

Special Contribution

The Emerging International System and Sustainable Development

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1. Introduction

In 2002 we will celebrate the 10th anniversary of the United Nations Conference on Environment and Development. There have been many changes since then: population growth, rapid advances in information technology and in biotechnology, continued environmental degradation and most importantly, growing inequities among countries, communities and individuals. We now have 6 billion people on Earth. By the middle of this century, the population is predicted to reach 9 billion people, all of whom need a decent standard of living. While we have always had the capacity to affect our environment, we are now able for the first time to change the Earth on a global scale, through global warming, depletion of the high-level ozone layer or extinguishing of biological diversity. Most importantly, "human activities have begun to significantly alter the Earth's basic chemical cycles—the water, carbon and nitrogen cycles—that all ecosystems depend on" (UNDP 2000, 9). The 1992 United Nations Conference on Environment and Development mandated sustainable development. Almost ten years later, the mandate is unfulfilled. As the United Nations Secretary General, Kofi A. Annan, poignantly observed in his report for the 21st century: "We now face an urgent need to secure the freedom of future generations to sustain their lives on this planet—and we are failing to do it. We have been plundering our children's heritage to pay for unsustainable practices. Changing this is a challenge for rich and poor countries alike" (Annan 2000).

This article argues that the international system in which sustainable development must take place is evolving from one focused almost exclusively on states to one encompassing many different actors who often disagree over the allocation of authority for managing issues. The emerging international system is besieged by inequities that threaten its social, economic and political stability. Information technology is transforming interactions within the system. Protecting the environment is now more complicated than ever. It requires multidisciplinary research, integrated understanding of ecosystems and of social communities and effective actions with the full participation of relevant stakeholders. The *International Review for Environmental Strategies* is a very significant step in disseminating policy-relevant

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multidisciplinary research that can help bring about sustainable development for all the world, especially in Asia.

2. Evolution of international governance

The international system is changing. For more than three centuries, the international system has focused almost exclusively on sovereign, independent, theoretically equal States. While the system was based on equal relations between States, there was a clearly defined hierarchy within States: provinces, cities and other subnational governmental units, with private actors clearly subordinate to States. International organizations were relatively few, and the result of States' exercise of sovereignty. The emerging system consists of networks of actors¹: States, international organizations, nongovernmental organizations, multinational corporations and industry associations, ad hoc transnational groups, criminal networks and individuals. The system is increasingly non-hierarchical. The 1998-99 Yearbook of International Organizations records 6,250 intergovernmental organizations and 42,100 nongovernmental organizations, for a total of 48,350 international organizations (Yearbook 1999, 549).

While States certainly remain the principal actors and are the only ones that can tax, conscript and raise armies, their freedom to make decisions unilaterally is restricted. Other organizations are undertaking many of the tasks formerly reserved exclusively to States. The hierarchical system within States is also becoming more circumscribed, as provinces or their counterparts, cities and other subnational entities take actions affecting foreign affairs and participate in the process of globalization. By contrast, the community of sovereign, independent States, which has increased from 51 in 1945 to 188 States as members of the United Nations in early 2000, has become more hierarchical. This is reflected, for example, in weighted voting in some international organizations and in differentiated capacities to participate in international negotiations and other actions.

Three developments in the international system profoundly affect the implementation of the 1992 Rio conference mandate for sustainable development: the simultaneous push towards integration and fragmentation; the globalization of the economy and the rise of thousands of organizations and millions of individuals as relevant actors—the rise of global civil society.

2.1. Integration, globalization and fragmentation

As we approach the third millennium, our world is becoming both more integrated and more fragmented. Evidence of integration abounds: regional trading units, regional political and economic organizations such as the European Union or the Asia Pacific Economic Community (APEC) and international regimes covering issues ranging from banking and trade, to human rights, environmental protection and arms control and the spread of financial markets. Moreover, technological advances and an increasing number of problems requiring regional or global actions will compel greater interdependency among States and greater integration of them, at least for particular functions.

¹ This idea of networks in international organizations is developed by Harold K. Jacobson (1984, 386).

Globalization is taking place in the private sector. Production is a global process: materials are processed in one country, parts are made in different countries and components are assembled in yet another country. Multinational companies are major actors, and other organizations, such as industry associations and nongovernmental organizations, increasingly operate transnationally and form an important part of the globalization process. Future problems will require both international cooperation by governments and transnational cooperation in the private sector to address them effectively.

The communications revolution has dramatically changed the landscape for integration and globalization. The Internet makes information (and misinformation) readily available to both organizations and individuals in civil society, provided they have the means to access and use the technology. Information technology has empowered civil society to participate in international as well as local governance. Individuals, for example, can now engage almost instantaneously in global letter-writing campaigns via the Internet. The Land Mine Convention, which bans the use of land mines as an instrument of war, was a product of individuals' initiatives and the widespread use of the Internet to mobilize support. Information technology has helped make local actions and developments matters of international concern. In this sense, it strengthens the role of NGOs and individuals in environmental governance. The communications revolution also reinforces the globalization of the market. It empowers consumers, and accelerates and makes more efficient the operations of all market processes. However, the communications revolution also raises some important equity issues, as discussed below, which need to be addressed.

At the same time as integration and globalization increase, fragmentation and decentralization within and among countries are growing. Nationalism, ethnicity, religious identification and family affiliations create pressures for local autonomy and transborder linkages. Fewer than 10% of the approximately 190 States are homogeneous ethnically (Nye 1992, 91). While States are giving up sovereignty to transnational actors that cut across national borders, no sense of identification that is comparable to that associated with the nation-state or other forms of personal identification attaches to these actors. Environmental governance must take account of this fragmentation and its consequent conflicts.

New divides are fracturing the international system. There is a significant divide between States and their nonstate transnational elites, on the one hand, and the ethnic, nationalistic, religious, dispossessed and alienated communities on the other that operate within States and across national borders. An important second divide is between States and the global private sector, on the one hand, and illicit transnational groups, such as organized crime, drug cartels and terrorism on the other. These divides provoke unexpected alliances and complicate the process of sustainable development.

2.2. Equity issues as central to environmental protection

While the world as a whole is becoming much wealthier, this growth is concentrated in a relatively small but growing number of people. At the same time, there are growing numbers of people and communities who are dispossessed economically and through other ways in the global economy. The gaps are widening; new gaps are arising.

The impoverished peoples consist of at least four different groups with overlapping membership: countries who are falling further behind economically, such as those in many parts of Africa; communities

and groups of people within countries who are impoverished; refugees from violence, famine and environmental destruction and, in some cases, elderly populations. In some countries, populations will for the first time resemble an inverse population pyramid, with smaller numbers of young at the bottom and a mushroom of elderly at the top. The resulting social and economic strains could interfere with sustainable development. The international community has little experience with the inverse population pyramid. As importantly, groups that are economically dispossessed raise the specter of the "rogue actors" that have the capacity to interfere with, and even defeat, sustainable development in certain areas.

The 1999 United Nations Development Program's (UNDP) Human Development Report (1999, 38) reveals that the distance between the richest and poorest country in income distribution was 11 to 1 in 1913, 35 to 1 in 1950, 44 to 1 in 1973, and 72 to 1 in 1992. The gap has widened since then. Based on data from Forbes Magazine, the UNDP Report asserts that "the assets of the three richest people are more than the combined GNP of all least developed countries" (UNDP 1999, 38). The economic gaps between peoples within countries is also widening in many countries, both industrialized and developing.

Traditionally, States, multilateral development banks and other intergovernmental organizations have taken the lead in addressing equity issues in economic development. They and the States receiving assistance have set the criteria and the priorities for assistance.

But increasingly the global marketplace is turned to as the primary, almost even sole arbiter of development. This raises issues of sustainability, equity and accountability.

This inequality is exacerbated by the so-called "digital divide": the huge discrepancy in access to technology and the benefits of globalization. The UNDP reported in 1999 that fully one quarter of the world's countries did not have even one telephone per one hundred people, a standard measure the UNDP uses to identify minimally basic access to telecommunications (UNDP 1999, 62). In 1997, 26.3% of the U.S. population were Internet users, compared to 0.8% in Latin America, 0.4% in East Asia, and 0.1% in Sub-Saharan Africa (UNDP 1999, 63). Internet access fees average U.S.\$ 100 per month in much of Africa, as compared with only U.S.\$ 10 per month in the United States (UNDP 1999, 63).

The Internet enables people to spread information relatively cheaply, and empowers them. It greatly helps international trade, for it reduces transaction costs and thus the prices of goods and services around the world. It is generally faster and cheaper to communicate through e-mail with business partners than through traditional means. Internet commerce will grow significantly because it can avoid many of the barriers associated with international trade, such as shipping time and costs, especially for information and software that can be not only marketed but delivered via the Internet. Moreover, information about tariffs and trade procedures are increasingly available to the public over the Internet, and numerous projects are working to make these procedures both more uniform and more public (UNDP 1999, 162-69)². However, all of these services will only be available to those who have access to the Internet, which in turn requires access to computers and, at this stage, telephone lines. The developed countries are for now generally in the best position to take advantage of the digital revolution.

² The more developed countries have adopted laws to facilitate this process (UNDP 1999, 176) (listing significant legal reforms in Japan, South Korea, and Singapore, but significantly more limited reforms in India, the Philippines, Sri Lanka and Thailand).

As with the digital revolution, intellectual property rights are also unequally distributed: ten countries controlled 95% of U.S. patents and 84% of global research and development in 1993 while 80% of patents from developing countries were awarded to residents of industrial countries (UNDP 1999, 68). These numbers hide some of the inequality that stems from the fact that intellectual property regimes do not protect the rights of local and indigenous groups to benefit from their own traditional knowledge.

There are very important equity issues related to environment, which are particularly relevant for IGES. Environmental effects are especially significant because of their long-term, often irreversible nature. Countries may be willing to forego significant environmental protection until they have achieved a given level of economic development. However, while poorer communities within countries often bear the environmental harms and stresses most, they often do not receive a correspondingly higher share of the future economic benefits. As noted elsewhere, "economic development must not take place on the environmental backs of the poor" (Brown Weiss 1995, 17). Industrialized countries face similar problems of inequitable sharing of environmental burdens among communities and inequitable access to environmental benefits. In the United States, for example, this has led to pressures for "environmental justice" and federal efforts to address these issues.

3. The special role of Asia

Asia plays a central role in any environment and development scenario³. Most of the population growth is expected to take place in the region. Asia is home to roughly half of the world's population. In *World Development Indicators 1999*, the World Bank reports the total population of East Asia and the Pacific as 1.75 billion and the total population of South Asia as 1.28 billion, totaling 3.03 billion. By 2015, East Asia and the Pacific will have 2.05 billion and South Asia 1.65 billion, or 3.70 billion persons combined⁴. The world community cannot afford to ignore the environmental conditions that surround half of its population.

The Asian region is critical for global environmental issues for many other reasons. Notably, it commands a sizable economy. The GNP of East Asia and the Pacific, taken as a whole, was U.S.\$ 1.7 trillion in 1997; the GNP of South Asia was U.S.\$ 493 billion. Economic growth has been very rapid in some countries, although to be sure the Asian economic crisis in the late 1990s seriously affected the growth rate. Moreover, Asia is home to a sizable portion of the world's forests and to areas rich in biological diversity. As of 1995, East Asia and the Pacific had 3,756,000 km² of forest area, out of the world's 32,712,000. South Asia has 744,000 km² of forest land⁵. Combined, the continent of Asia represents

³ The World Resources Report defines its demographic category "Asia" as Mongolia, Korea (North and South), Nepal, Bangladesh, all of Southeast Asia and all of Oceania except Australia and New Zealand (established market economies). Japan is also included with the established market economies, and China and India each have their own category. However, in some of its tables, it treats Asia as a continent, excluding only the established market economies (Japan, New Zealand and Australia). The World Bank separates "East Asia and Pacific" from "South Asia," but does not distinguish in its regional statistics between developing and developed countries.

⁴ The regions with the highest growth rates are the Middle East and North Africa (2.7%) and Sub-Saharan Africa (2.8%). However, the much larger starting population size in Asia will mean that Asia produces more of the world's population growth than either of these two regions. All population figures are from World Development Indicators 1999 (1999, 44). All data are from 1997.

⁵ For the forest statistics, see the World Development Indicators 1999 (1999, 121-22).

⁶ These figures do not include the data for Central Asia, which is grouped in most international reports with Eastern Europe and the former Soviet Union, nearly half of which actually rests in Asia.

nearly 14% of the world's forest lands⁶. According to the World Bank, East Asia had 6.9 of its land area in protected areas; South Asia had protected 4.5% of its land mass.

People in Asia have the capacity to alter the environment on local, national, regional and global scales. Many of the problems seen elsewhere are particularly acute in the Asian region. For example, the Asian urban population of 706,206,000 in 1980 is expected to rise to 2,275,015,000 by the year 2020, which will exacerbate urban environmental problems (UNDP et al. 1999, 275). Climate change, fresh water supplies of acceptable quality and waste disposal are global problems that are also particularly acute in the Asian context. The private sector has an important role in many of the countries in ensuring environmental protection. Thus, it is important to have research that addresses environmental issues in Asia and at the same time considers them in the global environmental context.

The inequities alluded to earlier similarly arise within Asia. While many of the economies are robust, they have not produced significant wealth for much of the population of Asia. The GNP per capita in East Asia and the Pacific in 1997 was U.S.\$ 970, while the figure for South Asia was only U.S.\$ 380. As a result of the Asian economic crisis, the real 1998 growth rate for East Asia and the Pacific was nearly 8 percentage points lower than anticipated in 1997⁷.

Telecommunications technology, and especially the Internet, has the potential to bring remote regions and people into the global market. This promises to lead to increased living standards as trade with Asia becomes more profitable and as goods and services previously unavailable in remote regions become accessible cheaply through electronic communications (Economic and Social Commission for Asia and the Pacific 1999, 146-48). However, the discrepancies are large within Asia in the ability to access and use the technology. In the period 1992 to 1996, for example, Japan had 47.85 phone lines and 9.40 personal computers per hundred persons; Malaysia had 14.70 phone lines and 3.22 personal computers per hundred persons and, by contrast, Vietnam had only 0.77 phone lines and 0.07 personal computers per hundred people (Economic and Social Commission for Asia and the Pacific 1999, 143-44). It is unlikely that the bulk of the population in many East Asian countries will reap the benefits of the Internet without massive improvements to their telecommunications infrastructure and to their ability to access and use it.

4. The inauguration of IRES

The *International Review for Environmental Strategies* disseminates the results of rigorous scientific research into environmental problems. Some of the articles in the first issue address global environmental issues, such as climate change, or focus on environmental problems touching all countries, such as urbanization. Others are focused on global environmental issues within specific areas of Asia, such as forest conservation and land use in Laos.

IRES focuses on multidisciplinary research results that have important implications for global, regional, national and local environmental policies. It is important to have a forum for analyzing environ-

⁷ South Asia had the lowest GNP per capita for any of the World Bank's regions. All economic figures are from World Development Indicators 1999 (1999, 14).

mental strategies, and for disseminating the research results that can lead to informed policy choices. *IRES* offers a forum for exchanging experience with different environmental strategies and for undertaking comparative analyses of experiences in different parts of the world. Importantly, *IRES* provides an opportunity for disseminating research results that address the regional problems in Asia and the world. Both the public and private sectors, as well as the academic community, can benefit from this forum.

IRES also provides an opportunity for the international community to become familiar with research undertaken within Asian countries, which might otherwise be inaccessible. While excellent environmentally relevant research is done in Asia, the literature is frequently neither widely known nor available in the West. Partly this is because of linguistic differences. *IRES* represents an important step in rectifying this situation. In addition to scholarly articles, it will provide a review of selected books written by scholars in Asia that are significant for understanding environmental issues.

Many of the articles in *IRES* are written by young scholars. *IRES* deserves praise for recognizing the importance of encouraging the dissemination of outstanding scholarship by the future leaders of the research community. This stance should continue to be a hallmark of the Journal.

IRES is intended to showcase multidisciplinary, policy-relevant research on environmental strategies to the world community. Sustainable development can only benefit from this initiative.

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