ENVIRONMENTAL SCARCITIES AND NORTH-SOUTH RELATIONS

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Throughout history, poverty has been the lot of most members of the human race.[1] As we approach the 21st century, the world is still sharply polarized between the rich and the poor – on the one hand, the developed industrialized Northern countries with affluent lifestyles; on the other the less developed, impoverished Southern countries which aspire to the same model and level of economic development.

The emergence of ecological scarcities has added a new controversy to the longstanding debate over the structure of relationships between the North and the South, for, according to one view, environmental issues are just another means for the developed countries to continue to control and exploit the economies of less developed countries, while, from a more optimistic perspective, environmental threats could be utilized as an opportunity for global cooperation.

Both views seem to be plausible: as the quality and quantity of environmental resources decline in the future as a result of (a) further population growth, (b) classical modes of production, and (c) overconsumption, North-South relations can be expected to take the form of cooperation in some cases (international collaboration for environmental regulation in the face of a common threat) and conflict in others (violent or non-violent antagonistic competition for what is left of the resources). However, the prospects should not be reduced to a simple dichotomy of "either cooperation or conflict". Because of the complex nature of global

[1] R. Gilpin, **The Political Economy of International Relations**, Princeton, Princeton University Press, 1987, p. 263.

ecological interdependence, increasing cooperation, intensified competition, and heightened conflict may coexist at different social levels. Cooperation and conflict are equally plausible, and potentially coexisting responses to advancing environmental threats, rather than discrete, polar alternatives.

Therefore, the purpose of this paper will be to explore the conditions, possibilities and prospects for both cooperation and conflict between the North and the South regarding environmental issues, with a view to finding out which of the two modes of interaction may be predominant in the near future within issue-areas.

1. Opportunities for Cooperation: Retrospect and Prospect:

According to optimistic proponents of international cooperation, environmental degradation might come to be regarded by states as constituting a 'common danger' to the viability of the earth, and a new holistic view of environmental problems could emerge, causing governments to be concerned about the welfare of the world as a whole and impelling them towards cooperation for environmental management. The rationale behind the 'cooperation argument' is that ecological interdependence is making the unilateral approach outdated. In other words, states cannot protect their environment unilaterally: for instance, no state can prevent atmospheric pollutants from moving into its territory. It is either impossible or very costly to prevent the adverse consequences of international cooperation. However, despite the exigencies of cooperation theories, the record of international environmental cooperation, particularly between the North and the South, is far from satisfactory.

Although the number of multilateral legal instruments signed so far is impressive, careful analysis of past efforts to build international environmental régimes reveals some discouraging facts:[2] First of all, cooperative agreements consummated thus far have been those most easily implemented by national action, or those where no politically significant national interest interposed and no extraordinary follow-up action was expected. Issues like African elephant ivory, whaling, and even ozone depletion, are not linked with central political and economic interests in many participating states; thus, cooperation has been relatively easier compared to issue-areas like global warming and tropical deforestation which involve higher economic stakes for potential veto coalitions in both developed and less developed countries.

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[2] L.K. Caldwell, "Cooperation and Conflict: International Response to Environmental Issues", **Environment**, Vol. 27, no. 1 (Jan-Feb. 1985), pp. 6-11.

Secondly, these agreements have not been signed and ratified by all states concerned. A truly international approach to environmental problems must involve all of the world nations. This is, of course, what makes environmental régime formation a formidable task. Comprehensiveness becomes especially significant in the context of global environmental protection, because the veto power of even a single state may frustrate the efforts of many others. In the case of climate change, for example, the veto role of the United States –which is the largest single contributor to the problem of greenhouse gas emissions– can vitiate the efforts of other countries at reduction of emissions. Thus, one state can fail a global régime by simply refusing to comply with it.

Thirdly, there is as yet no régime in some of the most critical global environmental issues. No multilateral legal instrument has been consummated over desertification, loss of topsoil, ocean pollution from land-based sources, and population growth. These issue areas are obvious candidates for prolonged and difficult negotiations because they carry a high potential of conflict between "national rights" and global interests.

Fourthly, problems of implementation and verification shadow the achievement of international environmental diplomacy. Agreement has not always been followed by implementation. A frequent reason for failure is that adequate provisions were not made for the collateral circumstances upon which successful implementation would depend. For example, in developing countries forest reserves and national parks have often been established when there are no effective programs to meet the needs of landless peasantry and to prevent the invasion of the protected areas by squatters, the illegal cutting of forests, and the poaching of endangered wildlife.

The failure to implement agreements may also be due to the following factors: First, the officials or agencies that negotiate agreements are not always those authorized to implement them. Second, a government may enter into international agreements for reasons of prestige or solidarity with allies without a serious and genuine commitment to implementing them. Third, the administrative capabilities of some states may be insufficient to carry out obligations. Fourth, the negotiating government may fall from power and its successor may be unwilling or unable to honor its commitments.[3]

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[3]L.K. Caldwell, "Beyond Environmental Diplomacy: The Changing Structure of International Cooperation" in J.E. Carroll, ed., **International Environmental Diplomacy: The Management and Resolution of Transfrontier Environmental Problems**, Cambridge, Cambridge University Press, 1988, pp. 13-28.

The problem of implementation is particularly acute in LDCs, which often lack the legal and institutional framework and expertise required. For example, the Convention on International Trade in Endangered Species (CITES) presupposes an already established expertise in the national administration, particularly the ability of customs officials to be able to identify species for which trade is prohibited, as well as the ability to know for which products an export licence may be issued. A convention, therefore, should provide for technical assistance and training programmes to help LDCs in establishing the infrastructure and expertise that its implementation requires.[4]

Assessing the effectiveness of international environmental agreements also requires an analysis of how compliance is verified. International agreements that are verifiable are more likely to succed in both negotiation and implementation. However, no organizational infrastructures have been created to fulfill the function of monitoring and verification for international environmental agreements. Most formal information under régimes is self-reported by existing domestic structures. To some extent, NGOs oversee implementation; but heavy reliance on national reports –which may be inaccurate– makes true assessment of compliance difficult. For example, parties to the CITES Convention required to send annual reports, including trade records, to the secretariat, but assessing compliance requires some estimate of how many international shipments circumvent the system, which appears impossible to determine.[5]

Finally, the convention-protocol approach usually employed in environmental agreements has been criticized for several shortcomings:[6] the negotiation, signing, and ratification of an initial framework convention and subsequent protocols can be an extremely long and drawn out process. The 1973 CITES agreement, for example, was not signed until ten years after the IUCN had called attention to problems of species extinction and the need to regulate the trade in endangered species. During that decade, many traded animal and plant species disappeared.

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[4] Erwan Foueré, "Emerging Trends in International Environmental Agreements" in Caroll, **International Environmental Diplomacy: The Management and Resolution of Transfrontier Environmental Problems**, pp. 29-44.

[5] J.H. Ausubel and D.G. Victor, "Verification of International Environmental Agreements", **Annual Review Energy and Environment**, Vol. 17 (1992), pp. 1-43.

[6] L. Susskind and C. Ozawa, "Negotiating More Effective International Environmental Agreements" in eds., A. Hurrell and B. Kingsbury, **The International Politics of the Environment**, New York, Clarendon Press, 1992, pp. 142-165.

Another weakness of the approach is that the signing of a framework convention may provide an easy substitute for real improvement for governments that are reluctant to make specific commitments. Also, the convention-protocol approach produces 'lowest common denominator' agreements designed to appeal to the largest possible number of signatory states. Real decisions are avoided; the language is vague and all-embracing; and the agreements allow let-outs to almost everyone.

In short, the achievement of environmental diplomacy and the record of international cooperation are far from satisfactory at this point. There is an impressive number of multilateral instruments signed by states, but some issue areas have not been tackled yet; and where agreement has been reached, it has been too slow, partial, incomplete, and sometimes unimplemented.

What are the conditions of successful international cooperation on environmental problems? Scholars of international relations have studied the conditions under which régimes are formed and the factors that contribute to their success, as well as how régimes are maintained and changed.[7] The major theoretical approaches advanced to explain the formation of international régimes include the structural, game theoretic, institutional bargaining, and epistemic community models. However, these approaches either emphasize factors that are irrelevant to environmental politics or only account for one type of global environmental régime.[8]

A theoretical approach to environmental régime formation needs to recognize the importance of the socio-political forces and economic relationships involved in the unique structure of each issue. States are not to be treated as unitary actors with single, internally consistent sets of values and attitudes. Rather they reflect the interests of domestic economic and socio-political balances that are the most crucial factors in the outcomes of global environmental bargaining. Furthermore, increasing scientific knowledge, the rise of proenvironmentalist public opinion, and international prestige are also factors driving the process of régime formation and strengthening. These and similar dynamic factors are taken up below to shed light on problems of international cooperation.

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[7] B.A. Simmons and S. Haggard, "Theories of International Régimes", **International Organization**, Vol. 41 (1987), pp. 491-517; O.R. Young, "Global Environmental Change and International Governance", **Millenium: Journal of International Studies**, Vol. 3 (1990), pp. 337-346.

[8] G. Porter and J.W. Brown, **Global Environmental Politics**, Boulder, Colorado, Westview Press, 1991, pp. 23-26.

1. The disposition of national governments to cooperate varies with differences in their perceptions of the threat in question. The actual costs and risks of many forms of environmental degradation are not distributed equally among all states, so some are less motivated to cooperate. The threat may be perceived as immediate or remote depending on the geographical location of a country; or its level of industrialization. For example, in the case of climate change, although all nations are likely to suffer over the long term, there may be winners and losers in the fallout from climate change over the short run. The consequences of global climate change and the costs of preventing it will not be equally distributed, but raise difficult issues of fairness and justice.[9] States with densely populated coastal plains such as Bangladesh, Egypt, and the Netherlands are vulnerable to sea-level rise because of global warming; and 32 such states have formed the Association of Small Island States (AOSIS) to lobby for international action against greenhouse gas emissions. However, some states might find a rise in temperature favorable, especially if they are in cold regions – until, of course, the polar caps begin to melt.

2. States do not have the same perceptions of equitable solutions to environmental issues. For instance, less developed countries are concerned that the new preoccupation with the finiteness of the world's resources and fears of pollution would diminish the international commitment to the economic development of their regions. They would like to use their resources and industrialize as the North did in the past. The Northern countries were able to exploit tremendous amounts of 'natural capital' because environmental effects were slow to appear. At the present stage, the accumulated effects are much worse; nevertheless, in a desperate attempt to overcome poverty and underdevelopment, LDCs may choose to follow the growth-oriented, industrialization model of the North despite its negative environmental consequences.

Claims for equity have also clouded international agreement efforts on global warming. There are tremendous differences in the distribution of the sources of greenhouse gas emissions: three countries, USA, USSR, and PRC have accounted in the past for about one-half of global carbon emissions. Therefore, the problem of what formula to use for calculating each country's reduction of its CO2 emissions is laden with questions of fairness. Most LDCs prefer reductions to be on a per capita basis and to be based on the cumulative releases over the last several decades rather than on current releases which some industrialized countries prefer. Their point is that industrialized countries have to pay for their excessive past use of fossil fuels today with much heavier reductions. Also, the US, Australia, and other states

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[9] G. Bryner, "Implementing Global Environmental Agreements", **Policy Studies Journal**, Vol. 19 (Spring 1991), pp. 103-114.

favor inclusion of all greenhouse gases in an agreement, which would require greenhouse reductions by LDCs. LDCs, however, want the focus to be on carbon emissions because it would shift the burden to the largest energy users.

3. Vested interests of domestic economic forces have a distinct role in the political process in the environmental arena: the relative bargaining influences of these forces are defined by their status in the country's economy. Some examples of powerful vested interests that oppose environmental regulation are: Japanese trading companies heavily involved in logging in the Philippines, Indonesia, Malaysia, and Papua New Guinea, and they would resist any international interference in the tropical timber trade; Norway's coastal population, which has suffered declining fish catches because of the international protection of whales (as whales compete with the fishermen for the fish); and Brazil's agroindustrial elite that invest in cattle-ranches and wood-producing industries in the Amazonian reinforests.

The main interest of timber producing countries (led by Malaysia, which accounts for nearly 60 percent of the world's tropical timber exports) has been to obtain funding for better equipment and better prices for their timber exports. On the other hand, timber consuming countries also discourage regulation, such as Japan mentioned above. The International Tropical Timber Organization is dominated by Japan. It has a huge share of world tropical timber imports, and its main interest is to maintain a constant flow of hardwood to produce and export furniture. The US, which is the world's largest importer of finished tropical hardwood products, has also been reluctant about an international ban on tropical timber products that are not produced by sustainable methods.

4. The relative strength of a domestic environmental constituency is another critical factor in environmental politics. The absence of public awareness (on environmental issues) and of popular pressures, especially at the polls, makes it easier for governments to avoid or escape international efforts over environmental cooperation. LDCs in which environmental issues remain insignificant in the public eye (when compared to economic problems and political issues) suffer from a lack of concerted citizen action for environmental protection; whereas, the leading industrial democracies – Canada, France, Sweden, UK, US– had active and well-organized citizen groups even back in 1972, influential enough to pressure their governments to send delegates to Stockholm.

Authoritarian régimes that can simply suppress any opposition to their policies, and political systems with minimal popular involvement in international issues, have a freer hand to escape international regulation. One example is the military régime of Brazil (1964-1985) which opened

Amazonian rainforests to agriculture and large-scale commercial activities and permitted no opposition by environmentalist critics.

5. Differences in the ability to participate in cooperative programs also account for different attitudes toward international environmental regulation. A state may oppose an international proposal because it is relatively harder or more expensive for that state to implement. Many programs of international cooperation require advanced technoscientific capabilities and skilled personnel, or capital to raise those capabilities. States may have comparative advantages and disadvantages in each issue area. In the ozone protection area, for instance, the US supported a ban on aerosol cans because they had found substitutes, whereas Western Europe and Japan who had no technological alternatives rejected the ban in the early 1980s.

Also, states with abundant and cheap fossil fuels are not likely to join in acid rain or climate change agreements, such as the UK, with its coal supplies, who opposed acid rain regulations in the EC in the early 1970s. France, which has an extremely modern industrial sector with high energy effliciency and relies on nuclear power for more than two-thirds of its electricity, has no great disadvantages in a climate-change agreement.

6. Last, but not least, the world political system made up of independent autonomous nation-states and governed by the premises of exclusive national sovereignty, presents special difficulties for the resolution of transnational environmental problems. The national interests of a state may be adversely affected by the international agreements in question, creating strong incentives for noncooperation.

This problem has been summed up very well in the following words: "A single, complex and highly integrated ecosystem has to be managed within the constraints of a political system made up for over 170 states, each claiming sovereign authority within its territory. It is, moreover, a political system which has historically been prone to violent conflict and in which cooperation has been difficult to achieve".[10]

It is not only the fragmentation of the world political system that precludes concerted action, it is also the inequalities in wealth and power among the units. The LDCs of the South, faced with growing populations of poor and hungry people, are under great short-run pressures to exploit the environment without much regard to its replenishment in the long run. Despite their apparent approval of sustainable development rhetoric, governments in LDCs still pursue the tradition of exhausting natural

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[10] Hurrell and Kingsbury, **The International Politics of the Environment**, p. 4.

resources and environmental capital. On the other hand, the DCs of the North have also regarded global environmental issues through narrow scopes of national interests and in many instances refused to curtail their affluent lifestyles and restrict their profit-oriented market system for the sake of environmental protection.

Lispschutz argues from another angle that international environmental cooperation is very difficult to achieve:

> "Whether the traditional barriers to collective action, the inability and unwillingness of individual states to be effective environmental managers, or the intensely contested nature of global solutions will prove to be the largest obstacle to effective management of global ecological interdependence remains unclear. But combining these factors, we conclude that the collective management paradigm in its technical-rational form is likely to be exceedingly difficult to implement. It is true that the state system has thus far succeeded to construct some narrow and limited environmental régimes. In particular, the régime for ozone protection seems to be the most effective one. But an agreement to phase out a single family of chemicals, for which substitutes are increasingly available, is a weak test at best. Most of the phenomena that make up the global change litany are far more complex in terms of sources, effects, and linkages to social systems.
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> "Resource management is a euphemism for managing how people use resources, which means managing people. Managing how people use resources in ways that promote economic opportunities while protecting local control, cultural and ethnic identity, personal liberty, etc. is complex management indeed."[11]

Our discussion in this section has pointed to the difficulties involved in achieving full-scale international environmental cooperation, at least in the near future. We now turn to the probability of international environmental conflict.

2. Probability of environmental conflicts between the North and the South:

The South has become increasingly intolerant of the world order and wishes to be as rich and powerful as the developed world. But the current model of development which assumes that all countries will eventually

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[11] R.D. Lipschutz and K. Conca, eds., **The State and Social Power in Global Environmental Politics**, New York, Columbia University Press, 1993, p. 334.

become heavily industrialized mass-consumption societies is doomed to failure. Universal industrialisation would impose intolerable stress on world ecosystems, even if there were sufficient mineral and energy resources to make it possible. The modernizing elites in the Third World whose political power is generally founded on the promise of development are devoted to the goal of industrialisation and rush headlong into development programs without taking into account the longterm costs of environmental degradation. Interestingly enough, each of these countries seems to suffer from the same problems as the country that it takes as a model. Ophuls has found, for example, that Mexico and Brazil have followed a basically American path, so that Mexico City has a smog problem rivalling that of Los Angeles, and Brazil's treatment of its undeveloped wealth, especially such fragile and irreplaceable resources as the Amazon rainforest "epitomizes frontier economics at its most heedless."[12]

In the South, rapid population growth, environmental degradation, and deepening poverty reinforce each other in a downward spiral. The deterioration in living conditions for much of humanity during the eighties and early nineties was reflected by the fall in incomes in 49 countries between 1980 and 1990.[13] "The great majority of these countries are poor ones where livelihoods are directly dependent on the productivity of croplands, grasslands, and forests. It is in these largely agrarian economies that the link between deteriorating natural systems and living conditions is most direct, and the effects most visible."[14]

One cannot blame the Third World countries for trying to improve their economic conditions: improved economic conditions are crucial to the Third World, where they are needed to improve the quality of life or, in some extreme cases, to prevent starvation: "It is thus necessary to remove timber from the forests, extract minerals from the surface rock layers, expand farming into areas of unreliable rainfall or steep slopes, and establish industries of various types."[15] These attempts, however, contribute to the degradation of the global environment: as more and more traditional societies are incorporated into the modern world through the tide of industrialization, they demonstrate both the benefits attained by technology and its attendant risks. For many of these societies integration into the world economy has

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[12] William Ophuls, **Ecology and Politics of Scarcity**, San Francisco, W.H. Freeman, 1977, p. 208.

[13] World Bank, **World Development Report: 1992**, New York, Oxford University Press, 1992.

[14] Lester R. Brown, **Vital Signs, 1993, The Trends That Are Shaping Our Future**, New York, Norton, 1993, p. 19.

[15] Avjit Gupta, **Ecology and Development in the Third World**, New York, Routledge, 1988, p. 2.

meant the wholesale surrender of the helpless populace to the mechanical procedures of the world market. The Western model of development emphasizing rapid industrial growth and entailing intensive consumption of natural resources has had two major disadvantages: first, the focus on perpetual aggregate economic growth has distorted the distribution of wealth within these countries and resulted in inegalitarian social systems, so that masses of people are deprived of the purchasing power to buy the most basic necessities. Poverty is an important cause of the perpetuation of millions of chronically hungry people in a world of plenty. The ability to acquire more food depends on having the income necessary to buy more food. Many people in the developing countries simply cannot register an effective demand for food because they do not have the purchasing power.

Second, the prevailing strategies of economic development use up key resources, in particular those relied upon for energy, so that these resources are becoming scarce and much more expensive. Where development has been driven by great urgency, whole species of plants and animals have disappeared. Tropical rainforests have been destroyed throughout the 1970s at about an average of 11 million hectares per year. Desertification is also occurring in the tropical deciduous forests at an alarming rate.

Several scholars have realised that the impact on the global commons of the continued striving for growth is substantial. Wassily Leontief argued that high growth rates in developing countries should be coupled with reduced rates in the developed countries. Kenneth Boulding says that a rise in the GNP does not necessarily mean things are better; it may only mean that some things are bigger.[16] Meadows' view about the global future is that without dramatic corrective action the "limits to growth" in terms of resources and environment will be reached within the next hundred years. The only safe way is to slow down–the world must achieve equlibrium or collapse.[17] Even Herman Kahn, who initially dismissed the possibility of an end to growth has later asserted that eventually world economic growth will cease, perhaps 100-200 years from now, in a "more or less comfortable way".[18] At issue is not just whether there may be limits to growth but also whether, in a world of finite resources and expanding populations, progress can any longer be equated with economic growth. That science and the technology it produces can create more problems than they solve is already evident in advanced industrial countries. The energy-intensive, consumption-

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[16]Kenneth E. Boulding, **Stable Peace**, Austin, University of Texas Press, 1978.

[17]Donnella H. Meadows, Dennis L. Meadows, Jorgen Randers and William W. Behrens III, **The Limits to Growth**, New York, Signet, 1972.

[18]Herman Kahn, **World Economic Development: 1979 and Beyond**, Boulder, Westview Press, 1979.

oriented lifestyle of the affluent minority in DCs places disproportionate demands on global supplies of food and energy. Excessive production and consumption in the Western industrial model makes resources scarcer and even dearer. The problem is not only one of increasing resource limits, it is a global problematique that involves atmospheric and water pollution, climate change, loss of cropland, rangeland, and forests, species and habitat loss, and the potential effects of a nuclear confrontation. But ecological scarcity alone is going to be a major source of problems in coming years.

3. Ecological scarcity and conflict:

Ecological scarcity is an all-embracing concept that encompasses all the various limits to growth costs attached to continued growth. It includes not only a Malthusian scarcity of food, but also impending shortages of mineral and energy resources, biospheric or ecosystemic limitations on human activity, and limits to the human capacity to use technology to expand resource supplies ahead of exponentially increasing demands. A complete definion of ecological scarcity should include the social costs attached to continued technological and industrial growth as well as the economic problems of coping with the physical aspects of scarcity.

Nonrenewable resources are at the base of modern industrial society. Mankind is using up in just a few centuries the fossil fuels that are the remnants of millions of years of plant and tree growth. War-related activities that complement the nation-state system of the Western economic model and its growth ethic use large amounts of nonrenewable resources and fossil fuels even in times of peace.

There are two opposing views as to the consequences of ecological scarcity: one foresees conflict, the other increased cooperation among nation states. Unfortunately, the accumulating evidence tends to support the conflictual rather than the cooperative hypothesis. Faced with the new power of the oil producing countries in the 1970s, the first impulse of the United States was to try to go it alone in "Project Independence", while Japan, France, and others maneuvered individually to ensure their own future supplies. The rich seem readier to follow "beggar thy neigbour" policies than to cooperate among themselves. Sympathy for the plight of the poor is even less evident.[19]

There have been several international conferences since Stockholm 1972 to increase international cooperation over ecological problems, such as the UN World Population Conference (1974), the UN World Food Conference (1974), and a series of UN Law of the Sea Conferences.

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[19] Ophuls, **op. cit.**, p. 212.

However, there has been little success because of nationalistic attitudes that insist on the sovereign right of self-determination in the use of resources, population policy and development regardless of the wider consequences. Also, demands by the Southern countries to develop have increased and ecological considerations simply stand in the way.

Ecological scarcity will probably intensify the competitive dynamics of the preexisting international tragedy of the commons, so that increased commercial, diplomatic, and ultimately military confrontation over dwinling resources is more likely. At the same time the poor, having had their revolutionary hopes and rising aspirations crushed, will have little to lose in a conflict. Also, to many of the declining "haves", ill equipped to adapt to an era of commodity power and economic warfare, the grip of the nouveaux riches on essential resources will seem an intolerable stranglehold to be broken at all costs.[20]

Sooner or later we will have to face the political problems generated by ecological trends on a worldwide scale. Clashes of national and regional interests may eventually become larger as ecological stresses manifest themselves in economic terms– scarcity, inflation, unemployment, and economic stagnation or decline. Finally, the stresses will assume a social and political character- hunger, forced migration to the cities, deteriorating living standards, and political unrest.

In view of the extraordinary resource consumption rates that have come to characterize industrial civilization, resource consumption may well be one of the most important causes of modern war. Furthermore, the incredible global imbalances that now exist in consumption may well become the basis for wars of redistribution.

An important problem that complicates the prospects for cooperation between the North and the South is the existence of radically different interests and perspectives in the developed and less developed regions of the world regarding economic development issues. As environmental problems became a part of the global agenda during the early 1970s, LDCs became concerned that the new preoccupation with the finiteness of the world's resources and the 'limits to growth' would diminish the international commitment to the economic development of their regions. The issue was reformulated by the Brundtland Commission in 1987 which concluded that poverty and lack of development contribute significantly to environmental degradation.[21]

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[20] **Ibid.**, p. 211.

[21] World Commission on Environment and Development, **Our Common Future**, Oxford, Oxford University Press, 1987.

It will be difficult to arrive at a common ground for cooperation between the industrialized countries that are held largely responsible for current environmental problems by the LDCs who argue it is now their turn to make use of environmental resources for development. Countries have sovereign rights over their natural resources; and intervention by DCs in the environmental and natural resources of LDCs –even for conservation purposes– can be easily interpreted as interference in domestic affairs and labeled as eco-imperialism. This includes payments to be made to LDCs for conserving their environment (debt-for-nature swaps) which is also criticized as a sort of intervention. Also, the terms of international cooperation on population growth have been and will continue to be a contentious subject of controversy since population policy is a jealously guarded prerogative of national sovereignty.

A common complaint in the South is that "the North should practice what it preaches and should be more serious about its own contradictions with regard to the environment, before attempting to rule the environment".[22] The North is not only responsible for environmental destruction and pollution in the industrialized world, but is claimed to cause part of the environmental problems in the South through past colonialism, neocolonialism and imperialism that have shaped the social and economic structure of these countries. From this perspective, the North is accused of promoting and profitting from products and practices that it condemns as environmentally destructive. Another argument in this line is that "the North should abolish the concept of 'donor' with regard to environment and to everything else in its relations with the South".[23] Protecting the environment should be regarded as mutual gain, not as something to be dictated or handed down. Most environmentalist literature in the North prefers to use terms such as "helping", "guiding", "encouraging" the Southern countries, rather than "cooperation".

One can expect the differences between the North and the South to intensify with the increasing gaps between them. There are sharp conflicts of interest over issue areas such as international trade (and environmental regulations concerning it), population control, and conservation of natural resources. The difficulties confronted during negotiations over controversial issues such as climate change, deforestation and the use of nonrenewable energy sources indicate that the ever-conflictual North-South relationship is not likely to change much - even in the face of global environmental threats.

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[22] Marc J. Dourejeanni, "View from the North" in **Global Change and Our Common Future**, Committee on Global Change, NRC, Washington, National Academy Press, 1989.

[23] **Ibid.**, p. 4.

The prospects for cooperation are poor basically because the interests of the two sides are perceived to be contradictory. Therefore, conflictual interaction seems to be more likely than cooperative interaction, particularly over these controversial issues. We now turn to discuss the types of conflict that may arise from environmental problems.

4. What kinds of conflict may arise from environmental scarcities?

Reidulf K. Molvaer has noted that "social facts, such as conflict, cannot be explained by natural facts, such as the environment, but only by other social facts".[24] According to this view, it is difficult to isolate 'environmental' factors from the more complex web of social, economic and political factors that cause conflict. Environmental stresses are more likely to trigger already potentially explosive situations - such as ethnic hostilities or economic inequalities- than cause simple, mechanistic fighting among states for greater shares of declining resources. Indeed, a proper accounting of the forces causing international strife must include several interacting causal factors, such as domestic political forces, economic interests, great power intervention, and the like. The nature of the international system is another factor: absence of higher law or supranational authority reduces the chances for peaceful dispute settlement.

The most obvious forms of 'environmental' conflict in the world today are local struggles over land, water, and forests, which in many cases overlap with social, political and economic antagonism and reinforce them. In other words, environmental changes affect the relations between people, social or ethnic groups, or nations, such that they potentiate the existing hostilities, cleavages or divisions between them. Some examples are Sudan, Mali, Nigeria and Ethiopia.

An alternative view belongs to Thomas F. Homer-Dixon who argues that "for too long we've been prisoners of 'social-social' theory, which assumes there are only social causes for social and political changes, rather than natural causes, too. This social-social mentality emerged with the Industrial Revolution, which separated us from nature".[25] According to Homer-Dixon, future wars and civil violence will often arise from scarcities of resources such as water, cropland, forests, and fish. Just as there will be

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[24]R.K. Molvaer, "Environmentally Induced Conflicts? A Discussion Based on Studies from the Horn of Africa", **Bulletin of Peace Proposals**, 22 (1991), p. 175.

[25]Thomas F. Homer-Dixon, "Environmental Scarcities and Violent Conflict", **Global Issues in Transition**, No. 13 (March 1995), pp. 16-36.

environmentally driven wars and refugee flows, there will also be environmentally induced praetorian régimes.[26]

Whether the "social-social" or the "natural-social" theory is true, it is quite certain that the North will more easily and smoothly adjust to environmental stress with its technological and financial assets; while the South will be faced with political turbulence resulting from an interaction of ecological, economic, demographic and social forces: Population growth in the South widens the income gap between rich and poor countries. It translates into rising numbers of labor force entrants, faster-expanding urban populations, pressure on food supplies, ecological degradation, and increasing numbers of "absolute poor". In addition to the strains put on national development efforts by rapid population growth, the dissatisfactions of significant segments of populations with their status also grows in many countries, amplified by the rising expectations that result from increased exposure to the outside world. The weakening and eventual breakdown of social institutions that have accommodated poverty and mediated between conflicting interests in the traditional society, lead to sharpened class conflicts and regional antagonisms. Social stability may also be threatened by the downward spiral of environmental destruction, declining resource-based productivity and falling living standards. The political turbulence that results would be exacerbated by the demands on government made by the steadily growing numbers of those seeking access to the modern economy.[27]

Environmental scarcities and economic hardships would cause large scale population movements which would inflame existing hatreds and sharpen ethnic divisions. Environmental changes and refugees cause together and separately open violence and conflicts. This has already happened in the resettlement projects in Ethiopia.[28]

The largest emigrations in history are still to come if the greenhouse effect comes true, even partly. Rising sea levels in a warming world, coupled with dying ecosystems, would displace millions of people, for instance, in low-lying deltas as in Egypt and Bangladesh and island countries such as the Maldives.[29]

In international practice, Kakönen says, environmental refugees do not meet the requirements set for the definition of a refugee. One does not need to

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[26]Homer-Dixon, p. 35.

[27]Robert S. McNamara, "Time Bomb or Myth: The Population Problem", **Foreign Affairs,** 62 (Summer 1984), pp. 1107-1113.

[28]Jyrki Kakönen, ed., **Perspectives on Environmental Conflict and International Politics**, London, Pinter Pub., 1992.

[29]Brown, **op. cit.**, p. 9.

apply the same rules to them as to political refugees.[30] Thus, massive flows of environmental refugees would be movements that generate social conflict and disintegration and overwhelm national borders.

In his striking article, "The Coming Anarchy", Robert D. Kaplan argues that future wars will be those of communal survival, aggravated or, in many cases, caused by environmental scarcity. These wars will be subnational, meaning that it will be hard for states and local governments to protect their own citizens physically: this is how many states will ultimately die. Accordingly, environment is the national security issue of the early 21st century: "The political and strategic impact of surging populations, spreading disease, deforestation and soil erosion, water depletion, air pollution, and possibly, rising sea levels in critical, overcrowded regions like the Nile Delta and Bangladesh - development that will prompt mass migrations and, in turn, incite group conflicts - will be the core foreign policy challenge from which most others will ultimately emanate, arousing the public and uniting assorted interests left over from the Cold War".[31]

Such destabilizing prospects reveal the inadequacy of traditional security policies for future threats. The traditional concept of security denotes the tasks of a state which attempts to ensure the security of its citizens against outside threats by the use of weapons. The content of the concept is changing today as regards citizens' threat images. International and national opinion polls have shown that the insecurity felt by people is not connected with war and armed attack as much as it is connected with overpopulation, exhaustion of natural resources, hunger, climate change, and AIDS.[32]

However, states still prepare to defend themselves by force of arms against any kind of threat. Many states arm themselves in order to confront environmental conflicts with other parties. Actually, the maintenance of armed security detracts from the sources necessary for a solution to problems creating the need for armament. At the same time, armed defense and its maintenance always means defense of the prevailing conditions and shows that there is no real will in the international system to solve underlying problems.

International security could be enhanced by making the relations between the North and the South more equal and by abandoning the classical practice of using arms to deal with any kind of threat. These two objectives go hand in hand: resources should be used for the environment, not on

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[30] Kakönen, **op. cit.**, p. 150.

[31] Robert D. Kaplan, "The Coming Anarchy", **The Atlantic Monthly**, No. 02, (1994).

[32] Kakönen, p. 147.

armament; this would open new channels for redistributing income from the North to the South, which is an important system-stabilizing mechanism.