problematic of a given theoretical discipline is visible. We must take these words literally. The sighting is thus no longer the act of an individual subject...; the sighting is the act of its structural conditions.' (Louis Althusser and Etienne Balibar, *Reading Capital* [London: New Left Books, 1970], p. 25; emphasis in original.) In other words, what a problematic produces is as objective a reality as exists. Thus, the first role of the problematic, according to Althusser, is to *create* reality. Its second role is to *transform* reality. Consider the following passages: 'What political economy does not see is not a pre-existing object which it could have seen but did not see ...What political economy does not see is what it *does*: its production of a new answer without a question, and simultaneously the production of a new latent question contained by default in this new answer.' (p. 24, emphasis in original.) 'In fact, what is at stake in the production of this new problem contained *unwittingly* in the new answer is not a particular object which has emerged among other, already identified objects...' (p. 24, emphasis in original.) 'The emergence of this new critical problem is merely a *particular index* of a *possible critical transformation* and of a *possible latent mutation* which affect the reality of this terrain throughout its extent, including the extreme limits of its "horizon".' (pp. 24-25, emphasis added.) But since there exists no reality other than that produced by a problematic, it takes a problematic to make what is latent manifest, to make the invisible visible, that is, to *transform* previous reality. Now, if one were to forget that Althusser's realm of discourse concerns theoretical disciplines, and if one were to adopt this as a more general 'problematic' of thought and action, then one would have an extraordinarily seductive basis for believing that the ideological struggles in international fora concerning aspects of 'the global problematique' are in *deed* transforming the world system. This is all by way of explaining the revived popularity of the term 'problematique'. My epistemological use of it accords with Peccei's, insofar as I take it to refer to a *complex* of processes and problems. And I pose as an *hypothesis* whether the growing intensity of such a 'problematique' together with increased knowledge (scientific and social) of it may have transformational consequences.

character is that they occur in many places, affect many people, take place in areas beyond or across national jurisdiction, pose the danger of future world conflict, offend universal moral standards, threaten the physical survival of humankind, emanate from the same underlying structure, and require action at the global level. If the meaning of the term has become unclear, it is even less clear what international organizations, which have been intimately involved in generating the term and in expanding its meaning, may be expected to do about the phenomena it comprises.

This article is a preliminary sorting exercise. In Part II, I try to construct a working definition of 'the global problematique', one that captures more than tactical or rhetorical issue-linkage, attempts to universalize particularistic concerns, or any type of functional interdependencies in and of themselves. Accordingly, by the term 'problematique' I mean an indivisibly related complex of processes and problems. By the term 'global' I mean universal within the world system. And by using the definite article 'the' I mean to connote a singularity, a phenomenon that is one-of-a-kind historically and that is of a one-of-a-kind variety. In sum, from the many and diverse uses of 'the global problematique' I sort out the one that meets these specifications. It has to do with the increasing scale of human activity, viewed within the context of planetary life-support systems. The increasing scale of human activity so conceived, together with its causes and consequences, I take to circumscribe 'the global problematique'. In Part III, I survey some of the activities of international organizations that may be said to constitute responses to 'the global problematique', in the attempt to see what has been the impact of these material changes. I show that there has been an expansive effect on what international organizations do and get involved in, but that the patterns exhibited by their behavior and involvement cannot be explained by the fact of the material changes. In Part IV, I propose the outlines of a model of change that does account for the patterns of international organizational activity, and which offers some insight into what this signifies for broader patterns of global governance.

II. The 'problematique'

My point of departure is the increasing scale of human activity in the context of the productive and regenerative capacities of the biophysical resource bases and ecosystems within which human life exists. This increasing scale, together with its causes and effects, triggers a complex interplay of ecological, technological, social, economic and political factors, to which I shall refer as 'the global problematique'. It goes without saying that no precise or

universally accepted specification of it is possible at this time.³ Yet enough is known for us to be able to construct an extended working definition and overview of its major manifestations and the core of its cause-effect complex.

Some of its manifestations are coming to be universal in character.⁴ They include the mounting world demand for food, energy, materials, and social services of all kinds; growing shortages and even depletion of easily recoverable minerals, fossil fuels and other natural resources, of fresh water, and of favorable soils and suitable climate for agriculture; more general signs of ecological disequilibria especially visible in and around large urban areas, reflecting a growing disjuncture between spatial development patterns throughout the world system and the infrastructure available to serve the world's population, such as housing, health and educational facilities, networks of production, exchange and disposal; attending high rates of inflation together with recessionary tendencies, other forms of social disarticulation and political instability. In the industrialized areas of the world, more particularistic manifestations of the 'problematique' include pollution and contamination of the various media, such as air, water and soils, and associated health effects, as well as a growing sense of vulnerability to the second-order consequences of some high-technology responses to pressing problems, of which nuclear power production is the most topical and perhaps the most critical case. Particularistic manifestations in the poorer developing regions of the world include soil erosion and depletion, especially of marginal lands, massive deforestation in the tropical and semitropical areas, desertification in the semiarid zones, the reappearance of diseases, such as malaria, that had been contained and even eliminated years ago, and the near-epidemic eruption of others, of which schistosomiasis is most commonly associated with ecological factors.

This complex of problems of course cannot be attributed to any single or simple cause. But among its major sources, three related social forces stand out above all others:

1. A rise in world population growth, such that a billion inhabitants were added to the globe in the fifteen years between 1960–1975, whereas the previous billion had taken from 1825 to add, and such that a doubling of world population is anticipated over the next 30 years, from four to eight

³Cf., 'The Study of Interrelationships between Population, Resources, Environment and Development', Report of the Secretary-General, UN Document E/1979/75, 6 June, 1979.

⁴For a concise yet comprehensive summary of the dimensions of many of these problems, which was prepared for the United Nations Conference on Science and Technology for Development, see 'Contemporary World Problems and the Potentialities of Science and Technology for their Solution', International Federation of Institutes for Advanced Study (IFIAS), Solna, Sweden (mimeo, n.d., 96pp).

billion; together with a structure of *per capita* demand whereby the impact on resource consumption resulting from greater affluence outweighs the effects of population increases *per se*;

2. An unprecedented increase in world output over the course of the past century, resulting from the global expansion of systems of production that are characterized by highly capital- and energy-intensive processes and technologies, in agriculture no less than industry, and in which the full (social) costs of production tend to be externalized, by individual production units onto their society at large and by entire national economies onto the world system at large;

3. A division of labor and distribution of benefits, among nations and in many parts of the world domestically, that is structured in such a way as to amplify the worst effects on life-support systems of poverty as well as wealth, leading both to produce unsound and even destructive patterns of development that undermine their own sustainability.

Let me elaborate briefly and, by focusing on some issues related to world population in the context of the demand for resources, illustrate how the conjunction of these three social forces shapes the complex interplay of processes and problems that go to make up the global 'problematique'.

Population. I begin with population. Apparently, the *rate* of increase in world population has peaked. 'Insofar as the increasing rate of increase constituted a population "explosion", we can draw relief from the fact that we are now down to "only" exponential growth.'⁵ But not much relief. For 'even' exponential growth is adding an annual *increment* of some 75 million inhabitants to the globe, and this increment is expected to rise to 100 million by the end of the century. Keyfitz points out that the increased quantity simply of grain that would be required to match the present yearly increment of population at current levels of consumption exceeds the entire annual wheat crop of Canada.⁶ Similarly, the FAO has estimated that to keep up, again at current consumption levels, with the world's population in the year 2000 would require an increase of almost 60% in agricultural, fisheries and forestry production. Allowing for expected rises in incomes and effective demand would raise this figure at least to 80%. The FAO report concludes that the problem is not as much one of absolute shortages of natural resources like soil, water, animals, fish, plants, grasslands and forests, or of inputs like fertilizers, as it is of their distribution in relation to population, and

⁵Nathan Keyfitz, 'World Resources and the World Middle Class', *Scientific American*. 235 (July 1976), p. 28.

⁶*ibid.*

of the differential impact of the demand on these resources stemming from existing patterns of production and consumption.⁷

Keyfitz sheds more light on this last factor, with arithmetic that is intended to be suggestive, not definitive. He finds that, as a rough though conservatively estimated world average, 'the middle-class person has five times as much impact on the material base as the poor person.'⁸ Moreover, he finds that the effects of affluence on resource consumption historically have been more important than the effects of population increases.⁹ Thus, projecting expected increases both in population and in the size of the world middle class to about the year 2000, he obtains what might be called the 'effective' world population figure of more than 13 billion, when measured in terms of total impact on resources, rather than the 8 billion or so inhabitants that are actually anticipated.¹⁰ Whereas the industrialized countries account for a declining proportion of the annual increment of world population, at present for 13% or so, they are of course much more heavily represented in this measure of 'effective' population size.

The spatial distribution of population is another factor that serves to magnify the effects of numbers. To cite but one illustration, in many developing countries the urban population is growing at an annual rate of 4–5%, which translates into a doubling in city size every 12 to 15 years. The demand for basic services alone is unprecedented in that they have never before had to be provided in such quantities at so rapid a pace.¹¹

The sheer increase in human numbers, then, in absolute terms, in terms of the structure of *per capita* demand, and in terms of physical distribution, is a major factor to contend with. But, as has been suggested, its effects cannot be isolated from the broader patterns of production, consumption, exchange and distribution, domestic as well as international, through which

⁷FAO, *The State of Food and Agriculture, 1977* (C/77/INF/19), Chapter 3. Cf., 'Agriculture Towards 2000', submitted by FAO to the First Session of the Preparatory Committee for the New International Development Strategy, UN Document A/AC. 196/I/CRP. 2, 29 March, 1979.

⁸Keyfitz (f.n. 5), p. 32. The concept 'middle class' is operationalized in terms of a number of indicators of life-styles, including automobiles, telephones, electrical energy use, and others. Keyfitz determines the size of the world middle class to have been some 500 million in 1970, and, with 1950 as the base year, to have been increasing at an annual rate of 4.7%.

⁹One example he cites is the difference between population growth rates in the United States between 1947 and 1973, and the growth rate of energy consumption. He argues that of a total increase of 1.34 billion tons of coal equivalent, only about .56 billion was due to population growth, the rest being attributed to the effects of affluence (p. 31). Keyfitz of course is aware of the fact that part of the increase in affluence in turn is accounted for by increased energy consumption.

¹⁰*ibid.*, p. 33.

¹¹International Institute for Environment and Development, *Banking on the Biosphere* (Washington, D.C.: IIED, 1978), Chapter 6, and IFIAS (f.n. 4).

the force of numbers makes itself felt. The prevailing patterns took shape slowly at the global level beginning in the early nineteenth century, but they have come to fully encompass the globe in the twentieth century. They have generated an unprecedented rate of world output and have made possible increased standards of living for ever larger numbers of the world's population.¹² However, they also pose fundamental problems for human welfare.

Growth model. The dominant patterns of production, consumption, exchange and distribution embody a model of economic growth. The essence of the model is the creation of a capital- and energy-intensive technological base, in industry and agriculture, together with the forms of industrial organization and spatial development to which this gives rise. The instrumental target pursued under this model is an ever-accelerating production-consumption cycle. This requires the free flow of resources into the productive system, expanding markets beyond it, and rapid turnover. Moreover, up to a certain level of exploitation, the so-called common property resources (air, water, natural amenities) are treated as free goods. Beyond that point, the state attempts to have producers internalize part of the actual costs of these resources that they use. *Mutatis mutandis*, the model just described holds irrespective of whether the ownership of productive enterprises is private or social in character, though of course the foreign economic relations of the two systems differ in form, scope and consequence. Internationally, the model has implications for, among other things, world-wide patterns of trade, investment and income distribution. Late developers are expected to earn foreign exchange in order to build up their own capital base through imports, and thereby to replicate the model within themselves. And aggregate growth is assumed to produce individual welfare. Since World War II, this model has informed and legitimized the activities of development assistance agencies, the lending policies of the IBRD and other development banks, and the stabilization programs of the IMF. Because of its compatibility with fundamental aspects of both Western-style and Soviet-style industrialization, the model has gone virtually unchallenged until recently. It has been synonymous with development.

From the vantage point of the global 'problematique', the significance of this pattern of development stems from limits to its sustainability. These limits take two forms. The first results from its aggregate effects, on planetary life-support systems, social infrastructure, and the adaptability of productive systems, which will be amplified beyond any previous experience by the sorts

¹²A.G. Kenwood and A.L. Lougheed, *The Growth of the International Economy, 1820-1960* (London: George Allen & Unwin, 1971).

of demographic factors discussed above. Here the term 'limits' denotes not so much precise ceilings as, more broadly, 'the entrance into a regime where cost and other problems begin to escalate markedly and returns diminish'.¹³ These effects appear universally, though of course they are not produced equally by all nor are all equally well equipped to cope with them.

Division of labor. Limits of sustainability in the form of more precise or definite ceilings first appear in local or regional contexts. They are perhaps most easily detected in the disruption of biophysical resource bases, especially at the extremes of affluence and poverty. In the affluent industrialized areas, eutrophication, environmental health problems, and the depletion of specific resource stocks are cases in point. In the poorer regions of the developing world, deforestation, soil erosion and desertification are comparable indicators. In the one case, abundant access to cheap raw materials and free common property resources produce deleterious effects. In the other case, lack of access to basic resources like soil and fuel trigger spontaneous colonization of forests, slash-and-burn techniques and the depletion of ground cover. Historically favorable terms of trade have contributed to the former. The effects of such historical institutions as plantation agriculture and the present transnational commercialization of agriculture have contributed to the latter. In both cases, while the immediate impact is local or regional, long-term consequences are unlikely to remain so contained. These are effects, then, which in addition to reflecting simply the cumulative weight of human numbers, more specifically reflect the nature and composition of the dominant patterns of economic growth, the distribution of wealth among and within nations, and the conditioning of the man-resource interaction by the international division of labor.¹⁴

¹³Ray Jackson, 'The Conserver Society: A Canadian Discussion about Development Alternatives', Report transmitted by the Government of Canada to the UNEP/ECE Regional Seminar on Alternative Patterns of Development and Lifestyles, Ljubljana (Yugoslavia), 3-8 December 1979, UN Document ECE/ENV/SEM. 11/R.9, 24 October 1979, p. 1.

¹⁴On ecological effects of the international division of labor, see Donald R. Kelley, Kenneth R. Stunkel, and Richard R. Wescott, *The Economic Superpowers and the Environment* (San Francisco: W.H. Freeman, 1976); R.F. Dasmann, J.P. Milton, and P.H. Freeman, *Ecological Principles for Economic Development* (New York: John Wiley, 1973); Dennis Pirages, *Global Ecopolitics* (North Scituate, Mass.: Duxbury Press, 1978), Chapter 7; UNCTAD, *Transfer of Technology: Its Implications for Development and Environment* (New York: United Nations, TD/B/C.6/22, 1978), Part I; Osvaldo Sunkel, 'Alternative Lifestyles and Development Patterns in the Environment/Development Nexus: A Historical Interpretation of the Latin American Case', CEPAL, Santiago (draft, 25 April 1979); and Osvaldo Sunkel and Luciano Tomassini, 'Environmental Factors and the Changing International Relations of the Developing Countries', paper presented at UNEP/ECE Regional Seminar on Alternative Patterns of Development and Lifestyles, Ljubljana (Yugoslavia), 3-8 December 1979, UN Document ECE/ENV/SEM. 11/R.31, 27 November 1979.

In sum, what distinguishes the processes and problems that go to make up the so-called global problematique from a simple inventory of disparate pressing concerns is that they are systematically related to one another at both ends of the cause-effect chain; their commonality of cause has to do with the fact that they are in some considerable measure the products of a relatively small number of deeply rooted social forces; and their commonality of effect has to do with sustainability and limits, and the functional interdependencies and potential for mutual vulnerability that these produce. And they are distinguished as being global in character in the dual sense that they are shaped and conditioned by social forces that themselves constitute a world-system of relations, and their effects increasingly make the productive and regenerative capacities of planetary life-support systems a variable element within this world-system.

III. International responses

It helps very little to jump, as some have been inclined to do, from the emergence of a complex of interrelated global problems, no matter how pressing they may be, to prescribed behavior that 'the international community' must undertake or court disaster. For the international community is not an agency that can act in its own behalf, for its own good. 'Those who write as if it were find policymakers slow to act upon their advice.'¹⁵ The international community is governed by political, social and economic structures over which it exercises little control. And its agenda is set by the 'tyranny of small decisions' by virtue of which no actor views itself as contributing to global problems, either because the immediate impact of its actions may be limited in scope or intensity or because, from its vantage point, its actions appear to be the most rational or profitable to adopt and pursue. Thus, while problems may cry out for global solution, effective measures continue to depend on the willingness and ability of public and private actors at other levels of social organization in the world system to change their behavior.

What can international organizations do to help bring about such changes? One possible answer is that international organizations can do a great deal, but that it has become necessary at this particular point in history to strengthen them and to increase national commitment to them. This may or may not be so, it matters little. As Kenneth Waltz has put it, 'Necessities do not create possibilities. Wishing that final causes were efficient ones does not

¹⁵William T.R. Fox, 'Population and World Politics: A Political Science Perspective on "The World's Most Critical Problem"', *Journal of International Affairs* 31, Spring/Summer 1977, p. 101.

make them so.¹⁶ Another possible answer is that international organizations can do little if anything. If the scope of their activities in general is constrained by factors beyond their reach, this is likely to be all the more so when it comes to altering the behavior of those same factors. This answer is indisputable. But to say that the scope of activities of international organizations is *constrained* is not to say that there are no activities at all. And if there are activities then the *possibility* exists that they may have consequences that are unintended and perhaps not even recognized by the actors themselves.

In any case, I propose to deal with the question indirectly, by briefly describing, assessing and accounting for some of the things that international organizations are attempting to do. Keep in mind that the range of my survey is highly circumscribed by my concern. I am *not* interested in everything international organizations seek to do about all the sectoral components of the complex of interrelated global processes and problems which I described above. It is the *complex* itself that concerns me: what are international organizations attempting to do about comprehending it, and about coping with the functional interdependencies and mutual vulnerabilities that it produces?

So circumscribed, we can summarize the roles of international organizations under two headings: (i) expanding the collective knowledge base, and (ii) enhancing the institutional capacity for collective policy. Some illustrations follow:

(i) *Knowledge base*

Sheer ignorance about the precise structure, dynamics and consequences of the so-called global problematique is a major constraint on formulating effective responses to it. This is not to imply that knowledge is a sufficient condition for action, but it is certainly a necessary one. International organizations have been associated with three types of activities to expand the collective knowledge base in this domain.

Research. Knowledge is required of phenomena at several levels of complexity. The first, simply, is the actual state of affairs with respect to the key component parts of the 'problematique' – in other words, inventories and analyses yielding current assessments, long-term trends, and projections of future needs and availabilities. A good deal of this information is being collected already, including on natural resources use and reserves, demographic

¹⁶Kenneth N. Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979), p. 109.

changes, patterns of urbanization, agricultural production, energy production and consumption, and of course various national accounts statistics. However, some of it is scattered among specialized governmental, intergovernmental and nongovernmental agencies, it is not always compatible, and it often exists in forms of aggregation that are not immediately useful from a policy-making perspective. Other types of information that are highly pertinent are not generally available. These include data about the mechanisms shaping the level and pattern of economic activity in different societies, including the effects of changes in market and price structures, external and internal terms of trade, consumption patterns for different types of goods by different social groups, and so on. Graciela Chichilnisky has noted the self-reinforcing circle in econometrics that is generated by this data deficiency: statistics are designed with certain theoretical frameworks in mind, therefore what is observed is largely determined by existing theory; however, what is or is not observed in turn largely determines what new theories can be constructed, for theory that is not validated by observations carries little weight. And so on.¹⁷ In the even softer social realms, virtually nothing exists of a standardized or reliable nature. International organizations over time have managed to contribute to the introduction of new concepts and data and to stimulating new theoretical work. UNCTAD is an obvious case in point. But their degree of freedom to do so in sensitive realms of course is severely delimited. For example, in its basic human needs survey, the ILO is forced to work through governments to obtain disaggregated data on basic needs satisfaction and policies designed to enhance it.¹⁸

A second level of complexity concerns specific relationships among these component parts. Here the gulf between physical parameters on the one hand, and socioeconomic factors on the other is quite large. Perhaps the most successful case of a global research effort in this area is the Man and the Biosphere program of UNESCO (MAB). In 1968, UNESCO, with the participation of the United Nations, the FAO and WHO, as well as the International Biological Program of the International Council of Scientific Unions (ICSU) and the International Union for the Conservation of Nature and Natural Resources, organized an intergovernmental conference on 'the scientific basis for rational use and conservation of the resources of the biosphere'.

¹⁷Graciela Chichilnisky, 'Development Patterns and the International Order', *Journal of International Affairs* 31, Fall/Winter 1977, p. 276.

¹⁸See, for example, the ILO Questionnaire to Governments (Zero Draft, 14 July 1977); country-based data are reported in Glen Sheehan and Mike Hopkins, 'Basic Needs Performance: An Analysis of Some International Data', World Employment Programme Research, *Working Papers* (Geneva: ILO, January 1978); and M.J.D. Hopkins and O.D.K. Norbye, 'Meeting Basic Human Needs: Some Global Estimates', *ibid.*, (July 1978).

MAB, which has been fully operational since 1976, is one of its results.¹⁹

MAB consists of an intergovernmental and interdisciplinary research program, organized around 14 themes which are pursued through some 500 research projects in more than 50 countries. Roughly speaking, the themes informing these projects fall into four categories: (1) the structure and functioning of different levels of ecosystems (for example, the role of temperate forests in fixing, storing and supplying energy; the functioning of tropical forest ecosystems; dynamic changes in terrestrial ecosystems); (2) deliberate interactions between man and local ecosystems (the impact of irrigation on arid land, the effects of pest management and fertilizer use of terrestrial and aquatic ecosystems, the consequences of tourism and of major engineering works on surrounding environments); (3) more general interactions between human activity and the biosphere (in the form of pollution, demographic changes, human settlements, and similar factors); and (4) the study of perceptions of environmental quality (including, literally, individuals' perceptions, and also the development of policy planning models).²⁰

The key to the execution of the program lies with the National Committees of MAB, each of which assumes responsibility for its country's participation. They provide the material resources as well as the research staff and infrastructure. In addition to the scientific results they produce, participants benefit from on-the-spot training in research and project management. This no doubt is the most significant by-product of MAB. Regional cooperative ventures also have emerged. The role of the international machinery has been to devise and articulate the common research themes, to encourage research projects that are consistent with these themes and to see that they are carried out using compatible methodologies, to facilitate the systematic exchange of information and findings, and to help provide assistance where necessary. MAB has maintained close ties with other UN bodies and with nongovernmental scientific organizations, especially the ICSU Special Committee on Problems of the Environment. The cost of the central machinery is modest.

Other cases exist of efforts to organize international collaborative research on aspects of the structure, dynamics and consequences of the growing scale of human activity. All, however, are largely single-sector in scope, and concern issues in agriculture, public health, meteorology, oceanography and hydrology. Few touch upon socioeconomic factors even to the extent that

¹⁹A recent description of MAB may be found in Francois Bourliere and Michel Batisse, 'Ten Years After the Biosphere Conference: From Concept to Action', *Nature and Resources* XIV, July-September 1978.

²⁰Related UNESCO activities include methodological studies and mathematical modeling exercises, identifying the special research and training needs in these areas of particular geographical regions, and constructing a global network of biosphere reserves. *ibid.*

MAB does. And MAB, not surprisingly in view of its sponsorship, has paid far more attention to the physical consequences side of the equation than to the socioeconomic input side. To the extent that socioeconomic factors are considered, they tend to get addressed in highly aggregate form, like 'population' and 'urbanization', rather than in terms of specific income groups, trade patterns or productive systems interacting with specific resource settings.

The need for more comprehensive research, utilizing forms of data that depict a broad array of discrete social, economic and biophysical factors was acknowledged in General Assembly resolution 3345 (XXIX). It requested the Secretary-General to 'take appropriate measures to provide facilities for co-ordinated multidisciplinary activity aimed at synthesizing, integrating and advancing knowledge' about the interrelationships between population, resources, environment and development.²¹ Thus far, the effect of this resolution has been to yield a report by the Secretary-General, describing ongoing and planned research in the UN system in these nine areas: carrying capacity of land and associated ecosystems; soil degradation, desertification and deforestation; resource utilization and disparities in levels of income; integrated rural development; urban concentration of population; industrialization; marine resources and pollution; environmental health problems; and climatic change. While noting how promising this research is in terms of potentially demonstrating concrete forms of interrelationships between population, resources, environment and development, the report concludes that it nevertheless continues to reflect 'specialized concerns' and that it remains 'confined within narrow bounds to specific issues'.²²

Lastly, at a third level, the entire complex of processes and problems needs to be grasped in holistic terms, as an integrated set of relationships among social, economic, political, technological and ecological processes. Very little is known at this level. There have been numerous attempts to construct global models, beginning with the stagnationist scenarios contained in *The Limits to Growth*, which was published in 1972.²³ By now their shortcomings are well known.²⁴ Those models that take into consideration resource-bases and ecosystems pay virtually no attention to technological innovation or to socioeconomic and political factors. Those that take social forces as their point of departure tend to be 'soft', and quite naive about physical constraints and dynamics. Only the model developed by the Fundacion Bariloche relates

²¹(f.n. 3).

²²ibid., p. 26.

²³Donella H. Meadows, Dennis L. Meadows, Jorgen Randers and William W. Behrens, *The Limits to Growth* (London: Earth Island Press, 1972).

²⁴Indeed, their shortcomings were known at the time: H.S.D. Cole (ed.), *Models of Doom: A Critique of the Limits to Growth* (New York: Universe Books, 1973).

a concrete socioeconomic factor, income distribution, to physical effects, resource depletion and environmental degradation.²⁵ But it is largely a conceptual model. Recent efforts undertaken as part of UNITAR's Project on the Future, to simulate the effects of markets, income distribution, and technologies of production in various aspects of North-South economic transactions are important, because they tend to undermine some of the assumptions and expectations of existing models while demonstrating that it is possible to conceive and to formulate rigorous models of alternative patterns of development. For example, the simulations show that, depending upon the technologies of production and certain demographic factors, an increase in exports from developing countries even on the basis of more favorable terms of trade can have immiserating consequences for the exporting country. But the formal model includes neither resource factors nor socio-political issues, which are supplemented by means of scenario analyses.²⁶

Global modeling of this sort is not likely soon to be comprehensive in scope or to yield definitive results. There are too many limitations and constraints to be overcome, both intellectual and political. At the same time, however, these efforts have had significant heuristic effects. Such effects may be seen generally when we compare our present intuitive understanding of this complex of issues with the formulation contained in *The Limits to Growth*. More concretely, heuristic effects may be seen in the form of long-term policy pronouncements from the United Nations, which if nothing else may come to shape indicative planning exercises by this organization.²⁷

Data storage retrieval and exchange. In an ideal world, decision-makers would have ready access to the stock of knowledge about this complex of global processes and problems. They would have at their disposal systems of interdisciplinary information and data storage, retrieval and exchange, in which procedures are standardized and data are compatible. Such systems do not now exist.

A more modest function can be performed by telling decision-makers where – if at all – information that they require does exist, thereby linking

²⁵A. Herrera, *et. al.*, *Catastrophe or New Society* (Ottawa: International Development Research Center, 1976).

²⁶Graciela Chichilnisky and Sam Cole, *Technology, Domestic Distribution and North-South Relations*, UNITAR Project on the future, Progress Report, August 1978.

²⁷For example, 'Statement of the United Nations Symposium on Interrelations among Resources, Environment, Population and Development,' Stockholm, 6-10 August 1979, UN/DPI/DESI NOTE/507, 29 August 1979, which was endorsed by senior officials of the economic and social sectors of the United Nations system. (For full text, see *Alternatives* V, 3, pp. 418-426.) The UNITAR project has been an important element in these discussions.

sources and users of information by means of a referral service. An illustration of the latter is the INFOTERRA network (formerly, International Referral Service) established by the UN Environment Programme. The idea for such a service grew out of the Stockholm Conference (United Nations Conference on the Human Environment, June 1972), which made numerous references to the need for the exchange of information and endorsed the concept of a referral service. It began to function about four years later, though it became more fully operational only recently.²⁸

INFOTERRA collects and disseminates not information but *sources* of information. It does not provide the user with substantive answers, but with names, addresses and telex/telephone numbers of institutions from which answers are available. This it does for over two dozen topics related to the mission of the UN Environment Programme and for environmentally-related planning and decision-making more generally. The topics include aspects of the atmosphere, oceans and climate, energy, renewable and non-renewable resources, chemical and biological agents and processes, and wild-life, animals and plants; as well as more socially-infused concerns such as population, food and agriculture, health, industry and technology, transportation, human settlements and land use. INFOTERRA is not equipped nor is it intended to handle queries by specialists in their specialized disciplines; it is strictly a service for policy-makers.

The referral network is organized by a Programme Activity Centre (PAC) located in Nairobi, and it works through a system of national, regional and sectoral 'focal points'. The Programme Activity Centre was responsible for constructing the network, which meant to get governments and other agencies interested in participating. And it then designed and devised the computerized referral system. Now that the network exists, the PAC serves as its switchboard. This function gives it the responsibility to store and update information sources, to devise and distribute the tools of access to the network, such as directories and manuals, to provide training in its use, and to plan and coordinate its expansion. The PAC assumes no responsibility for the quality of the information exchanged. The cost of its activities has ranged between US \$600 000 and \$800 000 per annum.

The network is built upon and works through focal points, the most important of which are national. In the United States, for example, the Environmental Protection Agency is the national focal point, and it established, for the purposes of working within INFOTERRA, the US International Referral Center. Focal points collect information on sources within their jurisdiction and pass it on to INFOTERRA in standardized form for

²⁸For the principles of organization of INFOTERRA and its early development, see UNEP/GC/INFORMATION/7.

inclusion in the Directory. In many cases, the need to respond to requests for information via INFOTERRA may trigger the creation of national environmental information services within countries, drawing on both governmental and nongovernmental sources. Regional focal points are to be created within the EEC and CMEA, though financial support for them has been lacking. Sectoral focal points are to be established within UN agencies, though here too progress has been slow. While focal points are the building blocks of the referral service, its actual operation makes possible direct communication between a variety of potential users and sources.

INFOTERRA began to function in 1976, and grew rapidly thereafter. By 1978 there were 87 national focal points, 48 countries had registered sources with it, the number of actual sources registered has reached 6500 (as compared to 200 in 1976), and the system was used about 150 times a month (up from a mere 15 the year before). However, many focal points still are little more than officially designated government offices which are not active in the system, and among those that are active only 20 have at least one full-time staff person.

Apart from the normal difficulties that one expects when attempting to construct anything new that requires collaboration within and among governments and international agencies, INFOTERRA encountered problems which similar systems in the future also are likely to run into. These stemmed from the fact that information does not exist in a socioeconomic vacuum. Information, and information technology even more so, are goods which are owned or controlled by concrete public and private actors. Therefore, the design of a system, the characteristics of the technology to be used, and its subject coverage all have important economic, social and political implications – even if, as is the case with INFOTERRA, the service is provided free of charge. In constructing INFOTERRA, the basic cleavage divided the technologically advanced countries and the developing nations. Some of the early initiators of INFOTERRA from the advanced countries saw it as a centralized, high-technology (on-line, satellite-based, computerized) system concerned largely with physical parameters and problems, especially pollution. Many developing countries viewed this design as locking them into existing patterns of technological dependence *vis-à-vis* the North, as they would be encouraged to acquire sophisticated equipment, machinery and know-how, while the system itself paid little attention to the environmental problems of most serious concern to them such as soil erosion, human settlements, and natural resource depletion. UNEP attempted to resolve these differences by broadening the range of information sources to be included in INFOTERRA, and by opting for the gradual build-up of a decentralized system in which there would be no technological constraints on participation. In the process, however, some of the enthusiasm for INFOTERRA of early supporters in the

advanced countries has waned.

At present, INFOTERRA is the only operational international referral service; others are at various stages of trial and error in planning and construction. Thus, internationally available information coverage is spotty and it is highly uneven. The degree of harmonization among these emerging systems is virtually nonexistent. And information that its owners construe in propriety terms is not freely available, while information related to national security concerns of course is not included at all. The definitions of these terms rest with the sources of the information.

Monitoring and early warning. One of the characteristics of both the causes and the effects of the so-called global problematique is their irreversibility at least in the short run. As a result, timely warning becomes an essential ingredient of effective responses. A fully fledged 'early warning system' would consist of three component parts: (1) the continuous observation and measurement of selected parameters, in accordance with a fixed time schedule and spatial plan, using comparable methodologies and standardized procedures for collecting the data; (2) the capacity for assessing the significance of parametric changes, which implies not only the possession of certain kinds of scientific knowledge but also the ability to perform risk analyses; and (3) the surveillance of compliance with accepted standards. No such system exists anywhere, either domestically or internationally, though fragments may be found at both levels.

Internationally, the activity of monitoring physical parameters has been undertaken for many years. For example, the International Council for the Exploration of the Seas established a data center on physical aspects of oceanography as far back as 1902. Systematic weather observations go back to the middle of the last century, and an integrated World Weather Watch has existed for a decade. In recent years monitoring systems have sprung up in a number of fields. All of these, however, have been sectoral and single-medium oriented, and most cover but a small number of the possible range of parameters within any given sector. With the exception of monitoring radionuclides from atomic weapons tests, none of these has self-consciously concerned itself with man-induced phenomena. And attempts to extend coverage to socioeconomic parameters have been successfully resisted to date.²⁹

²⁹For example, attempts were made early in the history of UNEP to enlist UNCTAD in monitoring environmentally significant economic parameters, but governments scuttled the proposal.

The most comprehensive monitoring system now in existence is in the field of the human environment. Launched by the UN Conference on the Human Environment, the Global Environmental Monitoring System (GEMS) includes climate-related monitoring, monitoring of long-range transport of pollutants, health-related monitoring, monitoring of terrestrial renewable resources, and ocean monitoring.³⁰

GEMS in essence is a label that covers two different sets of activities in each of the above categories: (i) monitoring undertaken by UN Agencies and related bodies, some of which the UN Environment Programme (UNEP) seeks to coordinate; and (ii) attempts to elaborate existing systems, to fill gaps and to initiate new activities altogether which are also carried out through the UN system but which UNEP supports financially.

Among the first set of activities are the monitoring of living resources in the aquatic environment, conducted by UNESCO and FAO; the FAO Fisheries Data Centre; oceanographic monitoring undertaken jointly by the International Oceanographic Commission (IOC) and the World Meteorological Organization (WMO), in the framework of the Integrated Global Ocean Stations System (IGOSS); the World Weather Watch (WWW) of the WMO; and health-related monitoring of the World Health Organization (WHO). The degree of coordination actually provided by UNEP is problematical.

Since 1975, the activities in which UNEP has taken a direct interest and has contributed to with its own financial resources and organizational support have grown considerably. In the area of climate-related monitoring, the major program consists of some 100 stations that have been established by the WMO to determine trends in background atmospheric pollution. With respect to the long-range transport of pollutants, a network of 42 stations has been established in 12 European countries in which samples of air, rain and airborne particulates are collected and analyzed; this program is carried out by the ECE. In the area of health-related monitoring, organized by the WHO, the aim is to develop greater unity among programs concerning the health effects of air pollution, water quality and food contamination, and to gain greater understanding of the transfer of pollutants between media. Some 180 air monitoring stations have been established in 60 cities, the water-quality monitoring program eventually will comprise 300 to 400 sampling stations, and 19 countries now contribute data on food contamination. When it came to terrestrial renewable resources, the immediate need was to develop

³⁰The following description has drawn heavily on M.D. Gwynne, F. Sella, and C.C. Wallen, 'The Global Environment Monitoring System: Principles and Progress', Paper presented at the UNEP/WMO International Symposium on Global Integrated Monitoring of Environmental Pollution, Riga, USSR, 12-15 December, 1978. Sella is Director of GEMS.

methodologies for assessing such processes as soil erosion. Samplings have also been undertaken in arid and semiarid ecosystems. Lastly, in the area of ocean monitoring, the most fully developed program is the Mediterranean Pollution Monitoring and Research Programme, in which 83 marine science institutions from 16 Mediterranean countries and the EEC participate, and which is being implemented with assistance from the FAO, IAEA, IOC, WHO and WMO.

As is the case with UNEP's INFOTERRA, the activities UNEP supports directly in the field of monitoring come under the guidance of a Programme Activity Centre, which is located in Nairobi. It was established in 1975, the period between the Stockholm Conference in 1972 and that date having been taken up by intergovernmental negotiations concerning what should be monitored and by whom. The advanced industrial countries were interested primarily in certain pollutants. Developing countries were more interested in health and resource-related parameters. A compromise ultimately was struck, which broadened the scope of the monitoring program-to-be, but also diluted its progress, especially since, at the urgings of the developing countries, financial allocations for monitoring as a whole were reduced simultaneously. But by the time of the fifth session of UNEP's Governing Council, held in 1977, the developing countries had become the most ardent supporters of GEMS, stressing its potential contribution to national development planning.³¹ On the organization of the system there was never any disagreement among countries, though there was a good deal of it between UNEP and UN Agencies. In the end, they and governments agreed that GEMS would consist to the maximum extent possible of existing systems. The GEMS-PAC spends approximately \$2 million per annum.

Gradually, then, a more comprehensive environmental monitoring system is coming into existence. In relation to the totality of global processes and problems sketched out earlier in this paper, however, its range still is narrow. Nor is it likely soon to acquire the other functions of an early warning system.

Conclusion. In sum, data collected and relationships analyzed, information exchanged and parameters monitored, research activities prescribed and proscribed, all exhibit the influence of many factors other than the simple need to know. They exhibit the collective interest of governments in limiting external intrusions into domestic jurisdictional space, as well as particularistic interests of specific countries, social groups and transnational actors. They exhibit concern with military security and with intellectual property. They exhibit the consequences of intellectual fragmentation among scientific disciplines as

³¹Personal observation and interviews.

well as the institutional fragmentation of the United Nations system and of national governments.

And yet, while each of these conditions what can be done, things are done, and some of the things that are done today could not have been done previously. As we have seen, international organizations sometimes initiate. Governments sometimes change their minds. Transnational actors sometimes acquiesce. Above all, intersectoral issues, of which the human environment was a prototype, have had integrative and expansive effects on the collective knowledge base that is available to the international community. What determines the *patterns* of integration and expansion I take up briefly in the final part of this paper.

(ii) *Institutional capacity*

An expanding knowledge base presumably has *some* effect on policy. The nature of this effect, however, is indeterminate and at best is likely to be indirect. For the past decade or so, international organizations have participated in more direct attempts to enhance the collective institutional capacity to cope with such functional interdependencies and mutual vulnerabilities that are deemed to exist in the domain of concern to us here, and to influence the forces that give rise to them in the first place. Again we can identify three distinct types of activities.

Institutionalization. The major instrument that is available to international organizations for prodding the development of this sort of institutional capacity is conference diplomacy. During the 1970s, there was a series of international conferences on themes and problems related to the global 'problematique': the human environment (Stockholm, 1972), population (Bucharest, 1974), food (Rome, 1974), industrialization (Lima, 1975), employment (Geneva, 1976), human settlements (Vancouver, 1976), water (Mardel-Plata, 1977), desertification (Nairobi, 1977), primary health care (Alma Ata, 1978), climate (Geneva, 1979), and science and technology for development (Vienna, 1979). To these ought to be added selected aspects of the Third United Nations Conference on the Law of the Seas, the Special Sessions of the General Assembly on the New International Economic Order (1974, 1975), the invocation of the so-called global negotiations (1980), and preparations for the international development strategy for the 1980s (1979-1980).

These conferences vary widely in terms of their manifest accomplishments. The 'actions' flowing from their 'action plans' sometimes seem to be a poor return on investment. Indeed, one observer has gone so far as to argue that the conferences detract from rather than contribute to progress

on the issues they address.³² And it is unlikely in any case that governments would agree to a similar round of *ad hoc* conferences in the foreseeable future, though special sessions of the General Assembly are likely to continue and to become more frequent. However, it is a mistake to view conference diplomacy solely in terms of legislative outcomes. The Mertonian distinction between manifest and latent functions is a meaningful one to make here.³³ The activities may be as important as their products. If the *activities* succeed, they will have three consequences apart from their substantive accomplishments: to trigger the creation of constituencies where none exist, within the institutional system comprised of governments, international agencies and nongovernmental organizations; to establish permanent networks among such constituencies; and to articulate, support and sustain a continuing policy role for these constituencies *vis-a-vis* competing bureaucratic actors. In other words, they potentially contribute to processes of institutionalization and thereby affect policy formation. This perhaps is most effectively illustrated by reference to one of the more successful instances of conference diplomacy and institutional follow-up, the Stockholm Conference on the Human Environment.

The preparatory process for Stockholm was so designed that it could 'succeed' even if the conference itself were never to be held – which, at one point, was a very real possibility.³⁴ Success here assumed a novel meaning in the lexicon of international organizations: it was defined as stimulating an interest in environmental matters within countries in which none had existed previously, breaking down the sectoral divisions that existed within national governments no less than in international agencies, and helping to construct a permanent domestic bureaucratic constituency for whatever international environmental activities the UN might undertake in the future. In the pursuit of the first objective, the Secretary-General of the conference, Maurice Strong, visited some 90 UN member-states. Heads of state and government were alerted to global environmental trends and were queried about their own particular environmental situations. To stimulate greater coordination among domestic ministries, the mechanism of requesting a variety of reports from governments was utilized. Some of these were called

³²Mohammad A. Qadeer, "The Futility of World Conferences", *International Development Review* 19, 1, 1977.

³³Robert K. Merton, *Social Theory and Social Structure* (New York: The Free Press, Revised and Enlarged Edition, 1957), Chapter 1.

³⁴The Soviet Union and the East European countries other than Romania were boycotting the Conference, because East Germany was not admitted; and there had been a real fear during the earlier phases of the preparations that developing countries might not attend, because the working agenda at the time was so heavily skewed in the direction of the environmental problems of the industrialized countries.

'basic' reports, and described particular national environmental problems and experiences. These typically required coordination among several technical ministries, such as agriculture, transport, public health, mines and resources, and the like. At one point, 15 such reports were being prepared within the US government alone.³⁵ Others were called 'national' reports, and they provided an overall description of national environmental problems and activities, as well as a statement of objectives for the conference. These required a greater degree of central coordination and some discussion of national priorities. Governments which lacked interest were prodded. Governments which could not afford the exercise were aided by special grants that Strong had arranged for from Scandinavia and Canada. Those who needed administrative help got it from the conference secretariat. It was not the product that counted but the activity. The activity, it was hoped, would lead to the creation of national environmental policies and ministries. The hope was not misplaced, as departments of the environment were created where none had existed before and even where none had ever been contemplated.³⁶ At a minimum, therefore, the preparatory process could claim success in having helped to implant environmental concerns within the institutions of national governments. The conference itself, if held and if successful, would add to the stature of these new ministries in the domestic bureaucratic game, because its success and the attention paid to it would reflect well on them. And, having helped to create permanent agencies domestically, it was thought that whatever international organization the conference established would have a permanent domestic bureaucratic constituency. In sum, the preparatory process was not simply a means to define an agenda, to collect background information and to formulate specific measures. It was also a means to effect permanent change in the domestic bureaucracies of governments, and to establish a basis for subsequent international action. An analogous strategy was attempted *vis-a-vis* international agencies, nongovernmental organizations and, once the UN Environment Programme came into existence, industry groups as well. The UNEP in turn was envisaged as a forum and, especially through the use of its Environment Fund, a stimulus for the continuing elaboration of the collective environmental policy of these various actors.

To say that the Stockholm Conference and its institutional followup is illustrative of the latent functions of conference diplomacy is not to say that collective environmental policy is uniformly effective, or that it reflects

³⁵Robert Gillette, 'Human Environment Conference: Slow Start toward Stockholm', *Science*, 4 June, 1971.

³⁶This was true even of the relatively environmentally conscious areas, including Western Europe. Robert Gillette, 'News about Stockholm Isn't All Bad, State Officials Say', *Science*, 3 March, 1972.

some transcendent ecological interest. Neither is the case. But it is to say that in some measure the human environment has become institutionalized as a 'vested interest' within the system, and that international policy processes and outcomes to some extent differ as a result from what they would be otherwise.³⁷

No doubt there have been more failures than successes. And it has not proved possible simply to duplicate the Stockholm model on subsequent occasions. Nevertheless, similar effects can be attributed to other instances of conference diplomacy. The most notable of course is UNCTAD,³⁸ whose consequences for institutionalization extend to the organization of permanent international negotiating groups, which, if nothing else, has enhanced the collective institutional capacity of the developing countries. Thus, apart from whatever may be its substantive accomplishments, a significant long-term contribution of conference diplomacy resides in its potential impact on the processes of institutionalization that shape the context of collective policy formation.

Generating alternative patterns. To have succeeded in institutionalizing a constituency and in constructing and implementing plans and programs of action is to have altered the institutional framework of collective policy-making and to have produced additional capabilities by means of which to respond incrementally to collective problems. However, to have so succeeded does not mean that the factors and forces giving rise to such problems are affected as a result or that the incremental responses will be adequate to the tasks at hand. Growing recognition of this fact in certain international organization circles has led to a growing concern with the idea of stimulating 'alternative patterns of development'.

On the whole, there is little that international organizations can do or be used for to directly influence the course of national development patterns.

³⁷For example, even in the UN agencies that complain most about the lack of effective working relations with UNEP, the mere fact that UNEP exists (and has a fund at its disposal) has been a stimulant to their own environmental activities.

³⁸Anindya K. Bhattacharya, 'The Influence of the International Secretariat: UNCTAD and the Generalized Tariff Preferences', *International Organization*, 30, Winter 1976; Ronald Meltzer, 'The Politics of Policy Reversal', *International Organization*, 30, Autumn 1976; Robert L. Rothstein, *Global Bargaining: UNCTAD and the Quest for a New International Economic Order* (Princeton: Princeton University Press, 1979); and Branislav Gosovic, *UNCTAD: Conflict and Compromise* (Leiden: Sijthoff, 1972). Such effects are not limited to UNCTAD. For a discussion of the OECD context, see Robert O. Keohane, 'The International Energy Agency: State Influence and Transgovernmental Politics', *International Organization*, 32, Autumn 1978. cf., Robert O. Keohane and Joseph S. Nye, Jr., 'Transgovernmental Relations and International Organization', *World Politics*, 27 October 1974); and *idem*, *Power and Interdependence* (Boston: Little, Brown, 1977).

Some influence is exercised over developing countries, however. And this is where the concern with alternative patterns has most clearly materialized. The two chief instruments of this influence are the funds and technical assistance provided for specific projects by development banks and agencies, and the legitimation that is dispensed in support of more general development models both by these actors and by broader processes like the negotiations on the Development Decades. With the very limited exception of IMF stabilization packages, no analogous source of influence exists over the industrialized countries.

Until recently, development banks and assistance agencies gave virtually exclusive support to the kinds of development efforts that promised to replicate and comport with capital- and energy-intensive patterns of the industrialized countries.³⁹ For example, at one time loans for large-scale infrastructure projects that typically are designed for urban-based and export-oriented industry consumed nearly half of total World Bank loans. Historically, almost all energy aid has been for high-grade and large-scale electrical energy production whose output was aimed at urban industrial facilities and amenities. Agricultural aid has been much smaller and has favored projects modeled on the high-input systems of the industrialized countries and products destined for export. Support for water supply and waste disposal projects has been meager and similarly has overwhelmingly favored large-scale urban projects. In comparison, rural development has received miniscule support. And some vital areas, like forestry management, received no support at all until the past decade.

To some extent this is changing. For example, current World Bank plans call for increasing the proportion of loans going to rural development and agriculture from 28% to 35% of total; for health, education, family planning and water supply to rise to 26%; and for support for infrastructure projects to decrease to 40% of all loans granted.⁴⁰ Moreover, the IBRD has increased its allocations for oil and gas exploration in small and medium-sized fields in developing countries.⁴¹ Even the fuel-wood shortage has attracted some concern. Signs of similar shifts in emphasis may be seen in technical assistance agencies and the UNDP, where projects concerning self-provisioning farming,

³⁹The following is documented extensively in *Banking on the Biosphere* (f.n. 11).

⁴⁰Ann Crittenden, 'Congress Changes Its View on International Lending Agencies', *New York Times*, 27 May, 1979; and Bernard D. Nossiter, 'World Bank Shifts Focus to Local Projects', *New York Times*, 31 January, 1980.

⁴¹Ann Crittenden, 'World Bank Spurs Energy Aid', *New York Times*, 22 August, 1979. Crittenden reports that an original staff plan to finance exploration had called for ten times the amount ultimately approved. US officials and industry representatives had objected, according to Crittenden, on the ground that it would have put the Bank in competition with established oil companies.

sites and services upgrading in urban slums, alternative methods of energy production, and alternative technologies and basic needs provision in general now receive somewhat greater support than they did in the past.⁴² These changes reflect a variety of motives. Industrialized countries have been inclined to support them as long as their focus is on the alleviation of absolute poverty in the developing countries. The latter have been inclined to lend their support as long as reduced dependency on the North is held out as a promise. To a lesser degree, and largely on the part of international officials and nongovernmental organizations active in the field of development assistance, these changes also reflect a growing sensitivity to the problem of the long-term sustainability of these patterns. The shifts are significant, but in no case have they reversed the prior emphasis of funding or technical assistance programs.

As for the legitimation of general development models by official bodies, it appears that the past consensus has eroded without any new approach enjoying universal support. The preparations for the Third United Nations Development Decade, for example, reveal at least three differing contenders, which are advanced by three different institutional actors. In the intergovernmental committee that is preparing the development strategy, the only significant change from the previous development decades concerns the 'restructuring' of international economic relations, in keeping with the principles of the New International Economic Order.⁴³ Whereas the two prior strategies focused on aggregate growth rates and country-to-country transfers, both of which were abstracted from any real international economic context, the world economy proper will be a component of the third strategy. But on no other issue are governments likely to adopt a position that differs substantially from the past. The World Bank, which may be presumed to be strongly influenced by the major donor countries in this regard, has advanced a direct antipoverty strategy, especially for the poorest countries. It includes an acceleration in but a different composition of economic growth, redistributive policies and social services to ensure that the benefits of such growth actually reach the poor, and the reduction of high fertility rates so that population growth does not consume whatever are the benefits of economic

⁴²*Banking on the Biosphere*, (f.n. 11).

⁴³Report of the Preparatory Committee for the New International Development Strategy', Fourth Session, 11–29 February 1980, UN Document A/S-11/2 (Part I), 11 March 1980. The Western industrialized countries are urging a variety of domestic changes in the developing countries, but the G-77 are not anxious to have these included in any detail in what they considered to be an *inter*-national development strategy.

growth.⁴⁴ Lastly, participants in this process who have a quasi-autonomous institutional base, such as the Committee for Development Planning and the Task Force on Long-Term Development Objectives of the Administrative Committee on Co-Ordination, have voiced the greatest concern with alternative patterns of sustainable development in a global perspective.⁴⁵

Perhaps the most significant consequence of these partial shifts toward 'alternative patterns' is to undermine the unchallenged hegemony that traditional models of economic growth have enjoyed in the past within the official international development community. But for the developing countries as a whole, the only effect of this is likely to be indirect and long-term, via whatever changes it may produce in the theory and ideology of development economics. In countries that depend extensively on official external assistance, more concrete effects may result from the conditionality of loans and grants or from the impact of specific development projects. In other cases, governments simply may choose to follow 'alternatives' paths. It is doubtful whether these changes will have any direct effect on the so-called newly industrializing countries, in which 'indebted industrialization' financed in private international capital markets is beginning to outpace even the 'transnational industrialization' of direct foreign investment.⁴⁶ There, as in the industrialized countries, such 'alternative patterns' as may emerge are likely to result from factors related specifically to price, quantity and the pressure of increased social costs, and not from the lending policies or the indicative plans of international organizations.

Legitimizing counter-hegemonic forces. If the international community is governed by structures over which it exercises little control, the degree of involvement by international organizations in reshaping deeply rooted social forces within the world system of course will be minimal. And it is. But to an extent it does exist. It exists on the fringes of the intergovernmental system, in the form of symposia and seminars, where officials attending in their private capacity mingle with representatives of concerned nongovernmental organizations and individual experts in one thing or another. Some of these occa-

⁴⁴Administrative Committee on Coordination, 'Report of its Task Force on Long-Term Development Objectives', submitted to the Preparatory Committee for the New International Development Strategy, Third Session, 17-21 September 1979; the relevant parts of the World Bank submission are in Section III.A.3.

⁴⁵Committee for Development Planning, 'Report on the Fifteenth Session' (26 March-5 April 1979), United Nations, Economic and Social Council, Official Records, 1979, Supplement No. 7; and ACC Task Force Report, (f.n. 44).

⁴⁶I owe this point to Mr. Jeffrey Frieden of Columbia University, who has documented the trend for a member of newly industrializing countries. See his 'Indebted Industrialization: State Capitalism and International Finance in the Third World', paper prepared for delivery at the 1980 Annual Meeting of the American Political Science Association, and forthcoming in *International Organization*.

sions are quite modest in purpose, and seek merely to stimulate the exchange of experiences and ideas. Others also strive to articulate a consensus view on desirable courses of action. At their most ambitious, however, these occasions have been part of a broader thrust to delegitimize the dominant modes of production, consumption, exchange and distribution in the world system (*i.e.* the capitalist world economy), and to sketch out and seek to act upon an alternative normative vision. The dimension of ecological holism frames most of these endeavors and forms the one common basis of envisioned alternatives, but whether the specificity of the critique of capitalist institutions is social democratic or Marxist in inspiration, or whether it reflects ethical or even esthetic opposition, is largely determined by who attends and what the particular issues under consideration are. The only consistent support from governments has come from a small number of nonaligned countries, often including Algeria, Tanzania, Yugoslavia, sometimes Mexico, sometimes Venezuela, and from the so-called like-minded countries of Scandinavia and (depending on shifting governmental coalitions) the Netherlands.

Again I proceed by way of illustration. The case described below is not of any great intrinsic importance. Moreover, as an attempt at collective delegitimation and at giving form to an alternative normative vision, it is not an exemplar of intellectual or even tactical sophistication. However, I cite it because it is both interesting and significant in what it reveals.

In October 1974, UNEP and UNCTAD held a symposium on 'Patterns of Resource Use, Environment and Development Strategies' in Cocoyoc, Mexico. The meeting comprised experts serving in their individual capacities. It was presided over by Barbara Ward and hosted by President Echeverria. It issued a document, which was called 'The Cocoyoc Declaration'.⁴⁷

The symposium concluded that 'mankind's predicament is rooted primarily in economic and social structures and behavior within and between countries.'⁴⁸ The ultimate source of the problematique is the structure of the world economy:⁴⁹ the market mechanism reflects effective demand, not ecological or human needs; the distribution of wealth favors an over-consumptive minority, while it further marginalizes the majority; and the

⁴⁷The text of the Declaration is contained in UN Document A/C.2/292. It is reprinted in J.G. Ruggie and Ernst B. Haas (eds.), *International Responses to Technology* (published as a special issue of *International Organization*, 29 [Summer 1975], 893-901. The citations are from this latter source. [The text is reproduced also in *Alternatives* I, 2-3, July-September, 1975, pp. 396-406 - *Ed.*].

⁴⁸*ibid.*, p. 984.

⁴⁹At the time the symposium met, 'progressives' in international circles, like those who attended Cocoyoc, treated questions related to population growth and demographic factors in general strictly as a dependent variable. This, no doubt, was in reaction to what had been the dominant tendency previously to treat demographics as the single most important independent variable in discussing resource-and-environment-related issues.

rate and price of resource extraction, which determine the future development potential of all, reflect what dominant interests want and not what human beings need. The Symposium urged a series of domestic and international structural changes that would help bring about new patterns of global development, making economic relations more responsive to ecological needs on the one hand, and to basic human needs on the other.⁵⁰

Following the Cocoyoc Symposium, UNEP began complementary work on a conceptual overview of the environment/development nexus, on an analytical exploration of 'irrationality' and 'wastefulness' in natural resource use, and on an elaboration of the idea of 'ecodevelopment', the alternative model of development favored by the Symposium.⁵¹ In each case, reports prepared by the UNEP secretariat were to be presented to groups of governmental experts, who would pass judgement on them and forward them to an intergovernmental forum for ultimate adoption as morally binding statements of principle. In sum, the Cocoyoc exercise was one ingredient in a broader design on the part of UNEP, the purpose of which was to reframe the conceptual and normative bases of environmental planning and decision-making, by linking the global environmental situation to the structure of the world economy, and by proposing certain principles of economic behavior in order to produce desirable ecological outcomes.

Proving Weber's dictum that ideas are interests too, UNEP's design was vehemently opposed by governments. The major Western industrialized countries uniformly responded by noting pointedly that UNEP was not in business to concern itself with international economic relations, let alone to restructure them.⁵² They were joined by the Soviets in criticizing what they perceived to be faulty logical premises, inconsistencies as well as empirical inadequacies in the Cocoyoc Declaration and the subsequent documentation

⁵⁰The Declaration was written in rather animated language, as the following will indicate: 'There is an international power structure that will resist moves in this direction. Its methods are well known: the purposive maintenance of the built-in bias of the existing international market mechanisms, other forms of economic manipulation, withdrawing or withholding credits, embargoes, economic sanctions, subversive use of intelligence agencies, repression including torture, counter-insurgency operations, even full-scale intervention.' (p. 898).

⁵¹'Environment and Development', UNEP/GC/76, 'Environmental Impact of Irrational and Wasteful Use of Natural Resources', UNEP/GC/79, and 'Ecodevelopment', UNEP/GC/80.

⁵²US delegate, Christian Herter, Jr., admonished UNEP at the third session of the Governing Council for 'emphasizing more and more the theme that "environmental goals cannot be effectively conceived and realized except within the larger framework of the development process".' UNEP should 'stick to doing well what we're supposed to be doing'. *New York Times*, 19 April, 1975. What follows in the text is based on interviews with national delegates and UN officials.

on the set of issues Cocoyoc raised. The United States also affected UNEP's frame of mind much more profoundly.

American expressions of displeasure apparently involved no less a figure than the then Secretary of State, Henry Kissinger. The US criticized the Symposium for castigating the market mechanism, and for blaming world poverty and environmental degradation on it. This is simplistic economics, the US maintained, because it ignores the role of that mechanism in the creation of wealth—which the Symposium was so keen to redistribute. Moreover, it is simplistic politics because it frees the developing countries from any responsibility for their own contribution to world environment and development problems, and because it ignores the impact of the socialist countries as well. The US was also unhappy with what it took to be a generally hostile tone of the Symposium, and with the imbalance of obligations between developing and industrialized countries that the Declaration appeared to enunciate. The US concluded by reminding UNEP that activities carried out under UN auspices, which are supported by all UN members, should be more representative of diverse views. Not long thereafter, a meeting is said to have taken place between the Secretary of State and the Executive Director of UNEP, in which these issues were further “discussed.” Subsequently, although not directly related to Cocoyoc but serving to attract UNEP's attention just the same, the United States announced that its pledged contributions to the UNEP Fund would be withheld while reviewed.⁵³

For their part, the developing countries were no less unhappy. Their representatives had talked from the time of the Stockholm Conference about socioeconomic structures and about the need to alter economic relations as one means of protecting and enhancing the human environment. But what they meant by this was international financial support for their environmental problems, and the manipulation of international economic relations for the same end. They sought to have more and different subject areas added to the list of UNEP's priorities, and to have compensatory measures introduced into their external economic relations with the industrialized countries

⁵³There exists some ambiguity about why the United States withheld its contribution—which was subsequently restored. One reason that has been given is that the US was reviewing its contributions to international organizations in general, in the light of the prevailing economic situation. Another is that the contributions were being withheld because UNEP had not managed to spend all allocated funds in the previous years. (David Kay has pointed out to me that the proposed withholding may have originated within the office of Management and Budget in the White House for precisely this reason). My own guess is that there was a coincidence, between budgetary considerations and political motivations, and that the ambiguity may not have been entirely accidental.

for any loss of trade or other economic opportunity that was due to environmental restraints, as an additional means whereby the international community would support environmental protection activities in the Third World. But the Cocoyoc Declaration was something else altogether. It was as much a critique of domestic socioeconomic arrangements in developing countries as it was of international economic relations – albeit in more muted language. The Symposium objected to what it saw as domestic exploitation as it had to international, and called for domestic economic decentralization, full participation and civil rights, land reform, the use of intermediate technologies, and generally for 'justice in the distribution of benefits' which it found lacking.⁵⁴ Still more important, although the Symposium appeared to want to resist it in its public Declaration, the link between the character of international economic relations and the domestic constituencies in developing countries which benefit from them and help to sustain them was inescapable. Thus, a critique of the international economic order became, *ipso facto*, a critique of domestic elites in the Third World. One could not criticize the first without also criticizing the second, and one could not criticize the two on different grounds, for in the framework of the Symposium they were part and parcel of the same global 'structure'.⁵⁵

The response of the developing countries was predictable : this is not what they had had in mind at all.⁵⁶ Worse still, the Symposium came at a time when Third World governments were exposed to increasing pressure from international development agencies and bilateral aid donors for not doing enough for the poorest 40% or so of their populations. Now UNEP was joining in this chorus. As a result, in subsequent deliberations in UNEP concerning the concepts of environment and development, the developing countries were every bit as destructive of Cocoyoc-infused proposals as were the industrialized countries. Brazil put the finishing touches on this entire sequence of events. Having succeeded in emasculating the documentation on these three subjects in the context of an intergovernmental expert group, Brazil, at the 5th Governing Council of UNEP in 1977, expressed broad agreement with the results. And they urged that no further efforts be undertaken to develop definitions and indicators or 'irrationality', 'wastefulness', and so on, because additional conceptualization only would lead to diminishing returns.

In the end, an implicit quid pro quo was reached among governments that

⁵⁴(f. n. 47); pp. 896, 898, 900.

⁵⁵The actual discussions at the Symposium were much more explicit about this link than the final Declaration; this is an important point to note because some of the experts who attended the Symposium were subsequently commissioned by UNEP to help prepare the follow-up documentation and policy recommendations.

⁵⁶Personal observation and interviews.

had disagreed on this very issue for several years. It was a quid pro quo of mutual abstinence in the face of an alternative that was threatening to all. The environment-development nexus accordingly was defined in terms of identifying and seeking to internalize negative effects of development projects, and in terms of supporting efforts to devise technical alternatives that are environmentally sound to begin with. This UNEP was asked to help with. It does so on its own and in conjunction with other organizations in the UN system. It advocates the environmental dimension in North-South economic negotiations. And it continues to seek to raise consciousness and to pose important issues, as it did recently in a series of intergovernmental seminars on the topic of 'Alternative Patterns of Development and Life Styles'. As a result, the intergovernmental system is exposed to a variety of issues, reflections and experiences, and it may even develop a shared vocabulary by means of which to describe them. This may enhance its collective adaptive capacity. But on the programmatic front, these activities remain well within what Robert Cox describes as the hegemonic consensus.⁵⁷

Thus, if only intellectually and in the hope of engendering new norms and expectations, international organizations have been used in attempts to affect the domestic and international structures and forces that shape world-wide modes of production, consumption, exchange and distribution. These attempts have taken the form largely of seeking a measure of intergovernmental legitimation for counter-hegemonic challenges and ideas. That this goes on at the fringes of the intergovernmental system, and that it has met with little direct success of course causes no surprise. However, as is illustrated by the case described above, governments do not take such efforts lightly. They react vehemently to protect particularistic interests. But they also react with equal vehemence to protect their collective interest in the basic structure of international jurisdictional rights. And when this latter is threatened, as it is by definition by attempts to act upon a genuinely holistic global ideology, the effect is to vacillate the crystallization of a revived hegemonic consensus.

Conclusion. The past decade or so has witnessed continuous attempts by international organizations to prod the development of greater collective institutional capacity for responding to aspects of the global 'problematique'. These attempts have been most successful and their effects most widespread

⁵⁷In the hegemonic consensus, the dominant groups make some concessions to satisfy the subordinate groups, but not such as to endanger their dominance. The language of consensus is a language of common interest expressed in universalist terms, though the structure of power underlying it is skewed in favor of the dominant groups.' Robert W. Cox, 'Labor and Hegemony', *International Organization*, 31, Summer 1977, p. 387.

when their objective has been to expand existing institutional frameworks of collective policy formation, by institutionalizing the participation of new functional and political constituencies. Conference diplomacy has been a major instrument of this process. Less success has been achieved in attempts to redirect the policy process toward producing alternative patterns of development. The lending policies, technical assistance programs and indicative plans of international agencies have been the major instruments of this endeavor. While changes in development thinking ultimately may have indirect effects throughout the world system, direct effects for the moment are partial in kind and limited to certain of the developing countries. Lastly, the involvement of international organizations in reshaping the very structures and forces of the world political economy has been marginal and has taken the form of attempts to deligitimate existing norms and institutions and, by providing access to counter-hegemonic ideas and groups, to develop and seek to operationalize an alternative normative order. To some extent, these attempts are succeeding within the international secretariats. Among governments, however, their effects appear to be to expand the existing range of consensus in an assimilative rather than a transforming adaptation.

IV. What kind of change?

This survey of the responses of international organizations to the emerging global 'problematique' affords an opportunity to summarize briefly changes in patterns of global governance that are exhibited therein.

In this domain of activity, international organizations are playing an increasing role in global governance. The role is not that of actor but of catalyst of intergovernmental processes. International organizations have played an increasing role in developing holistic perspectives of the complex of global processes and problems, and in expanding the collective knowledge base concerning it. They have become increasingly active in initiating the expansion of policy processes to incorporate new areas of concern. And they are increasingly effective in defining the issues that come to constitute the collective policy agenda. In this measure, the 'problematique' has had expansive and integrative effects on international policy.

But international organizations are emanations of social, political and economic structures over which they have little control. They serve the forces that generate them. If the scope of their activities in general is conditioned by factors beyond their reach, this is likely to be all the more so when attempts are entertained to alter some of these factors. Hence, the attempts by international organizations to affect the collective institutional capacity is more

constrained than attempts to expand the collective knowledge base. And the precise patterns of organizational involvement in both reflect the general and the particular interests of dominant actors, public and private, national and transnational.

Is the global 'problematique' likely to produce a *transformation*, not simply of the physical setting of world politics but of global governance as well? The discussions above suggest that the 'problematique' is producing *change* but that this change is *rule-governed*. It is analogous to the change produced by state intervention in market economies. Any such intervention violates specific instances and expressions of private property rights. But the fundamental structure of private property rights conditions, shapes, and constrains the character of such intervention. Indeed, such intervention strengthens the long-term viability of the capitalist system of economic organization. Thus change occurs but it is ruled-governed change. And so it is with "intervention" by international organizations in the world system. Change occurs—sometimes substantial change—according to a certain logic which, however, does not itself change.⁸ Accordingly, I conclude that there is nothing inherent in the emergence of a material basis for planetary politics that would suggest at this point a transformation of the intergovernmental system beyond the patterns depicted above.

⁸For a discussion of the difference between "continuities" and "ruptures" (or transformation) along these lines, see "Interview with Jacques Lesourne, Director of the Interfutures Project," in a special report on the OECD study "Facing the Future," *OECD Observer*, 100 (September 1979), p. 8.