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Global Environmental Issues: The Genuine Area of Globalization

Cover Page Footnote

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GLOBAL ENVIRONMENTAL ISSUES: THE GENUINE AREA OF GLOBALIZATION

RUDOLF DOLZER*

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I. INTRODUCTION

Behind the loose and overstretched notion of globalization are both quantitatively and qualitatively different phenomena in economic, cultural, and environmental international relations. For instance, the globalization of markets, driven by the mobility of capital, modern communication technology, and the free flow of information stands in the center of economic considerations. In the area of culture, the domination of distinct, especially American, preferences and norms of behavior is increasingly detrimental to local traditions worldwide. For the environment, globalization is the general concern over individual problem areas shared by all states.

A more precise scrutiny reveals that the degree of globalization and evaluation of its existence is neither uniform nor evenly expressed. In the economic sphere, globalization is not a novel phenomenon, but relates to the pace of change that has increased dramatically, in part with worldwide technical innovations. Although

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the phenomenon of economic globalization can be evaluated in various ways, it remains that economic actors dominate this trend, not states. Expanding international markets cause governments to face very narrow choices in dealing with liberalization. In the field of culture as well, the options of governmental actors are reduced, even though the loss of diversity is regretted here much more frequently than in the sphere of economic relations.

The globalization of environmental issues is fundamentally different from that of economic and cultural relations. In particular, the globalization of environmental issues is quite advanced. The global trend in economics and culture is only beginning, with local or regional factors still dominating most economic and cultural sectors.¹ However, the features of the global environment are much more distinct with clearly identifiable global effects. In essence, six problem areas of concern have developed in global environmental relations: climate change, the loss of stratospheric ozone, the loss of biodiversity, the loss of forests, the degradation of international waters, and the expansion of desert areas.² Contrary to the economic and cultural issues, no one will welcome globalization of environmental problems.

While economic and cultural globalization is increasingly discussed in the broad terms of freedom and responsibility, related environmental questions present themselves with far more distinction at the international law level. This distinction consists of the dichotomy between the ongoing emphasis on preserving national sovereignty on the one hand and legally bounded cooperation in controlling anticipated dangers on the other. Despite this, the mutual interdependence of nations and states in combating global environmental issues is now so evident that it will essentially no longer be questioned. The number of ratifications of relevant international treaties testifies to this, even though individual states still delay committing themselves, as with the Biodiversity Convention. Nevertheless, the treaty networks created to protect the climate, the stratospheric ozone layer, biodiversity, and to a lesser extent the rules against the expansion of desert areas have been universally accepted within a short period; now lacking is an agreement that primarily addresses the necessity of sustainable management of international waters.

All existing international treaties now address environmental concerns that were previously under the control of one state or

1. See R. LIPSEY ET AL., *INTERNATIONALISED PRODUCTION IN WORLD OUTPUT* (1995).

2. See WORLD BANK, *ENVIRONMENT MATTERS*, 5-6 (1997).

region. In treaty negotiations a cardinal area of concern has been the definition of common interests between industrialized states and developing states.³ Differences among industrialized states, themselves, and the role of states with economies in transition have likewise posed problems for these negotiations and for the implementation of the agreed upon treaties.⁴ As a result, the very notion of a developing state will be increasingly questioned from an environmental standpoint in light of diverging interests and, especially, in light of the significant divergence in economic and technological capabilities between these countries. Nevertheless, the cardinal challenges in establishing international regimes for environmental protection still relate to the integration into networks of the group traditionally called the developing states.

In principle, a recent major success of the negotiations is that the states' economic heterogeneity has not inhibited universal acceptance of environmental agreements, although this objective could not have been reached strictly under classic rules of international law. For obvious reasons, the developing states have been prepared to cooperate in the pursuit of global environmental aims only on the condition that their legitimate economic interests would not be questioned, and that the corresponding implementation costs would be borne by the industrialized states. To accommodate this position for the sake of global environmental protection, traditional principles of treaty law had to be modified, and in some areas, negated.⁵ Issues of economic sovereignty of the state had to be addressed. The developing states in particular emphasized the maxim of "permanent sovereignty over natural resources" as expressed in the seventies and eighties to underline their independence in economic relations after gaining political independence.

The developing states have since considerably retreated from this position upon ratifying new environmental global treaties. Today, the new conceptual axis of these treaties lies in the principle of "common but differentiated responsibility."⁶ The political basis for this reconsideration of national sovereignty lies in the consensus that

3. See Rio Declaration on Environment and Development, June 3-14, 1992, U.N. Conference on Environment and Development, princ. 1, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I) [hereinafter Rio Declaration].

4. See Paul R. Williams, *Issues Relating to the 1992 Brazil Conference on the Environment*, 86 Am. Soc'y Int'l L. Proc. 401, 401 (1992).

5. See Hague Declaration on the Environment, Mar. 11, 1989, reprinted in 28 I.L.M. 1308, 1309 (1989) [hereinafter Hague Declaration].

6. See Rio Declaration, *supra* note 3, at princ. 7. See also, H.P. Schipulle, *Das Rio-Paradigma der 'gemeinsamen, aber differenzierten Verantwortung'*, 38 ENTWICKLUNG UND ZUSAMMENARBEIT 200, 200 (1997).

industrialized states bear the additional costs that these agreements place on developing states. In other words, the means to implement these agreements will be "new and additional", and will not reduce the amount of aid otherwise transferred from developed states to developing states.⁷ At its core, the new conception is therefore based upon a radical rejection of the classical principles of economic sovereignty and sovereign equality. The following observations review the practical implementation of these novel principles in light of the experiences so far gained in international relations.

II. COMMON BUT DIFFERENTIATED RESPONSIBILITY FOR THE GLOBAL ENVIRONMENT

The basic notion of common but differentiated responsibility reflects the will of developing states to participate in the negotiations and implementations of global environmental protection strategies in the form of binding international treaties. The precondition was that the industrialized states agree in advance to bear the ensuing costs for the developing states. The amount of these costs and the timing of their disbursement were generally left open, subject to future international political negotiations. The principle does not elaborate upon the specific material substance implied in the developing states' willingness to cooperate, leaving this as well to the political negotiations leading up to the agreements.⁸

A characteristic of the agreements reached so far is the promise between developing states and developed states to explicitly leave room for the economic growth of the former, including the corresponding environmental consequences that have previously arisen from the growth of the developed states. In the Climate Convention,⁹ the industrialized states agreed to bear the "agreed incremental

7. See Rio Declaration, *supra* note 3, at preamble to Agenda 21, ch. 33. See also, Schipulle, *supra* note 6, at 201.

8. See generally, Hague Declaration, *supra* note 5. The historical starting point of global governmental environmental politics in a narrow sense is evident in the Conference and Declaration of the Hague. Except for the United States and the United Kingdom, all important industrialized states and a number of states of the Third World, twenty-four states altogether, participated in the conference. See *id.* at 1308. In essence, the Hague Declaration already contains the basis for the concept of common but differentiated responsibility in environmental matters. See *id.* at 1309. Issues related to raw materials and energy are addressed, as are economic and technological resources. See *id.* Remarkably enough, the Declaration also addresses the necessity of international institutional regimes, a promise so far not implemented. See *id.*

The principle of common but differentiated responsibility does not appear to affect the problem of responsibility in the case of actual damages. See R. Dolzer, *Völkerrechtliche Verantwortlichkeit und Haftung für Umweltschäden*, 32 BERICHTE DER DEUTSCHEN GESELLSCHAFT FÜR VÖLKERRECHT 195, 223 (1992).

9. U.N. Conference on Environment and Development: Framework Convention on Climate Change, May 9, 1992, 31 I.L.M. 849 [hereinafter Climate Convention].

costs" for establishing inventories of greenhouse gas emissions and other climate protection activities.¹⁰ As to measures for addressing climate change, the developing states will be compensated for the "agreed additional incremental costs."¹¹ The agreements so far reached show that the developing states have accepted only generally worded normative commitments. In the area of climate change, the developing states have committed to establish inventories for greenhouse gas emissions and national or regional programs to reduce them.¹² So far, in the text of the Convention, this is the only explicit preventative undertaking of the developing states in the area of climate change.¹³

In a similar vein, the Biodiversity Convention¹⁴ states that the signatories member, including the developing states, will develop national strategies, plans, or programs,¹⁵ and that aspects of biodiversity will be included in the national decision-making process.¹⁶ The rules to protect biodiversity, however, are somewhat more specific when dealing with protection *in situ*¹⁷ and *ex situ*.¹⁸ The developing states have agreed to follow these norms to the extent possible with respect to both climate change and biodiversity.¹⁹ In comparison, the developing states have insisted upon a generous transition period for themselves in agreements to protect the stratospheric ozone layer.²⁰

In addition, the undertakings of developing states acquire an even more conditional character in view of their limited economic and technological situations; presumably, this cost arrangement reflects the developed states' undertakings to provide economic and technological support.²¹ In practical terms, this approach will also

10. See *id.* art. 4, § 3, sentence 1, at 858.

11. See *id.*

12. See *id.* art. 4, § 1, at 855.

13. See *id.* art. 3, at 854-55.

14. U.N. Conference on Environment and Development: Convention on Biological Diversity, June 5, 1992, 31 I.L.M. 818 [hereinafter Biodiversity Convention]

15. See *id.*, art. 6, at 825.

16. See *id.* art. 10, at 826.

17. See *id.* art. 8, at 825-26. "In situ" conservation is defined as the "conditions where genetic resources exist within ecosystems and natural habitats, and in the case of domesticated or cultivated species, in the surroundings where they have developed their distinct properties." *Id.* art 2, at 824.

18. See *id.*, art. 9, at 826. "Ex situ" conservation is defined as "the conservation of components of biological diversity outside their natural habitats." *Id.*, art. 2, at 824.

19. See Climate Convention, *supra* note 9, art. 4, at 858-59; Biodiversity Convention, *supra* note 14, art. 6, § b, at 825.

20. See U.N. Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, art. 5, 26 I.L.M. 1541.

21. See Climate Convention, *supra* note 9, art. 4, § 7 at 858; Biodiversity Convention, *supra* note 14, preamble, at 822-23. The Desert Convention does not contain a comparable norm due

find expression in the periodic revisions foreseen in the relevant clauses. The agreement to periodically revise the commitments of all states in light of scientific developments creates a de facto, continuous dialogue about future developments between industrialized states and developing states. In the area of climate change, this aspect has recently become central to the entire negotiation process, mainly because of political pressure by the United States. This focus on negotiations illustrates that the principle of common but differentiated responsibilities stands only at the beginning of the process of cooperation, and that further elaboration at the operational level may potentially lead to significant conflict in the North-South context.

In actual negotiations, the link between the integration of developing states to the global environmental protection process and the obligation of developed states to financial and technological support might become counterproductive. This danger would materialize if developing states decide not to forego existing possibilities for protecting the environment to use these deficits as an incentive for intensified negotiations for increased support from the developed world.

In the long run, however, developing states are very likely to abandon such tempting negotiation techniques to protect their enlightened national self-interest. In all areas of global environmental politics, developing states are affected at least as much as developed states by a deterioration of existing problems. This will be true for low-lying coasts in South China and Bangladesh threatened by rising sea levels resulting from higher global temperatures; the same will be true for increased deforestation of the Brazilian rain forests or the quality of international waters in many coastal areas where millions of people will settle in the future. All these factors and existing negotiation experiences, however, will not detract from or affect the principle of common but differentiated responsibility. The principle

to the fact that this agreement was initiated by developing States, thus setting a completely different negotiation agenda. See International Convention to Combat Desertification in Those Countries Experiencing Serious Droughts and/or Desertification, Particularly in Africa, June 17, 1994, art. 5, 33 I.L.M. 1328, 1337.

So far, the principle of incremental costs has not really been clarified in the practice of the Global Environment Facility; its application to individual cases was frequently a source of friction among developing States, developed States, and the GEF. It would be unrealistic to assume that in the future a mathematical approach could be developed. Rather, the challenge will lie in the task to develop, in a pragmatic way, specific criteria to reduce the negotiations to an administratively and financially acceptable level. Comparable issues also will have to be dealt with in the framework of Article 20, Section 2 of the Convention on Biodiversity. See R. Wolfrum, *The Convention on Biological Diversity: Using State Jurisdiction as a Means of Insuring Compliance*, in ENFORCING ENVIRONMENTAL STANDARDS: ECONOMIC MECHANISMS AS VIABLE MEANS? 373, 388 (1996).

will be justified as long as the industrialized states, which in the past have drawn enormous benefits by using and overusing natural resources and thereby began the process of endangering the global environment, remain in a much better economic and technological position to combat the existing problems.

III. FINANCING THE PROTECTION OF THE GLOBAL ENVIRONMENT AND THE LACK OF HARD DATA

Reliable estimates for the financial resources necessary for global environmental protection within developing states are currently not available, perhaps with the exception of issues relating to the stratospheric ozone layer. During the UNCED Conference in 1992, the figure of \$600 billion (US) for the period 1993-2000 was cited, but only in reference to all sectors of the environment, not just to the global environmental issues.²² On the part of industrialized states, the expectation to raise official development aid, however, has not been accepted. At the time, the developed states expressed their political will to increase development aid to 0.7% of their gross national products. In reality, aid has since not increased, and in 1996 had in fact decreased to the lowest level in four decades.

The existence of reliable data for the finances necessary to develop the global environment must be based on the agreed values of these environmental sectors, on assessments of the threat to these values, and on the cost necessary to rehabilitate endangered areas. The international community is currently far from an assessment of this kind. Inasmuch as there are no reliable methods to value these areas, existing estimates necessarily will be based more or less on subjective considerations and preferences.

A special fund was established by the developing states to finance policies protecting the stratospheric ozone layer.²³ In the area

22. See Rio Declaration, *supra* note 3, at ch. 33.18. For the non-binding expectations of developing States as agreed upon at the Rio conference, see chapter 33, generally.

23. For the basis of the financial mechanism of the Protocol of Montreal, see *Report of the Second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, U.N. Environment Programme, Agenda Item 7, Decision II/8, at 12-14 (Financial Mechanism), UNEP/OzL.Pro.2/3 (1990) [hereinafter Montreal Protocol]; Appendix IV (Terms of Reference for the Interim Multilateral Fund), UNEP/OzL.Pro.2/3. See also, Decision VI/16 (Juridical Personality, Privileges and Immunities for the Multilateral Fund), UNEP/OzL.Pro.6/7, 22; BIERMAN, FINANCING ENVIRONMENTAL POLICIES IN THE SOUTH: AN ANALYSIS OF THE MULTILATERAL OZONE FUND AND THE CONCEPT OF "FULL INCREMENTAL COSTS" (1996).

For the period between 1997 and 1999, \$514 million has been allocated to the Multilateral Fund. The financing of the fund among the member states follows the contributions to the United Nations, but the programming and the precise contribution amounts is decided by a conference of the parties. Individual projects are decided by an executive committee of a conference of parties wherein developed states and developing states are both represented with seven members. See Montreal Protocol, *supra*, art. 10. If there is no consensus, decisions

of climate change, the international community has not agreed upon a specific objective concerning the level of greenhouse gases in the atmosphere in the long run; the Climate Convention itself expresses this goal only in an abstract manner.²⁴ In the current phase, the states at the 1996 Kyoto Conference established reduction limits for the foreseeable period until 2012. No desirable approaches have been established in specific areas such as transportation, energy production, and energy use by industry and private households. In addition, the costs to reduce greenhouse gases must still be assessed for every country, although they will significantly differ between industrialized states and developing states. At this point, therefore, objective figures to protect the global climate can be spelled out for individual projects, but not for the various sectors concerned and certainly not on a global comprehensive basis.²⁵

The situation is essentially similar to the financial requirements for protecting biodiversity at the global level. Some estimates have been presented which may serve to indicate the magnitude. Environmental experts assume that the volume required for all developing states to avoid a significant loss of biodiversity might lie between \$15 and \$20 billion per annum.²⁶ The finances currently available amount to about \$7 billion, with about \$1 billion coming from various sources in the developed states.

will be rendered on the basis of a two-thirds majority of present and voting member states, provided that this majority includes a majority of both the developing states and the developed states. See Montreal Protocol, *supra*, art. 10, § 9; *Report of the Fourth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer*, Agenda Item 9, § 4, Annex X (Terms of Reference of the Executive Committee) UNEP/OzL.Pro.4/15 (Nov. 25, 1992).

24. Article 2 reads as follows:

Objective

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

Climate Convention, *supra* note 9.

25. See F. KRAUSE ET AL., *CUTTING CARBON EMISSIONS: BURDEN OR BENEFIT?* (1997).

26. See BIRDLIFE INTERNATIONAL, *NEW AND ADDITIONAL? FINANCIAL RESOURCES FOR BIODIVERSITY CONSERVATION IN DEVELOPING COUNTRIES 1987-1994* (1996) (A study based on work carried out by the World Conservation Monitoring Centre, funded by the European Commission).

IV. THE ROLE AND THE POSSIBILITIES OF THE GLOBAL ENVIRONMENT FACILITY

The only institution created exclusively for the finance and implementation of projects to protect the global environment is the Global Environment Facility (GEF) Established in 1991 prior to the Rio Conference. Within an innovative framework, the World Bank, the United Nations Development Program, and the United Nations Environment Program (UNEP) collaborated for this purpose.²⁷

At the end of 1997, 155 states had joined the GEF, which has thus far initiated about 230 projects. No other organization, national or international, has addressed fundamental issues of environmentally sustainable development with the same intensity and breadth or has drawn upon the advice and the assistance of nongovernmental organizations to the same extent.

During its experimental phase between 1991 and 1994, the GEF had at its disposal \$2 billion. At the end of this period, the GEF was restructured, and during the first working phase between 1994 and 1997, thirty-four states, including thirteen developing states, again made about \$2 billion available to the GEF.²⁸ During the Rio Conference, an amount between \$4 and \$8 billion for a comparable period had been under discussion. Negotiations for another replenishment are ongoing, and it appears that sustaining the previous level of financial volume may be difficult, especially in view of budgetary constraints in various developed states.²⁹ About 43% of the funds of the GEF serve both the climate change area and the protection of biodiversity, and about 17% are attributed to improving

27. See, Stephen A. Silard; *The Global Environment Facility: A Newcomer in International Law and Organisation*, 28 GEO. WASH. J. INT'L L. & ECON. 607, 614 (1995) (examining the rationale and basic building blocks of GEF). See generally, Phillippe Sand, *Trusts for the Earth: New International Financial Mechanisms for Sustainable Development*, in SUSTAINABLE DEVELOPMENT AND INTERNATIONAL LAW 167 (Winfried Lang ed., 1995); Andrew Steer & Jocelyn Mason, *The Role of Multilateral Finance and the Environment: A View from the World Bank*, 3 IND. J. GLOBAL LEGAL STUD. 35 (1995); R. Dolzer, *The Global Environment Facility—Towards a New Concept of the Common Heritage of Mankind?*, in THE LIVING LAW OF NATIONS 331 (1996); M. Ehrmann, *Die Globale Umweltfazilität (GEF)*, 57 ZaöRV 565 (1997); M.T. EL-ASHRY, THE GLOBAL ENVIRONMENT FACILITY—A SELF-ASSESSMENT (1997).

In the early nineties, the developing states urged the United Nations to establish a "green fund" as an alternative to the GEF. This was not acceptable by the developed states. As to the working areas, the Southern countries took the position that the protection of the climate and biodiversity reflect the priorities of the industrialized states and not of the developing states. Specifically with regard to biodiversity, the primary concern of the Southern states related to the protection of national sovereignty and to benefit sharing, and not to the preservation of species and habitats.

28. See, IBRAHIM SHIHATA, THE WORLD BANK IN A CHANGING WORLD, VOL II 226 (1995).

29. Whether the means of the GEF indeed are all "new and additional," as foreseen in Rio de Janeiro, is not entirely clear when considering the practice of the donor States in detail. The legal issues related to this matter will not remain without significance in the future.

the quality of international waters.³⁰ The GEF also administers the Ozone Multilateral Fund.³¹

The GEF Council established general guidelines for the allocation of funds to specific projects and also created ongoing working programs consisting of thirty-two member states comprised equally of industrialized and developing states.³² A complex web of agreements has established the modalities of the GEF as the interim financial agreement for the Climate Convention, the Biodiversity Convention, and the interaction between the organs of these Conventions and the GEF,³³ but it is currently unclear when and under what circumstances the developing states will eventually recognize the GEF as the definite financial mechanism.³⁴ However, special arrangements have been made between the GEF and the organs of the treaties addressing the protection of the stratospheric ozone layer.

The comparison between the resources available to the GEF and the rough estimates of the means needed to protect the global environment in coming years points to a significant discrepancy. Thus, the GEF in its current financial setting is primarily considered to be a catalytic force with the actual task of financing the global environment going far beyond the GEF as it stands now. In part, this situation illustrates the inescapable link between questions of global environmental policies and the operations of classical aid policies. The areas of energy, water, and forestry, for instance, must be addressed both in the areas of official development aid and specific operations to protect the global environment. The allocation of tasks at the international level is even more complex because, in practice, issues of global environmental politics overlap considerably with the

30. See SHIHATA, *supra* note 28, at 225.

31. See *id.* at 229; Silard, *supra* note 27, at 618-619.

32. See Ehrmann, *supra* note 27, at 583 (concerning the details of the reconstruction of the GEF in 1994).

33. See SHIHATA, *supra* note 28, at 227.

34. In principle, it is clear that the Conference of Parties both for the Climate and the Biodiversity Convention will have to decide policies, priorities, and general criteria of allocation; the GEF will act in this framework and decide individual projects. See, Ehrmann, *supra* note 27 at 602 (describing the debates concerning the relative priorities for the Conferences of Parties of whom are the majority of developing states, or the GEF Council with equal North and South representation).

It will hardly be surprising that the donor states have not agreed to an arrangement that would allow them to be outvoted. To allow for a certain objective approach and to a corresponding coordination between the organs of the Conventions and the GEF, such factors as national programs of the member states, information about the GEF on individual projects, and as information about sources other than the GEF may come into play. Ultimately, the political intent of the industrialized states as reflected in the process of replenishment will decide the volume of financial resources available to the GEF. With regard to the arrangements made in Kyoto on this point, see FCCC/CP/1997/-L.7/Add.1.

working areas of local environmental protection. A review of the necessities in the transportation sector illustrates this situation: a host of measures available to reduce local emissions will also protect the global environment by reducing fuel consumption and travel distances.

Against this background, a fundamental structural problem of global environmental politics emerges: its enormous sectoral breadth, its interlinkage with national and international development politics, and the ensuing complexity of the conditions to manage and implement an efficient global environmental policy. In particular, it is an unfortunate illusion to assume that, with its limited means, the GEF would be able to solve the global environmental problems. Occasional statements seem to suggest that the areas of global environmental politics are appropriately covered by the GEF and that other actors can refer to the GEF when failing to make their own contributions. If this erroneous standpoint prevails, the GEF would in fact exercise an alibi function that in practice would cloud the real nature and extent of environmental politics rather than facilitate its implementation. For the time being, the GEF will be only able to ensure the first steps in maintaining ongoing environmental global politics and simultaneously raise awareness for the necessity of a process to be carried out by a much broader number of national and international actors. It is therefore appropriate to consider in some detail the relevant activities of other international actors influencing the global environment.

V. THE WORLD BANK AS THE KEY ACTOR IN INTERNATIONAL ENVIRONMENTAL POLITICS

The mission of the World Bank is linked to global environmental politics in a double context. Given its financial, technical, and personal resources, the Bank today can initiate global environmental projects more specifically than any other aid organization.³⁵ Moreover, the Bank can make an even greater contribution to the global environment if it orients its entire activities towards this goal and promotes positive effects for all of its projects and activities. This is especially evident in the area of energy politics. Finally, the Bank can indirectly influence the conduct of other actors in the area of global environmental politics with its unique international knowledge, know-how, and persuasive power.³⁶

35. See SHIHATA, *supra* note 28, at 234.

36. *See id.*

It is now generally accepted that aid politics and environmental politics in many respects cannot be meaningfully separated "due to the mutually reinforcing relationship between poverty and environmental degradation."³⁷ Poverty is the most bitter enemy of environmental politics because poverty demands immediate measures for short-term survival. In contrast, efficient environmental policies require an acknowledgment of the legitimate interests of subsequent generations. Today, nearly three billion people live on less than twenty dollars a day. Thus, globally speaking, the environment is threatened not just by an excessive use of resources in the North but also by the lack of available means in the South.

The farmer in Africa will hardly be impressed by warnings of soil erosion when the survival of his family is at stake. The same will be true for rural workers in Brazil who earn their livings on the basis of slash-and-burn practices around tropical rain forests. On a national level, a state whose economy has been developing on the lowest level will not be concerned with a greenhouse gas effect in 2100. Nonetheless, soon the energy demand in developing states will be three times as high as today. Thus, the close link between efficient economic policies and the requirements of meaningful environmental policies has become apparent, and instruments of environmental politics must be designed to build upon the forces of a market economy and not oppose them. Eventually, cost efficiency, economic incentives, and the promotion of environmentally benign innovation will dominate or replace governmental techniques of command and control.

In 1986, the World Bank established its own environmental division with about thirty original members; this number has since risen to about 350.³⁸ Likewise, recent allocations of the Bank's resources have been increasingly spent specifically on environmental projects, rising to about \$12 billion, or about 9% of the entire portfolio in 1997.³⁹ About 60% of the resources allocated to the environment have been targeted to the "brown agenda" (such as projects dealing with the quality of air, water, and waste management), and about 30% have addressed the "green agenda" (such as biodiversity, forestry, and national parks). Remarkably enough, about 10% have been used to strengthen those national institutions in the Third World responsible for protecting the environment.

37. *Id.* at 233.

38. *See id.*, at 183 (regarding the growth of the Bank's environmental division).

39. *See* WORLD BANK, *supra* note 2, at 5. For Latin America and the Caribbean, more than half of the entire envisaged credit volume of \$7 billion has been allocated to environmental projects for the period 1997-1999. *See id.* at 21.

The Bank has developed two main instruments concerning the environmental compatibility of classical aid projects in relation to global and national environmental concerns. First, the foreseeable impact of projects is environmentally assessed based on three categories: category A requiring the most intense examination, followed by categories B and C.⁴⁰ From an environmental viewpoint, considerable weight might also be attached in the future to the so-called Country Assistance Strategies, which form the basis and the framework of the Bank's activities in any particular country.⁴¹ The main challenge will be to establish environmental development as a basic theme for all managers, project leaders, and in particular, economists.

The task thus presented for the Bank cannot be underestimated. In addition to economic development and the eradication of poverty, the protection of the environment may become the third pillar of the Bank's mission. Over the past years, it has become evident that the Bank's top management takes this task very seriously. This is indicated by the fact that the Bank now increasingly cooperates with private environmental organizations to implement projects, a scenario that would have been hardly conceivable a few years ago.

No reliable data exists for those resources of the Bank that are specifically targeted to protect global environmental concerns. For the Bank, the separation of development and environment on the one hand, and global and local environment on the other, is also not analyzed and diagnosed easily. The review of energy projects in China and India, for instance, illustrates the tasks for the Bank in this area. For example, studies of classic power stations with considerable emissions of greenhouse gases are carried out much more often than projects involving environmentally benign renewable energies. No short-term revolution can be expected; the challenge will lie in the development of a step-by-step scheme to lay the foundation for the new direction. It will not be overlooked that the Bank can act in this direction only with the consent of the recipient countries.

With several initiatives, the Bank has recently addressed its desire to combat the greenhouse effect. At the fifth anniversary of the Earth Summit in Rio de Janeiro in summer 1997, President Wolfensohn of the World Bank proposed during the special session of the UN General Assembly that the developed states establish a

40. See WORLD BANK, *supra* note 2, at 7.

41. See SHIHATA, *supra* note 28, at 6 (noting the Bank's policy of shifting developing countries' reliance towards market forces).

Global Carbon Initiative fund to reduce greenhouse gases in developing states.

Concrete measures have also been announced for the protection of biodiversity, and remarkable progress has been made from a negative working concept ("do no harm") towards an approach that would attempt to integrate the protection of biodiversity into the general scheme of Bank operations ("mainstreaming")⁴². For about one hundred projects specifically addressing the protection of biodiversity in more than fifty states, the Bank has so far allocated \$1 billion⁴³, about a third of which is earmarked for the protection of Brazilian rain forests. Turning away from its previous more ad hoc approach, the Bank established a work program to run from 1997 to 2005 aimed at protecting another 60 million hectares of terrestrial ecosystems, including 50 million hectares of forests. The Bank also intends to devote more of its work to the protection of international waters.

On the whole, the Bank has achieved remarkable progress in its approach to environmental policy in the past decade.⁴⁴ A few years ago, the Bank's reputation was that of an institution blind or even hostile to the environment, but with little fanfare it has become the most important actor in international environmental politics in terms of its financial volume, personal resources, and especially its willingness to implement innovative policies.⁴⁵

This assessment addresses certain areas in which the Bank still has room for considerable improvement of its environmental policies. However, a review of the situation reveals limits upon the Bank's innovativeness and aggressiveness in environmental policies. The decisions by donor countries, the acceptance by recipient countries, and more recently the competitive situation of the Bank in relation to private investors in the Third World, create a working framework for the Bank that places significant limitations on innovative initiatives.

Not surprisingly, the Bank's increased attention to environmental matters is entirely consistent with its objectives. The notion of development as the Bank's objective, stated in Article 1 of the its Articles of Agreement,⁴⁶ has in past decades been subject to dynamic

42. See WORLD BANK, *supra* note 2, at 32.

43. See *id.*

44. See WORLD BANK, *supra* note 2, at 1.

45. See SHIHATA, *supra* note 28, at 184.

46. Article I of the Articles of Agreement of the International Development Association states as follows:

The purposes of the Association are to promote economic development, increase productivity and thus raise standards of living in the less-developed areas

reconsideration, and in a modern sense has been inextricably linked with the notion of environmental sustainability.⁴⁷ Thus, it has been appropriate for the Bank to address, more than any other worldwide organization, the operational dimension of sustainability including the fundamental conditions to implement plans based upon this objective. However, in retrospect it is regrettable that the Bank has reoriented its work toward the environment in a somewhat diluted fashion.

VI. INCREASED ACTIVITIES OF REGIONAL DEVELOPMENT BANKS AND BILATERAL ASSISTANCE

Regional developmental institutions have increasingly addressed environmental issues as of late but not as fully as the World Bank. Nevertheless, they have opened themselves to environmental considerations to a remarkable degree.⁴⁸ In 1993 the Inter-American Development Bank (IADB) established a Multilateral Investment Fund to promote environmental projects often in the context of IADB credits. In 1996 a new program, "Sustainable Markets for Sustainable Energy", was established to promote innovative concepts for the support of environmentally benign energy, albeit at this time with very limited resources (\$1.4 million).

To a much larger extent, the European Union, in particular General Direction XI of the Commission, developed specific programs without much publicity for climate-friendly energies for Central and Eastern Europe, and during the period between 1993 and 1996 allocated more than 300 million ECU for this purpose. During the same period, the European Union gave 442 million ECU to developing countries for climate-related projects. In addition, the European Union allocated one billion ECU in resources for the promotion of the environment in developing states in 1994, with Central and Eastern Europe receiving between 10 to 20% thereof for the protection of forests and biodiversity. A program named SYNERGY has specifically supported the further creation of appropriate institutions.

of the world included within the Association's membership, in particular by providing finance to meet their important developmental requirements on terms which are more flexible and bear less heavily on the balance of payments than those of conventional loans, thereby furthering the developmental objectives of the . . . Bank and supplementing its activities. *Id.* at 374.

47. *See id.* at 39.

48. Recent annual reports seem to indicate that the Inter-American Development Bank and the Asian Development Bank allocate more than \$5 million in loans to environmental purposes.

The European Bank for Reconstruction and Development in London has heavily emphasized the improvement of energy efficiency and has allocated more resources to this area than any other regional development bank. An "Energy Efficiency Unit" has performed most of the relevant work. For example, agreements were reached with three multinational companies to lend credits for energy-efficient equipment in the recipient states in Central and Eastern Europe. A separate component of the Bank likewise addresses, *inter alia*, energy efficiency of small and medium sized enterprises in Central and Eastern Europe, as well.

In the area of bilateral aid, data that the donor states convey to the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) provides a rough indication of the amount used for the promotion of the global environment. However, projects for the global environment are not listed separately. Remarkably enough, France has established a national fund to protect the global environment in addition to its key role in establishing the Global Environment Facility. Official German bilateral development aid, for instance, currently allocates about DM 1 billion for environmental purposes, more than 25% of the entire aid budget. The entire volume of worldwide development aid for environmental purposes is unknown, but rough estimates assume an amount between \$3 and \$4 billion. A major part of this volume apparently relates to projects that are not targeted specifically to help the environment, but do in one or another ways benefit it.

Generally speaking, most of the bilateral means to finance the environment are allocated for clean water supplies, wastewater treatment, and waste management. For the energy sector, the emphasis still lies in the promotion of traditional forms of energy; only a small part is allocated to promote renewable energies and energy efficiency. Between 1992 and 1996, renewable energies were supported with about \$1.2 billion on a bilateral level, accounting for less than 10% of the aid for the entire energy sector. Thus, it is apparent that the priorities of the GEF, with its emphasis on environmentally benign energy systems, are not yet adequately reflected at the level of bilateral aid policies. Still, traditional forms of energy remain the major sources thereof, demand for which cannot be changed within a few years. On the other hand, more opportunities to promote renewable energies exist in the Third World than have been exploited so far.

A continuous increase (from about thirty in 1992 to about eighty in 1995) in the number of bilaterally financed projects to promote biodiversity has occurred with the allocated resources totaling \$64

million in 1992 and to \$330 million in 1995. The United States and Japan are mainly responsible for this significant increase.

VII. LACK OF COORDINATION AND THE INSTITUTIONAL WEAKNESS OF UNEP

A survey of the many institutions dealing with the financing of global environmental protection projects necessarily requires an evaluation of the coordination of approaches and projects. In the field of global environmental relations, national interests of donor and recipient countries should not be the main focus. Rather, strategic national considerations, which are often in the forefront of bilateral arrangements, should play only a limited role, at least for those actors genuinely concerned with global issues. Nevertheless it remains true that practical coordination has been achieved only in a perfunctory, ad hoc manner between and among national and international institutions. Altogether, this situation is very unsatisfactory and poses a major problem for global environmental politics.

Within the United Nations, the existing Administrative Coordination Committee may help improve coordination, and there are additional efforts to do so between the United Nations and the Bretton Woods institutions. Conceptually, it would be appropriate to attribute the major role of global coordination to UNEP. After all, UNEP was created primarily as an organ with catalytic function. However, in international practice, UNEP has been unable to fulfill this role, especially during the nineties.⁴⁹ The marginalization of UNEP in the international process of discussion and decision-making during the last decade is highlighted by several conditions: lack of UNEP prominence, for instance during the Rio Conference; lack of influence on the negotiation for climate protection; the establishment of secretariats for environmental conventions outside the jurisdiction of UNEP; the institutional marginalization of UNEP in discussions about trade and the environment; and the treatment of this issue in the World Trade Organization.

In many ways, this situation must be considered a historical and environmental paradox. When UNEP was created in 1972, the

49. As to the urgency of UNEP reform, see *Renewing the United Nations: A Programme for Reform, Report of the Secretary General*, U.N. GAOR, 51st Sess., Agenda Item 168, para. 176-79, UN Doc. A/51/950 (July 14, 1997). See also, R. Dolzer, *Time for Change*, in 9 OUR PLANET 19 (UNEP ed., 1997). Concerning the proposals for the establishment of a new organization substituting for UNEP, see Enquête-Kommission, *Vorsorge zum Schutz der Erdatmosphäre*, in 2 DRITTER BERICHT "SCHUTZ DER ERDE" 904 (1990). See also, Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AM. J. INT'L L. 259 (1992); D. ESTY, GREENING THE GATT: TRADE, ENVIRONMENT AND THE FUTURE (1994).

existing demand for international coordination was at the basis of its establishment. However, that demand today is much stronger than in 1972. When UNEP was created, questions of transboundary pollution were in the forefront. Of course, issues of this kind still exist and in fact have increased, but the agenda of international environmental politics is today dominated by questions of global environmental protection. In practice national actors can only contribute to a limited extent in solving these global problems. The existing tendency to institutionally fragment the global environmental agenda, which has accompanied the weakness of UNEP in the past decade, can only be regretted. Certainly in the last decade, the World Bank has filled a major part of the vacuum created by the lack of acceptance of UNEP at the international level. Nevertheless, there is an acute demand for an organization to address primarily global environment issues. Currently, UNEP cannot fulfill such a mandate.

This situation is caused by many conditions, but the key reason is that UNEP was never given the means to effectively address these issues. This becomes evident, for instance, by a review of the history of UNEP financial resources. Its Environmental Fund, financed on a voluntary basis by the member states, amounted in 1994 and 1995 to about \$160 million, but in 1996 and 1997 this amount was reduced to about \$102 million.⁵⁰ Moreover, the personnel resources and placement of its headquarters in Nairobi have further debilitated UNEP. The logical consequence was that many experts called for drastic institutional reform, with a new Global Environment Agency under discussion. However, both developed and developing states have been wary of such a reform, albeit for rather different reasons, and therefore such a change does not appear likely in the near future.

The institution of new independent secretariats to head individual sectoral agreements concerning the environment further weakened the UNEP. It is ironic, of course, that the permanent call for an integrated environmental approach found its institutional response in the establishment of secretariats in Basel, Bonn, Gland (Switzerland), Montreal, and Nairobi even though the missions and the projects administered by these units significantly overlap. In the long run, this spatial and material fragmentation of environmental politics will hardly contribute to further the cause of the environment. It is difficult to reverse decisions agreed upon at the international level, but this unfortunate development should nonetheless be reconsidered.

50. See U.N. Doc. UNEP/GC.19/22.

VIII. THE GLOBAL ENVIRONMENT UNDER THE CONTROL OF NATIONAL SOVEREIGN ACTORS

In the long run, it is realistic to assume that the major contributions to protect the global environment must come from national sovereign actors in both the North and the South. The economic and environmental dimensions of globalization have not replaced the nation state as the key international actor by any means, but rather have only posed new questions for the state. International organizations have no enforcement power over their member states but merely offer resources and advice. Ultimately, an integrated approach towards the economy and the environment on the macro-economic, national scale is an indispensable requirement for genuine steps towards sustainable development.

A consideration of the role of subsidies and their impact upon the environment illustrates this. Energy-related national subsidies in the Third World today amount to about \$200 billion.⁵¹ Therefore, the real costs for energy production and use are not appropriately reflected in consumer prices because free market forces cannot properly develop in the face of enormous subsidies. Rather, the environmentally unsustainable production of natural resources has been the unfortunate consequence.

IX. ENVIRONMENTAL CONSEQUENCES OF INCREASED FINANCIAL FLOWS INTO THE THIRD WORLD

The process of globalization leads to a new arrangement of the complex web of relations between economic growth, social justice, social freedom, ecological requirements, and national sovereignty. Within this pentagram of national objectives, new dependencies and shifts emerge, and the individual state controls the shifting dynamics only to a limited extent. The international community has only started to address the new dependencies in the search for suitable procedures to coordinate its efforts and to account for each other's legitimate interests. Whether the process of globalization and the accompanying conflicts among governmental objectives will express themselves to the detriment of the environment remains to be seen; empirical data does not seem to exist. Nonetheless, it can hardly be doubted that there is reason to be concerned.

51. See EL-ASHRY, *supra* note 27. Among OECD countries, energy subsidies to energy production and use are the highest in the United States. See L. Michaelis, *The Environmental Implications of Energy and Transport Subsidies*, in OECD, *SUBSIDIES AND THE ENVIRONMENT* 175, 176 (1996). Estimates for the United States vary between \$5 and \$36 billion. See *id.* at 184.

In the context of national economic sovereignty and environmental responsibility in the Third World, special attention must be paid to the role of private foreign investment.⁵² Of course, in principle, the flowing of private capital from industrialized states to developing states will be welcomed. Even though varying dramatically different across regions, private investment has trebled since 1992 with an increasing tendency in favor of private flows, reaching about \$245 billion or about five times the volume of governmental aid in 1996.

This remarkable development opens new opportunities to combat poverty. From the view of social and environmental policies and short-term survival, the OECD has appropriately welcomed both private capital flows into developing states and the opportunity to reorient economic processes.⁵³ Generally speaking, it should be noted that increased investments in the productive sector lead to environmental problems when new plants are designed without regard to the environment. In view of the state of environmental legislation and its implementation in many Third World states, there is reason for concern in this respect.⁵⁴ Given the long-term dimension of global environmental issues, it is understandable that in most Third World states these issues appear to be even less pressing than those environmental problems having a short-term effect. Pollution of air and water in China, for instance, raises questions about its impressive growth rates.⁵⁵

From the vantage point of international law, one might view and assess environmental degradation from foreign investment in the light of territorial sovereignty of each state concerned. The balance between economic growth and environmental protection requires complex decisions that are not subject to exclusive approval rendered by an authority other than the state.⁵⁶ The question however

52. See SHIHATA, *supra* note 28, at 7 (noting the Bank's preference for states to seek private loans and investments whenever possible).

53. See Communiqué of the OECD Council at Ministerial Level, OECD, at 53 U.N. Doc. SG/COM/NEWS(96) (May 21, 1996); see also, E. Helleiner, *Post-Globalization: Is the Financial Liberalization Trend Likely to be Reversed?*, in STATES AGAINST MARKETS: THE LIMITS OF GLOBALISATION 193, 204 (R. Boyer & D. Drache, eds., 1996).

54. Cf. P. Sorsa, *Competitiveness and Environmental Standards: Some Exploratory Results*, in WORLD BANK POLICY RESEARCH WORKING PAPER 1249 (1994) (noting that higher environmental standards do not lower economic competitiveness as widely assumed).

55. The World Bank assumes that in the largest eleven Chinese cities, air pollution leads to an amount of damage equal to 20% of the income of these cities. See WORLD BANK, *supra* note 2, at 12. In the past years, China has introduced environmental taxes for sewage waters and waste covering about 15% of the expenses for environmental rehabilitation. See *id.*

56. See T. Jones, *Globalisation and Environment: Main Issues*, in GLOBALISATION AND ENVIRONMENT, OECD PROCEEDINGS 7, 12, 15 (1997). It is right to point out that the question of the optimal level of environmental protection in view of the necessity of economic growth cannot

posed is whether the introduction of environmentally suboptimal technology by a multinational enterprise is justified when the firm is aware of the environmental consequences and when the firm is in a position to use more environmentally benign technology.⁵⁷ To address this debate, the World Bank, and not UNEP, has proposed nonbinding environmental guidelines for foreign investment.⁵⁸ In a sector-oriented manner, these guidelines are worked out on the basis of a consensus between the Bank and the representatives of the individual sectors, such as mining, forestry, and tourism.

The initial reaction by industry so far has not been uniform. It is not surprising that the experiences and conflicts surrounding the codes of conduct proposed in the 1970s and 1980s still influence industry today. Although based on an ideological approach, these codes were somewhat hostile to foreign investment and therefore had nothing in common with consensually adopted environmental guidelines. In the future, further steps could address the relevance of these guidelines for regional financial institutions and also for the private banking sector. In the context of these questions, the efficiency of national and regional environmental institutions in the Third World and their support by bilateral or multilateral aid agencies is not ignored.⁵⁹

Often, such assistance is already provided. Specifically in the context of global environmental issues, this matter is urgent because most Third World states are only just becoming aware of the existence and the relevance of such questions. To further ensure the success of international assistance, relevant corresponding scientific and technical knowledge must be promoted. Appropriate national institutions are also required. Unfortunately, only a very small part

be answered in the abstract, but that the specific conditions of every country will have to be taken into account. Empirical studies show that a higher national income will lead to higher expectation with regard to environmental standards. *See id.* The consequences of such a raise of standards for the economic competitiveness of a country have been the subject of an open debate. *See* R. REPETTO, JOBS, COMPETITIVENESS AND ENVIRONMENTAL REGULATION (1995).

57. An illustrative example of the environmental importance of modern technology can be seen in the area of energy efficiency of refrigerators. Between 1972 and 1993, the efficiency of all refrigerators sold in the United States increased on average by 175%. *See* H. Geller & S. Nadel, *Market Transformation Strategies to Promote End-Use Efficiency*, 19 ANNUAL REVIEW OF ENERGY AND THE ENVIRONMENT 301, 303 (1994). At the same time, experts assume that today the average refrigerator in the Third World is just half as efficient as the more recent models in industrialized States.

58. *See* *Renewing the United Nations: A Programme for Reform*, Report of the Secretary General, U.N. GAOR, 51st Sess., Agenda Item 168, para. 174, UN Doc. A/51/950, (July 14, 1997).

59. *See* N. Gündling, *Compliance Assistance in International Environmental Law: Capacity-Building through Financial and Technology Transfer*, 56 ZAÖRV 796 (1996); P. Sand, *Institution-Building to Assist Compliance with International Environmental Law: Perspectives*, 56 ZAÖRV 774 (1996).

of the research related to global environmental issues currently occurs in developing states due to the lack of financial resources. Therefore the GEF has accepted a program that allocates modest resources for expanding research capacity at the national level.

X. FINAL REMARKS: EMERGING NOVEL CONCEPTS OF INTERNATIONAL LAW

The emergence of global environmental issues has confronted the international community with novel questions of coordination of national interests. Protecting the common heritage of mankind and the common interest in preserving this heritage for future generations are issues of recent importance,⁶⁰ and the oft-cited paradigm change in modern international law from coordination to cooperation has acquired its sharpest contours in global environmentalism, especially in the North-South context. In essence, both the modalities of international cooperation between states with different economic interests and the definition and implementation of the common interest will be on the agenda. Parallel with the novel nature of global environmental problems lies the international treaties designed around new means of decision-making, voting structure of the relevant institutions, and the process of financing and implementing agreed upon projects. The open-ended vagueness of mutual coordinations between individual institutions and the implementation of the new concepts of "common but differentiated responsibility," "agreed incremental costs," and "new and additional finances" indicate that the international community has undertaken just the first steps in finding a legal regime suitable to address the existing global environmental problems.

Questions may arise whether the industrialized states, including the United States, have in reality accepted that global environmental issues must be dealt with on the basis of their significance for mankind as a whole. The budgetary and financial process is far from clear in this respect. On the other hand, awareness and acceptance of these themes in the developing states is just emerging. The shaping of the debate concerning biodiversity illustrates this issue in an even

60. See U. Beyerlin, *State Community Interest and Institution-Building in International Environmental Law*, 56 ZAÖRV 602 (1996) (discussing the use of the terms "common interest," "common concern of mankind," and "common heritage of mankind"). The terminology in this area is not yet settled, nor has a systematic, legally-oriented use of these notions been accepted. In my view, the notion of "common heritage" should refer less to issues of property and use and more to the origin of the resource in question and the responsibility of the international community in preserving the interesting question. See also A. Boyle, *The Rio Convention on Biological Diversity*, in *INTERNATIONAL LAW AND THE CONSERVATION OF BIOLOGICAL DIVERSITY* 33, 40 (M. Bowman & C. Redgwell eds., 1996).

more pointed way than the discussions surrounding climate change. Institutional issues in the sphere of global environmental politics are also in a process of transition. Thus, the GEF has started to serve as a bridge between the organizations and principles of the Bretton Woods institutions on the one hand and the United Nations on the other. The World Bank for its part began cooperation with non-governmental organizations that would have been inconceivable just a few years ago.

Thinking and acting in terms of national sovereignty is incompatible with the challenge of global environmental politics. From the viewpoint of international law, the balance sheet after the first decade of global environmental politics will indicate that concepts and approaches alien to classical international law structures have emerged at the procedural, substantive, and institutional level. This is hardly surprising because the traditional structures were not oriented toward problem areas of genuinely global dimensions. This evolution does not reflect any euphoric attitude towards dissolution of national forms of organization and action. Rather, these legal and the political challenges originate in experience and observation alone, without due regard for system or theory.

