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Environmental Law and International Assistance: The Challenge of Strengthening Environmental Law in the Developing World

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INTRODUCTION

The developing world faces environmental problems of staggering dimension. Many areas are experiencing massive rates of deforestation, an activity which leads to the extinction of thousands, perhaps millions, of species, intensifies flooding and droughts, increases erosion, and clogs downstream rivers and hydroelectric reservoirs.[1] Coastal resources are often ruthlessly exploited,[2] while the unsustainable harvesting of fuelwood and poor agricultural practices exhaust soil fertility and push poor farmers onto even more marginal plots of land.[3] Over one-fourth of the people in the developing world (some 1.3 billion people) lack access to a safe and reliable water supply,[4] and approximately one in two (nearly 2.6 billion people) lack sanitation services.[5] Access to basic sanitation services, however, does not imply that collected wastewater is treated. In fact, over 90 percent of the sewage collected in the developing world is discharged without receiving any treatment at all.[6] As a result, waterborne diseases and infections are responsible for 80 percent of all illnesses in the developing world.[7] The World Bank believes that improved

1. *See, e.g.*, U. N. ENVIRONMENT PROGRAMME, GLOBAL ENVIRONMENT OUTLOOK 26-30, 44-45, 48, 81-83 (1997) [hereinafter UNEP GLOBAL ENVIRONMENT OUTLOOK]; Janet N. Abramovitz, *Taking a Stand: Cultivating a New Relationship with the World's Forests*, WORLDWATCH PAPER NO. 140, Apr. 1998; John C. Ryan, *Life Support: Conserving Biological Diversity*, WORLDWATCH PAPER NO. 108, Apr. 1992; Kenton R. Miller et. al., *Deforestation and Species Loss, in* PRESERVING THE GLOBAL ENVIRONMENT (Jessica Tuchman Mathews ed., 1991); NORMAN MYERS, THE PRIMARY SOURCE: TROPICAL FORESTS AND OUR FUTURE (1984).

2. *See, e.g.*, UNEP GLOBAL ENVIRONMENT OUTLOOK, *supra* note 1, at 33-34, 49-51, 85-87; Charles Victor Barber & Vaughan R. Pratt, *Poison and Profits: Cyanide Fishing in the Indo-Pacific*, ENV'T, Oct. 1998, at 4; Robert Cribb, *Environmental Policy and Politics in Indonesia, in* ECOLOGICAL POLICY AND POLITICS IN DEVELOPING COUNTRIES 81 (Uday Desai ed., 1998); Biksham Gujja & Andrea Finger-Stich, *What Price Prawn? Shrimp Aquaculture's Impact in Asia*, ENV'T, Sept. 1996, at 12.

3. *See, e.g.*, UNEP GLOBAL ENVIRONMENT OUTLOOK, *supra* note 1, at 25-26, 42-44, 80-81; Gary Gardner, *Shrinking Fields: Cropland Loss in a World of Eight Billion*, WORLDWATCH PAPER NO. 131, Jul. 1996; Mark W. Rosegrant & Robert Livernash, *Growing More Food, Doing Less Damage*, ENV'T, Sept. 1996, at 6, 9-10.

4. *See* PETER GLEICK, THE WORLD'S WATER 1998-1999: THE BIENNIAL REPORT ON FRESHWATER RESOURCES 40 (1998) (citing a 1996 estimate issued by the World Health Organization); *see also* SANDRA POSTEL, LAST OASIS: FACING WATER SCARCITY 21 (1992) (citing a figure of 1.2 billion people).

5. *See* GLEICK, *supra* note 4, at 40.

6. *See* WORLD RESOURCES INSTITUTE ET AL., WORLD RESOURCES 1996-97 21 (1996) [hereinafter WORLD RESOURCES 1996-97].

7. *See* POSTEL, *supra* note 4, at 21. These problems even afflict more rapidly developing countries. In China, for example, over 80 percent of the municipal sewage is discharged untreated— thus it should come as no surprise that China's two leading infectious diseases are waterborne dysentery

water supplies and adequate sanitation would result in two million fewer deaths from diarrhea each year, 200 million fewer cases of diarrheal illness each year, 300 million fewer cases of roundworm infection, and 150 million fewer instances of schistosomiasis.[8]

Urban third world conditions are often appalling and are growing worse. Up to two thirds of the solid waste generated in the cities of the developing world is not collected but, rather, piles up along streets and in storm sewers, contributing to the spread of disease.[9] More than 1.1 billion people in these cities suffer from unhealthy levels of air pollution.[10] The World Bank estimates, in fact, that health costs related to air pollution in China alone will rise to $98 billion by 2020.[11] Of urban residents worldwide, at least 220 million have no access to clean drinking water, while over 420 million lack access to basic sanitation facilities, and, in hundreds of cities around the world, industrial as well as municipal wastewater is dumped directly into rivers and harbors with little or no treatment.[12] The urban population in the developing world, meanwhile, is skyrocketing at the rate of 150,000 people every day.[13]

For decades, however, environmental protection was often considered a luxury that only wealthy nations could afford. In the rest of the world, the first priority of governments has been to meet the basic needs of their people — food, clothing, shelter, and to ensure economic growth.[14] In fact, many in the developing world believed that environmental destruction was an inherent by-product of the development process, and thus,

and hepatitis. *See* W. Scott Railton, *The Rhetoric and Reality of Water Quality Protection in China*, 7 PAC. RIM L. & POL'Y J. 859, 859-60 (1998).

8. *See* WORLD BANK, WORLD DEVELOPMENT REPORT 1992: DEVELOPMENT AND THE ENVIRONMENT 49 (1992).

9. *See* JORGE E. HARDOY ET. AL., ENVIRONMENTAL PROBLEMS IN THIRD WORLD CITIES 58-59 (1992).

10. *See* WORLD RESOURCES 1996-97, *supra* note 6, at 1. The World Health Organization estimates that more than 4 million children in the developing world have died from respiratory diseases related to poor air quality. *See* Alan D. Hecht, *The Triad of Sustainable Development: Promoting Sustainable Development in Developing Countries*, 8 J. ENV'T & DEV. 111, 114 (1999).

11. *See* Elizabeth Economy, *Painting China Green: The Next Sino-Soviet Tussle*, FOREIGN AFF., Mar.-Apr. 1999, at 16 (quoting WHO and the World Resources Institute).

12. *See* WORLD RESOURCES 1996-97, *supra* note 6, at 1. The World Bank has conservatively estimated that air and water pollution currently costs China about $54 billion annually. *See* WORLD BANK, CLEAN WATER, BLUE SKIES: CHINA'S ENVIRONMENT IN THE NEW CENTURY 23 (1997) (based on health care costs, agricultural and fishery losses, crop and forest damage, premature deaths, and so on).

13. *See* WORLD RESOURCES 1996-97, *supra* note 6, at 4.

14. *See* Edward D. McCutcheon, *Think Globally, (En)Act Locally, Promoting Effective National Environmental Regulatory Infrastructure in Developing Nations*, 31 CORNELL INT'L L. J. 395, 407-408 (1998); Kilaparti Ramakrishna, *The Emergence of Environmental Law in the Developing Countries: A Case Study of India*, 12 ECOLOGY L.Q. 907, 908 (1985).

that a clean environment would mean less economic growth.[15] As the late Indian Prime Minister Indira Ghandi asked at the 1972 Stockholm Conference on the Human Environment, "How can we speak to those who live in the villages and in the slums about keeping the oceans, the rivers, and the air clean when their own lives are contaminated? Are not poverty and need the greatest polluters?"[16]

Therefore, despite the recognition at the Stockholm Conference that growth and environmental protection were not only compatible but actually linked together,[17] little account was taken of the impact of development activities upon the environment until the 1980s, when the connection between development and the environment became all too painfully obvious.[18] Gigantic mining projects, huge hydroelectric dams, and other large development projects "were unleashing ecological destruction and social upheaval in areas larger than many American states or European countries."[19] In what proved the most infamous example of ill-

15. This belief led some to conclude that the concern of wealthy, developed nations for improving environmental quality was merely a ploy to keep the developing world "economically and politically subservient to Western capitalist and neocolonial interests." Olusegun Areola, *Comparative Environmental Issues and Policies in Nigeria*, *in* ECOLOGICAL POLICY AND POLITICS IN DEVELOPING COUNTRIES, *supra* note 2, at 241; *see* Joao Augusto de Araujo Castro, *Environment and Development: The Case of the Developing Countries*, 26 INT'L ORG. 401 (1972) (contending that environmental protection would tend "to perpetuate the existing gap in socioeconomic development between developed and developing countries and so promote the freezing of the present international order").

16. ALAN S. MILLER, A PLANET TO CHOOSE: VALUE STUDIES IN POLITICAL ECOLOGY 49 (1978).

17. Principle 13 of the Stockholm Declaration, for example, urged states to "adopt an integrated and co-ordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve [the] environment for the benefit of their population." REPORT OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT 1972, STOCKHOLM DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT 1, 4, U.N. Doc. A/CONF. 48/14/Rev. (1973), *reprinted in* 11 I.L.M. 1416 (1972). Principle 2, furthermore, emphasized the compelling need for intergenerational equity ("[t]he natural resources of the earth . . . must be safeguarded for the benefit of present and future generations through careful planning or management"), while Principle 9 urged nations to adopt environmental policies that "enhance" the "development potential of developing countries." *Id.*

18. *See* PATRICIA W. BIRNIE & ALAN E. BOYLE, INTERNATIONAL LAW AND THE ENVIRONMENT 3-4 (1992). Many developing countries, however, did act during the 1970s to create agencies with some sort of environmental management responsibilities. *See* H. Jeffrey Leonard & David Morrell, *Emergence of Environmental Concern in Developing Countries*, 17 STAN. J. INT'L L. 281, 283 (1981) (recounting that, while environmental agencies existed in only 11 developing countries at the time of the Stockholm Conference, 102 governments in the Third World had such agencies by 1980). Many of these agencies, however, were quite small and exceedingly weak. *See id.* at 308.

19. BRUCE RICH, MORTGAGING THE EARTH: THE WORLD BANK, ENVIRONMENTAL IMPOVERISHMENT, AND THE CRISIS OF DEVELOPMENT 25 (1994). *See generally* Akin L. Mabogunje, *The Environmental Challenges in Sub-Saharan Africa*, ENV'T., May 1995, at 8 (detailing the environmental degradation and wetlands losses caused by various dams in West Africa); Bruce Rich, *The Multilateral Development Banks, Environmental Policy, and the United States*, 12 Ecology L.Q. 681 (1985) (contending that the most serious impacts were associated with projects in the following funding areas: agriculture and rural development, energy, and transportation); CHERYL

considered development, the World Bank provided $440 million in financing to pave a 1,500 mile dirt road leading from Brazil's populous south into the central rainforest of Rondonia. The bulldozers were followed by thousands of impoverished settlers who literally incinerated the forests of the Amazon as they sought a better life and a plot of land to call their own. Unfortunately, most of these settlers were unable to eke out an existence from the thin, sandy soil of the Amazon basin once the nutrients from the ashes were exhausted.[20] It was becoming all too obvious that resources like forests, soil, water, fisheries and wildlife would have to be protected in order to ensure continuing improvements in the quality of life.[21]

Thus, in 1987, the World Commission on Environment and Development (WCED) was able to demonstrate in convincing fashion how the environment and economic growth are linked together in a complex web of cause and effect.[22] The Commission found that care must be taken to ensure that development is environmentally sustainable,[23] for

PAYER, THE WORLD BANK: A CRITICAL ANALYSIS (1982) (exploring the adverse environmental effects associated with dozens of development projects).

20. *See* Hilary F. French, *Reforming the United Nations to Ensure Environmentally Sustainable Development*, 1994 TRANSNAT'L L. & CONTEMP. PROB.S 559, 574-575; RICH, MORTGAGING THE EARTH, *supra* note 19, at 26-29; ADRIAN COWELL, THE DECADE OF DESTRUCTION: THE CRUSADE TO SAVE THE AMAZON RAIN FOREST (1990). Large areas of Amazonian forest were also destroyed by Brazil's Greater Carajas project, which included the development of an open-pit iron ore mine, a railroad, and deepwater port facilities. The World Bank provided over $300 million to help build the infrastructure for the project. *See* Marvin S. Soroos, *Global Institutions and the Environment: An Evolutionary Perspective*, *in* THE GLOBAL ENVIRONMENT: INSTITUTIONS, LAW, AND POLICY 45 (Norman J. Vig & Regina S. Axelrod eds., 1999) [hereinafter THE GLOBAL ENVIRONMENT]. For a comprehensive discussion of the environmental problems facing the Amazon and some proposals for the economic and ecological survival of the region, *see* JUAN DE ONIS, THE GREEN CATHEDRAL, SUSTAINABLE DEVELOPMENT OF AMAZONIA (1992).

21. The World Bank responded to the criticism it received by, *inter alia*, requiring an environmental assessment for any bank-financed or implemented project and increasing its environmental staff from 5 in 1985 to 162 in 1995. *See* CAROL LANCASTER, AID TO AFRICA: SO MUCH TO DO, SO LITTLE DONE 200 (1999). *But see* Jonathan A. Fox & L. David Brown, *Assessing the Impact of NGO Advocacy Campaigns on World Bank Projects and Policies*, *in* THE STRUGGLE FOR ACCOUNTABILITY: THE WORLD BANK, NGOS, AND GRASSROOTS MOVEMENTS 528-31 (Jonathan A. Fox & L. David Brown eds., 1998) (arguing that the Bank's internal structure limits the ability of its environmental staff to effect change).

22. *See* WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE (1987) [hereinafter OUR COMMON FUTURE]. The Commission is also commonly referred to as the Brundtland Commission, and OUR COMMON FUTURE as the Brundtland Report.

23. The Brundtland Commission defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own need." *Id.* at 43. The definition has been criticized as too anthropocentric in nature— focusing primarily on ways to harness nature to meet human needs while not adequately acknowledging an ethical obligation which humans owe to other living things. Michael McCloskey, *The Emperor Has No Clothes: The Conundrum of Sustainable Development*, 9 DUKE ENV'T. L. & POL'Y F. 153, 154-155 (1999). Others contend that the concept of sustainable development is so malleable that it is virtually meaningless. *See* David R. Hodas, *The Role of Law in Defining Sustainable Development: NEPA Recon-*

"[d]evelopment cannot subsist upon a deteriorating environmental resource base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction."[24] The concept of "sustainable development" also dominated the 1992 United Nations Conference on Environment and Development (UNCED), which was held in Rio de Janeiro. Principle 4 of the Rio Declaration, in fact, declares that "environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it."[25]

The WCED recognized in 1987 that the implementation of national policies capable of protecting the environment and sustaining economic development would depend upon institutional and legal reform.[26] Thus, the WCED called for the establishment and strengthening of environmental agencies in developing countries and called upon bilateral and multilateral international donor organizations to provide additional assistance to support the development of both governmental and nongovernmental environmental institutions.[27] In addition, the WCED recommended that governments develop and strengthen their national laws to protect the environment and support sustainable development,[28] and at UNCED, the world community in Agenda 21 urged international aid

sidered, 3 WID. L. SYMP. J. 1, 3 (1998) (arguing that the concept is "so plastic that it shields most any decision from the charge of unsustainability"); Günther Handl, *Controlling Implementation of and Compliance with International Environmental Commitments: The Rocky Road from Rio*, 5 COLO. J. INT'L L. & POL'Y 305, 312 (1994) (claiming that sustainability is a notion "subject to mutually incompatible interpretive claims").

24. OUR COMMON FUTURE, *supra* note 22, at 37. McCloskey has criticized this aspect of the Brundtland Report as well declaring that "[f]ailure of a development after 20-30 years is of little significance to investors" if "in that time, their project can pay off profitably." McCloskey, *supra* note 23, at 157. The viability of development in a strictly economic sense, therefore, is a question of time. Nations must decide whether their interest in long-term sustainability should trump what Peter Savage called the "logic of haste" that is imposed by the pressure for immediate development. *See* Peter Savage, *Temporal Perspectives in Development Administration*, *in* TEMPORAL DIMENSIONS OF DEVELOPMENT ADMINISTRATION 31 (Dwight Waldo ed., 1970).

25. U.N. CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT 4, U.N. Doc. A/CONF.151/5/Rev. 1 Princ. 4 (1992), *reprinted in* 31 I.L.M. 874 (1992) [hereinafter RIO DECLARATION].

26. OUR COMMON FUTURE, *supra* note 22, at 20-21. The Rio Declaration subsequently provided that "[s]tates shall enact effective environmental legislation." Rio Declaration, *supra* note 25, at Princ. 11.

27. OUR COMMON FUTURE, *supra* note 22, at 319. Total bilateral development assistance for all purposes amounted to $51.5 billion in 1998. This represented 0.23 percent of the gross domestic product (GDP) of the donor countries— well below the 0.33 percent given in 1992. Judged by national income, Denmark was the most generous donor, giving 0.99 percent of GDP, followed by Norway (0.91 percent), the Netherlands (0.80 percent), and Sweden (0.71 percent). The United States was the least generous, contributing just 0.1 percent of its GDP to foreign aid. *See International Aid*, THE ECONOMIST, July 3, 1999, at 93.

28. OUR COMMON FUTURE, *supra* note 22, at 330.

agencies to provide the developing countries "with technical assistance in their attempts to enhance their national legislative capabilities in the field of environmental law."[29]

The 1990s, as a result, witnessed a burst of assistance efforts designed to improve both the legal and institutional capacities of developing countries to protect the environment.[30] The U.S. Agency for International Development (USAID), for instance, provided substantial resources to the U.S. Environmental Protection Agency (EPA)[31] and to the American Bar Association's Central and Eastern European Law Initiative

29. U.N. CONFERENCE ON ENVIRONMENT & DEVELOPMENT, AGENDA 21, U.N. Doc. A/CONF.151/6/Rev. 1 para. 39.1(d) (1992), *reprinted in* UNITED NATIONS, AGENDA 21: THE UNITED NATIONS PROGRAMME OF ACTION FROM RIO 15, 1993; 4 AGENDA 21 & THE UNCED PROCEEDINGS 1 (Nicholas A. Robinson ed., 1993) [hereinafter AGENDA 21].

30. *See* Ruth Greenspan Bell, *EPA's International Assistance Efforts: Developing Effective Environmental Institutions and Partners*, 24 ENVTL. L. REP. (ENVTL. L. INST.) 10,593 n.4 (Oct. 1994) (stating that the WCED report served to encourage donors to include environmental protection as "a specific objective" of their assistance programs). These efforts were reacting to the fact that, while many countries in the developing world had established environmental ministries and entered into numerous international conventions during the 1970s and 1980s, their ability to actually improve environmental conditions had often proved lacking. *See generally* John McCormick, *The Role of Environmental NGOs in International Regimes*, *in* THE GLOBAL ENVIRONMENT, *supra* note 20, at 52.

Ruth Greenspan Bell has explored specific reasons why nations such as the United States have made environmental assistance available. In addition to humanitarian reasons, she cites the reduction of international threats to the U.S. environment (such as ozone depletion and the loss of biodiversity) and the advancement of U.S. foreign policy goals such as international stability, democratic governance, transparency in government decision making, and the establishment or entrenchment of the rule of law. *See* Bell, *supra* at 10,594-95. Peter Veit, Tanvi Nagpal, and Thomas Fox recently defined U.S. interests as the promotion of:

> economic security by creating markets for U.S. goods and jobs for U.S. citizens; protecting the United States against specific global dangers, such as rapid population growth, biodiversity loss, and climate change, that threaten the well-being of American citizens; enhancing the chances for peace and stability everywhere in the world; and preventing crises that require expensive peacekeeping and emergency relief and that often precipitate floods of refugees and immigrants.

Peter Veit et al., *Africa's Wealth, Woes, Worth*, *in* AFRICA'S VALUABLE ASSETS: A READER IN NATURAL RESOURCE MANAGEMENT 13 (Peter Veit ed., 1998) [hereinafter AFRICA'S VALUABLE ASSETS]. U.S. foreign aid also directly benefits those U.S. contractors who provide various goods and services (including consulting services) to the U.S. foreign aid program. For a more general discussion of the goals of foreign assistance, *see* LANCASTER, *supra* note 21, at 75-77 (1999); DAVID HALLORAN LUMSDAINE, MORAL VISION IN INTERNATIONAL POLITICS: THE FOREIGN AID REGIME, 1949-1989 (1993). For histories of U.S. foreign aid, *see* VERNON W. RUTTAN, UNITED STATES DEVELOPMENT ASSISTANCE POLICY: THE DOMESTIC POLITICS OF FOREIGN ECONOMIC AID (1996); STEPHEN HELLINGER, ET AL., AID FOR JUST DEVELOPMENT: REPORT ON THE FUTURE OF FOREIGN ASSISTANCE 13-28 (1988).

31. *See* Bell, *supra* note 30, at n.6 (stating that funding from USAID generally covers the travel of EPA staff members, as well as grants, contracts, and cooperative agreements that support EPA's foreign work). At the same time, EPA made its international program a high priority and increased the personnel in its Office for International Activities, moving towards a total complement of 100 staffers. *See* U.S. ENVIRONMENTAL PROTECTION AGENCY, E.P.A. HISTORY PROGRAM, WILLIAM K. REILLY, ORAL HISTORY INTERVIEW 4, at 54 (1995).

(CEELI)[32] to help them provide environmental assistance to the nations of the former Eastern Bloc and Soviet Union.[33] Other donors, including USAID and many bilateral foreign assistance programs from Western Europe and Scandinavia, were engaged in similar activities not only in the states of the former Warsaw Pact, but also in Africa, Asia and Latin America.[34] International agencies such as the U.N. Environment Programme (UNEP),[35] the World Bank,[36] the U.N. Development Programme

32. *See* AMERICAN BAR ASSOCIATION, CEELI 1997 ANNUAL REPORT 42 (USAID provided almost 74 percent of CEELI's $10.7 million budget in 1997— a portion of which was devoted to environmental law reform).

33. These efforts represent part of USAID's overall strategy of linking development aid and environmental protection, a strategy that includes the strengthening of public policies and institutional capacities to protect the environment. USAID has explained that these objectives serve U.S. interests because of the threats that pollution, resource depletion, and environmental degradation pose to international peace, stability, and the economic well-being of the world community. *See* U.S. GENERAL ACCOUNTING OFFICE, INTERNATIONAL ENVIRONMENT: U.S. FUNDING OF ENVIRONMENTAL PROGRAMS AND ACTIVITIES 19-20 (Sept. 1996) [hereinafter U.S. FUNDING OF ENVIRONMENTAL PROGRAMS].

34. The Government of the Netherlands, for instance, has been especially active in the development of environmental law and capacity building in the developing world. *See* Donald Kaniaru & Charles O. Okidi, *Partnership in Action: UNEP/UNDP Joint Project on Environmental Law in Africa, in* UNEP'S NEW WAY FORWARD: ENVIRONMENTAL LAW AND SUSTAINABLE DEVELOPMENT 229 (Sun Lin & Lal Kurukulasuriya eds., 1995) [hereinafter UNEP'S NEW WAY FORWARD]. Other donors that have been active in the strengthening of environmental institutions include the Swedish International Development Agency (Sida) (called the Swedish International Development Authority or SIDA prior to a recent reorganization), the Norwegian Agency for Development Cooperation (NORAD), and the Danish International Development Agency (DANIDA). *See, e.g.*, DONOR SUPPORTED ENVIRONMENTAL ACTIVITIES IN TANZANIA (Bente Ejsing Svantesson ed., Mar. 1995) (on file with the author). USAID was also involved in capacity building activities in Latin America, Africa, and Asia. *See generally* U.S. FUNDING OF ENVIRONMENTAL PROGRAMS, *supra* note 33, at 19-20; Eric Dannemaier, *Importance of Environmental Law to Meeting USAID's Strategic Objectives, in* INTERNATIONAL ENVIRONMENTAL LAW SB79 ALI-ABA 227, 228-29 (1997); MELINDA CUELLAR, SIDA, ENVIRONMENTAL PROFILE FOR TANZANIA 18 (July 1993) (referring to USAID's support to the Wildlife Division in the Tanzanian Ministry of Tourism, Natural Resources, and Environment) (on file with the author). For excellent overviews of the foreign development programs in the 21 OECD countries, *see* THE REALITY OF AID 1996: AN INDEPENDENT REVIEW OF INTERNATIONAL AID (Judith Randel & Tony German eds., 1996); OECD, DEVELOPMENT CO-OPERATION: EFFORTS AND POLICIES OF THE MEMBERS OF THE DEVELOPMENT ASSISTANCE COMMITTEE (1998). *See also* LANCASTER, *supra* note 21 (examining the African aid programs of the United States, Britain, France, Sweden, Italy, and Japan).

35. In 1991, the UNEP Governing Council directed UNEP's Environmental Law Unit to provide assistance, upon request, to developing countries to help them enact domestic environmental legislation and establish appropriate institutional arrangements. *See* Donald Kaniaru et al., *UNEP's Programme of Assistance on National Legislation and Institutions, in* UNEP'S NEW WAY FORWARD, *supra* note 34, at 154-55. Prior to 1991, UNEP had established a clearing house program which was designed to provide environmental and organizational expertise to the Third World. *See* Günther Handl, *Environmental Protection and Development in Third World Countries: Common Destiny-Common Responsibility*, 20 N.Y.U. J. INT'L L. & POL. 603, 609 (1988).

36. In recent years, the World Bank has provided technical assistance to help develop legal and institutional capacity in some 50 countries. This assistance has taken various forms: the development of national framework environmental laws; the establishment of national environmental action plans (NEAPs); and the drafting of implementing legislation for certain international treaties where

(UNDP),[37] and the U.N. Food and Agriculture Organization (FAO) were also involved,[38] as was the World Conservation Union (IUCN).[39] The FAO, in fact, has provided legal assistance to help a number of island governments draft legislation providing for Environmental Impact Assessments as well as other statutes.[40]

The development of law and the strengthening of the institutional arrangements for its implementation are tasks of crucial significance for the nations of the developing world. Environmental considerations must be integrated into the planning and decision-making processes for development activities if sustainable development is ever to become a reality.[41] While the development of national policies and strategies for sustainable development is a vital first step, laws and regulations are necessary to help translate these new policies into action.[42] New or bet-

domestic implementation of a particular treaty is a condition precedent for funding under the Global Environmental Facility (GEF). *See* Charles E. Di Leva, *The World Bank and the Environment*, SB79 ALI-ABA 209, 214-15 (1997). The Bank has also occasionally financed projects which focus upon the development of human capital such as a program which was designed to ensure that environmental law was taught at two Indian law schools. *See* Charles E. Di Leva, *International Environmental Law and Development*, 10 GEO. INT'L ENVTL. L. REV. 501, 507 (1998).

37. Through its Capacity 21 initiative, UNDP has been assisting countries to formulate sustainable development strategies and to enhance their ability to implement the resulting programs and policies. *See* Alexander Timoshenko & Mark Berman, *The United Nations Environment Programme and the United Nations Development Programme, in* GREENING INTERNATIONAL INSTITUTIONS 50-51 (Jacob Werksman ed., 1996). UNDP, for example, developed a project in conjunction with UNEP and financed by a $5 million grant from the Dutch government, with cooperation from a number of international organizations including the World Bank— which is intended to foster the development of environmental law and institutions in Africa over a five year period. *See* Kaniaru & Okidi, *supra* note 34, at 229.

38. FAO has been particularly concerned with providing legislative assessments and drafting assistance in areas such as forestry, fisheries, soil protection, national parks, and protected area management. *See id.*; *see also* Svantesson, *supra* note 34, at 43 (referring to FAO supported review of forestry policy and legislation for Zanzibar).

39. *See* Ben Boer, *Institutionalizing Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy Into Action*, 31 WILLAMETTE L. REV. 307, 329 (1995); Kaniaru & Okidi, *supra* note 34, at 229. The IUCN Environmental Law Programme has provided legal training and technical assistance to developing countries and maintains an extensive environmental law database. The IUCN was instrumental in encouraging a number of developing countries to prepare National Conservation Strategies. For a brief discussion of the history and organization of the IUCN, *see* McCormick, *The Role of Environmental NGOs in International Regimes, in* THE GLOBAL ENVIRONMENT, *supra* note 20, at 58, 63-64. Legal and technical assistance has also been provided by a number of other non-governmental organizations including the Environmental Law Alliance Worldwide and the Center for International Environmental Law.

40. *See, e.g.*, Svantesson, *supra* note 34, at 41 (referring to a now-completed project to draft environmental legislation with an appropriate institutional structure for Zanzibar).

41. *See* AGENDA 21, *supra* note 29, at para. 8.2 (stating that an "adjustment or even a fundamental reshaping of decision-making, in the light of country-specific conditions, may be necessary if environment and development is to be put at the centre of economic and political decision-making, in effect achieving a full integration of these factors.").

42. *See id.* at para. 8.13 (stating that "[l]aws and regulations suited to country-specific conditions are among the most important instruments for transforming environment and development policies

ter laws, however, are not enough. These governments must also have an administrative structure with the capacity and the motivation to implement and enforce the new legal regime and include the use of Environmental Impact Assessment for proposed projects and development planning.

The creation of such a framework for environmental management is no easy task. Effective execution involves much more than sending in a team of outside consultants who may draft a statute (perhaps relying upon some standardized code or similar statutory shortcut after conducting a little research and a few interviews), hold a seminar to receive comments, and then submit the "revised" version to the appropriate ministry. Such approaches often fail to take into account the enormous economic, cultural, institutional, and legal differences which exist among these sovereign states. They may also fail to reflect many national and local concerns. More time, more money, more thought, and more locally generated support and commitment are usually required if the resulting legal mechanisms are going to work in the society for which they are intended.

In fact, the development of a strong and enforceable legal regime ought to be regarded as a process which can only be undertaken in a phased approach. The process would include:

* a comprehensive study of existing law and institutional arrangements;
* the establishment of a vision for legal and institutional reform;
* the development of priorities for the sequencing of legal and institutional reform;
* joint planning and coordination among donors to fund the various stages of this process;
* the crafting of an effective approach to environmental impact assessment;
* the development of an appropriate institutional structure for environmental management;
* a recognition that necessary legal reform may extend beyond substantive environmental law to include various aspects of the administrative process, such as notice, public participation, access to information, and judicial review;
* the creation of national ownership through the involvement of local professionals and the solicitation of broad public input during all stages of the process, including the drafting phase;

into action . . . .").

* the provision of appropriate and long-term capacity building, which would include the strengthening of local environmental non-governmental organizations (NGOs), including public interest environmental law organizations.

Many obstacles stand in the way of initiating such a long-term process. Donors and recipients share an interest in trying to complete single projects with more clearly defined benchmarks, more tangible results, and a shorter time horizon. Donors and recipients are also generally resistant to joint planning and coordination of funding efforts. Donors, moreover, may be hesitant about committing resources to a process that may eventually focus more immediate attention on local problems like air and water pollution rather than on problems of particular interest to the taxpayers in the industrialized world, such as ozone depletion and the wildlife sector.[43] The creation of an effective regulatory program, however, is an essential building block for achieving and practicing sustainable development.[44] It is a building block that will demand a certain vision and courage not only on the part of the developing nation, but also on the part of the donors.

I. THE COMPLEX TASK OF DRAFTING ENVIRONMENTAL LAW IN A DEVELOPING COUNTRY

Some commentators have suggested that an effective structure for environmental management can be developed by following a clear sequence of action involving four steps.[45] First, a national environmental policy must be developed in order to provide general direction and guidance. Second, a coherent body of environmental law must be drafted to provide a framework for implementing the national environmental policy. Third, appropriate institutional structures must be established to implement the new legislation. Finally, the governmental structures established in step three must develop the capacity (trained staff and appropriate facilities, for instance) to implement the law.[46] While the

43. *See* Barbara Connolly, *Increments for the Earth: The Politics of Environmental Aid*, *in* INSTITUTIONS FOR ENVIRONMENTAL AID 330 (Robert O. Keohane & Marc A. Levy eds., 1996).

44. *See* Hecht, *supra* note 10, at 115. Hecht argues that sustainable development itself ought to be viewed as a process which is achievable only in stages and would contain building blocks such as "a strong, fair, and enforceable regulatory framework;" an informed and educated public; free-market policies; risk-based environmental policies; political leadership; "a sound scientific framework for decision making;" and public participation in government decision making. *Id.*

45. *See e.g.*, B.B. NGANWA KAMUGASHA, WORLD BANK, DEVELOPING INSTITUTIONAL AND LEGAL CAPABILITIES FOR DEALING WITH ENVIRONMENT IN SUB-SAHARAN AFRICA 2 (Env't. Div., Technical Dept., World Bank Africa Region, July 1989) (on file with the author).

46. *See id.*

four-step formula certainly reflects the key components of any successful system for environmental management — policy, law, administration, and capacity — it seems to relegate the consideration of legal and institutional arrangements to artificially isolated chambers, destined for sequential consideration once the necessary policy document has been developed. Such an approach appears to be overly formalistic and does not reflect the way in which questions about law, implementation, and institutional capacities blend together. The task of crafting a functional system for environmental protection is quite difficult because of the symbiotic relationship that exists among these factors and because law reform efforts take place against the background of pre-existing legal, political, and institutional arrangements.

In virtually all developing countries there is some form of preexisting environmental legislation.[47] At times, the volume of such legislation is staggering (just as it often is in developed countries). In Tanzania, for example, there are over 50 pieces of legislation which relate to the environment, much of it dating from the colonial period.[48] Most of this legislation in Tanzania and elsewhere deals with natural resources such as forests, water, mining, wildlife, and fisheries, and it is not unusual to find that these laws are not only outmoded in many instances, but are also neglected to the limited extent that they could be used to protect the envi-

47. BARBARA J. LAUSCHE, ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT INSTITUTIONS IN DEVELOPING COUNTRIES 16 (Oct. 1989) (on file with the author); BAKER & MCKENZIE, ENVIRONMENTAL LAW AND POLICY IN LATIN AMERICA 1-2 (Osvaldo R.I. Agatiello ed., 1995).

48. *See* NATIONAL ENVIRONMENT MANAGEMENT COUNCIL OF TANZANIA, NATIONAL CONSERVATION STRATEGY FOR SUSTAINABLE DEVELOPMENT App.I (revised proposal, May 1995) (on file with the author) [hereinafter NAT'L CONSERVATION STRATEGY]; UNITED REPUBLIC OF TANZANIA, MINISTRY OF TOURISM, NATURAL RESOURCES AND ENVIRONMENT, NATIONAL ENVIRONMENT ACTION PLAN: A FIRST STEP 42 (June 1994) (on file with the author) [hereinafter NEAP]. For an analysis of these statutes and ordinances, *see* LAWYERS' ENVIRONMENTAL ACTION TEAM, REPORT ON INSTITUTIONAL MANDATES AND LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT IN TANZANIA (July 1999) (on file with the author) [hereinafter LEAT Report]; LAURA HITCHCOCK, UNITED REPUBLIC OF TANZANIA, DIVISION OF ENVIRONMENT, MINISTRY OF TOURISM, NATURAL RESOURCES AND ENVIRONMENT, REPORT ON EXISTING LEGISLATION PERTAINING TO ENVIRONMENT (May 1994) (on file with the author). A concise discussion of Tanzanian environmental and natural resource law is found in Posanyi J. Madati, *Tanzania*, *in* INTERNATIONAL HANDBOOK OF POLLUTION CONTROL 309 (Edward J. Kormondy ed., 1989).

The situation in Tanzania may, in fact, be relatively mild. A recent study revealed that Thailand had at least 70 environmentally related statutes; *see* Douglas L. Tookey, *Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy*, 11 GEO. INT'L ENVTL. L. REV. 307, 313 (1999). Uganda is said to have over 25 major statutes and another 50 statutory instruments which deal with some aspect of the environment; *see* KAMUGASHA, *supra* note 45, at 11. The historical evolution of environmental legislation in the developing world is dealt with by Peigi Wilson et al., *Emerging Trends in National Environmental Legislation in Developing Countries*, *in* UNEP'S NEW WAY FORWARD, *supra* note 34, at 189-91.

ronment.[49] After the Stockholm Conference, a number of countries began to enact legislation which dealt more directly with pollution and other environmental problems.[50] However, gaps often appear in this legislation.[51] For example, water pollution may have been addressed while hazardous waste or air pollution was ignored. Enforcement has also proven problematic in many cases due to insufficient funding and inadequate administrative capacity, especially in the field.[52] Too often, in fact, the newer pollution laws are not implemented[53] or even understood by those charged with administering the law.[54]

The wide array of legislation — natural resource related as well pure environmental law — also commonly involves large numbers of ministries and other government offices. In Tanzania, two institutions have primary responsibilities within the area of environmental management — the National Environment Management Council and the Division of Environment in the Office of the Vice President. With regard to water pollution, however, statutory responsibilities have been given to the Central Water Board and the Tanzania Bureau of Standards, as well as to the two

49. *See* LAUSCHE, *supra* note 47, at 16-17 (referring in part to the fact that many statutes lack implementing regulations); *see also* Jonathan Rigg & Philip Stott, *Forest Tales: Politics, Policy Making, and the Environment in Thailand, in* ECOLOGICAL POLICY AND POLITICS IN DEVELOPING COUNTRIES, *supra* note 2, at 97 (describing the ineffective enforcement of a number of statutes which were designed to protect Thailand's forests); Richard O. Miller, *Mining, Environmental Protection, and Sustainable Development in Indonesia, in* THE GLOBAL ENVIRONMENT, *supra* note 20, at 325-326 (referring to the virtual lack of enforcement of various environmental protection provisions in Indonesia).

50. *See* JOSE M. BORRERO NAVIA, ENVIRONMENTAL AND WATER LAW IN THE SOUTH 107 (1994).

51. *See* Hitchcock, *supra* note 48, at 9; Lausche, *supra* note 47, at 16; D. B. OGOLA, NATIONAL ENVIRONMENTAL LEGISLATION IN DEVELOPING COUNTRIES 3 (Workshop on National Environmental Legislation, Dar es Salaam, Tanzania, Sept. 4-6, 1995) (on file with the author).

52. *See* Russell E. Train, *Foreword*, 12 ECOLOGY L.Q. 675, 677 (1985) (attributing "spotty and ineffective" enforcement to administrative weakness and an inadequate field presence); Hitchcock, *supra* note 48, at 9 (stating that "[e]nforcement bodies lack personnel, training and finances to enforce the laws; when prosecutions do occur, existing penalties are low"); RAUL BRAÑES, INSTITUTIONAL AND LEGAL PROBLEMS OF THE ENVIRONMENT IN LATIN AMERICA 35, 70-71 (1991) (linking enforcement problems with inadequate administrative capacity and funding shortages); Leonard & Morrell, *supra* note 18, at 302 (referring to the relatively low budgetary priority that environmental programs have in many developing countries).

53. *See* Lausche, *supra* note 47, at 17; NEAP, *supra* note 48, at 42. Few water pollution permits (consents), if any, have been issued, for example, under the 1981 water quality-related amendments to the Tanzanian Water Utilization (Control and Regulation) Act of 1974 (Govt. Notice No. 42), *reprinted in* UNITED REPUBLIC OF TANZANIA, DIVISION OF ENVIRONMENT, MINISTRY OF TOURISM, NATURAL RESOURCES AND ENVIRONMENT, 4 LEGISLATION PERTAINING TO ENVIRONMENT 1 (Feb. 1994) (on file with the author) [hereinafter TANZANIAN ENVTL. LEGISLATION].

54. *See* NEAP, *supra* note 48, at 42 (stating that "most" statutes relating to environmental issues "are not understood or currently enforced"). Too often developing nations have used statutes from the developed world as models for their own legislation despite the fact that many those statutes are too complex to be implemented in another context. *See also* Lausche, *supra* note 47, at 17-18 (also pointing out that copies of new laws may not be widely available).

ministries that are responsible for water and fisheries. Among the offices responsible for protecting other environmental amenities are the Tanzania National Parks Authority the Wildlife Division and the Forestry Division in the Ministry of Tourism and Natural Resources the Ngorongoro Conservation Area Authority and the National Land Use Planning Commission. In addition, a large number of sectoral ministries make decisions that implicate natural resources including the Ministry of Water, Energy, and Minerals; the Ministry of Agriculture; the Ministry of Lands, Housing and Urban Development; and the Ministry of Industry and Commerce.[55]

Elaborate legal and institutional frameworks are not unique to Tanzania. Throughout the developing world, institutional arrangements are often too complicated to be effective. In many instances, overlapping and confusing grants of authority lead to bureaucratic competition over jurisdiction, poor planning, and the inefficient utilization of scarce resources.[56] Donor institutions often exacerbate these problems by funding similar programs in rival agencies.[57] These funding conflicts are not the product of bad faith, but often result from institutional loyalties, historical connections, and personal ties that exist between donors and some government agencies. Such conflicts and redundancies endure (and others arise) because of the almost complete lack of coordinated planning within the donor community.[58] While donors and recipients in some developing nations share information about on-going projects,[59] seldom do

55. *See* G. L. Kamukala, *Institutional Structures for Environmental Management in Tanzania* 3-4, Workshop on National Environmental Legislation (Dar es Salaam, Tanzania, Sept. 4-6, 1995) (on file with the author). *See also* LEAT Report, *supra* note 48 (presenting a comprehensive discussion of the complex institutional framework for environmental and natural resource management in Tanzania).

56. *See* KAMUGASHA, *supra* note 45, at 4; Borrero, *supra* note 50, at 291; Olusegun Areola, *Comparative Environmental Issues and Policies in Nigeria*, *in* ECOLOGICAL POLICY AND POLITICS IN DEVELOPING COUNTRIES, *supra* note 2, at 248 (describing intense in-fighting between two government agencies given responsibility for environmental management).

57. *See, e.g.*, David Fairman & Michael Ross, *Old Fads, New Lessons: Learning from Economic Development Assistance*, *in* INSTITUTIONS FOR ENVIRONMENTAL AID, *supra* note 43, at 46.

58. *See id.* at 45; Clement Dorm-Adzobu, *Institutionalizing Environmental Management in Africa*, *in* AFRICA'S VALUABLE ASSETS, *supra* note 30, at 58. Underlying this lack of coordination are "substantial conflicts of interest" between donors, between recipient agencies, and between donors and recipients. Fairman & Ross, *supra* note 57, at 45. Donors, of course, compete with each other for projects, publicity, and prestige, and recipients— collectively as well as individually— are often able to gain by playing donors off one another. *See id.* at 45-47.

59. The donor community in Dar es Salaam, Tanzania, formed an informal group on the environment which commonly gathered over lunch every month to hear speakers and discuss current developments. *See generally* Svantesson, *supra* note 34, at 1 (discussing the role of the Informal Donor Group on the Environment (IDGE) in compiling a directory of current donor supported activities in Tanzania); CUELLAR, *supra* note 34, at 16 (referring to the formation of this informal donor group in 1992); *see also* Fairman & Ross, *supra* note 57, at 45 (discussing how coordination is improved when donors organize national roundtables or consultative groups, or when recipients have a cen-

donors discuss strategic priorities with one another during the planning process. Thus, funding decisions often promote institutional rivalries and a patchwork of overlapping and inconsistent activities.

Consultants retained by a donor and commissioned by a government body to review environmental and natural resource legislation with a view to participating in the drafting of some new legislation are entering a virtual mine field. Not only is the legal and cultural terrain complex, but the institutional dynamics can be treacherous. Simply collecting the necessary information can be a tremendous challenge since legal treatises, government organization manuals, and compilations of relevant law seldom exist or if they do, their existence is either unknown to the consultant or, if known, almost impossible to find. All too often, consultants will lack the time, the ability, or perhaps even the desire to accurately assess the overlapping legal and institutional responsibilities existing within the government.[60] Thus, either advertently or inadvertently, many proposed reforms will favor one or another institution, ministry or donor — a fact that will not only doom the entire exercise to likely failure, but will produce even more cause for institutional distrust.[61] Donors and governments alike, moreover, may eventually grow weary of even trying to craft appropriate laws and institutional structures.

For these reasons, successful law reform projects are not terribly common. Reports and proposals are written by a seemingly endless chain of consultants who often work in isolation, producing work lacking continuity and destined to gather dust. One should not, however, grow discouraged simply because such projects are difficult to design, implement, and sustain.[62] Recognizing the difficulties involved in the

tralized agency or process for reconciling aid with overall development objectives).

60. Not only is the work difficult and the necessary information hard to collect, but too many international consultants are self-declared experts who lack appropriate legal experience and credentials. Even in cases where they appear qualified, all too often they try to impose a "one-size fits all" approach, either directly importing a Western statute without regard to local conditions, legal background, or capacity, or using some sort of uniform, pre-fabricated check list. Perhaps donors ought to more often utilize the considerable talent which exists in the legal academy, many of whose members appear to be both able and willing to do deliberate and well-considered work in the developing world. *See* Sherif Omar Hassan, Remarks at the American Bar Association, Section of Legal Education and Admissions to the Bar, Conference on Foreign Programs (Washington, D.C., Sept. 19, 1998) (commenting on the relative absence of law teachers in this arena).

61. Disgruntled ministries typically have a number of opportunities within the cabinet system to attack legislative proposals which they dislike. If a ministry decides to move forward with a consultant's recommendations, a cabinet report generally must be prepared and submitted to an interministerial committee for review. If approved, the paper will be sent to the entire cabinet for its consideration. Only if the cabinet approves the proposal will it go forward in the parliamentary process. *See generally* F. WEREMA, PROCESS OF DRAFTING ENVIRONMENTAL LEGISLATION 6 (Workshop on National Environmental Legislation, Dar es Salaam, Tanzania, Sept. 4-6, 1995) (describing the legislative process in Tanzania) (on file with the author).

62. *See* Sherif Omar Hassan, *supra* note 60 (discussing some of the difficulties which typically

strengthening of environmental law and institutions in the developing world is, in fact, the first step toward devising more appropriate strategies.

II. THE NEED FOR A COMPREHENSIVE APPROACH

Ideally, a complete compilation and analysis of existing legislation, as well as a review of current institutional arrangements, should be completed at an early stage in the development of a national environmental policy or national conservation strategy. Such a legal analysis is necessary in order to identify problems such as: outmoded statutes; inconsistencies in approach; laws copied wholesale from developed countries (during either the colonial or post-independence periods); obvious gaps in coverage; the lack of implementing regulations; a paucity of administrative enforcement devices; the lack of normal civil enforcement mechanisms such as civil penalties and injunctive relief; low monetary penalties; and overly permissive variance provisions. The institutional review, in turn, ought to explore whether there are problems with overlapping jurisdiction, lack of coordination between agencies and ministries, and inadequate institutional capacity. These tasks, although easily stated, are not always easily performed. Statutory materials are often not codified, indices or code revisions may be unavailable or incomplete, and sometimes, even in the libraries of high appellate courts, copying machines are not available for use by the public. Even when the necessary documents are collected and reviewed and the existing governmental structure is set forth on paper, the lawyer's task at this early stage is not really complete.

One must also determine whether the laws are actually being implemented, and, if so, whether fine-tuning is necessary. To make these determinations effectively, one must do field work, conducting interviews and touring relevant facilities accompanied and guided by appropriate technical or scientific staff. In addition, any identified gaps in the current regulatory structure must be examined and prioritized, at least tentatively. For this purpose, thorough knowledge of the country and its environmental problems, as well as existing law, are needed. Finally, the capacity of the nation's environmental and resource institutions should be honestly and thoroughly evaluated — not just from reports, but also from interviews and first-hand experience. A group of experts, therefore, ought to review the relevant agencies on the basis of training, motivation, resources, management capacity, and professional competence.[63]

confront law reform activities).

63. *See* Lausche, *supra* note 47, at 19 (listing a number of variables that have been found to affect

This sort of interdisciplinary work may not be readily accepted in all cultures. In some countries, the appropriate role of lawyers is perceived narrowly . Lawyers are supposed to draft laws, for instance, but are not intended to be involved in policymaking decisions or regulatory implementation.[64] Such a view, of course, fails to appreciate the role of law as a problem-solving activity and may contribute to a disjunction between law and actual practice. Perhaps the best way to deal with such an attitude is to try to demonstrate, by example, what lawyers can contribute to environmental protection efforts when they work in collaborative fashion with technical and policy specialists, as well as the public.[65] The effort to produce a complete picture of the legal, environmental, and institutional status quo offers a fine opportunity to begin such a collaboration.

Such an analysis, however, is only the first step in the effort to integrate coherently law and policy. Lawyers should participate fully in the entire process of drafting or revising any policy document or conservation strategy to help ensure that the nation's basic environmental policy statement will include proposals and priorities for strengthening the nation's environmental legislation. Their participation is also essential to help formulate proposals for restructuring, if necessary, the institutions of government that deal with the protection of natural resources and the environment.

Many countries have already formulated their basic environmental policy documents.[66] While the legal contribution to some may have been scanty, in other cases, as in Tanzania, a great deal of contemporaneous legal work[67] has been done that informed the policy statements in a number of significant ways.[68] Nevertheless, most policy documents are phrased at a fairly high level of generality when it comes to legislative and institutional questions. So, although some general guidance may exist, a more precise vision for legal and institutional reform will, in

institutional performance). In many instances, at least some of these experts could be recruited locally from, for example, the growing number of environmental and environmental law NGOs.

64. *See, e.g.*, Bell, *supra* note 30, at 10,597-10,598 (discussing the limited role of law and lawyers in Russian society); Jaro Mayda, *Environmental Legislation in Developing Countries: Some Parameters and Constraints*, 12 ECOLOGY L.Q. 997, 1008-1009 (1985) (relating how the training and the outlook of many lawyers adversely affects their ability or even willingness to deal with scientific, technical, or policy matters).

65. *See* Bell, *supra* note 30, at 10,598.

66. Most African nations, for example, have already prepared a national environmental plan or strategy. *See* Peter G. Veit & Deanna M. Wolfire, *Participatory Policy-Making and the Role of Local Non-Governmental Organizations*, *in* AFRICA'S VALUABLE ASSETS, *supra* note 30, at 158.

67. *See, e.g.*, TANZANIAN ENVTL. LEGISLATION, *supra* note 53; HITCHCOCK, *supra* note 48.

68. *See* NAT'L CONSERVATION STRATEGY, *supra* note 48, at 20, 25-28, 40-51, 56; NEAP, *supra* note 48, at 42-44. *Cf.* UNITED REPUBLIC OF TANZANIA, VICE PRESIDENT'S OFFICE, NATIONAL ENVIRONMENTAL POLICY (Dec. 1997) (on file with the author) (focusing almost exclusively on policy aspirations and containing little analysis of current laws or environmental conditions).

most instances, have to be developed.[69]

This vision should include comprehensive proposals for legal and institutional change as well as proposals for sequencing those changes to help ensure a coordinated approach while specific laws are drafted and other reforms are implemented. Regardless of whether the effort to fashion this comprehensive vision is undertaken during the development of the national environmental policy or afterwards, it is vital that an interdisciplinary team of experts first complete the necessary background work. It is also vital that priorities be set and a plan of action established at a fairly early stage in the planning process in order to allow for actual drafting to proceed in consistent but gradual fashion. Such a process should give the participating donors adequate time to coordinate and allocate specific funding responsibilities among themselves.[70]

During this planning process, the participants ought to be sensitive to the regional nature of many environmental problems.[71] Lake Victoria, for example, is shared by three riparian states: Kenya, Tanzania, and Uganda. Water quality in the lake has been seriously degraded by untreated municipal and industrial wastes and by pesticides and nutrients that run off from nearby fields.[72] The lake is also suffering from the loss

69. It is not uncommon for national environmental policy documents to call for substantial, periodic reviews and updating. The Tanzanian National Environment Action Plan, for instance, envisions a "major review" of its provisions every three years. NEAP, *supra* note 48, at 36. Some of the policy documents, moreover, really ought to be completely redone. A number were produced in great haste— primarily by outside experts— to meet donor-imposed deadlines. *See* Dorm-Adzobu, *supra* note 58, at 47, 52-53 (referring, for example, to the World Bank's decision to make a NEAP a condition precedent for receiving International Development Association (IDA) credits).

70. The donors might want to consider establishing joint donor missions to coordinate this effort. "Donor agencies would not surrender authority over decisions on the use of their aid to these [joint] missions, but their representatives to them would have authority to commit aid funds to agreed activities provided those activities were in accord with the broad policies and regulatory requirements of their agencies." LANCASTER, *supra* note 21, at 234-35. If the donors choose not to go this far, then they should at least organize a national roundtable or consultative group to coordinate their funding of the plan of action.

71. In addition to dozens of lakes which are shared by at least two states, there are some 214 river basins which are multinational. *See* UNITED NATIONS ENVIRONMENT PROGRAMME, SAVING OUR PLANET: CHALLENGES AND HOPES 36 (1992).

72. *See* Di Leva, *International Environmental Law and Development, supra* note 36 at 516; LAKE VICTORIA ENVIRONMENTAL MANAGEMENT PROGRAMME: PROPOSALS OF NATIONAL WORKING GROUP II (TANZANIA) ON MANAGEMENT OF WATER QUALITY AND LAND USE, INCLUDING WETLANDS 1-2, 7-48 (June 1995) (on file with the author). The sewage and other nutrients which enter the lake have stimulated the growth of algae as well the proliferation of the water hyacinth. When the algae and water hyacinth decompose, they deplete the dissolved oxygen content in many areas of the lake— leading to anaerobic conditions and massive fish kills. *See* Rafik Hirji & David Grey, *Managing International Waters in Africa: Process and Progress, in* INTERNATIONAL WATERCOURSES: ENHANCING COOPERATION AND MANAGING CONFLICT 86 (Salman M. A. Salman & Laurence Boisson de Chazoumes eds., 1998) (World Bank Technical Paper No. 414) [hereinafter INTERNATIONAL WATERCOURSES].

The most widely used organochlorine pesticides in the Lake basin are dieldrin and aldrin., *see id.*

of adjacent wetlands, the disappearance of native species, and the introduction of exotic species like the Nile Tilapia and the carnivorous Nile Perch.[73] As a shared resource whose problems are traceable to actions and inaction in all three countries, Lake Victoria underscores the need, that often exists for regional cooperation and regional solutions.[74] Those who are responsible for analyzing pollution problems and setting priorities for legal reform ought, therefore, to be aware of these special cases and the need in many instances to harmonize regulation among the impacted states.

III. LEGAL REFORM: SOME EARLY STEPS

A. Choosing an Overall Legislative Strategy

At an early stage, the participants in the planning process will have to address a basic question: what path should environmental law reform follow in this particular country? Should specific pieces of sectoral legislation be developed or amended to address all major environmental problems such as water pollution, hazardous waste, wildlife, forests, mining, and fisheries? Or should a less traditional approach be taken, perhaps a comprehensive environmental statute which attempts to cover all or virtually all environmental matters? Or should a middle road be pursued resulting in a framework statute that can address a number of overarching matters such as environmental rights and policy while leaving most matters to be dealt with through sectoral legislation?

Each approach poses advantages and disadvantages. A strict sectoral approach regulates pollution and polluting activities in basically a media-specific way (air, water, groundwater, land) and is an approach utilized in the United States.[75] It has certain advantages for the law reformer. One might, for example, be able to build upon the existing legal regime

at 25, pesticides whose use has been banned or severely restricted in the United States for decades. *See* U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF POLICY PLANNING AND EVALUATION, ENVIRONMENTAL PROGRESS AND CHALLENGES: EPA'S UPDATE 117-118 (1988).

73. *See* Rafik Hirji & David Grey, *Managing International Waters in Africa: Process and Progress*, *in* INTERNATIONAL WATERCOURSES, *supra* note 72, at 85-86.

74. With the support of the World Bank, the states bordering Lake Victoria signed a tripartite agreement in 1994 pledging to work toward the implementation of a joint plan to rejuvenate and protect the second largest body of freshwater in the world. Lake Victoria Environmental Management Programme, *Agreement on the Preparation of a Tripartite Environmental Management Programme for Lake Victoria*, August 5, 1994; *see* Di Leva, *Int. Envtl. Law and Dev.*, *supra* note 36, at 516. Unfortunately, the nations involved in the Lake Victoria Management Programme appear to be working more in isolation than in collaboration with each other.

75. *See* William L. Andreen, *The Evolving Law of Environmental Protection in the United States: 1970-1991*, 9 ENVTL. & PLAN. L. J. 96, 98-102, 103-105 (1992).

and the existing bureaucratic structure rather than striking out into uncharted territory. Thus, not only can reform perhaps be more efficiently engineered, but resistance within the government and regulated community may be lower. On the other hand, the more fragmented approach presented by media-specific laws creates complexity, making the regulatory structure difficult to understand, expensive to comply with, and awkward to enforce. In addition, a strict sectoral approach often ignores cross-media pollution problems (situations where, for example, the best water pollution controls produce serious solid waste problems) and renders cross-sectoral coordination difficult.[76] Another common criticism of a sectoral approach is the fact that it is nearly impossible for the government to set rational priorities among different programs when the programs are driven by different statutory mandates.[77]

As a result, there has been a move in the western world toward more integrated approaches to pollution control or, at least, to better coordination among programs.[78] Perhaps the most holistic of such approaches is often referred to in the development literature as a "comprehensive" or "omnibus" statute.[79] Such a statute would certainly simplify regulation — at least in theory — by setting forth some common strategies and management structures, rather than governing each sector in a potentially different way. It would also present an opportunity to deal with cross-media pollution transfers in a more direct and effective manner, as well as offering a perhaps more efficient way to deal with compliance and enforcement issues.[80] To an American lawyer, however, the notion of crafting a single statute to deal with all pollution problems seems like a virtually impossible task. In the United States, there are command-and-control statutes like the Clean Water Act[81] and the Clean Air Act;[82] liability-forcing statutes like the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as Superfund);[83]

76. *See* Faith Halter, *Toward More Effective Environmental Regulation in Developing Countries*, *in* ENVIRONMENTAL MANAGEMENT IN DEVELOPING COUNTRIES 223, 231 (Denizhan Erocal ed., OECD 1991).

77. *See* J. CLARENCE DAVIES & JAN MAZUREK, POLLUTION CONTROL IN THE UNITED STATES: EVALUATING THE SYSTEM 16-19 (1998) (discussing the negative consequences of a sectoral approach); William K. Reilly, *The Future of Environmental Law*, 6 YALE J. ON REG. 351, 355 (1989) (advocating a broader, more integrated approach to environmental law).

78. *See* DAVIES & MAZUREK, *supra* note 77, at 18-19, 220-222. At a minimum, lawyers and program officers from other media programs ought to be consulted whenever a rulemaking or other agency action has the potential to adversely affect another media area.

79. *See* Lausche, *supra* note 47, at 17; Hitchcock, *supra* note 48, at 12; Wilson et al., *supra* note 48, at 194-95.

80. *See* Wilson et al., *supra* note 48, at 195.

81. 33 U.S.C. §§ 1251-1387 (1994).

82. 42 U.S.C. §§ 7401-7671 (q) (1994).

83. 42 U.S.C. §§ 9601-9675 (1994).

and information forcing statutes like the Emergency Planning and Community Right-to-Know Act.[84] There are also health-based regulations,[85] technology-based regulations,[86] and regulations based upon an explicit balancing of harm versus cost[87] and risk.[88] The US experience, moreover, suggests that the best approach to environmental regulation involves a mixture of strategies, using the best one for the task at hand.[89] Thus, it is not irrational at all for a system to combine a number of traditional command-and-control strategies[90] with some more modern incentive strategies such as strict liability, information-forcing, tradable emission limits, or various tax schemes. Perhaps the greatest problem with a comprehensive approach, however, is the political one — too many interests in the government and in industry have too large a stake in the present sectoral approach to jettison everything and start all over. In most instances, therefore, a truly comprehensive approach will simply not be feasible.

A more realistic response to the need for a more integrated approach to environmental management is a "framework" or "umbrella" statute.[91] Framework legislation has proven very popular in the developing world.[92] It generally lays down some basic principles often based upon the national environmental policy and also dealing with planning and

84. 42 U.S.C. §§ 11001-11050 (1994).

85. *See, e.g.*, Clean Air Act § 109(b)(1), 42 U.S.C. § 7409(b)(1) (national primary ambient air quality standards).

86. *See, e.g.*, Clean Air Act § 111, 42 U.S.C. § 7411 (new source performance standards); Clean Water Act § 301(b)(1)(A), (b)(2), 33 U.S.C. § 1311(b)(1)(A), (b)(2) (technology-based effluent limitations).

87. Federal Insecticide, Fungicide, and Rodenticide Act § 3, 7 U.S.C. § 136 (a) (1994).

88. Toxic Substances Control Act § 6(a), 15 U.S.C. § 2605(a) (1994).

89. *See* Robert V. Percival, *Regulatory Evolution and the Future of Environmental Policy*, 1997 U. CHI. LEGAL F. 159, 190.

90. Despite all of the criticism which has been directed at command-and-control regulation (*see, e.g.*, Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333, 1334-40 (1985) (criticizing the BAT (Best Available Technology) regulatory system, a type of command and control regulatory scheme)), command-and-control strategies are likely to be more efficient in terms of administrative costs, at least initially, than schemes involving emissions trading. *See* Percival, *supra* note 89, at 176; Carol M. Rose, *Rethinking Environmental Controls: Management Strategies for Common Resources*, 1991 DUKE L.J. 1, 21-24. Command-and-control schemes have also produced dramatic improvements in environmental quality. *See* Stoddard et al., *Progress in Water Quality: An Evaluation of the Environmental and Economic Benefits of the 1972 Clean Water Act, in* 1998 WATER ENV'T FED'N PROC. 84 (May 3-6, 1998, Denver) (discussing the efficiency of the Clean Water Act) (on file with the author); U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF AIR QUALITY PLANNING AND STANDARDS, NATIONAL AIR QUALITY AND EMISSIONS TRENDS REPORT 1989 at 1-14 (1991) (reporting significant decreases in the emissions of several air pollutants between 1970 and 1989: a drop of 96 percent in lead, a decline of 61 percent total suspended particulates, a fall of 26 percent in sulphur oxide, a decrease of 40 percent in carbon monoxide, and a reduction of 31 percent in volatile organic compounds).

91. *See* Lausche, *supra* note 47, at 17.

92. *See* Kaniaru et al., *supra* note 35, at 161.

policy formulation. Framework statutes may also contain structures for environmental management to aid, for example, in cross-media coordination or to help resolve environmental disputes.[93] Other typical provisions deal with public participation, access to environmental information, and environmental impact assessment.[94] In some cases, the framework legislation goes even further and grants certain government agencies the authority to address specific environmental issues.[95] It may even authorize the reorganization of all the pollution control activities in the government.

The biggest advantage of a framework statute lies in its flexibility. Certain common matters can be addressed in one piece of legislation and even new agencies can be created to help coordinate government action, while reserving most sectoral legislation and media-specific pollution laws for separate treatment.[96] It can thus be melded to the realities of a particular situation, taking advantage of sectoral expertise where it exists (thus lowering hostility to change in the process) and providing a way to address a number of systemic issues.

B. Effective Environmental Impact Assessment

Regardless of which overall statutory approach is taken, one piece of legislation ought to be singled out for early adoption or, perhaps, revision — environmental impact assessment (EIA).[97] Whether as a separate bill, part of a comprehensive statute, or a principal component of a framework structure, EIA should be a top priority because it can, when properly designed and implemented, be the single most effective device for reconciling development with the principles of sustainability. It institutionalizes caution and foresight by compelling actors to look at possible impacts and reasonable alternatives before it is too late and resources have been irretrievably committed to a particular project in a way that may cause irreparable harm.[98] In essence, EIA tries to actually change

93. *See id.*; Hitchcock, *supra* note 48, at 12; *see also* DAVID O'CONNOR, MANAGING THE ENVIRONMENT WITH RAPID INDUSTRIALIZATION: LESSONS FROM THE EAST ASIAN EXPERIENCE 72 (1994) (addressing the standard approach in East Asia to crafting a framework statute); Tookey, *supra* note 48, at 314-315 (describing Thailand's environmental framework statute).

94. *See* Wilson et al., *supra* note 48, at 194.

95. *See id.* In some commentaries, however, the line between framework statutes and comprehensive statutes becomes more than a little confused— perhaps because the authors want to encourage those inclined toward framework statutes to draft more and more comprehensive statutes. *See id.* at 194-195.

96. *See* O'CONNOR, *supra* note 93, at 72.

97. Although a number of developing countries have already enacted EIA legislation, the effectiveness of the EIA procedures that are on the books often leaves a great deal to be desired. *See id.* at 73, 156.

98. *See* Andreen, *supra* note 75, at 98.

the way in which people approach development by injecting environmental considerations at an early stage in the decision-making process.

EIA legislation, in short, is a crucial component of any effective environmental management strategy. It applies to all sectors of the government (including ministries dealing with mining and forests, as well as the other mission-oriented ministries) in an effort to inject environmental concerns into all relevant government decision-making. In doing so, EIA brings into the open for comment and scrutiny many decisions which too often have been made behind closed doors. Thus, EIA allows for the possibility of better government coordination across sectoral lines.

The first statute in the world to require the assessment of environmental impacts in proposed actions was the United States' National Environmental Policy Act of 1969 (NEPA).[99] The Act began with a lofty declaration of national policy providing that "it is the continuing policy of the Federal Government . . . to use all practicable means . . . to create and maintain conditions under which man and nature can exist in productive harmony . . ."[100] Congress understood, however, that an eloquent policy statement, standing alone, would have little impact upon the real world unless some additional action-forcing features were added. So Congress ordered federal agencies to comply "to the fullest extent possible" with two new mandates.[101] First, all agencies were directed to apply their laws, policies and regulations in accordance with the national policy set forth in NEPA,[102] thus amending, in effect, the organic statutes of every agency in the federal government. Second, all agencies were required to produce "a detailed statement" for federal actions "significantly affecting the quality of the human environment."[103] Such statements were to analyze all feasible alternatives, including the proposed action, and consider the environmental effects of each.[104]

99. Pub. L. No. 91-190, 83 Stat. 852 (1970), codified as amended at 42 U.S.C. §§ 4321-4347 (1994). For thorough treatments of NEPA, *see* WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 800-970 (2d ed. 1994); DANIEL R. MANDELKER, NEPA LAW AND LITIGATION (1993); LYNTON K. CALDWELL, SCIENCE AND THE NATIONAL ENVIRONMENTAL POLICY ACT: REDIRECTING POLICY THROUGH PROCEDURAL REFORM (1982); Michael C. Blumm, *The National Environmental Policy Act at Twenty: A Preface*, 20 ENVTL. L. 447 (1990); William L. Andreen, *In Pursuit of NEPA's Promise: The Role of Executive Oversight in the Implementation of Environmental Policy*, 64 IND. L.J. 205 (1989).

100. NEPA § 101(a), 42 U.S.C. 4331(a) (1994).

101. NEPA § 102, 42 U.S.C. § 4332 (1994).

102. NEPA § 102(1), 42 U.S.C. § 4332(1) (1994).

103. NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C) (1994).

104. *Id.* NEPA, therefore, appears to be one of the original legal manifestations of the principles of prevention and precaution. The principle of prevention provides that the environment is best served by prudent planning which seeks to prevent environmental harm in the first place, rather than trying to remedy the harm after it occurs. *See* WORLD CONSERVATION UNION, DRAFT INTERNATIONAL COVENANT ON ENVIRONMENT AND DEVELOPMENT art. 6 (1995) [hereinafter IUCN

NEPA, therefore, tries to achieve cognitive change — reforming the way we view development — through a procedural device: the impact statement. The effectiveness of this approach is strengthened by the creation of several institutional arrangements that help to reinforce the notion of sustainability. First, NEPA creates a Council on Environmental Quality (CEQ) in the Executive Office of the President to oversee the implementation of the Act.[105] In addition, the Act calls upon those agencies preparing impact statements to obtain comments from any other agency that has jurisdiction or special expertise over the matter.[106] Finally, Congress ordered the U.S. Environmental Protection Agency (EPA) to: (1) review and comment on the environmental consequences of any federal actions requiring an impact statement;[107] and (2) refer to CEQ any action which EPA finds to be "unsatisfactory from the standpoint of public health or welfare or environmental quality."[108]

Based on NEPA's original example, environmental impact assessment has evolved into one of the most utilized methods worldwide for helping decision-makers understand and heed the environmental ramifications of their actions. Today, at least 60 nations have adopted an EIA process in some form, whether by legislation, regulation, or informal policy pronouncement.[109] In addition, many states and provinces in federal systems

DRAFT COVENANT]. The precautionary principle suggests that governments should try to look ahead and protect public health and the environment from possible serious or irreversible damage, even in the absence of complete certainty regarding the threat of harm. *See* RIO DECLARATION, *supra* note 25, princ. 15; IUCN Draft Covenant, *supra*, art. 7. For a further look at the precautionary principle, *see* Lothar Gündling, *The Status in International Law of the Principle of Precaution*, 5 INT'L J. ESTUARINE & COASTAL L. 23 (1990); Gregory D. Fullem, *The Precautionary Principle: Environmental Protection in the Face of Scientific Uncertainty*, 31 WILLAMETTE L. REV. 495 (1995).

105. NEPA § 202, 42 U.S.C. § 4342 (1994).

106. NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C) (1994). These comments, plus the impact statement itself, must be made available to CEQ and the public. *Id.*

107. Clean Air Act § 309(a), 42 U.S.C. § 7609(a) (1994). This provision was enacted shortly after the passage of NEPA and was intended "to create an advocate within the government who would blow the whistle on harmful environmental actions." Andreen, *supra* note 99, at 229. NEPA thus seeks to effect cognitive reform— a reorientation in the way relevant actors think— through a combination of procedural and structural reforms. *See generally* Thomas O. McGarity, *Regulatory Reform and the Positive State: An Historical Overview*, 38 Admin. L. Rev. 399, 400 (1986) (exploring the anatomy of administrative reform by focusing on four specific strategies: substantive reform, cognitive reform, procedural reform, and structural reform).

108. Clean Air Act § 309(b), 42 U.S.C. § 7609(b) (1994).

109. *See* Nicholas A. Robinson, *International Trends in Environmental Impact Assessment*, 19 ENVTL. AFF. 591, 611-616 (1992) (listing 41 countries with EIA procedures); MOHAMMED A. BEKHECHI & JEAN-ROGER MERCIER, COMPENDIUM AND ANALYSIS OF ENVIRONMENTAL IMPACT ASSESSMENT LEGISLATION OF SELECTED SUB-SAHARAN AFRICAN COUNTRIES 5-6 (1998 draft) (listing an additional 19 African nations which have adopted some form of EIA since 1991). For an exploration of regional differences in the design and implementation of EIA, *see* INTERNATIONAL ENVIRONMENTAL IMPACT ASSESSMENT: EUROPEAN AND COMPARATIVE: LAW AND PRACTICAL EXPERIENCE (Envtl. Law Network Int'l ed., 1997).

like Australia, Canada, and the United States have also enacted EIA programs.[110]

EIA was also recognized as an essential method for protecting the integrity of the global environment at UNCED. Principle 17 of the Rio Declaration provides that "[e]nvironmental impact assessment, as a national instrument, *shall be undertaken* for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority."[111] In an effort to convert many such "soft" principles into binding international law and to reinforce the consensus on a number of basic legal norms, the World Conservation Union's (IUCN) Commission on Environmental Law, in cooperation with the International Council of Environmental Law, proposed the contents of a draft International Covenant on Environment and Development in 1995.[112] Recognizing EIA as a tool for complying with both the notions of precaution and prevention, Article 37 of the Draft Covenant calls for the establishment or strengthening of EIA procedures. Hence the international community, as well as highly qualified publicists, have apparently accepted the logic behind environmental assessment.[113] The challenge lies in its implementation.

110. *See* Robinson, *supra* note 109, at 611-612, 616. For more discussion of the mini-NEPAs which have been adopted in 15 U.S. states and the District of Columbia, *see* MANDELKER, *supra* note 99, at 12-1 through 12-78. For a brief review of Canadian provincial and Australian state EIA provisions, *see* ALAN GILPIN, ENVIRONMENTAL IMPACT ASSESSMENT (EIA): CUTTING EDGE FOR THE TWENTY-FIRST CENTURY 113-114, 124-129 (1995) and Constance D. Hunt, *A Note on Environmental Impact Assessment in Canada*, 20 ENVTL. L. 789, 790-793 (1990). More thorough treatment of the EIA processes in the Australian states can be found in GERRY M. BATES, ENVIRONMENTAL LAW IN AUSTRALIA 93-125 (3d ed. 1992). A number of international lending organizations have also instituted environmental assessment procedures. *See, e.g.*, WORLD BANK, OPERATIONAL DIRECTIVE 4.01: ENVIRONMENTAL ASSESSMENT (Oct. 1991).

111. RIO DECLARATION, *supra* note 25 (emphasis added). While the Rio Declaration is only "soft law" and not a statement of binding international law, such documents have exercised significant influence on international and domestic environmental action. *See* Boer, *supra* note 39, at 307-308. As Birnie and Boyle have written:

> Such guidelines and norms manifest general consent to certain basic principles that are acceptable and practicable for both developed and developing countries. To this extent, if followed by state practice, they can provide evidence of the *opinio juris* from which new customary laws and principles develop, and, whilst permitting diversity, contribute to harmonization of environmental law and standards at the global level.

Supra note 18, at 30. The Stockholm Declaration, in fact, has been often cited as the source of modern environmental law. *See, e.g.*, ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW 36-42 (1991).

112. IUCN DRAFT COVENANT, *supra* note 104; *see* Nicholas A. Robinson, *IUCN's Proposed Covenant on Environment and Development*, 13 PACE ENVTL. L. REV. 133 (1995) (discussing the origin of the draft covenant).

113. Many countries have turned to international instruments to guide the development of their own policies and laws. *See* Ben Boer, *The Rise of Environmental Law in the Asian Region*, 32 U. RICH. L. REV. 1503,1509 (1999).

1. Uniting Policy and Procedure to Influence Decision-making

The impact statement or assessment is not an end in itself, but a means to produce better substantive decisions. The ultimate purpose of EIA, after all, "is not to generate paperwork, even excellent paperwork, rather to foster excellent action."[114] For this reason, it would be appropriate to combine new or revised EIA legislation with a concise, statutory declaration of national environmental policy that would become part of the operating mandate of every single government office and ministry. Henceforth, it would be the specific obligation of each arm of government to balance their more immediate social and economic policies with the "developmental and environmental needs of present and future generations."[115] The resulting legislation (policy, plus EIA process) could be enacted in separate form, or it could form the centerpiece of either a framework or comprehensive statute. In any case, it should be a top legislative priority since it is such a useful device for integrating environmental protection into the development process.[116]

2. The Threshold Question

The threshold question in any EIA process involves the issue of whether a full EIA must be prepared for a particular action. Under both the Rio Declaration and the IUCN Draft Covenant, the test is whether the activity is: (1) subject to a decision by a competent national authority and (2) likely to have a significant adverse impact upon the environment.[117] Actions subject to a decision by a competent national authority would include governmental activities such as building roads, dams, and irrigation schemes. Private actions that depend on government approval such as planning permits, pollution permits, or development approvals would also be included. While "significant adverse impact" is not defined by either the Rio Declaration or the IUCN Draft Covenant, the CEQ regulations state that NEPA requires consideration of both intensity (the severity of impact including cumulatively significant impacts) and context (the setting of the action, including short and longer-term effects).[118]

114. 40 C.F.R. § 1500.1(c) (1999) (NEPA regulations promulgated by the U.S. Council on Environmental Quality).

115. RIO DECLARATION, *supra* note 25, princ. 3.

116. *See id.* princ. 4 (providing that "environmental protection shall constitute an integral part of the development process").

117. *See* RIO DECLARATION, *supra* note 25, princ. 17; IUCN DRAFT COVENANT, *supra* note 104, at 119 (commentary on art. 37— referring to public activities and private actions requiring government approval). NEPA requires that Environmental Impact Statements be prepared on proposals for "major Federal actions significantly affecting the quality of the human environment." NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C).

118. *See* 40 C.F.R. § 1508.27 (1999). These regulations also stress that in examining intensity one

This rather vague definition of significance vests government ministries with a great deal of discretion. Occasionally, a government ministry or official may be tempted to avoid delay or possible embarrassment or to help a friend by simply declaring that a particular project will have no significant adverse impact upon the environment. A number of methods have been developed to cabin this discretion.

One way is to mandate the production of an EIA in certain instances. Many nations have promulgated lists (often as a statutory annex) that designate the kinds of projects that require EIAs.[119] EIAs, for example, could be automatically triggered by large construction projects or proposals with major land requirements. Such lists must be carefully developed for there is a natural tendency to list only large-scale actions and thereby limit the application of EIA to large projects.[120] The rationale behind such limits seems to make sense (at first blush at least) since they assist nations with limited resources to target their EIAs on problems which generally present more potential for harm.[121] Many small projects, however, may present grave problems — a small parking lot in the midst of a historic district (such as Stone Town in Zanzibar); a relatively small irrigation scheme that may destroy a productive wetland; or one more tourist hotel, however modest, which may irrevocably alter the nature of a coral coast. At the same time, many larger projects (such as another major office building or a large parking lot in an already developed and modern downtown area) may pose only nominal impact. The question is really one of environmental significance and not the amount of money involved so that significance should be driven by the context of the proposal and the severity of the impact within that context.[122] Thus, the problem with lists is that they can all too easily be both under-inclusive and over-inclusive.

should consider whether the action is related to other proposals "with individually insignificant but cumulatively significant impacts." *Id.* § 1508.27(b)(7). A developer or government entity, furthermore, should not be allowed to avoid significance by breaking an action down into a series of "small component parts." *See id.*

119. *See* Robinson, *supra* note 109, at 596; Marceil Yeater & Lal Kurukulasuriya, *Environmental Impact Assessment Legislation in Developing Countries*, *in* UNEP'S NEW WAY FORWARD, *supra* note 34, at 262.

120. *See* Robinson, *supra* note 109, at 596.

121. *See* Yeater & Kurukulasuriya, *supra* note 119, at 262.

122. Although NEPA speaks in terms of a "major Federal action," the CEQ regulations state that "'[m]ajor' reinforces but does not have a meaning independent of 'significantly.'" 40 C.F.R. § 1508.18 (1999). *See also* Minnesota Pub. Interest Research Group v. Butz, 498 F.2d 1314, 1321-1322 (8th Cir. 1974) (declaring that "to separate the consideration of the magnitude of the Federal action from its impact on the environment does little to foster the purposes of the Act . . . . [I]f the action has a significant effect it is the intent of NEPA that it should be the subject of the detailed consideration mandated by NEPA . . . ."); FREDERICK ANDERSON, NEPA IN THE COURTS 90 (1973) (stating that "it makes little sense to find a project minor when its effects are significant").

An alternate approach is to presume that EIA procedures apply to any proposed action. The presumption may only be rebutted by showing that the action fits into a category of actions that have been previously excluded from coverage.[123] This is called a "categorical exclusion" under the U.S. CEQ regulations.[124] If a proposal is not categorically excluded, an agency has two options. It may either proceed to prepare a full EIA (called an Environmental Impact Statement, or EIS) or it may prepare a less detailed document (called an Environmental Assessment, or EA) to help it decide whether a proposal requires an EIS. An EA is really a mini-EIS in which an agency addresses the need for the proposal, reasonable alternatives, and the environmental impacts of the alternatives, as well as the proposal.[125] Based on the EA, an agency is then expected to either engage in the full EIS process or issue a Finding Of No Significant Impact (FONSI). While agencies have considerable discretion in issuing FONSIs, EAs are subject to public as well as agency comment and the EPA can refer FONSIs to the CEQ.[126] Adversely affected or aggrieved persons can challenge a FONSI and the EA upon which it is predicated in federal court.[127]

The American approach, while more sophisticated and more precise than a system based upon a list of projects,[128] is resource intensive. EAs outnumber EISs by a ratio of about 100 to 1. In a year like 1994 in which 532 EISs were written,[129] there must have been approximately

123. *See* Mark Squillace, *An American Perspective on Environmental Impact Assessment in Australia*, 20 COLUM. J. ENVTL. L. 43, 75 (1995).

124. 40 C.F.R. § 1501.4(a)(2) (1999). The CEQ regulations, however, require agency procedures to "provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect." 40 C.F.R. § 1508.4 (1999). Categorical exclusions, moreover, have been subject to judicial review. *See* Alaska Survival v. Weeks, 12 ENVTL. L. REP. (ENVTL. L. INST.) 20949 (D. Alaska 1982) (invalidating categorical exclusion for herbicide spraying along the right-of-way of the Alaska Railroad).

125. 40 C.F.R. § 1508.9 (1999). Agencies are directed to involve environmental agencies and the public in the preparation of EAs. 40 C.F.R. § 1501.4(b).

126. *See* Clean Air Act § 309(b), 42 U.S.C. § 7609(b) (1994).

127. *See, e.g.*, Hanly v. Kleindeinst, 471 F.2d 823 (2d Cir. 1972) (early case reviewing an agency's decision not to prepare an EIS). In 1994, EAs were attacked as inadequate in 28 filed cases. *See* COUNCIL ON ENVIRONMENTAL QUALITY, TWENTY-FIFTH ANNIVERSARY REPORT 545 (1994-1995) (the failure to prepare an EA was challenged in 13 cases and the failure to prepare an EIS was challenged in an additional 31 cases) [hereinafter CEQ 1994-1995 ANNIVERSARY REPORT]; Dinah Bear, *NEPA at 19: A Primer on "Old" Law with Solutions to New Problems*, 19 ENVTL. L. REP. (ENVTL. L. INST.) 10,060, 10,064 (1989) (the most litigated NEPA issue is whether a particular proposal is likely to produce a significant environmental impact, thus necessitating the preparation of an EIS).

128. Professor Nick Robinson claims that "experience suggests that the use of lists as a threshold is evidence of an immature EIA process in which resort to a clear rule of thumb is preferable to a more sophisticated and initially open analysis based on scientific data." Robinson, *supra* note 109, at 596.

129. *See id.* at 534.

50,000 EAs produced. Thus a somewhat simpler screening technique may well be appropriate for many developing countries. Perhaps the best technique would be one that combines the two basic approaches. One such technique is used in Australia's New South Wales. The New South Wales Environmental Planning and Assessment Act 1979 sets forth a schedule of developments which, because they generally have a significant environmental impact, trigger the preparation of an EIS.[130] Any proposal, however, can still require an EIS if it is likely to have a significant environmental effect.[131] Another variant is posed by the European Council Directive on the assessment of the effects of certain public and private works on the environment. It divides projects into two categories: (1) those for which EIA is required, and (2) those which ought to receive close review to determine if, in the present instance, they pose significant impacts for the environment.[132]

The lists, however, would have to be crafted with immense care and ought to include sensitive environmental areas (such as wetlands, coastal areas and critical habitat), parks and reserves, areas with particular historic, aesthetic, or cultural value, and areas that already suffer from problems such as deforestation, severe erosion, or desertification,[133] in addition to the more typical list of public and private activities. Moreover, some sort of screening process, properly noticed, documented, and made available for public and agency comment, ought to be devised to determine if an unlisted activity, an activity slated for an unlisted area, a legislative proposal, such as a new forestry law, land tenure reform, or another government policy initiative, actually poses a significant risk of harm to the environment.[134] Without such a screening process and without some sort of oversight (whether administrative, judicial or both) a great many significant actions will simply avoid serious scrutiny.

3. Timing

According to the IUCN Draft Covenant, the evaluation of significant activities must take place before any approvals are issued.[135] That, of

130. *See* Squillace, *supra* note 123, at 75 (referring to 1979 N.S.W. Stat. No. 203 (1979) and Designated Development, 1980 N.S.W.R. Regs. & B. 1142 (1980)).

131. *See id.* at 75, n.146.

132. *See* GILPIN, *supra* note 110, at 74-75; LUDWIG KRÄMER, EEC TREATY AND ENVIRONMENTAL PROTECTION 16-17 (1990).

133. *See* IUCN Draft Covenant, *supra* note 104, at 120 (commentary to art. 37 referring to a number of statutes which take this approach— if an activity adversely affects the area or increases the problem, it will be deemed significant); Yeater & Kurukulasuriya, *supra* note 119, at 262.

134. One possible way to inject more integrity into the screening process is to direct an environmental arm of government to assist the action ministry in carrying out its screening. *See* Hunt, *supra* note 110, at 795 (elaborating on the federal environmental assessment process in Canada).

135. *See* IUCN Draft Covenant, *supra* note 104, at art. 37(1).

course, is logical for otherwise the assessment process might become a mere post-hoc rationalization for previously made decisions. It would be wise, in fact, to start the EIA process as soon as a governmental office begins to formulate or is presented with a proposal so that the process as well as the environmental document can actually shape as well as inform the eventual decision.[136]

4. Content

An EIA should discuss all reasonable alternatives to a proposed course of action, including the alternative of no action.[137] In addition, an EIA should set forth the reasonably foreseeable environmental impacts for all of the alternatives, including the preferred alternative, in comparative form so as to give the decision-maker, as well as the legislature and the public, an opportunity to compare the advantages and disadvantages of all possible courses of action.[138] The impacts from indirect effects as well as direct effects should be addressed[139] Indirect effects may be defined as those which are caused by the action, but occur later in time or are removed in distance.[140] Examples would include "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."[141] An EIA should also consider cumulative impacts,[142] or the effect on the environment when the proposed action is viewed in conjunction with past, present or reasonably foreseeable projects.[143] A significant loss of wildlife habitat occasioned by numerous timber sales would be a classic illustration of a cumulative impact, as would the stream siltation caused by multiple

136. The CEQ NEPA regulations provide that an agency ought to start preparing an EIS "as close as possible" to the time the agency begins to prepare or is presented with a proposal. 40 C.F.R. § 1502.5 (1999). After all, the NEPA process is intended to help government officials "make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." 40 C.F.R. § 1500.1(c) (1999).

137. *See* IUCN Draft Covenant, *supra* note 104, art. 37(2)(b); Yeater & Kurukulasuriya, *supra* note 119, at 264; 40 C.F.R. § 1502.14(a)-(d) (1999) (CEQ NEPA regulations).

138. *See* Yeater & Kurukulasuriya, *supra* note 119, at 264; 40 C.F.R. §§ 1502.14, 1502.16 (1999).

139. *See* 40 C.F.R. § 1502.16(a), (b) (1999).

140. *See id.* §1508.8. CEQ goes on to state that "[i]ndirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." *Id.* § 1508.8(b).

141. *Id.*

142. *See id.* § 1508.25(c)(3); Movement Against Destruction v. Volpe, 361 F.Supp. 1360 (D. Md. 1973); DRAFT IUCN COVENANT, *supra* note 104, art. 37(2)(a) (providing that an EIA must include an evaluation of the "cumulative, long-term, indirect, long-distance, and transboundary effects").

143. 40 C.F.R. § 1508.7 (1999).

mining operations.[144] The analysis of impacts (whether direct, indirect, or cumulative) ought not to be strictly limited to ecological effects, but should also include any relevant historic, cultural, aesthetic, economic, social, or health effects[145] in order to present a comprehensive picture of the proposal's impact upon the "human environment."

Another key component of an EIA is an evaluation of appropriate mitigation measures.[146] According to the Draft IUCN Covenant, mitigation involves ways in which potential adverse effects can be either averted or minimized.[147] The U.S. CEQ regulations are more detailed, providing that mitigation can also involve, among other things: ways in which the affected environment can be repaired, restored, or rehabilitated; ways in which the impact can be reduced through preservation or maintenance operations during the life of the action; and compensation for the impact through the replacement or substitution of resources or environments.[148] In order to help inform the necessary decision-maker about the kind of measures that should be required as a condition of approval, the EIA ought to discuss mitigation in rather specific terms — namely, what measures can be taken to avoid, minimize, remediate, or compensate harm.[149]

5. Objectivity in the Drafting of EIAs: Should Private Sector Proponents Prepare the Document?

Professor Mark Squillace has argued that the EIA process is more effective when it occurs in an atmosphere of neutrality towards a particular proposed action.[150] If handled properly, an EIA may allay or at least reduce the fears and suspicions that individuals in the community may harbor about a particular proposed development. A good EIA and a good process are useful tools in trying to build public support for an action. On the other hand, if the process appears biased or the outcome appears predetermined, the public will most likely lose confidence in the EIA and

144. RODGERS, *supra* note 99, at 950.

145. 40 C.F.R. § 1508.8 (1999).

146. *See id.* §§ 1502.14(f), 1502.16(h); Draft IUCN Covenant, *supra* note 104, art. 37(2)(c); Yeater & Kurukulasuriya, *supra* note 119, at 264.

147. DRAFT IUCN COVENANT, *supra* note 104, art. 37(2)(c).

148. 40 C.F.R. § 1508.20 (1999).

149. Such a discussion will also help the agency as well as the public and other parts of the government to better evaluate the severity of the adverse impacts posed by a particular action. *See* Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989). The Supreme Court, however, also held that while mitigation had to be discussed in "sufficient detail," "[i]t would be inconsistent with NEPA's reliance on procedural mechanisms— as opposed to substantive, result-based standards- to demand the presence of a fully developed plan that will mitigate environmental harm before an agency can act." *Id.*

150. Squillace, *supra* note 123, at 71.

support for the venture itself may well vanish.[151]

It is a common practice in many countries (including developing countries) to allow the private proponent of a project or a consultant that it hires to prepare the EIA.[152] Such an approach appears flawed. Companies will only start the EIS process once they have formulated a specific proposal that needs government approval. Since most companies will act in their own self-interest most of the time, one can be confident that the EIA will focus primarily on what the proponent wants to do.[153] It would make little sense for a proponent of a new industrial facility to be located in a particular place (perhaps on property the proponent already owns) to analyze fairly alternative locations and conclude that another site would be superior from an environmental perspective.[154] Proponent-prepared EIA's, in short, resemble a stacked deck which will undermine "public confidence by removing any pretense that the evaluation of the proposed action will be objective . . . The point is that most rational people will necessarily be highly skeptical about the objectivity of an EIS prepared by the project's proponent or its paid consultant."[155] Despite its defects, this approach may be popular because governments are concerned about bearing the costs associated with preparing EIA documents for private sector proposals. There is no reason, how-

151. *Id.* at 101.

152. *See* GILPIN, *supra* note 109, at 22; Yeater & Kurukulasuriya, *supra* note 119, at 264; Squillace, *supra* note 123, at 101 (looking at the Australian EIA process).

153. *See* Squillace, *supra* note 123, at 83; *see generally* O'CONNOR, *supra* note 93, at 156 (stating that in a number of East Asian countries "EIA requirements have come to be viewed by developers as a mere formality that rarely results in substantial modification of project design").

154. *See* Squillace, *supra* note 123, at 89; Robinson, *supra* note 109, at 597-98. In many countries which allow proponent-prepared EIAs, the proponent is required to consult with the government for some initial guidance on the content and scope of the assessment. This consultation commonly results in the issuance of Terms of Reference (TOR) which sets forth the stipulated contents of the EIA. *See* Yeater & Kurukulasuriya, *supra* note 119, at 263; GILPIN, *supra* note 110, at 20. Many TORs, however, resemble nothing more than a rudimentary checklist or a table of contents, and even a more elaborate one could not force a reluctant proponent to assess alternatives in a fair and open manner. *See generally* GILPIN, *supra* note 110, at 20 (containing an example of a TOR issued by the Office of the National Environmental Board of Thailand). It may possible, however, to mitigate this problem to some extent by creating a system that entails a more active role by an environmental agency in the planning and execution of the EIA. *See* Joseph de Pencier, *The Federal Environmental Assessment Process: A Practical Comparison of the EARP Guidelines Order and the Canadian Environmental Assessment Act*, 4 J. ENVTL. L. & PRAC. 330, 341-43 (1993); Michael I. Jeffery, *The Canadian Environmental Assessment Act*, 24 URB. LAW. 775, 782-786 (1992); Robinson, *supra* note 109, at 599-600 (discussing the EIA process in Quebec).

155. Squillace, *supra* note 123, at 101-102. The consultant, after all, does not want to lose a client by failing to produce a favorable report on the client's proposal. *See also* Gilpin, *supra* note 110, at 22-23 (while acknowledging serious problems with proponent-prepared EIAs, argues that an incentive exists for "better, franker" documents since they often receive more timely development approval from the government— particularly in jurisdictions where public hearings or public inquiries are available and where third persons have the right to judicially challenge an inadequate document).

ever, why the private party proponents should not bear the costs incurred by the government in preparing the EIA.[156]

In the United States, this problem has been largely avoided. The CEQ rules prohibit the preparation of an EIS by a private party proponent or by any person who may have an interest, financial or otherwise, in the outcome of a project.[157] While private proponents may submit environmental information documents,[158] they cannot assess the environmental ramifications of their proposed activities. In order to avoid the appearance of impropriety the EIS, will be prepared by the agency that is vested with the decision making.[159] Of course, the agency may hire a consultant to perform the actual work, but only if the consultant has no conflict of interest.[160] An agency, on the other hand, may prepare an EIS even in cases where it, and not a private party, is the proponent. This may, of course, compromise neutrality, but as Squillace points out "the conflicts facing the agency proponent are far less significant than those facing a private proponent. In particular, unlike the private proponent, the agency proponent has no financial stake in the outcome."[161] Agencies, nevertheless, often have mission-oriented goals which are not entirely consistent with responsible environmental stewardship. However as agencies develop an ability over time to write EIAs and perform environmental analysis, their bias should decline more quickly than if they were sitting "on the sidelines of the EIA process."[162] Agencies, in short, that take greater responsibility for the EIA process ought to be more successful in the long-run in internalizing the principles of environmental responsibility.[163]

156. This would be easiest to do when the government retains a consultant to prepare the assessment. But either a fee or some charge based upon the total time committed to the assessment could be levied in cases where the assessment is written by civil servants.

157. 40 C.F.R. § 1506.5(c) (1999).

158. *Id.* § 1506.5(a). The agency, however, must evaluate the information and is responsible for its accuracy. *Id.*

159. In cases where the federal government is funding state action— such as the construction of a new bridge or another type of highway project— federal agencies are authorized to allow the state to draft the EIS. The agency, however, must furnish guidance and participate in the preparation of the EIS and must independently evaluate the statement prior to its adoption. *See* NEPA § 102(2)(D), 42 U.S.C. § 4332(2)(D) (1994). Although this provision may be a necessary bow to the American form of federalism, it seems to dilute responsibility for the final product and cede too much responsibility to state agencies who often view NEPA (especially in states lacking a mini-NEPA) as a time-wasting nuisance. It results, in many cases, in astonishingly poor attempts, perhaps even cynical attempts, to comply with the dictates of NEPA.

160. 40 C.F.R. § 1506.5(c).

161. Squillace, *supra* note 123, at 102. Perhaps one way to lessen the potential for bias is to direct a central environmental office to offer technical assistance and advice to the sectoral ministries on the preparation of assessments.

162. *Id.* at 103.

163. *See* CALDWELL, *supra* note 99, at 58-71 (discussing the way in which the NEPA process was

6. Public Participation and Agency Comment

An easy and relatively inexpensive way to try to ensure a higher degree of objectivity during the EIA process is to give the public an opportunity to comment on a draft version of the EIA that has been translated into the local language.[164] While written comments should certainly be sought and accepted, the submission of views in written form is simply not a practical option for illiterate or semi-literate individuals. Public meetings, therefore, must be held[165] so that the EIA can be summarized for the affected community in an oral and non-technical fashion, and comments can be taken and recorded.[166] Workshops can also be held in an effort to educate the public about the project.[167] Other agencies that have special expertise or jurisdiction should also participate in the EIA process in order to check the rather natural inclination of project proponents to elevate their more parochial goals above relevant environmental considerations.[168] These agencies, in fact, should be required to comment to ensure that they are actually watching.[169]

Public participation is not just a useful exercise in democracy. It produces additional data and information[170] as well as a broad array of new

internalized in U.S. federal agencies).

164. *See* 40 C.F.R. § 1502.19 (1999) (circulation of the EIS); *id.* § 1503.1 (inviting comments); DRAFT IUCN COVENANT, *supra* note 104, art. 37(3) (requiring that concerned parties have access to the EIA procedure); Yeater & Kurukulasuriya, *supra* note 119, at 264-65 (while most EIA legislation makes some provision for public participation, it takes a number of forms including publication of information, a right to request information from the government, access to EIA documents, an opportunity to comment, and public hearings).

165. An informal gathering would be fine if that will obtain better results than a formal hearing. *See* Y. J. AHMAD & G. K. SAMMY, GUIDELINES TO ENVIRONMENTAL IMPACT ASSESSMENT IN DEVELOPING COUNTRIES 41 (UNEP Regional Seas Reports and Studies No. 85, 1987) (arguing that a formal public hearing is "the worst possible approach to public involvement" in many developing countries).

166. The CEQ NEPA regulations only require a public hearing or public meeting when it is "appropriate," and an agency is to consider such things as the degree of environmental controversy, the amount of interest in holding the hearing, or a request from another agency in deciding whether a public gathering is appropriate. 40 C.F.R. § 1506.6(c) (1999). Agency regulations, however, may require a public hearing. The IUCN Draft Covenant would not require a public hearing in every case, but would require, at a minimum, "a sufficient notice and comment period." IUCN Draft Covenant, *supra* note 104, at 122 (commentary on art.37(3)).

167. *See* Squillace, *supra* note 123, at 105.

168. *See* Andreen, *supra* note 99, at 207.

169. *See* NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C) (1994) (requiring that agencies preparing an EIS to "obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved"). *See also* Michael C. Blumm & Stephen R. Brown, *Pluralism and the Environment: The Role of Comment Agencies in NEPA Litigation*, 14 HARV. ENVTL. L. REV. 277 (1990) (concluding that American courts are likely to reach conclusions about NEPA compliance which are consistent with positions advanced by the commenting agencies).

170. All substantive comments received on the draft EIA should be attached to the final assessment. *See* 40 C.F.R. § 1503.4(b) (1999). To make this exercise comprehensive, all substantive oral

perspectives, which should make the final EIA more thorough and more rational. Open participation in the EIA process should also help to flush out serious analytical errors in the EIA as well as any possible bias. While it may be tempting to ignore a troublesome comment, it is virtually impossible to do so if the drafter is required not only to receive, but also to respond to all of the relevant comments in the course of the final EIA.[171] Not only does this make the drafter actually listen, but it also makes it more difficult for any interested person or group to have influence beyond the merits of their argument. The drafter will have to respond in some reasonable way to all of the serious arguments made by any person or any group, regardless of wealth or status.[172] Drafters should be required to respond to the views expressed by the comment agencies for precisely the same reasons. In this way, both the public as well as the environmental agencies can strive to keep science, reason, and the principles of sustainable development at the forefront of the EIA process.[173]

7. EIA and Administrative Decision-making

The EIA is simply a planning document that is intended to inform the ultimate decision-maker about the ramifications of the decision that he or she is about to make. The legislation, therefore, should explicitly require that the EIA and all other relevant environmental documents actually accompany the proposal through the agency review process and require the decision-maker to consider the range of alternatives and mitigation measures set forth in the EIA.[174] To help ensure that this occurs, the new or revised legislation can also direct the preparation of a decision document[175] to be made available to the public. A decision document should

comments ought to be reduced to writing and appended to the final document.

171. The CEQ NEPA regulations require agencies to respond to comments in the final statement. Possible responses include the modification of the alternatives to the proposal, the development of new alternatives, analytical improvements, factual corrections, or an explanation of why the comments do not warrant any further agency response. *Id.* § 1503.4(a).

172. *See generally* William L. Andreen, *Administrative Rule-Making in the United States: An Examination of the Values that Have Shaped the Process*, CANBERRA BULL. PUB. ADMIN. 112, 116 (Oct. 1991) (discussing public participation in the context of informal rule-making).

173. Public participation actually ought to begin during the scoping process- which occurs before the draft EIA is prepared. The scoping process is the stage when the scope of the EIA is set and the issues that will be explored in depth are identified. Recognizing the importance of these early decisions, the U.S. CEQ requires agencies to establish an open process for scoping and directs them to invite the participation of interested persons. *See* 40 C.F.R. § 1501.7 (1999).

174. *See id.* § 1505.1 (the CEQ regulations, however, do not require the consideration of mitigation measures contained in the EIA). *See also* DRAFT IUCN COVENANT, *supra* note 104, art. 37(3) (requiring parties to "ensure that the authority deciding on approval takes into consideration all observations made during the environmental impact assessment process").

175. This document can be integrated into any other record generated by the agency.

state what the decision was, what alternatives were considered, which alternative was thought preferable from an environmental perspective, and how various factors — including the agency's mission and the national environmental policy — were balanced in reaching the ultimate decision.[176] The document should also state whether all practicable mitigation measures were adopted, and, if not, why not.[177] The decision document thereby serves as a device which seeks to ensure that the goals of the EIA process do not wither as a result of bureaucratic hostility or passivity.

8. Administrative Oversight

The effectiveness of this entire scheme would be further enhanced by the creation of an institutional arrangement that would encourage the desired reorientation of government decision-making. The Draft International Covenant, in fact, would require parties to "designate appropriate national authorities to ensure that EIAs are effective and conducted under accessible procedures."[178] The comment agencies would form the first structural safeguard in this regard although their review ought not to be limited to an examination of the technical adequacy of an EIA. Their review should extend to the substantive merits of the proposed action, and, in doing so, the comment agencies should take into account any national articulation of environmental policy.[179]

The comment agencies and the action agency, however, may still find themselves at loggerheads even after the final EIA has been prepared. In such cases, it would be wise to provide an opportunity for these agencies to elevate the dispute to a higher level of government. In the United States, conflicts over the technical merits of an EIA or the environmental merits of the project itself can be referred to the President's Council on Environmental Quality.[180] After giving the action agency an opportunity to respond to the referral,[181] the CEQ may take one or more actions. The CEQ may, for instance, try to mediate the dispute, hold public meetings,

176. *See* 40 C.F.R. § 1505.2(a), (b) (1999); DRAFT IUCN COVENANT, *supra* note 104, art. 37(3) (requiring that the action agency make its decision public).

177. *See* 40 C.F.R. § 1505.2(c) (1999). The CEQ rules go on to require agencies to implement any mitigation measures which are committed as part of the decision document. *See id.* § 1505.3.

178. DRAFT IUCN COVENANT, *supra* note 104, art. 37(3).

179. *See* 40 C.F.R. § 1503.3(a) (1999) (stating that comments may address the merits of the various alternatives as well as the adequacy of the statement).

180. *See* Clean Air Act § 309(b) (directing U.S. EPA to refer actions found to be environmentally unsatisfactory); 40 C.F.R. pt. 1504 (1999) (providing for referral of interagency disagreements concerning federal actions that might cause unsatisfactory environmental effects). The CEQ, nevertheless, encourages the parties to try to resolve their differences informally at an earlier stage in the process. *See id.* §1504.2.

181. *See* 40 C.F.R. § 1504.3(d) (1999).

make findings and issue recommendations, or even submit the matter (with the Council's recommendation) to the President for action.[182] On the other hand, the CEQ may simply drop the matter if it concludes that the issue lacks "national importance."[183] While referrals have not been common, they have been a relatively effective tool for resolving disputes in an environmentally sensitive way since "[t]he mere possibility of an eventual referral has encouraged moderation and compromise."[184]

Even though a CEQ referral can be made on the basis of a proposal which presents a possibly unsatisfactory environmental impact, these referrals must be made before an agency actually makes its final decision.[185] CEQ referrals, therefore, are strictly pre-decisional in nature, geared primarily toward the production of better assessment documents, and not at the environmental merits of an agency's actual decision or how well that decision is implemented.[186] A better link could be forged by permitting the comment agencies to refer final decisions to the same high-ranking body because, for example, adequate mitigation measures were not incorporated in the final approval or because the agency's decision is found environmentally wanting on some other ground.[187] Since there is a need to proceed as quickly as possible with development projects and to keep their costs down in developing countries, such a review process would have to be prompt and conclude in an expeditious resolution of any referrals.

No matter how well decisions may be crafted, they still have to be executed. Action agencies, therefore, ought to be directed to conduct a monitoring program that is designed to ensure compliance with the mitigation measures and other conditions found in the agency's decision document.[188] The results of the monitoring program ought to be made

182. *See id.* §§ 1504.3(f)(2), (3), (6), (7).

183. *Id.* § 1504.3(f)(4).

184. Andreen, *supra* note 99, at 240.

185. Agencies must deliver their referrals to CEQ within 25 days after the final EIS has been made available to EPA, other commenting agencies, and the public. *See* 40 C.F.R. § 1504.3(b) (1999). On the other hand, agencies may not make decisions on proposals which have been explored through an assessment process until at least 30 days after the final impact statement has been made available. *See id.* § 1506.10(b)(2) (1999).

186. *See* Andreen, *supra* note 99, at 241.

187. *See id.* at 253-58.

188. The Draft IUCN Covenant provides that "[p]arties shall conduct periodic reviews both to determine whether activities approved by them are carried out in compliance with the conditions set out in the approval and to evaluate the effectiveness of the prescribed mitigation measures." DRAFT IUCN COVENANT, *supra* note 104, art. 37(4). The CEQ rules, however, merely encourage agencies to provide for monitoring in important cases. *See* 40 C.F.R. § 1505.3 (1999). *See generally* GILPIN, *supra* note 110, at 26 (referring to post-project analysis as a "most effective tool" for improving the EIA process by ensuring that the development occurs "under the terms and conditions imposed by the initial EIA process and its associated development consent or planning approval").

available to the commenting agencies for study.[189] Should a significant deviation from the terms of the final decision occur that would compromise the quality of the human environment, the commenting agencies ought to be authorized to take the matter to the same high-level body for further review.[190]

9. Judicial Review

Although NEPA was the first piece of environmental legislation enacted in 1970 (the beginning of the "environmental decade"), its text is brief and its language quite general. In many respects, therefore, NEPA more resembles a classic piece of New Deal legislation rather than the extremely detailed and complex environmental legislation that was typically enacted in the United States during the 1970s and subsequent decades. Its vague language, in fact, prompted a number of mission-oriented agencies to contend that Congress had granted them a great deal of leeway in deciding how to construe the statute. This attitude led to a number of crabbed interpretations of NEPA and rather half-hearted compliance by some agencies.[191] The federal courts reacted vigorously to this grudging kind of implementation by strictly enforcing the procedural components of the Act in order to guarantee that "important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy."[192] In so doing, the federal courts eventually fashioned a large body of law which compels agencies to take the EIS process seriously.[193]

Judicial review, therefore, is more responsible than any other factor for improving the quality of the assessment process in the United States,[194] and keeping mission-oriented agencies on their toes.[195] Of course, the availability of a judicial tool to challenge government action is not always viewed with favor,[196] or considered appropriate within a particular

189. The monitoring data should also be made available to the public. *See* 40 C.F.R. § 1505.3(d) (1999) (providing that the results of any relevant monitoring ought to be made available to the public upon request).

190. *See* Andreen, *supra* note 99, at 259. There may well be situations where it would be advisable- due to possible conflicts of interest within the commenting ministries or likely reticence brought about by political weakness- to authorize this body to review EIAs, decision documents, and monitoring results on its own initiative.

191. *See* Andreen, *supra* note 75, at 98-99.

192. Calvert Cliffs' Coordinating Comm. Inc. v. AEC, 449 F.2d 1109, 1111 (D.C. Cir. 1971).

193. *See* Andreen, *supra* note 75, at 99.

194. *See* Squillace, *supra* note 123, at 113.

195. *See* Justice Paul Stein, *Can Review Bodies Lead to Better Decision-Making?*, CANBERRA BULL. PUB. ADMIN. 118, 119 (Oct. 1991).

196. *See* Ahmad & Sammy, *supra* note 165, at 37 (referring to the possibility that objectors could use an overloaded judicial system as a "stalling" device); GILPIN, *supra* note 110, at 118 (stating that judicial review of EIA decisions is avoided in most countries because they are viewed "as ex-

society or legal system.[197] Nevertheless, the drafters of new or revised EIA legislation ought to seriously weigh both the considerable advantages as well as the possible disadvantages (such as political opposition to the entire reform package) of explicitly authorizing individuals to bring suit for violations of the EIA process.

IV. INSTITUTIONAL REFORM

An overall legislative reform strategy cannot be developed without also addressing the allocation of institutional responsibilities for environmental management. The two issues are completely interdependent. One cannot settle upon a course for environmental law reform without considering the effectiveness of the current institutional structure and how that structure ought to be rearranged. How well do the various offices with environmental responsibilities perform their tasks? Is there a serious lack of coordination among government offices? Are there jurisdictional conflicts or overlapping activities? What tasks ought to be reassigned? Can the government increase the likelihood (through institutional oversight) that the development projects, which various arms of the government sponsor or approve, have a more benign impact upon the environment? Should new institutions be created or is it more efficient to try to improve existing institutions?

Traditionally, natural resource and environmental issues were dealt with through the use of sectoral laws for specific resources such as water, wildlife, fisheries, forests, minerals, and land. The statutes were primarily aimed at the allocation and use of these resources rather than, the principles of sustainable development. Over time, however, environmental or conservation provisions were often "grafted onto these legal regimes" in ad-hoc fashion to deal with particular crises,[198] such as severe soil erosion in an agricultural district, or a diminishing water supply due to forest depletion.[199] Gradually, these statutes became more ori-

pensive and time-consuming").

197. *See* Lausche, *supra* note 47, at 24 (a reliance on litigation "may not be appropriate" due to "[i]nformal processes of dispute resolution involving negotiation and compromise [which] are much more widely accepted practice in most developing countries"). Other reasons which are given for rejecting judicial review include the lack of an adequately developed judicial system or the lack of adequately trained lawyers. In some nations, moreover, a provision for judicial review might be viewed as inappropriate due to the existence of specialized bodies which are dedicated specifically to the review of administrative action. In such a legal system, EIA review could be placed within the jurisdiction of such a specialized tribunal.

198. Wilson et. al., *supra* note 48, at 189.

199. *See, e.g.*, Christopher A. Conte, *Colonial Science and Ecological Change: Tanzania's Mlalo Basin, 1888-1946*, 4 ENVTL. HISTORY 220 (1999) (addressing the reaction of a colonial government to accelerated soil erosion).

ented toward long-term management of the particular resource. Water laws, for instance, began to include components aimed at pollution control and prevention,[200] and wildlife legislation began to set forth lists of protected animals and birds and to impose strict limits on trade in endangered species.[201]

During the 1970s and 1980s, however, it became increasingly clear that some central governmental body had to be created that could advise the government on a wide array of environmental matters and help the government coordinate activities and formulate policy. This recognition led a number of countries to establish a small but prestigious commission or council,[202] often beginning as a purely advisory body and later evolving into an entity possessing some oversight or regulatory authority.[203] At the same time, the traditional natural resource ministries continued generally to retain jurisdiction over the earlier resource-oriented legislation, together with their anti-pollution and conservation measures.[204] Occasionally, some of these ministries delegated specific environmental duties to a new department or division within the ministry, such as a soil conservation unit within a ministry of agriculture.[205]

Eventually, many nations opted to create a new central environmental ministry or to create a subsidiary division within an existing ministry that was completely devoted to environmental matters.[206] These ministries or ministerial departments were created for various reasons: to implement programs that a more advisory body like a council might not be able to

200. The Tanzanian water law, for example, the Water Utilization (Control and Regulation) Act of 1974 (Govt. Notice No. 42), was extensively amended in 1981 to add a number of provisions aimed at water pollution. *See* TANZANIAN ENVTL. LEGISLATION, *supra* note 53.

201. *See* Wilson, *supra* note 48, at 189-190.

202. The National Environment Management Council of Tanzania (NEMC), for example, was established as a parastatal body in 1983 to perform a number of functions. The Council was directed, inter alia, to formulate policy and recommend its implementation to the government; to coordinate environmental activities; to specify standards, norms, and criteria to protect the environment; to disseminate information on the environment; to formulate proposals for environmental legislation; to stimulate public participation; and to perform such other functions as the relevant Minister may assign. *See* The National Environment Management Act, 1983 § 4 (Govt. Notice No. 19); *see also* Madati, *supra* note 48, at 314 (discussing the organization of NEMC, including the formation of its secretariat). NEMC originally operated under the Ministry of Lands, Natural Resources, and Tourism. It now operates under the Office of the Vice President.

203. *See* Lausche, *supra* note 47, at 11; Kamugasha, *supra* note 45, at 6-7 (discussing national environmental "secretariats"); Tookey, *supra* note 48, at 312-15 (explaining the composition and role of the National Environment Board of Thailand).

204. *See* Lausche, *supra* note 47, at 11.

205. *See* Kamugasha, *supra* note 45, at 6.

206. *See id.* at 5-6. In Tanzania, a Division of Environment was created in 1990 and placed in the Ministry of Tourism, Natural Resources and Environment. *See* CUELLAR, *supra* note 34, at 12. The Division of Environment was transferred to the Vice President's Office in late 1995. *See* LEAT Report, *supra* note 48.

accomplish; to give the environment a stronger voice within the government; to be a better match for the strength of the mission-oriented agencies; to create a stronger claim to national budgetary resources;[207] to increase prestige; and perhaps, in some instances, to create the mere impression of progress. New ministries or ministerial departments, however, have often proved to be primarily advisory in nature, and their ability to coordinate government action has suffered from a generally weak position relative to the more traditional sectoral ministries, especially those that deal with major economic sectors such as mining, industry, oil, and agriculture.[208]

Today, developing nations find themselves with various combinations of these institutions: an environmental council or commission with a high political profile supported by a secretariat; a centralized environmental ministry; a centralized environmental division within another ministry; various environmental and conservation roles assigned to different ministries; and new environmental departments within various ministries.[209] The result, in many instances, is confusion, overlap, and ineffectiveness: precisely the result that many developers and businesspeople favor. Despite rising popular sentiment in favor of environmental protection and the appearance of government activity, business interests have often seen their influence over regulatory issues increase rather than decrease.[210]

The development of an effective institutional strategy is, therefore, of the utmost importance. It also presents quite a challenge, both analytically and politically. One useful tool for analysis is to break the functions of government with respect to the environment into two categories: those activities that involve the management of natural resources and those that deal more directly with pollution.

The highest institutional priority vis-a-vis traditional resource-oriented ministries is to create an institutional structure that will help ensure that environmental considerations are integrated into their normal decision-making process.[211] The primary way to do that is through environmental impact assessment and the internalization of the values that it represents. EIA ought to be performed by each action agency and integrated into existing structures for reviewing proposed projects and making policy.[212]

207. *See* Kamugasha, *supra* note 45, at 6-7.

208. *See* Lausche, *supra* note 47, at 14.

209. *See id.* at 12-14.

210. *See* Gareth Porter, *Trade Competition and Pollution Standards: "Race to the Bottom" or "Stuck at the Bottom"?*, 8 J. ENV'T. & DEV. 133, 141 (attributing this characteristic in many developing countries to the unresponsiveness of political institutions).

211. *See supra* notes 97-107, 113-115, 134-135, 163-189 and accompanying text.

212. The EIA units within each sectoral ministry could work closely with existing staff as they try to mainstream environmental concerns and values. These units could also be given somewhat

Political or economic pressures, however, may still hold sway over environmental concerns in many instances and, while comments and criticism may come from other environmental units within other sectoral ministries, their jurisdiction is limited. Therefore, one should create or recognize some high-level body to which commenting agencies could refer a technically inadequate EIA or a project deemed environmentally unsatisfactory. Depending upon the circumstances, one might also want to authorize this body to review EIAs and decision documents *sua sponte*.

In order to avoid any potential conflict of interest and to ensure objectivity, this central high-level body ought to be independent of any organization or ministry that has an economic or development-oriented mission. The various environmental councils or commissions that already exist in many countries would be obvious candidates for such a task. In some cases, they may have to be strengthened by tying them directly to the office of the President, the Prime Minister,[213] or perhaps a Cabinet committee or subcommittee.[214] In any case, the institution must be bold enough to ask the hard questions and hopefully creative enough to offer constructive recommendations to reconcile the tensions that often arise between the demands for rapid development, on the one hand, and environmental sustainability, on the other.[215]

Responsibility for various pollution control activities (water pollution, pesticides, marine pollution, hazardous waste) may already be assigned to a number of sectoral ministries and other government offices. At times, the jurisdictional reach of these entities may overlap.[216] Numerous agencies, for example, may share authority for regulating water pollution while other polluting activities may totally escape statutory attention. Even when the legislature has acted, there may have been a failure to im-

broader responsibility in regard to policy formulation and program coordination. *See* NAT'L CONSERVATION STRATEGY, *supra* note 48, at 43-44 (referring to such a unit as an environmental "focal point"); Lausche, *supra* note 47, at 14-15 (discussing the advantages of placing environmental units within existing sectoral ministries).

213. These locations may not be ideal in every country. "Being in the office of the head of state or government does not automatically confer the power and visibility of that office. In fact, the office of the president or prime minister can sometimes be likened to an orphanage for agencies left to fend for themselves . . . ." Dorm-Adzobu, *supra* note 58, at 36.

214. A specialized agency possessing scientific expertise, such as a science and technology board or commission, may be much too weak to exert influence effectively when it comes to a government decision concerning a major development project. *See* Lausche, *supra* note 47, at 15.

215. This institution could also be an important advisor on high-level environmental policy— especially on a number of cross-cutting issues. For example, would a new approach to land tenure (say, more private holdings) advance the conservation of soil resources; do subsidies for pesticides and "artificial" fertilizers create an unwise bias against more sustainable forms of agriculture; or do current tax policies promote the quick cutting of timber?

216. *See supra* notes 55-56 and accompanying text.

plement or enforce the regulatory scheme.[217] These problems are often difficult to discern in their entirety since the diffusion of responsibility serves to obscure the gaps and overlaps that exist and shields from view any serious breakdowns between legislative purposes and actual enforcement.[218] Any serious reform effort, however, will have to confront the fragmentation, lack of coordination, and antiquated structures that characterize pollution control law in so many developing countries.

One way to deal with these scattered activities and regulatory shortfalls is by consolidating responsibility for pollution control within one institution that is authorized to administer a comprehensive environmental protection program.[219] A logical location for this authority would be the existing ministry for the environment or the existing ministerial division or department for the environment.[220] Theoretically, such a proposal might create a firestorm of political opposition since it would involve the transfer of existing pollution control activities. In many instances, however, these programs operate with few resources and few personnel, so a reorganization of this sort might not cause a significant loss of funding or staff. Even the loss of prestige could be mitigated since the offices that may lose some functions can continue to make a contribution toward pollution control by focusing their efforts upon programs that best reflect their expertise. A bureau of standards could offer advice on pollution standards (rather than setting them); the fisheries of-

217. *See supra* notes 52-54 and accompanying text; *see also* Kamugasha, *supra* note 45, at 11-12 (referring to the lack of implementation and enforcement as well as to shortcomings in the scope and content of the legislation).

218. *See* Kamukala, *supra* note 55, at 5.

219. Another logical but more far-reaching approach would be to consolidate all pollution control and natural resource responsibilities within a new ministry for environmental protection and natural resources. *See, e.g.*, Halina Szejnwald Brown et al., *Environmental Reforms in Poland: A Case for Cautious Optimism*, 40 ENVT. 10, 11 (1998) (referring to Poland's new Ministry of Environmental Protection, Natural Resources, and Forestry). A danger posed by such an approach, however, is the possibility that the new ministry— composed largely of development-oriented staff— will devote most of its resources, attention, and personnel to questions of resource development (forestry, fisheries, mining, etc.) rather than environmental protection. Poland perhaps solved that problem by retaining and strengthening an independent monitoring and enforcement agency, the State Environmental Protection Inspectorate. *See id.*

A proposal to consolidate natural resource responsibilities as well as pollution control supervision in one ministry is also bound to draw strong opposition from the ministries which already deal with natural resources such as forestry, fisheries, and mining. They would stand to lose considerable funding, personnel, and power. *See* Alfred A. Marcus, *EPA's Organizational Structure*, 54 LAW & CONTEMP. PROBS. 5, 18-21 (1991) (reviewing departmental opposition in the U.S. to consolidating all natural resource responsibilities as well as pollution control in one department). On the other hand, the United States might have enjoyed "better natural resource and environmental protection policies" if the consolidation occurred. *Id.* at 5.

220. The reorganization would thereby strengthen an institution which already exists in many countries. *See* Halter, *supra* note 76, at 233 (arguing for the strengthening of existing institutions rather the creation of new ones).

fice could be charged with preventing dynamite and cyanide fishing, and the coast guard, with preventing oil spills from ships, rather than either dealing with all marine pollution; a water office could be called upon to deal with the problems posed by return flows from irrigated agriculture.

Some existing offices, however, may do double duty (for example, issuing water withdrawal permits as well as wastewater permits), which is a desirable situation for any resource strapped government, but a complicating factor in a governmental reorganization. Such an office could be entirely transferred to an environment ministry or department, and the move would make good sense due to the influence of water quantity upon water quality.[221] It would also give the environment ministry or department additional and, most likely, much-needed clout. Politics, nevertheless, might intervene to prevent such a large-scale transfer. So the question will devolve into whether it is better to leave the pollution control function in the hands of the existing office, taking advantage of their perhaps considerable field presence, or whether the pollution control function — with perhaps few, if any, staff — ought to be transferred.

The regulatory responsibility for pollution control, however, should reside, for the most part, within one institution that is advised and assisted by other offices. Such an approach would simplify the effort to harmonize a country's pollution law and might facilitate organizational innovations (the establishment of regional offices and the delegation of certain carefully defined functions to local authorities) that may improve implementation at the local level.[222] The combination of functions would also enable the environment ministry or division to set appropriate priorities for regulation and enforcement, and would facilitate cross-media enforcement efforts as well as integrated approaches to pollution control and prevention. Such a consolidation would also clarify which agency is organizationally responsible for the proper administration of the pollution statutes. This fact, combined with increased visibility, should lead to greater accountability and a higher probability that the law will be faithfully executed.

221. *See* U.S. E.P.A., NATIONAL WATER QUALITY INVENTORY, 1996 REPORT TO CONGRESS 19 (1998); DAVID M. GILLILAN & THOMAS C. BROWN, INSTREAM FLOW PROTECTION: SEEKING A BALANCE IN WESTERN WATER USE (1997).

222. Although there are a number of arguments supporting the creation of regional offices (decentralization) or delegation of certain programs to local government (devolution), studies of such programs in developing countries suggest that few have been successful in carrying out the programs. "Too little attention has been paid to identifying the appropriate functions to decentralize, local level capacity and resource needs for carrying out decentralized functions, and other obstacles in the development planning and decision-making process." Lausche, *supra* note 47, at 36.

V. ENCOURAGING LOCAL OWNERSHIP

A. Local Consultants

"Country ownership" is an absolute requirement for a successful law reform effort.[223] Foreign experts cannot be relied upon to do most of the necessary research or to perform most of the necessary analysis. If the donors were to bring in foreign consultants to do all of the technical work and to choose the direction and scope of the effort, the result would most likely be a large stack of paper and little action.[224] Local lawyers, local academics, and other local professionals must be involved in the work at every single stage of the process. They are the experts when it comes to how the local laws and institutions operate. They are better informed than any external consultant about the precise nature of the environmental problems and development difficulties facing their country, [225] and their knowledge and expertise should be tapped in order to conduct the necessary review of existing legal and institutional structures. Their involvement is crucial to an understanding of how the system actually functions in the field. Their input will be indispensable later in the process when a workable strategy for reform is developed and the necessary legislation together with implementing regulations are drafted.

In short, the use of local experts should help ensure that the legal and institutional proposals that grow out of this process will be consistent with the nation's environmental needs, as well as its legal and political system, traditions, and social customs.[226] That consistency is absolutely necessary if the proposals are going to have a realistic chance of enactment and eventual enforcement.[227] In addition, the use of local experts aids in the capacity building effort and will ensure that there will be professionals available who are intimately acquainted with the legislative history of the new institutional structure and environmental statutes — invaluable assets as the reforms are implemented and the new laws enforced in the years to follow.[228]

B. Creating a Participatory Process

The use of local experts, however, is not enough to guarantee that the

223. *See* Remarks of Sherif Omar Hassan, *supra* note 60.

224. *See supra* notes 60-61 and accompanying text.

225. *See* Kaniaru et al., *supra* note 35, at 159.

226. *See* William Wilson, *Environmental Law as Development Assistance*, 22 Envtl. L. 953, 954 (1992).

227. *See* Kaniaru et al., *supra* note 35, at 159.

228. *See id.*

community or the government will identify with the reforms that are proposed. To increase the odds of acceptance and to create a better fit, the views of the community and the government must be sought at all important decision points: as the vision for change is generated; as specific strategies are developed; and as legislative proposals are drafted.[229] The workshops or seminars held to seek this advice should be open to all interested persons and the participation of all of the relevant government offices, concerned legislators, environmental NGOs,[230] law professors and other interested academics, environmental engineers, as well as lawyers and other professionals who are interested in environmental affairs should be strongly encouraged. A special effort should be made, moreover, to seek participation at the local and regional levels as part of a sincere effort to enhance coordination between the national government and local and regional authorities,[231] as well as to craft programs that recognize and build upon local institutions and practices.[232]

These workshops or seminars ought to be organized in a way that will allow the participants to thoroughly discuss reports and review draft legislation. Copies of workshop and seminar materials should be available in advance of the meeting and they should be translated into all the relevant languages. In addition, it is not enough to simply seek comments on various reports and draft legislation for those documents may well, perhaps in irrevocable fashion, establish the terms and limits of the discussion that will follow. Meetings or workshops, ought to be held before each major stage of the process begins in order to help identify important issues for the consultants to study and guide them in an appropriate direction. These early "scoping" meetings should, therefore, be more than brainstorming sessions. These meetings should also help ensure that the community and the government have and maintain an active role in setting the agenda for the reform process.

229. As B.B. Nganwa Kamugasha has observed:

> Governments can make laws, but unless the public understands them and to some degree supports them, the laws will remain on paper. The process should therefore involve consultation and consensus building with the different elements of the population. Furthermore, consultation should not be restricted to the initial stages of national environmental policy development; it should be an ongoing process.

Kamugasha, *supra* note 45, at 3.

230. For a discussion of the growing role which environmental NGOs play in developing countries, *see* Dorm-Adzobu, *supra* note 58, at 54; McCutcheon, *supra* note 14, at 439-40. Environmental NGOs are "an important voice for the public interest" and can also serve as a voice on behalf of marginalized people (e.g., the rural resource users). Veit & Wolfire, *supra* note 66, at 160.

231. *See* Halter, *supra* note 76, at 233 (stressing the importance of balancing responsibilities and increasing coordination amongst local, regional, and national authorities).

232. *See* Kamugasha, *supra* note 45, at 9 (emphasizing the need to reinforce many traditional community-based systems for resource management).

VI. CAPACITY BUILDING

In order to be successful, law reform projects in the developing world cannot end with the drafting and parliamentary enactment of a revamped legal and institutional structure for environmental management. Those steps, although difficult to surmount, pose a lesser challenge than the final step: implementation. The new laws and programs must be implemented and enforced. All too often, however, environmental legislation has been a dead letter in developing countries because of a lack of adequately trained personnel, insufficient administrative and technical support, and limited financial resources.[233] Even more serious is the lack of political will and commitment to build and maintain a strong environmental program.[234] No aid program can provide this type of commitment. It either exists or it does not. In fact, a comprehensive reform effort probably ought not to be undertaken unless there is demonstrable support at the highest levels of government.

Assuming that such political support exists, the other obstacles to effective implementation can be addressed. Institutional capacities can be enhanced. However, no one ought to harbor any illusions on this score. Institution building is one of the "most difficult and elusive" of objectives, and the failure to provide adequate capacity remains one of the major causes behind the failure of development programs.[235] In fact, as David Fairman and Michael Ross noted, "many development practitioners have found the problem of 'institutional weakness' so intractable that they prefer to ignore the issue altogether and instead worry about more tangible problems."[236] The problem is indeed difficult. A "barrage" of short-term training courses will not "bring about sturdy environmental institutions in low and middle-income countries."[237] Nor will short-term visits to environmental agencies or law schools in other countries bring them about, although those are certainly better expenditures of resources than the popular and rather useless exercise of sending delega-

233. *See* Randall Baker, *Institutional Innovation, Development, and Environmental Management: An Administrative Trap Revisited, Part I*, 9 PUB. ADMIN. & DEV. 45 (1989) (asserting that environmental legislation is "rarely" enforced due to insufficient technical and administrative resources); *see also* O'CONNOR, *supra* note 93, at 73 (referring to the fact that these new environmental agencies often occupy "a subordinate position in the bureaucratic hierarchy, with limited budget and inexperienced and often underqualified personnel").

234. *See* Kamugasha, *supra* note 45, at 12; *see also* Baker, *supra* note 233, at 45 (referring to under-enforcement caused by the influence of powerful groups who derive financial rewards from the rapid and unregulated exploitation of the environment).

235. Halter, *supra* note 76, at 232. *See also* Fairman & Ross, *supra* note 57, at 41 ("[C]apacity building has been the Achilles' heel of a great many development projects.").

236. Fairman & Ross, *supra* note 57, at 42.

237. *Id.* at 44.

tions of visiting professionals (such as judges) to a developing country for a week-long general visit. Capacity building is a long-term process and, to engage in it successfully, donors will have to control their desire to show taxpayers quick, tangible results. It will take time. Donors will also have to try to curb their tendency to supply the staff, skills, and technologies that they believe are necessary to solve certain capacity problems since such quick fixes may deprive the local bureaucracy of the very training and experience they will need to maintain the program in the longer term.[238]

Capacity building cannot be undertaken casually. It is vitally important, and it must be carefully planned. The first step to "increasing the effectiveness of aid programs depends on correctly identifying and addressing the missing form and location of capacity."[239]

Problems at environmental agencies often include a shortage or lack of adequately trained staff, poor management capacity, lack of certain professional skills[240] such as financial accounting, limited fiscal resources,[241] and inadequate equipment or facilities.[242] In addition, government personnel often lack access to necessary information — statutes, regulations, reports, and studies. Telephones are typically in scarce supply as are computers, printers, and copying machines. It cannot be overemphasized, however, that training and staff development are "at least as important as other government resource needs."[243]

Some necessary skills such as negotiation, dispute resolution, or the key elements of an inspection program can perhaps be taught through relatively short-term training exercises. These training programs can be held in-country or, perhaps even better, at a regional level.[244] At times, however, environmental officials may profit more from a longer-term, hands-on experience in a developed country (to see, for example, how the U.S. Fish & Wildlife Service deals with its commenting obligations under NEPA, or to observe how another agency implements a permit program or develops standards). One way to provide that sort of practical training is through "twinning arrangements" with institutions in developed countries that can provide both the experience as well as the necessary training.[245] Other kinds of skills (such as specialization in en-

238. *See id.* at 42.

239. Connolly, *supra* note 43, at 344.

240. *See* Lausche, *supra* note 47, at 19.

241. *See id.* at 23.

242. *See* Kamugasha, *supra* note 45, at 12.

243. Halter, *supra* note 76, at 233.

244. *See id.* at 246-47. A regional training center could be established at a local university or research institution. *Id.* at 247.

245. *See* Dorm-Adzobu, *supra* note 58, at 63-4. These organizational arrangements and the rela-

vironmental law, accounting, or public health training) may demand long-term, formal educational opportunities abroad, unless the skills can be acquired locally. The best candidates for such training, however, may not be veteran government employees, but young, relatively recent university graduates who are committed to the cause of environmental protection. They may be more likely to remain on the job once their training has concluded, and less likely to seek further education just to gain the attractive per diems that travel abroad often offers.[246]

Providing the other ingredients of a regulatory infrastructure is perhaps less difficult. Small libraries containing copies of relevant materials as well as Internet access can be placed in government offices for use by both the bureaucracy and the public.[247] Copies of statutes and regulations can be placed in the hands of those who need them, and adequate office equipment provided so people can do their jobs efficiently and effectively. If local governments are going to be relied upon in some way, they will need to be strengthened. More difficult or awkward, however, is the question of operating costs. Capacity building does not just involve putting an institution on its feet. It also involves keeping it there with adequate funding for staff and infrastructure. Therefore, capacity building "must include provisions for long-term recurrent financing."[248]

Capacity building should not just focus on the environmental branches of government. The capacity of sectoral ministries, for instance, may have to be strengthened if they are going to be capable of performing environmental assessments and the integration of environmental values into their development strategies.[249] In fact, the coordinating ability of an environmental agency could be strengthened immeasurably if these funds could be channeled through such an agency.[250] The support of nongovernmental organizations, furthermore, is a marvelous way to promote concern for the environment within a nation and to augment the envi-

tionships that develop between individuals may help "ensure prolonged contact between trainers and trainees and between the institutions as well." *Id.* at 64.

246. *See* LANCASTER, *supra* note 21, at 58 (discussing the problems of development patronage).

247. In some cases, it may be efficient to establish regional programs to gather environmental information about common resources or common problems and to exchange data about policy alternatives. The six nations which share the rainforest of the Congo Basin, for example, are developing a project, with the help of the World Bank and other donors, to develop and share information about the rainforest and to encourage sound land-use planning. *See* WORLD BANK (ENVIRONMENT GROUP), CENTRAL AFRICA REGION: REGIONAL ENVIRONMENTAL INFORMATION MANAGEMENT PROJECT iv (Rpt. No. 17006-AFR, Dec. 1997).

248. Fairman & Ross, *supra* note 57, at 43.

249. *See* Connolly, *supra* note 43, at 345.

250. *See* Dorm-Adzobu, *supra* note 58, at 42-3 (relating how Ghana's Environmental Protection Agency increased its level of goodwill and cooperation from line ministries by sharing funds and resources for implementing the Ghana Environmental Resource Management Project).

ronmental capacity of their government.[251]

Environmental NGOs can lobby their governments to keep the environment high on the political agenda.[252] They can monitor government performance and publicize shortcomings.[253] They can even litigate when necessary.[254] In fact, enhancing the capabilities of local environmental NGOs may be one of the most effective things a donor can do to promote concern for the environment.[255] NGOs can play a broader role as well, putting pressure on governments to dismantle one-party regimes and to implement democratic reforms.[256]

NGOs, however, can "be overwhelmed" by expectations that exceed their grasp.[257] Many NGOs lack the expertise or experience to participate effectively in the policy-making arena. For example, most African NGOs "still lack the technical and other skills to bolster their positions, as well as the tools to articulate positions effectively."[258] These environmental NGOs need to be strengthened so that they can develop the kinds of expertise that are necessary to formulate and execute effective strategies to further their cause. They may need training in fields as diverse as environmental law and grassroots mobilization. Almost all will need some help to develop their capacity to perform policy research and analysis, and to communicate electronically with their counterparts in both the developed and developing world.[259] They also need small libraries that contain copies of the relevant laws, regulations, and other basic materials. Depending upon the current state of democratic reforms in

251. *See* Connolly, *supra* note 43, at 328, 345; Fairman & Ross, *supra* note 57, at 43. Approximately 10 % of development aid is now being channeled through NGOs (although this figure refers primarily to northern NGOs) and NGOs in the north are collaborating more and more with their counterparts in the developing world to improve their ability to participate in local activities. *See* Dorm-Adzobu, *supra* note 58, at 54.

252. Connolly, *supra* note 43, at 345.

253. A rapidly growing category of environmental NGOs in Africa is the journalist association such as the Journalists on Environment in Tanzania (JET) and Journalists for the Environment in Kenya. *See* Veit & Wolfire, *supra* note 66, at 167.

254. Public interest law associations have been quickly spreading in the developing world. They include, for example, the Lawyers' Environmental Action Group in Tanzania, the Center for Environmental Policy and Law in Africa (CEPLA) in Kenya, and Greenwatch in Uganda. *See id.* at 165.

255. *See* Cord Jakobeit, *Nonstate Actors Leading the Way: Debt-for-Nature Swaps*, *in* INSTITUTIONS FOR ENVIRONMENTAL AID, *supra* note 43, at 149 (contending that by strengthening "independent institutional capacity" one "can empower local self-interest, thereby gradually reducing the dependence on continued external support.").

256. *See, e.g.*, Veit & Wolfire, *supra* note 66, at 179.

257. Jakobeit, *supra* note 255, at 150.

258. Veit & Wolfire, *supra* note 66, at 175. They, therefore, "risk performing poorly" and such "performances only reinforce the perception among policy-makers (and some funders) of African NGOs as low-cost implementors of field activities with little, if any, capacity to address complex or technical policy issues." *Id.*

259. *See generally id.* at 177 (setting forth recommendations for improving the advocacy capacity of NGOs).

a particular country, they may also need some assistance in learning how best to advocate for a more liberal approach to civil liberties and basic political rights.[260]

Some donors may balk at providing this kind of policy support to NGOs. Not only may they perhaps be uncertain about whether these organizations can be effective policy advocates, but they may also be wary of offending host governments that may view NGO funding as a diversion of funding that the government might otherwise receive. The case for supporting environmental NGOs, however, is compelling. Stronger, more capable NGOs can become forceful voices for better policy and better legislation. They could also help speed the transition towards healthy, pluralistic societies.[261]

In most developing nations, the legal profession will also need some assistance in acquiring the kind of skills and knowledge needed by lawyers and judges to implement an effective environmental program.[262] Since many local law schools do not teach and are not staffed to teach environmental law, a faculty member may have to receive some additional training. This can be provided directly by supporting postgraduate work for a willing faculty member or, more indirectly, by promoting an exchange program between the local law school and a law school in a developed country. Such an exchange program could help train local faculty and assist the local law school in curriculum development and the preparation of classroom materials.[263] The exchange program could also be tied to an effort to encourage the local law school to reach out to the practicing bar and judiciary by offering courses in continuing legal and judicial education. These courses could be taught by faculty from both the local law school as well as the sister institution in the developed world, and could cover a range of topics such as environmental and administrative law.

CONCLUSION

All too often there appears to be a dramatic and disturbing gap between what governments say and what governments do. The same appears to be true for international donors. During the past ten years, the

260. *See id.*

261. *See id.* at 180-81.

262. *See generally* Boer, *supra* note 113, at 1550-52 (discussing a number of recent training programs in environmental law).

263. The law school library will most likely need to expand its holdings in environmental and administrative law, at least in a modest way, in order to support its new curricular offerings. The provision of some sort of direct aid to support these acquisitions is probably a far better approach than the donation of old and out-dated books from a sister institution in the north. The sister law school, however, can provide great help by offering advice on what materials ought to be acquired.

developing world has been awash with donor-funded national environmental action plans and national environmental programs, national conservation strategies, national biodiversity strategies, national agriculture programs, and national forestry action plans. These documents generally recognize that long-term economic development can only be sustained on an ecologically sound base. Many also purport to recognize that the policies and strategies they set forth will remain empty pronouncements unless appropriate laws and institutional arrangements are put in place.

Law reform, however, is a difficult proposition. New laws are seldom written on an entirely clean slate even in the developing world. Dozens of environmental and natural resource laws may already exist and a large number of government ministries and offices may be responsible for their implementation or, in some cases, lack of implementation. There are often serious regulatory gaps and overlapping grants of authority, laws which are not sensitive to local customs or conditions and, in many instances, a lack of administrative and legal capacity or even political will to implement existing laws. Often these problems have not been thoroughly analyzed and there has been no attempt, either at the governmental level or through collaborative multilateral processes, to generate a generally accepted vision for comprehensive legal and institutional reform.

Legal drafting cannot take place in a vacuum. Accurate background studies must be prepared, and some consensus must be reached as to the kinds of reform that should be pursued. Otherwise, fine laws may be written only to gather dust. Unfortunately, donors and governments often pursue law reform efforts in precisely such a vacuum.

A cynic might conclude that the laws and government bodies that emerge from such reform efforts are just symbols intended to satisfy public opinion by creating the appearance of progress even though the government or donor was not truly interested in solving the particular problem at hand. Although symbolic acts do take place, there is a preferable explanation. Many donors have lacked an adequate appreciation for the role of law. Development has almost always been considered a matter of economics and technology, and the composition of the staff at development agencies generally reflects that perspective. Governments in many developing countries suffer from the same lack of legal capacity and influence. Law reform is, therefore, an afterthought in many instances, an exercise that is lightly staffed and lightly financed.

Such views are beginning to change. Law reform cannot be divorced from the process through which national environmental policy is articulated. Legal and institutional issues must inform that debate, and law reform, in turn, must be informed and guided by the resulting policy. In

this way environmental management can become an integrated whole rather than just a diverse collection of pieces. Through such a comprehensive approach, policy can be translated into effective laws and regulations. And through such a comprehensive approach, institutions can be shaped and strengthened in such a way that they will give life to that legal regime.

To launch such a reform effort, however, requires donors and governments alike to appreciate the relationship between environmental, legal, and institutional problems on the one hand, and environmental, legal, and institutional solutions on the other. Such an effort requires one more critical ingredient — political will on the part of both donors and the recipient nations. If they can summon the political courage to join together to build and maintain strong, rational environmental programs, then a significant step will have been taken toward ensuring that the promise of sustainable development will not be sacrificed on the altar of short-term gain.