INTERNATIONAL ENVIRONMENTAL LAW AND DEVELOPMENT IN DEVELOPING NATIONS: AGENDA SETTING, ARTICULATION, AND INSTITUTIONAL PARTICIPATION

C. RUSSELL H. SHEARER*

INTRODUCTION	392
ENVIRONMENTAL PROBLEMS IN DEVELOPING NATIONS	394
A. Population Growth	395
-	
1 0	
1	
G. Desertification	
H. Hazardous Waste	
WHY DEVELOPED NATIONS NEED TO ASSIST	
DEVELOPING NATIONS IN ADDRESSING	
Environmental Problems	407
A. Environmental Nexus	408
B. Special Obligations of Developed Nations	411
DEVELOPED NATIONS' PERFORMANCE IN CREATION OF	
INTERNATIONAL ENVIRONMENTAL LAW	415
A. Agenda Setting	416
B. Articulation	
C. International Institutions	425
Recommendations	426
Conclusion	
	 ENVIRONMENTAL PROBLEMS IN DEVELOPING NATIONS A. Population Growth

^{*} Law Clerk to the Honorable Hart T. Mankin, United States Court of Veterans Appeals; LL.M., Energy and Environment, 1993, Tulane University School of Law; J.D., 1992, Widener University School of Law; Law Clerk, 1991, United Nations Environment Programme; B.A., 1988, Washington & Lee University. The author wishes to express his thanks to Professor Kirsten Engel, Tulane University School of Law, for her kind assistance and useful comments in the preparation of this article. The author further acknowledges the invaluable editorial assistance provided by Michelle M. Carry, Esquire. The views expressed in this article are solely those of the author and do not necessarily reflect those of the United States Government or the United States Court of Veterans Appeals.

I. INTRODUCTION

The point needs to be made and reinforced that what is at stake are planetary resources and systems that not only support national economies and hence the global economic system, but all life as well. The biosphere, the global commons, the great bio-geochemical-physical cycles that distinguish this living earth—these cannot be appropriated or purchased or protected with arms by individual nations. They are inherently beyond the reach of nation-states, and we have been slow to realize the political implications of the mutual dependence of all nations on these shared systems.¹

Indeed, in the last 100 years, we have come to learn that pollution is an omnipresent evil, one that does not respect the national boundaries or sovereignty of a nation.² However, this realization has not translated into a global willingness to address world environmental problems. Rather, international attempts to recognize and address international environmental problems have been uniformly characterized by myopic nationalistic positions that neither respect nor understand the global nature of today's environmental devastation. This is not to say that there have been no advances in international environmental law. These advances, however, have not gone far enough and have not appropriately addressed the problems facing the developing nations.

The future course of international environmental law may well determine the fate of the world as a place hospitable to life. Thus, the nationalistic concerns of developed nations that tend to dominate international environmental law are cause for alarm. These nationalistic concerns are most apparent in what commentators have

^{1.} Address by Dr. James Lee, Director of Environmental and Scientific Affairs, World Bank, American Bar Association Standing Committee on Environmental Law Panel Presentation on International Environmental Law Issues (July 1985), *reprinted in The Global Environment: Challenges, Choices, and Will*, 16 Envtl. L. Rep. (Envtl. L. Inst.) 10,255 at 10,256 (Sept. 1986).

^{2.} See generally The Trail Smelter Arbitration (U.S. v. Can.), 3 R.I.A.A. 1905 (1941) [hereinafter The Trail Smelter Arbitration] (Canada liable for damage to United States' environment caused by smelting operation conducted within Canada's borders).

called the "North-South" debate,3 which pits the interests of the developed nations against those of the developing nations. The fundamental problem with this particular debate is that it is characterized not by healthy discussion, but by coercion and lack of respect for both the concerns of other nations and global environmental problems. In short, there is an unwillingness, largely on the part of the developed nations, to address the environmental problems and concerns of the developing nations. This unwillingness particularly troublesome considering that many of the is environmental problems in the developing countries have been created in the course of developed world industrialization. This finger pointing, however, does not excuse the developing nations from responsibility, as often they, too, have placed national agendas ahead of environmental protection and remediation.

The North-South debate has resulted in several impediments to addressing global environmental problems. First, at a basic level, the "debate" has prevented international consideration of certain global environmental issues.⁴ Second, the debate has prevented international unanimity in the articulation of international law and conventions. Third, it has resulted in the adoption of "soft law," and broad, unenforceable duties or weakened standards in international conventions. Finally, the debate has highlighted a number of deficiencies in the international institutions and nongovernmental organizations responsible for and interested in advancing international environmental law.

Section II of this article will address the environmental problems faced by the developing nations. These problems are qualitatively and quantitatively different to those faced by the developed nations, but are not remote from the developed world in terms of either impact or responsibility. Section III will discuss why the developed nations must assist developing nations in addressing environmental problems. This assistance is necessary because of the

^{3. &}quot;While there is a certain arbitrariness and artificiality to dividing the world between 'developed' and 'developing,' 'rich and poor' or 'North-South,' such designations serve to help define the roles and obligations assigned to developed nations in the international legal system today." Robert E. Lutz, *The Export of Danger: A View from the Developed World*, 20 N.Y.U. J. INT'L L. AND POL. 629, 657 (1988); *see generally* W. BRANDT, ET AL., NORTH-SOUTH: A PROGRAMME FOR SURVIVAL (1980).

^{4.} This will be referred to as agenda setting.

developed nations' disproportionate use of world resources, control over developing nations during the colonial period, and continuing dominance in the creation of international law. Section IV will discuss the failure of the developed nations to discharge this obligation by analyzing international law in light of structural impediments and weaknesses. Finally, Section V will conclude with several recommendations on the implementation of a more global approach to international environmental problems.

II. ENVIRONMENTAL PROBLEMS IN DEVELOPING NATIONS

Developing nations face numerous problems that do not fit the mold of traditional environmental concerns, but which nonetheless have a dramatic impact upon the environmental quality of those nations. A myopic view of the international environment has lead to the conclusion that these problems are domestic and should be addressed with the resources of the developing world. It is important to understand, however, that no environmental problem is ultimately domestic. While the United States Supreme Court has debunked the concept of an "ecosystem nexus,"⁵ nature has a disturbing tendency to dissent. For example, it is now clear that deforestation in Brazil will have harmful impacts in the United States.⁶

Nonetheless, the myopic view persists. Thus, many global environmental problems do not appear on the international environmental law agenda because the direct effects are suffered mostly by developing nations who have relatively little power. These problems include population growth, poverty, development projects, rain and temperate forest loss, loss of biological diversity, climate change, desertification, and hazardous waste. These are problems worthy of international consideration. In fact, they are problems which the global community, and especially the developed world, is obligated to address.

^{5.} *Lujan v. Defenders of Wildlife*, U.S. _, 112 S. Ct. 2130, 2139 (1992).

^{6.} For example, the loss of biological diversity and global warming will have impacts in the United States. *See infra* sections E and F.

395

A. Population Growth

In the year one, the world's population was about 300 million people.⁷ In the year 1500, there were about 600 million people in the world.⁸ Now, 500 years later, there are 4.8 billion people, 16.8 times as many persons as in the year 1500.⁹ In fact, the time required for the world's population to double is now down to forty years.¹⁰ In Kenya, for example, the population doubles every seventeen years, and data suggests a similar picture for the remainder of sub-Saharan Africa.¹¹

Until recently, most of the population growth took place in developed nations.¹² Presently, however, over ninety percent of the population growth is taking place in developing nations.¹³ Population growth in these countries increases demand on natural resources, and creates pressure for the governments to supply food and other services.¹⁴ Increased demand outstrips the environment's ability to replenish these resources because the natural productivity of the environment has not been able to match the geometric growth in population. As resources become more and more scarce, subsistence living patterns and poverty result. Because these resources are necessary for survival, there is less concern about whether they are being used in a sustainable manner. Since developing countries have economies based primarily on agriculture, the corresponding environmental destruction reduces the marketable goods the developing nations have to offer.¹⁵ As the amount of goods available to market decreases, poverty increases.

The "poverty-resource depletion cycle" shows a linkage between increasing birth rates, economic development, and

^{7.} Address by Russell Train, President, World Wildlife Fund, American Bar Association Standing Committee on Environmental Law Panel Presentation on International Environmental Law Issues (July 1985), *reprinted in The Global Environment: Challenges, Choices, and Will*, 16 Envtl. L. Rep. (Envtl. L. Inst.) 10,255 at 10,256 (Sept. 1986).

^{8.} Id. at 10,256.

^{9.} *Id*.

^{10.} *Id*.

^{11.} *Id*.

^{12.} *Id*.

^{13.} *Id*.

^{14.} *Id.* 15. *Id.*

environmental degradation.¹⁶ The present course of that linkage dictates that as a developing nation achieves some measure of an increased standard of living, the increase is undermined by population growth. The population growth further exacerbates both demands upon and the degradation of natural resources, as well as increases the percentage of the population living in poverty. It is a fair conclusion, then, that population growth is a fundamental problem, and perhaps the single most environmentally destructive force.¹⁷

B. Poverty

Economic growth is not a matter of choice but a matter of necessity in developing nations. To say that "'[p]overty pollutes' is a short way of saying that poverty 'reduces people's capacity to use resources in a sustainable manner"¹⁸ This fact manifests itself in several fashions.

First, poverty prevents people from considering the long-term impact of their present consumption practice. No rational person is concerned about the long-term impact of present consumption when the constant struggle is simply to live until tomorrow.¹⁹ For example, the gathering of fuel wood in developing nations is crucial to survival.²⁰ Fuel wood, used to warm the home and to cook food, is the largest source of energy in these nations.²¹ But due to population growth, over-exploitation, and desertification, many nations have a wood shortage.²² The continued unsustainable use of fuel wood has

^{16.} See infra notes 32 and 33 and accompanying text.

^{17.} India is expected to double its population by the year 2050 to more than 1 billion persons. *Technology Transfer: Developed Nations Urged to Match Third World Aid to Local Conditions*, Int'l Env't Daily (BNA), Feb. 7, 1992, *available in* LEXIS, Nexis Library, BNAIED File. Significantly, this population increase is expected to increase India's energy consumption seven-fold by the year 2030. *Id*. Coal is projected to be India's major source of power, and is thus likely to become its primary source of pollution. *Id*.

^{18.} Gunther Handl, *Environmental Protection and Development in Third World Countries: Common Destiny—Common Responsibility*, 20 N.Y.U. J. INT'L L. & POL. 603, 607 (1988) (quoting WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 49 (1987)) [hereinafter OUR COMMON FUTURE].

^{19.} Train, *supra* note 7.

^{20.} By the year 2000, it is expected that about three billion people will be affected. INFORMATION AND PUBLIC AFFAIRS BRANCH, UNEP, UNEP PROFILE 23 (1990) [hereinafter UNEP PROFILE].

^{21.} *Id*.

^{22.} See id.

led to further desertification, forest loss, global warming,²³ erosion, destruction of water supplies, and the use of animal dung as fuel, which robs the land of a prime source of nutrient recharge.²⁴ Yet, developing nations can ill afford the high costs of developing other means of energy production, such as hydroelectric, nuclear, or coal.²⁵ Thus, present fuel wood consumption practices continue in the pursuit of present survival while simultaneously making future survival the world over more difficult.

Second, no government will invest in environmental protection when doing so would imperil its political power. In developing nations, the first demands on the government's resources are to provide food and shelter.²⁶ As a rational person is interested in survival, so too are governments.²⁷ Environmental protection is a

^{23.} *Id.* at 6-7, 16-17.

Global warming has been attributed to the release of unsustainable levels of carbon dioxide (CO₂) into the atmosphere. Increased levels of CO₂ act as a greenhouse, allowing the sun's heat to enter the atmosphere, but not allowing it to escape. Forests, on the other hand, act as CO₂ sinks, exchanging CO₂ for oxygen, and minimizing or negating any CO₂ gain and correlated greenhouse effect. Forest loss has upset the ecological balance and contributed to the increase in CO₂ levels and global warming because the destruction of forests decreases the earth's capacity to absorb CO₂. Furthermore, the use of the cut timber as fuel wood, or its decomposition after clearing releases additional CO₂ formerly stored in the wood. *Id*.

It is not surprising that the issue of global warming is of critical importance to many developing nations. Bangladesh and the Seychelles, for example, are faced with the prospect of complete loss of their territory. Global warming is expected to melt the polar ice caps, causing an increase in sea level and consequent decrease in land mass. *Id.* at 6.

^{24.} *Id.* at 6-17.

^{25.} See NATURAL HERITAGE INSTITUTE, THE RELATIONSHIP BETWEEN HUMAN RIGHTS AND THE ENVIRONMENT 1-9 (1992) (providing illustrations of foreign financed hydroelectric power plants in developing nations) [hereinafter NATURAL HERITAGE REPORT].

^{26.} The United States government distributes food in nations it wishes to court as potential allies or perceives as politically important. Grain and rice distribution is conducted by the United States Agency for International Development (AID). Distributors for the AID carry the title "Director of Democratic Reform Initiatives." Both the title assigned to the distributors, and the importance the United States places upon insuring an uninterrupted food supply in allied nations underscores the stabilizing force of providing sufficient basic life needs.

^{27. &}quot;[T]he environment [of Guatemala] probably will be on the country's back burner while the new government deals with [the nation's] economic problems, civil war, and other problems." *1991 Outlook: 1991 Offers Chance to Set Global Environmental Agenda*, Int'l Env't Daily (BNA), Jan. 16, 1991, *available in* LEXIS, Nexis Library, BNAIED File.

[&]quot;Environmental officials [in Hungary] acknowledge much needs to be done on the governmental level, particularly in the areas of air pollution and waste management, but a crippled national economy that has put tight constraints on the budgets of all ministries combined with the government's almost total absorption by its economic crisis, casts a dim spotlight on environmental issues." *Id*.

luxury developing nations cannot afford since the first objective is to feed and house their people.²⁸ Furthermore, developing nations are faced with ever increasing foreign debt.²⁹ Since increasing amounts of the Gross National Product (GNP) must be dedicated to servicing foreign debt, those nations are finding it more and more difficult to provide for the essential needs of their ever increasing populations.³⁰ As government resources dwindle, those in power are forced to adopt environmentally damaging solutions to maintain their political power.³¹ Thus, "[a]s the ranks of the poverty-stricken swell, the unfortunate victims are compelled to put further pressure on their already badly stressed environments, thereby incurring greater degradation and destruction, and diminishing their hopes for the future."³² It is indeed ironic that as poverty and environmental deterioration increase, more and more natural resources are destroyed which might have been used to improve the long-term standard of living.33

C. Development Projects

Poverty causes environmental degradation, and environmental degradation causes poverty. Attempts to break this destructive cycle through international development projects, such as those funded by private corporations and the World Bank, have often caused even

^{28.} John Ntambirweki, a former UNEP official, consultant to the Organization of African Unity and Ugandan, has stated, "[i]t is economic growth that has allowed developed countries to make great advances in the eradication of mass poverty, ignorance, disease and as such to give a high priority to environmental consideration. [Human]kind has legitimate needs that are material, aesthetic, and spiritual. A country that has not yet reached minimum satisfactory levels in the supply of essentials is not in a position to divert considerable resources to environmental protection." John Ntambirweki, *The Developing Countries in the Evolution of an International Environmental Law*, 14 HASTINGS INT'L & COMP. L. REV. 905, 906 (1991) (quoting statement by the Head of the Brazilian Delegation to the Stockholm Conference).

^{29.} In 1985 alone, the foreign debt load of developing nations was "approaching the one trillion dollar mark." Lee, *supra* note 1, at 10,259.

^{30.} *Id*.

^{31.} One solution adopted by developing nations is to allow colonization, slash and burn farming, and cattle ranching in marginal rain forest lands. *See* UNEP PROFILE, *supra* note 20, at 16.

^{32.} Lee, *supra* note 1, at 10,259.

^{33.} Handl, *supra* note 18, at 607.

greater environmental destruction.³⁴ These projects attempt to alleviate poverty, yet they endanger the natural resources upon which long-term prospects for growth are based.³⁵

For example, petroleum production in the Ecuadorian Amazon has resulted in severe impacts on the environment of the region.³⁶ Multinational corporations, such as Texaco, have cleared vast tracks of land, improperly disposed of large quantities of toxic mud and brine, and failed to remediate oil spills associated with production.³⁷ Incineration of waste oil produces a toxic ash which acidifies lakes and streams and destroys fish and wildlife, thus causing the deterioration of food supplies.³⁸ The construction of unlimited access roads for oil production has provided a means of entry for land speculators, ranchers, and squatters, who further slash and burn the forest to accommodate their particular use.³⁹

Forests, presently sources of income for developing nations,⁴⁰ present long-term opportunities for growth through sustainable development of forest resources such as biotechnology,⁴¹ for example, and could provide a much needed improvement in the standard of living for those nations. However, destruction of the forest to generate short-term cash to service foreign debt is slowly eliminating this option. Further, oil is a finite natural resource. What are the indigenous peoples to do once the oil supply has been exhausted, and the forest, source of their food and housing, has been destroyed? In short, the result of oil production has been a long-term destruction of the rain forest for little short-term gain.

In another instance, the World Bank provided funding for the Bangladesh Flood Action Plan (FAP) without conducting a study of the potential environmental consequences.⁴² While the program is

^{34. &}quot;Multilateral development banks . . . play a significant role in the selection and design of development activities in the Third World. Their projects may involve transfers of hazardous technologies and products, especially for projects of the public works kind, and may threaten injury or cause actual harm to the health and environmental interests of developing countries." Lutz, *supra* note 3, at 667-68 (citations omitted).

^{35.} Handl, supra note 18, at 607.

^{36.} NATURAL HERITAGE REPORT, *supra* note 25, at 17-18.

^{37.} Id.

^{38.} Id.

^{39.} Id.

^{40.} See infra notes 48-59 and accompanying text.

^{41.} See infra notes 60-68 and accompanying text.

^{42.} NATURAL HERITAGE REPORT, *supra* note 25, at 10-12.

designed to control flooding and the loss of life and property in the region, it will actually increase the severity and frequency of flooding for a large portion of the nation.⁴³ The program will cause the forced displacement of up to eight million people, and adversely impact the livelihoods of millions of Bangladeshi farmers.⁴⁴ The FAP also threatens to destroy the freshwater fisheries of Bangladesh, upon which the people depend for over eighty percent of their animal protein.⁴⁵ Where other embankments have been built in Bangladesh, a nearly absolute loss of fish and prawn production has been experienced.⁴⁶

Both of these examples illustrate how misguided development projects have resulted in the destruction of long-term natural resources for little short-term gain. Since they presently have little or no industrial infrastructure, developing nations depend upon their natural resources as both a source of immediate food and shelter and future long-term economic growth. The destruction of those resources for short-term gain serves only to perpetuate the povertyenvironmental degradation cycle.⁴⁷

D. Rain and Temperate Forest Loss

Tropical and temperate forests serve an important role in the global environment. They regulate climate, protect land and water resources, and provide forest products worth over 100 million dollars per year.⁴⁸ Yet, the capacity of the forests in developing nations to perform these functions is rapidly being depleted because the forests are being logged for timber, firewood, charcoal, and cattle ranching.⁴⁹ Population growth further intensifies the need to destroy these forests

48. UNEP PROFILE, *supra* note 20, at 16. This figure represents the value of exports of forest products for a single developing nation.

49. *Id.* In Central America, a quarter of the rainforests have been felled in the last twenty-five years to provide grazing lands in part to satisfy the demands of North Americans for inexpensive hamburgers. *Id.*

^{43.} *Id*.

^{44.} *Id*.

^{45.} *Id*.

^{46.} *Id*.

^{47.} At the Stockholm meeting of the major disaster relief organizations in 1984, it was concluded that natural disasters were increasing in frequency and severity, effecting more and more people, and resulting in the destruction of life-supporting environmental systems. Lee, *supra* note 1, at 10,259. Unsound economic development was cited as the cause of these disasters, and the victims referred to as "environmental refugees." *Id.*

in order to provide land for the production of food and the settlement of people. 50

Over twenty million hectares of forest, seventeen million of which are tropical rain forests, fall each year.⁵¹ The temperate and cold forests in Chile and Argentina are also disappearing.⁵² Forest loss, often cited as a cause of global warming, may result in the complete inundation of some developing nations, such as Bangladesh.⁵³ More immediately, two-fifths of the forest protecting the Himalayan watershed has been destroyed, resulting in top soil loss, irrigation supply silting, and flooding as far away as Bangladesh.⁵⁴

The loss of forest cover in Nepal due to unsustainable fuel wood harvest has resulted in massive erosion and river silting in India,⁵⁵ adversely impacting both land and water resources.⁵⁶ In fact, 100 million people in twenty-two countries no longer have enough forest resources to meet even basic fuel needs.⁵⁷ Experts predict that over-exploitation of forest resources in developing nations will cause a decline in forest product exports from seven billion dollars annually⁵⁸ to less than two billion dollars by the year 2000.⁵⁹ If this occurs, how are the developing nations to service their foreign debts, or provide for the food security of their people?

^{50.} *Id.* The practice in developing countries of forcing the poor to marginal forest lands is apparently more appealing than changing the institutional order through a redistribution of land from an oligarchical concentration of holdings to one more broadly based.

^{51.} *Id*.

^{52.} *Id*.

^{53.} *Id.* at 6-7.

^{54.} Id. at 16.

^{55.} Train, *supra* note 7, at 10,257. The sediments that now silt the rivers of India once replenished the Gangetic plain, upon which both the people of Nepal and India depend for the basis of their agriculture. *Id*.

^{56.} *Id.* Forest loss and desertification has also had dramatic effects in Ethiopia. *Id.* In 1900, nearly half of Ethiopia was covered by vegetation, but due to over-population, overgrazing, and unsustainable use of fuel wood, the figure now stands at just four percent. *Id.* The lack of vegetation worsened the drought of the 1980s, because what rain did fall was not absorbed into the land, but simply ran off, taking with it any remaining topsoil. *Id.* at 257-58.

^{57.} UNEP PROFILE, *supra* note 20, at 16.

^{58.} Train, *supra* note 7, at 10,256. The seven billion dollar figure represents the value of forest-product exports in 1985. *Id.*

^{59.} *Id*.

E. Loss of Biological Diversity

Tropical forests, which cover only about six percent of the earth, support approximately thirty percent of all species of plant and animal life—more than any other place on earth.⁶⁰ In a single hectare of Amazonian rain forest, there may be about 235 species of trees, whereas a comparable area in the United States may have just ten to fifteen species.⁶¹ The plants and animals of the tropical forests have genetic information which have already proven useful in medical and agricultural research.⁶² "In terms of their wealth of species, the nations with tropical forests—practically all less developed countries (LDCs)—are comparable to the OPEC nations in their oil wealth."⁶³ Thus, the biological diversity of the developing nations' tropical forests is a great natural resource.

Yet, the demands on forest resources to provide fuel wood, grazing lands, and exports to generate income to service foreign debt, as well as to satisfy demands for private ownership of land are leading to over exploitation and to a loss of biological diversity.⁶⁴ For instance, exports of tropical forest products valued at seven billion dollars in 1985 are expected to decrease to less than two billion dollars by the year 2000 due to unsustainable use.⁶⁵ The loss of biological diversity poses a serious threat to the long-term economic growth of developing nations because without their forests, many developing nations have no natural resources.⁶⁶ Developed nations have cause to be concerned with this loss of biological diversity as well since many of the tropical forest organisms may be the source of medical, industrial, and agricultural advances.⁶⁷ In addition, the

66. *Id*.

^{60.} Id. at 10,257.

^{61.} *Id*.

^{62.} *Id*.

^{63.} *Id*.

^{64.} *Id.* at 10,256-57.

^{65.} Id. at 10,256.

^{67.} See, e.g., EDWARD O. WILSON, THE DIVERSITY OF LIFE 281-83 (1992). Wilson points out that the rosy periwinkle, a small plant from Madagascar, can cure most victims of two types of cancer—Hodgkin's disease, and a type of leukemia. *Id.* at 283. Wilson also points out that there are many other beneficial but still unknown species. *Id.* at 281.

forests provide an income source with which the developing nations may service their foreign debt.⁶⁸

F. Climate Change

Climate change is a matter of special importance to many developing countries. Scientists generally agree that in the next decades, climate change will occur as a result of human activity.⁶⁹ Scientists expect that climate change will result in the Earth being warmer than anytime in the last 120,000 years.⁷⁰ Regional rain patterns and temperatures are expected to be altered, resulting in agricultural disruption, sea level rise, and increased frequency of extreme weather events.⁷¹

Developing nations depend upon agriculture as a food source, a means of servicing their foreign debt, and as a means of long-term economic growth. However, agriculture in the developing nations is closely tied to economic development and farming practices, both of which often result in environmental degradation.⁷² Further agricultural disruption due to climate change would have devastating consequences for food supply and debt servicing, and would accelerate the destructive cycle of increased natural resource demand and environmental degradation.

Furthermore, developing nations can ill afford the damage caused by extreme weather events. Presently, such events result in large scale loss of life, property, and capacity to produce food.⁷³ Increasing the frequency of such losses would surely place more pressure on already strained natural resources.

Finally, sea level rise would likely destroy many developing nations. Climate change is expected to cause global warming, which, in turn, is expected to cause glacial melts and ocean expansion,

^{68.} For example, biotechnology firms are entering agreements with developing nations in order to gain access to their genetic resources. These arrangements could prove lucrative to the developing nations, especially if coupled with royalty agreements. *See, e.g., Deal Between Drug Firm, Costa Rica Called Example of What Treaty Would Do,* 15 Int'l Env't Rep. (BNA) 393, 398 (June 17, 1992).

^{69.} UNEP PROFILE, *supra* note 20, at 6.

^{70.} *Id*.

^{71.} *Id*.

^{72.} See infra notes 81-96 and accompanying text.

^{73.} See UNEP PROFILE, supra note 20, at 4-7, 14-19.

resulting in a sea level rise of twenty centimeters by the year 2030 and sixty-five centimeters by the year 2100.⁷⁴ Many delta and island nations, such as Bangladesh⁷⁵ and the Maldives,⁷⁶ are particularly vulnerable. Sea level increases could inundate an entire nation or vast portions of them, entirely or partially displacing their populations.⁷⁷ Since half the world's population live in coastal areas, the potential for disaster is great.⁷⁸

Climate change will effect the developing nations at every level, causing a decrease in food production and a corresponding increase in environmental degradation, poverty, and starvation. The increased frequency of extreme weather events will tax developing nations and world resources to respond to those emergency situations. Finally, climate change is a threat to the sovereignty and national identity of many developing nations. With higher sea levels, many developing nations may find that they have no nation at all.

G. Desertification

Desertification is a process through which topsoil loses all of its nutrient value and is no longer capable of supporting life.⁷⁹ A centimeter of topsoil may take a century to develop, but may be lost in a single year because of the forces of wind, erosion, pollution or intensive agricultural practices.⁸⁰ Topsoil is also lost to new construction.⁸¹ Desertification in many of the African nations is instructive.

In 1986, Africa paid fifteen billion dollars to service its foreign debt, but lost nineteen billion dollars because of decreases in commodity prices such as wheat.⁸² That same year, Africa received only eighteen billion dollars in additional foreign aid and private

^{74.} Id. at 6.

^{75.} Over four-fifths of the land surface of Bangladesh was flooded in 1988. *Id.*

^{76.} The capital and international airport of the Maldives was flooded in 1987. Id.

^{77.} Id. See also Climate Change: Developing Countries to Present at Least Two Climate Proposals in New York, Int'l Env't Daily (BNA), Jan. 29, 1992, available in LEXIS, Nexis Library, BNAIED File (explaining the Island Nations group's concern over potential climate damage to island nations) [hereinafter Climate Change].

^{78.} UNEP PROFILE, *supra* note 20, at 6.

^{79.} WEBSTER'S COLLEGE DICTIONARY 366 (1991).

^{80.} UNEP PROFILE, *supra* note 20, at 14.

^{81.} *Id.* 82. *Id.*

loans.⁸³ These economic pressures have forced the African governments to concentrate on earning foreign currency through export, rather than developing home food production.⁸⁴

This unsustainable focus of resources results in the misuse of land because small or subsistence farmers are forced onto more and more marginally productive land.⁸⁵ This misuse of the land depletes mineral and nutrient value in the soil, and divests it of any capacity for regeneration.⁸⁶ The process of desertification begins as the remaining plant life dies, and the exposed soil becomes incapable of supporting any life.⁸⁷ The process of desertification expands as the small and subsistence farmers are forced onto ever more marginal lands, which are used until exhausted. This ultimately results in smaller a quantity of productive land on which to produce food, collect fuel wood, ⁸⁸ or graze animals.⁸⁹

Pressure on the land is further intensified by population growth. As more people are required to depend on an ever diminishing quantity of productive land for food, fuel, and grazing,⁹⁰ demands for those uses increase beyond the carrying capacity of the land,⁹¹ and the soil has less and less time to recover and regenerate between uses. Thus, the process of desertification expands even further as the demands on the remaining productive land continue to increase with population growth.⁹²

^{83.} *Id*.

^{84.} *Id*.

^{85.} *Id.*

^{86.} *Id*.

^{87.} *Id*.

^{88.} Most inhabitants of developing nations rely on wood as their primary fuel source. *Id.* Clearly, if foodstuffs will not grow because the soil is barren, trees which require similar nutrients will not grow. *Id.*

^{89.} *Id.*

^{90.} *Id*.

^{91.} *Id.* In Africa, the population has doubled since 1960, but half of its land is too dry for rainfed agriculture, and only a fifth of its soil is easily cultivated. *Id.* Demands on the land are also intensified by the use of animal dung as fuel since wood, the major source of fuel, has become scarce. *See id.* The lack of wood increases the intensity of rain water runoff, further divesting the land of top soil, while also increasing the use of dung as a fuel. Animal dung is the major source of soil nutrients, and its increasing use as a fuel deprives the land of the opportunity to replenish itself. *Id.*

^{92.} See id. at 14-15.

The process of desertification affects 4.5 billion hectares of land and over a tenth of the world's population.⁹³ Each year, over 20 million hectares of land—an area the size of Kansas—loses its productive capacity, much of it in developing nations.⁹⁴ As the famines in Ethiopia and Somalia suggest, the lack of productive land can also create international security problems. Consequently, incidents of famine-related developing nation domestic instability and developed world intervention are not surprising.⁹⁵

H. Hazardous Waste

The developed nations produce about ninety percent of all hazardous waste.⁹⁶ About 325 million to 375 million tons of hazardous waste were generated worldwide in 1984.⁹⁷ Only about five million tons of that amount was generated by newly industrialized or developing nations.⁹⁸ Because of the increasing cost of the disposal of hazardous waste in developed nations, industries have viewed developing nations as attractive disposal sites.⁹⁹

While the disposal of hazardous waste provides developing nations with a source of income, the issue is problematic because developing nations have numerous difficulties in managing the waste. First, the forces of nature in developing nations often thwart the environmentally sound management of hazardous waste. The tropics' heavy rains, for example, cause wastes to leach into ground water thereby contaminating water supplies.¹⁰⁰ Second, developing nations do not have the administrative capacity to regulate hazardous waste,

^{93.} *Id.* at 14. Each year Ethiopia loses 1.5 million tons of grain, the equivalent of all food relief shipped to the country in 1985, due to soil erosion. *Id.*

^{94.} *Id.* Soil degradation is not a phenomenon known only to the developing nations. Soil degradation in Canada costs farmers \$1 billion a year. Australia loses six tons of top soil for each ton of produce grown, and Russia loses 2.5 billion tons of top soil per year while India loses six billion tons. *Id.*

^{95.} The recent United Nations intervention in Somalia provides an instructive example of where famine in a developing nation resulted in developing nation intervention to restore domestic stability.

^{96.} OUR COMMON FUTURE, *supra* note 18, at 226.

^{97.} Id. at 226-27.

^{98.} Id. at 227.

^{99.} See C. Russell H. Shearer, Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste, 23 ENVTL. L. 141, 144-46 (1993).

^{100.} OUR COMMON FUTURE, supra note 18, at 227.

and insure that it is disposed of safely.¹⁰¹ Finally, developing nations lack environmentally sound disposal sites, and wastes are subsequently found dumped along waterways, roads, or in secluded rural areas.¹⁰²

Developing nations have the sovereign right to refuse the importation of hazardous waste. However, waste disposal problems continue because developing nations are often the victim of the illegal waste trade. This is due to the lack of administrative and technical expertise in developing nations.¹⁰³ For example, "[i]n 1988 15,000 tons of Philadelphia incinerator ash were found [dumped] in Guinea."¹⁰⁴ That same year, 150 tons of toxic waste were found in Nigeria, prompting that country to inform those responsible for the illegal waste trade that they were subject to the death penalty.¹⁰⁵ In fact, the illegal waste trade causes the greatest concern for many developing nations because they have no means of controlling it.¹⁰⁶

III. WHY DEVELOPED NATIONS NEED TO ASSIST DEVELOPING NATIONS IN ADDRESSING ENVIRONMENTAL PROBLEMS

Many of the environmental problems with which the developing nations are presented are considerably different from those the developed world perceives as worthy of attention. Even those environmental problems which the developed and developing nations both perceive as common problems are often viewed as problems for different reasons or from different perspectives. For generally example. whereas developed nations perceive environmental problems as threats to health or aesthetic beauty, developing nations perceive environmental problems as threats to basic human existence, survival, and advancement.¹⁰⁷ These differing perspectives ensure that the creation of international environmental law is as culturally diverse as the Maasi warriors of Kenya are from Amish of Lancaster County, Pennsylvania.

^{101.} Mary Critharis, Symposium Note, *Third World Nations Are Down in the Dumps: The Exportation of Hazardous Waste*, 16 BROOK. J. INT'L L. 311, 312, 315 n.24, 316 (1990).

^{102.} Shearer, *supra* note 99, at 146-47 n.28.

^{103.} Id. at 146-48.

^{104.} UNEP PROFILE, *supra* note 20, at 8-9.

^{105.} Id.

^{106.} ENVIRONMENTAL LAW AND MACHINERY UNIT (ELMU), HAZARDOUS WASTE: WHY AFRICA MUST ACT NOW 2-6 (Dec. 1989).

^{107.} See generally Ntambirweki, supra note 28.

A myopic view of the world environment might conclude that the environmental problems and perspectives of the developing nations are theirs and theirs alone; that developed nations have neither a need nor a responsibility to address the problems of the developing nations. Nature, however, has an instructive response to this conclusion: pollution knows no boundaries.¹⁰⁸ Furthermore, developed nations have both a moral and a legal responsibility to address the environmental problems and perspectives of the developing nations.¹⁰⁹

A. Environmental Nexus

Developed nations often have little or no understanding of the perspective from which the developing nations are casting their position on a particular issue. In the developed world, the question generally is "how much will it cost us to fix this problem?" Among the developing world, the question generally is "how can we possibly afford to fix this problem when there are so many other problems to address?"

Similarly, the developing nations are presented with the quandary of international resources being devoted to environmental problems that are generally perceived as problems only by the developed world. Meanwhile, the most pressing problems of the developing nations, such as desertification, go unaddressed. Where concerns of developing nations do appear on an agenda, they are often eclipsed by the interests of the developed world.¹¹⁰ Also, while agreements may address problems felt in the developing nations, they often fail to take into account the perspective of the developing nations.¹¹¹

^{108.} See, e.g., The Trail Smelter Arbitration, supra note 2.

^{109.} For example, legal duties exist pursuant to the "polluter pays" principle. *See, e.g.,* Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607 (1988) [hereinafter CERCLA]. This principle has also been recognized in the context of international law in the European Community (EC). The EC's Environmental Action Plans, which provide the framework for environmental regulation in the Community, recognize the polluter pays principle. *See, e.g.,* Cynthia Whitehead, *Introduction* to COMMISSION OF THE EUROPEAN COMMUNITIES, 7 EUROPEAN COMMUNITY ENVIRONMENT LEGISLATION: WATER at xxi-xxii (1992).

^{110.} See infra notes 149, 152-170 and accompanying text.

^{111.} See infra notes 160-165 and accompanying text.

Of course, the developing nations' environmental problems or perspectives are not solely the province of those nations. While the impact may be greater in the developing nations, ultimately the effects will be felt worldwide. For example, desertification has affected the developed nations as well as the developing nations. This impact has been most noticeable in Somalia where developed nations, such as the United States, have provided humanitarian aid, followed by military intervention. While it is the people of Somalia who have been starving, the developed nations have developed military forces and expended resources to address the situation.

Likewise, loss of rain and temperate forests exacerbate global warming, impacting both developed and developing nations. But developing nations lose prospects for sustainable long-term economic growth with each lost acre, thus amplifying the poverty-population growth-natural resource destruction linkage.¹¹² Furthermore, decreasing prospects for sustainable long-term economic growth also jeopardize the ability of developing nations to repay foreign debts, the default on which could seriously impact the economy of a developed nation.¹¹³

Climate change and global warming will, of course, have impacts upon both developed and developing nations. Developed nations will be required to implement expensive measures to preserve their coastlines due to sea level rise. Developing nations, however, cannot afford this protection, and will have to rely on developed nations for even more foreign aid to protect their coastlines.¹¹⁴ With the ability of developing nations to service foreign debt already strained, it is questionable that those nations will be able to service additional debt. Yet developed nations can ill afford to refuse to provide such aid. Should the developing nations in coastal regions disappear under the encroaching seas, refugees will need a place to relocate. Already strained resources in countries both developed and developing would be strained well beyond their carrying capacity. The potential for even greater conflict among and between peoples would be considerably greater, calling into question global and domestic security.

^{112.} See supra notes 18-20 and accompanying text.

^{113.} See supra notes 30-37 and accompanying text.

^{114.} See supra notes 75-79 and accompanying text.

Furthermore, the *interrelated* nature of environmental problems in developing nations also has global consequences. Because poverty and population growth cause greater demand to be placed upon fewer and fewer natural resources, resources such as rain and temperate forests have little time to regenerate and replenish themselves. The resulting depletion of the forests contributes to climate change and causes a loss of ground cover and biological diversity.¹¹⁵

Climate change will cause a loss of productive land, and may ultimately cause the loss of territory due to the rise in sea level. Furthermore, the loss of groundcover results in erosion and desertification, which leads to increased poverty and short-term exploitation of resources. Combined with the loss of biological diversity, these impacts destroy options for sustainable long-term economic growth, insuring that the developing nations will have to rely on development projects. These development projects further deplete natural resources or cause environmental degradation through unwise or uncaring planning or implementation. The increasingly impoverished developing nations might then be required to import hazardous waste to generate income, resulting in further environmental harm.¹¹⁶

As each individual problem leads to another, the cycle grows and the seemingly local environmental concerns take on global dimensions. In fact, it is a fair conclusion that the degradation cycle itself is an environmental problem. The synergistic effect of all environmental problems helps perpetuate each individual harm such that no single concern may be addressed without addressing another.¹¹⁷ In short, the interrelation of environmental problems, economies, and concepts of national security simply means that no nation is truly independent from any other nation. Thus, population growth in Kenya is as much an environmental problem to the United States as is lead paint poisoning in lower income housing in American cities. This conclusion markedly increases not only the cost of changing, but also the cost of not changing environmentally destructive patterns. These environmental problems may be

^{115.} See supra section II E-F.

^{116.} See supra section II E-G.

^{117.} See OUR COMMON FUTURE, supra note 18, at 4-6.

effectively addressed only at an international level, a level at which developed nations have special responsibilities.

B. Special Obligations of Developed Nations

The developed nations are in a unique position to assist the developing nations in addressing the costs of changing environmentally destructive patterns. In fact, the developed nations have a moral and legal obligation to assist the developing nations in addressing environmental problems.

Developed nations are morally obligated to assist developing nations address environmental problems because they occupy a special position in the international system.¹¹⁸ Developed nations signify the greatest concentration of wealth, and therefore "dominate the international economic system."¹¹⁹ Consequently, those nations set the rules and regulations of trade, and control the international institutions of trade, money, and finance.¹²⁰ Because of this power over trade, money, and finance, the developed nations also have the most power in creating international law.¹²¹

However, developed nations constitute a minority of the world's population and surface area.¹²² Yet, while the developed nations, including Eastern Europe, have only a quarter of the world's population, they control four-fifths of the world's income.¹²³ The developing nations, including China, control one-fifth of the world's income, but have three billion people, three-fourths of the world's population.¹²⁴

These figures point out that the developed nations occupy a special position because of their disproportionate power. Developed nations can effectively direct the course of international law, thwarting or assisting the developing nations in addressing their environmental problems. Because of this power, the developed

^{118.} Lutz, supra note 3, at 657.

^{119.} *Id.* at 657 & n.101 (citing W. BRANDT, ET AL., NORTH-SOUTH: A PROGRAMME FOR SURVIVAL 31-32 (1980)).

^{120.} Id.

^{121.} Id. at 657. See also Ntambirweki, supra note 28, at 920-25.

^{122.} Lutz, *supra* note 3, at 657 (citing W. BRANDT, ET AL., NORTH-SOUTH: A PROGRAMME FOR SURVIVAL 31-32 (1980)).

^{123.} Id. at 657 n.103.

^{124.} Id. at 657.

nations have an obligation to address international problems without regard to purely national concerns. That is, international decision-making ought to be in a global context, and not based simply on the drive for purely national benefit and advantage.¹²⁵

Two additional factors support this conclusion. First, the developed nations achieved their position of economic and political superiority in part through exploitation of the developing nations. English and German colonies in East Africa, such as Kenya and Tanganika (now Tanzania), provided prime growing regions for chai, or tea, and coffee. Similarly, the United States slave trade drew its conscripts from Madagascar, Corte d'Ivorie, and other nations along the coasts of both West and East Africa. In no instance did any of these nations receive a benefit equal to that extracted.¹²⁶ Rather, the nations were exploited and used until no longer profitable, or until the indigenous people achieved independence.¹²⁷

Second, the developed nations continue to consume a disproportionate share of the world's resources.¹²⁸ For example, the United States is the world's largest economy, the largest consumer of natural resources, and the largest producer of energy and carbon dioxide (CO₂) pollution.¹²⁹ The United States is the "primary emitter of greenhouse gases," and consumes per capita many times the energy

^{125.} Ntambirweki, supra note 28, at 920.

^{126.} The President of France recently accused other developed nations of "continuing to suck up the reserves and resources of the South even though they attempt to compensate for this abduction through grants and aid of all sorts which don't reach the level flowing in the opposite direction." *Climate Change: NGO Conference Identifies U.S. as "Problem" for Upcoming Rio Conference*, Int'l Env't Daily (BNA), Jan. 29, 1992, *available in* LEXIS, Nexis Library, BNAIED File.

^{127.} With this historical background, it is no wonder that the developing nations are so protective of their sovereignty, and so hesitant to cede authority to international institutions dominated by developed countries, such as the United Nations Development Program Global Environment Facility (GEF). GEF is responsible for funding environmental programs in developing nations, and determines terms by which money is spent and repaid. GEF is largely controlled by the United States and other developed nations because they are its principal source of funding. *See UNCED: UNCED Negotiators Reach No Conclusion on Financing for Developing Countries*, Int'l Env't Daily (BNA), Mar. 12, 1992, *available in* LEXIS, Nexis Library, BNAIED File.

^{128. &}quot;'At meeting after meeting, we have told the developed world, especially the United States, that the North has far greater responsibility to clean up its act,' said Kamal Nath, India's State Environment Minister. 'They have polluted the most, per capita and in gross national terms, and they should carry the burden of cleaning up.'" Sanjoy Hazarika, *India is Facing Quandary in Plan to Dam a River*, N.Y. TIMES, June 2, 1992, at A10.

^{129.} Russell E. Train, A Call for Sustainability, 18 EPA J. 7, 7 (Sept./Oct. 1992).

consumed by all the developing nations.¹³⁰ All but five percent of the original forest cover of the forty-eight contiguous states has been destroyed,¹³¹ yet the United States continues to allow the exportation of raw logs from old growth forests to Japan, while at the same time continuing to decry the loss of rain forest resources in developing nations.

The developed nations are also legally obligated to assist the developing nations address environmental problems. Customary international law holds that states have the right to utilize the resources within their jurisdiction.¹³² However, nations do not have the right to cause damage to the environment of other states or areas beyond their national jurisdiction as a result of that use.¹³³

Furthermore, Principle 21 of the Stockholm Conference on the Human Environment provides:

States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.¹³⁴

This principle has been widely cited in United Nations documents, and may have achieved the status of customary international law.¹³⁵

Both of these rules of international customary law dictate that the developed nations are obligated to assist developing nations address many of the present environmental problems. Based upon the fact that many of the global environmental problems were caused by

^{130.} John Adams, An Urgent Agenda, 18 EPA J. 48, 48 (Sept./Oct. 1992).

^{131.} Id.

^{132.} This rule has been recognized in several international disputes. *See generally* Affaire du Lac Lanoux (Spain v. Fr.), 12 R.I.A.A. 281 (1957); *see also* The Corfu Channel Case (U.K. v. Alb.), 1949 I.C.J. 4, 22; *see also* The Trail Smelter Arbitration, *supra* note 2.

^{133.} See Affaire du Lac Lanoux, supra note 132; see The Corfu Channel Case, supra note 132, at 22; see also The Trail Smelter Arbitration, supra note 2.

^{134.} Stockholm Declaration on the Human Environment, U.N. Conference on the Human Environment, U.N. Doc. A/Conf. 48/14, and Corr. 1 (1972), reprinted in 11 I.L.M. 1416, 1420 (1972).

^{135.} See Catherine Tinker, Environmental Planet Management by the United Nations: An Idea Whose Time Has Not Yet Come?, 22 N.Y.U. J. INT'L L. & POL. 793, 802 n.34 (1990).

the developed nations, they have an obligation, not only under international law but under their domestic law as well,¹³⁶ to remediate the damage they have caused. For example, climate change has been attributed to an increase of CO₂ in the atmosphere.¹³⁷ Since the Industrial Revolution, which occurred only in developed nations, CO₂ in the atmosphere has risen¹³⁸ by twenty-five percent.¹³⁹ Likewise, the damage to the ozone layer has been attributed to the release of chlorofluorocarbons (CFCs).¹⁴⁰ These substances are used as aerosol propellants, in refrigeration, as solvents, and in the production of building and packaging foams.¹⁴¹ They are made primarily by and used in developed nations.¹⁴²

These environmental problems have impacts far beyond the borders of the developed nations. According to the polluter pays principle,¹⁴³ the developed nations are responsible for the destruction they have caused. The failure of the developed nations to accept this responsibility is a breach of customary international law as reflected by both international development of principles regarding the fair use of resources, and the domestic law of the developed nations.

Furthermore, while the developed nations were entitled to utilize natural resources within their jurisdiction, they were not entitled to usurp the resources of the developing nations. However, the era of colonialism divested many developing nations of their resources, and contributed to environmental degradation. For example, nuclear testing on the atolls of the Pacific has rendered them radioactive and useless as both places to live and places to obtain or create food or marketable goods. The destruction and pollution of another's territory is untenable under international law, and must be addressed. However, as the next section will demonstrate, the developed nations have failed to discharge this obligation.

^{136. 42} U.S.C. § 9607 (1988).

^{137.} UNEP PROFILE, *supra* note 20, at 6.

^{138.} The increase in CO_2 is the result of manufacturing process emissions, the burning of fossil fuels, and the clearing of forest lands. *Id*.

^{139.} Id.

^{140.} Id. at 4.

^{141.} Id.

^{142.} Id.

^{143.} Under this principle, the party causing pollution is responsible for the damages resulting from that pollution. *See, e.g.,* 42 U.S.C. § 9607 (1988). These damages include the costs of remediation. *Id.*

IV. DEVELOPED NATIONS' PERFORMANCE IN CREATION OF INTERNATIONAL ENVIRONMENTAL LAW

International environmental law has several potential routes through which it may develop, such as the evolution of customary international law or the adoption of treaties. Thus far, treaties or conventions have been the primary source of international environmental law.¹⁴⁴ This is largely because environmental issues,¹⁴⁵ when addressed, have been perceived as pressing matters, ill suited to the time consuming process required for the evolution of customary international law.

This reliance on treaties is both a benefit and a detriment. The benefit is that the reliance on treaty law creates the potential for strengthening international institutions, as well as increasing world parity in the creation of international law. It potentially allows for the input of developing nations, and for the reflection of their concerns in international agreements. In addition, the reliance upon treaty law could diminish the superior position enjoyed by the developed nations as a result of their greater power and economic strength.

However, treaty law has not realized its promise because of developed world dominance in the process of agenda setting, agreement articulation, and international institutions. In the agenda setting process for articulating international environmental law, developing nations have little political power.¹⁴⁶ Furthermore, once an issue has been placed on the agenda and is being articulated, national priorities generally prevent consideration of the issue in a global fashion,¹⁴⁷ and make it difficult for developing nations to force an equitable solution. Finally, international institutions do not allow for greater input from developing nations to compensate for dominance exerted by developed nations in agenda setting and international law articulation.¹⁴⁸

The most disturbing feature of this developed nation dominance is that it reflects the myopic world view limiting environmental problems to only those primarily suffered by the

^{144.} See infra notes 147-151.

^{145.} See generally UNEP PROFILE, supra note 20.

^{146.} See infra notes 152-170 and accompanying text.

^{147.} See infra notes 171-200 and accompanying text.

^{148.} See infra notes 200-205 and accompanying text.

developed nations. Additionally, it reflects the fact that the developed nations have failed to discharge the obligations which they have incurred as a result of their dominance. Consequently, the problems which will ultimately affect the entire world, such as population growth, are passed over for other environmental problems which are of interest to the developed nations.

A. Agenda Setting

In order for an environmental issue to be addressed in the international context, it must first be placed on the agenda. The international-environmental agenda constitutes an action plan, a list of goals to be accomplished by the international community. Presently, the international agenda is largely set through participation in the United Nations Environment Programme (UNEP).¹⁴⁹ UNEP is the primary organ within the United Nations' framework responsible for environmental issues, and is the leader in the development of international-environmental law and conventions.¹⁵⁰ UNEP's general policy and goals are presently set by the Montevideo Programme for the Development and Periodic Review of Environmental Law (Montevideo Programme).¹⁵¹

The Montevideo Programme identifies atmospheric issues, water supply and quantity, oceans and coastal areas, land degradation, and hazardous waste as areas of international environmental law which need attention.¹⁵² Since the adoption of the Montevideo Programme, UNEP's resources have been directed to these areas of concern, resulting in the adoption of several conventions. These include the 1985 Vienna Convention for the Protection of the Ozone Layer,¹⁵³ the 1987 Montreal Protocol on Substances that Deplete the

^{149.} The United Nations Environment Programme was created in 1972 as a result of the Stockholm Conference on the Human Environment. See Stockholm Declaration on the Human Environment, supra note 134.

^{150.} See generally UNEP PROFILE, supra note 20.

^{151.} Montevideo Programme for the Development and Periodic Review of Environmental Law, Report of the Ad Hoc Meeting of Senior Government Officials Expert in Environmental Law, U.N. Doc. UNEP/GC 10/2S/Add.2 (1981) (may also be found as Governing Council Decision 10/21 of 31 May 1982, U.N. Doc. UNEP/GC 10/21 (1982), or as UNEP doc. No. 88-5614-0281E).

^{152.} Id. at 4-7.

^{153.} Vienna Convention for the Protection of the Ozone Layer, Mar. 22, 1985, 26 I.L.M. 1529 (entered into force Sept. 22, 1988).

Ozone Layer,¹⁵⁴ the 1990 Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer,¹⁵⁵ and the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.¹⁵⁶

While these are important accomplishments, they reflect largely the interests of the developed nations.¹⁵⁷

The protection of the ozone layer, global climate change, marine pollution, and the trade and movement of hazardous wastes are issues which generally excite the interests of [developed nation] environmentalists. [The interests of developing nations] are of a more realistic nature, and deal with the day to day interests of humankind.¹⁵⁸

For example, early negotiations for the Earth Summit in Rio de Janeiro, Brazil, in June 1992 failed to address the issue of desertification,¹⁵⁹ despite the fact that the African nations pushed hard for its inclusion due to recurring problems of drought and famine.¹⁶⁰ The negotiators from the African nations wanted the Earth

^{154.} Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, 26 I.L.M. 1550 (entered into force Jan. 1, 1989).

^{155.} Montreal Protocol on Substances that Deplete the Ozone Layer, June 29, 1990, 30 I.L.M. 541 (entered into force Jan. 1, 1992).

^{156.} Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 28 I.L.M. 649, 657 (1989).

^{157.} For example, during the preliminary negotiations in preparation for the June 1992 Earth Summit in Rio de Janeiro, Brazil, the preeminence of the developed nations in agenda setting nearly blocked a global conference. "Arguments between developing and industrialized countries were so divisive that even the name of the document could not be agreed upon. Eventually, the developing nations . . . won out, and the name was changed to the Rio Declaration. The developing nations felt that the name Earth Charter put too much emphasis on the environment. The [developing nations have] said all along that the Earth Summit was dominated by environmental issues, especially in Western industrial nations, and not enough concern has been given to development problems." UNCED: Negotiators Set To Grapple With Environment Issues As Nations Assemble For Earth Summit in Rio de Janeiro, Int'l Env't Daily (BNA), June 2, 1992, available in LEXIS, Nexis Library, BNAIED File.

In fact, even the length of the document was a source of contention between the developed and developing nations. "While . . . the United States preferred a short, brief text that could be printed on a poster and 'used by children in their bedroom,' the [developing countries] said many children in the developing countries 'don't have bedrooms." *Id.*

^{158.} Ntambirweki, supra note 28, at 924.

^{159.} Int'l Env't Daily (BNA), June 2, 1992, supra note 157.

^{160.} Id.

Summit to develop a treaty regarding desertification, but developed nations, primarily led by the United States, opposed this proposal.¹⁶¹ Consequently, the issue was postponed for full discussion at Rio, although prior preparation clearly was in order because "[a]ccording to a number of African negotiators, it became apparent during [preparatory] discussions that developed nations had little understanding of the problems of desertification."¹⁶²

Developing nations, which represent the majority of the earth's population and surface area, are not represented in agenda setting and articulation because they do not fund the process. UNEP is funded by a present annual budget of \$58,849,167.¹⁶³ Of this sum, the United Nations supplies \$11.9 million as a regular budget. Approximately \$50 million is received as voluntary contributions to UNEP and its associated trust funds.¹⁶⁴ In all, seventy-nine nations made voluntary contributions to UNEP in 1989.¹⁶⁵ Of these, the largest donations were from the United States, Japan, the United Kingdom, Russia, Sweden, and Germany—all developed nations.¹⁶⁶ As the figures illustrate, voluntary contributions to UNEP are crucial to funding the work it performs.

Consequently, the current situation may be "summarized in the old adage, 'he who pays the piper calls the tune \ldots ."¹⁶⁷ It reflects the power that the developed nations currently exercise as a result of their financial power. Developing nations are thus able to control not only the debate, but its substance as well.

In short, the agenda illustrates the dualism of international environmental law. International environmental law simultaneously recognizes the global nature of environmental problems and espouses global solutions, yet crafts solutions from the standpoint of how to best benefit or least injure the developed nations. As a result, there is little likelihood that the interests or perspective of the developing nations will be placed on or addressed by the international agenda.

^{161.} Id.

^{162.} Id.

^{163.} UNEP PROFILE, *supra* note 20, at 37.

^{164.} Id.

^{165.} Id.

^{166.} *Id*.

^{167.} Ntambirweki, supra note 28, at 925.

B. Articulation

International environmental law is created "primarily through the customary actions of individual states" or through formal declarations of obligations between states.¹⁶⁸ Because customary international law has largely failed to provide a reliable mechanism capable of coordinating responses to international environmental problems, the development of conventions and treaty law is the most widely utilized means of addressing these problems.¹⁶⁹ Therefore, the agenda setting and articulation process of international environmental law is singularly important.

Once it has been determined that a particular program area of the agenda, such as hazardous waste, must be addressed, UNEP will begin the process of articulating a convention. Articulation is a term of art used by UNEP, and is usually composed of a number of stages. First, the need for a convention is initially determined through the agenda setting process. Next, an ad hoc working group is usually created.¹⁷⁰ The group, occasionally with the assistance of consultants and always with the assistance of the substantial expertise of UNEP, drafts ideas, elements, or actual language to be included in the convention.

UNEP takes the ideas, elements, or actual language and uses it to create a draft convention. The draft convention is then marked-up by the working group, much like a bill is marked-up in committee under the United States' legislative process. If there is sufficient support among the members of the group, later drafts of the convention may reflect the concerns that come out during the mark-up process.

When the group feels that it has created a document likely to receive unanimous support, the document is presented as a final act to a conference of plenipotentiaries.¹⁷¹ The conference may either adopt

^{168.} David B. Hunter, *Toward Global Citizenship in International Environmental Law*, 28 WILLAMETTE L. REV. 547, 551 (1992).

^{169.} Jennifer M. Drogula, *Developed and Developing Countries: Sharing the Burden of Protecting the Atmosphere*, 4 GEO. INT'L ENVTL. L. REV. 257, 264-65 (1992).

^{170.} Ad hoc working groups are composed of representatives from the member nations of the UNEP, each having an expertise in a specific area of environmental law.

^{171.} A plenipotentiary is a party authorized by a nation to conduct certain acts on behalf of the nation, such as sign a convention. A plenipotentiary is different from an ambassador in that the plenipotentiary's authority is more limited and of shorter duration.

or reject the draft. If the draft is rejected, the concerns of the conference are noted and the working group and UNEP create subsequent drafts. If the draft is accepted by the conference, it is adopted and becomes the convention as adopted by the conference of plenipotentiaries. The adopted convention is then opened for signature.

The signature by a nation's representative indicates that nation's intent to be bound by the terms of the convention. However, depending upon the domestic constitution of the nation, the intent to be bound may require ratification.¹⁷² Ratification evidences a nation's acceptance of the terms of a convention as obligations which it must observe and meet.

International environmental treaty law largely focuses on a managerial approach. This approach is premised on the negotiation of international conventions in which "each signatory accepts the binding obligation to cooperate in the management of shared resources."¹⁷³ However, cooperation is the exception rather than the rule.

The cooperation tension between developed and developing nations may be most clearly observed in the articulation of Principle 21 of the Stockholm Conference.¹⁷⁴ Generally, the Conference was a response to the experiences the developed nations encountered in the course of industrialization and economic development.¹⁷⁵ It championed the cause of the environment against any further degradation without regard to a nation's state of economic development.¹⁷⁶ This is illustrated by the statement of Sweden:

The earth's resources are limited and our environment is vulnerable to the forces set in motion by technical and economic development. The amounts of air and

Often the authority is only to negotiate a particular convention and to sign that convention only under certain circumstances.

^{172.} For example, the United States Constitution requires that all treaties and conventions signed by the President or his authorized representatives be ratified by the United States Senate. U.S. CONST. art. II, § 2. The constitution of another nation may allow it to be bound simply upon the signature of that country's president or his authorized representative.

^{173.} Drogula, *supra* note 169, at 265.

^{174.} See Stockholm Declaration on the Human Environment, supra note 134, at 1420.

^{175.} Ntambirweki, supra note 28, at 905.

^{176.} Id.

water are restricted and so are sources of energy. Supplies of raw materials are exhaustible. Uncontrolled pollution of the seas and the atmosphere may permanently upset the processes upon which human life depends What is ultimately at stake is the survival of [hu]mankind on our limited planet.¹⁷⁷

However, the developing nations noted that environmental degradation was the result of the industrialization of the developed nations. Furthermore, the developing nations pointed out that from their perspective the environment and development were inextricably intertwined. Shrimati Indira Gandhi, Prime Minister of India, stated:

We do not wish to impoverish the environment any further and yet we cannot for a moment forget the grim poverty of large numbers of people. Are not poverty and need the greatest polluters? How can we speak to those who live in villages and in slums about keeping the oceans, the rivers and the air clean when their own lives are contaminated at the source? The environment cannot be improved in conditions of poverty. Nor can poverty be eradicated without the use of science and technology.¹⁷⁸

While Principle 21 of the Stockholm Conference and other recent declarations and conventions have recognized the interrelation of economic development and the developing nation's different view of world environmental problems,¹⁷⁹ the developed nations have failed to substantively address these concerns. The developing nations are understandably unwilling to allocate scarce resources to the correction of environmental problems, such as climate change, that they did not create. The developed nations, on the other hand, are unwilling to embrace the polluter pays principle which they developed and continue to espouse, to effect the remediation of the environmental problems of their creation.

421

^{177.} Id. (quoting Palme, Speech of Welcome by the Prime Minister of Sweden, in EVOLVING ENVIRONMENTAL PERCEPTIONS: FROM STOCKHOLM TO NAIROBI 51 (M. Tolba ed. 1988) [hereinafter EVOLVING ENVIRONMENTAL PERCEPTIONS]).

^{178.} Ntambirweki, *supra* note 28, at 906 (quoting Indira Gandhi, *Address by the Prime Minister of India*, in EVOLVING ENVIRONMENTAL PERCEPTIONS, *supra* note 177, at 135).

^{179.} Id. at 908-09.

Nowhere is this tension more evident than in the negotiation on the Climate Change Treaty at the United Nations Conference on Environment and Development (UNCED). As noted previously, the developed nations are the largest emitters of CO_2 , and are thus crucial to any global solution to the climate change problem.¹⁸⁰ The United States, for example, is responsible for about twenty percent of atmospheric CO_2 .¹⁸¹ During negotiations on the Climate Change Treaty, however, the United States declared that "it would not commit to reducing or stabilizing" CO_2 emissions at the 1990 level by the year 2000.¹⁸² The United States, citing the high cost of the measures necessary to meet the proposed targets, stated that adverse impacts on its economy would likely result,¹⁸³ and implied that it would not accept any measures that would injure its economy.¹⁸⁴

The developing nations have contributed, conversely, the least amount of CO_2 to the climate change problem. However, they face the most drastic consequences of climate change, including complete loss of territory due to sea level rise. That they were in favor of the most stringent controls is understandable, yet these controls were not forthcoming because of opposition from the United States and other developed nations.¹⁸⁵ Thus, the developing nations were forced to settle for limited controls, which probably will be supplemented with protocols.¹⁸⁶

The negotiations on the Climate Change Treaty illustrate the power held by developed nations. Like other international environmental law agreements, the Climate Change Treaty could only function properly if the greatest number of nations were involved.

^{180. &}quot;If the four most powerful entities act, then the problem is largely solved,' said GLOBE-International president Hemmo Muntingh, referring to the United States, the European Community, Japan, and the former Soviet Union. Within that group, only the United States has not committed to greenhouse phaseout dates." *UNCED: Globe Ends Conference; Wants Climate, Forests Protected After UNCED*, Int'l Env't Daily (BNA), Feb. 7, 1992, *available in* LEXIS, Nexis Library, BNAIED File.

^{181.} Id.

^{182.} Special Report: United Nations Meeting Tops International Agenda, Int'l Env't Daily (BNA), Jan. 17, 1992, available in LEXIS, Nexis Library, BNAIED File.

^{183.} *Id.*

^{184.} *Id.*

^{185.} See UNCED: U.N. Official Gives New York Talks 50 Percent Chance of Success, Int'l Env't Daily (BNA), Apr. 23, 1992, available in LEXIS, Nexis Library, BNAIED File.

^{186.} See Special Report: International Environment: New Issues Arise From Trade to Aid, Int'l Env't Daily (BNA), Jan. 27, 1993, available in LEXIS, Nexis Library, BNAIED File.

Negotiators therefore drafted the convention to encourage the United States and other developed nations to become a party. Thus, the nations which had the least to lose wielded the greatest power.

Where the developed world is crucial to the success of a convention, such as that on climate, they are a cause of the least common denominator syndrome. Because of their power, economic wealth, and relative proportion of liability for damages, developed nations are likely to be very reluctant to adopt new international environmental responsibilities. Furthermore, those responsibilities that they do accept are likely to be rather weak. Thus, conventions are drafted in general terms with few real obligations. Consequently, developing nations are left without a solution to the global problems that most directly effect them, and instead must settle for soft law and conventions with weak terms.

As a defensive measure, the developing nations are also responsible for blocking articulation of agreements, leading to gridlock in the creation of international environmental law. For example, the developed nations have proposed creating high international environmental standards in the General Agreement on Tariffs and Trade (GATT).¹⁸⁷ The developing nations fear that such high standards will hamper their access to markets, and impede their ability to develop economically.¹⁸⁸ The developing nations' concern regarding GATT's environmental standards is symbolic of two factors endemic to the position in which the developing nations find themselves.

First, the developing nations clearly understand that environmental protection is impossible without economic development. Any international obligation which would hinder economic development is not in their interests, nor is it, ultimately, in the interests of the world. Second, the developed nations do not favor either technology transfers or funding mechanisms. For example, proposals for GATT would eliminate preferences for developing nations, thus technology transfers or funding mechanisms could

^{187.} General Agreement on Tariffs and Trade, *opened for signature*, Oct. 30, 1947, 61 Stat. A3, 55 U.N.T.S. 187; *see also* Robert Housman & Durwood Zaelke, *Trade*, *Environment*, *and Sustainable Development: A Primer*, 15 HASTINGS INT'L & COMP. L. REV. 535, 566-67 (1992).

^{188.} Housman & Zaelke, supra note 187, at 567.

violate the terms of the agreement.¹⁸⁹ Furthermore, terms in international agreements allowing the developing nations greater time to comply with international obligations due to their lack of economic and administrative infrastructure could violate GATT.¹⁹⁰ This hostility to the needs of the developing nations forces these nations to be intransigent on accepting some international duties, further complicating the creation of international environmental law.

In addition, many developing nations view highly restrictive agreements as unfair, especially when the agreement requires them to forego development of their natural resources. Natural resources are, in many cases, the developing nations' only source of income. When impose severe restrictions on natural resource agreements exploitation, and do not allow for sustained use, the developing nations view such proposals as a threat to their development, future viability, and comfort.¹⁹¹ Developing nations usually respond to such proposals by pointing out that it is the developed nations that have utilized the natural resources and thereby causing the present global environmental harm. The developing nations protest that they are now called upon to bear a major portion of the cost of remediation through foregoing use of their resource.¹⁹² The developing nations consider such proposals highly inequitable, especially when there is to be no compensation for the opportunity cost of foregoing development.¹⁹³ Therefore, the developing nations are forced into a defensive position which requires them to oppose agreements which could ultimately be beneficial to themselves and the global community.

Notwithstanding this feature of the problem, though, even where support of the developing nations is crucial to the success of a convention, the developed nations exercise great control over the process of articulation. The developed nations have the resources to fund programs called for in international instruments, as well as the technology to implement solutions. As a result, treaties are often negotiated with a view toward the benefit of developed nations. For example, the United States, the world leader in biotechnology and

^{189.} Id. at 565.

^{190.} Id.

^{191.} See Lee, supra note 1, at 10,260-61.

^{192.} Id.

^{193.} Id.

genetic engineering, initially refused to sign the Biological Diversity Treaty at UNCED.¹⁹⁴ The United States opposed the treaty, in part, because it did not address concerns regarding intellectual property.¹⁹⁵ While President Clinton reversed the United States' position and signed the treaty,¹⁹⁶ the point remains that the viability and credibility of the agreement hinged upon support from the United States. These actions by the developed nations reflect

> a myopic world view in which part of humanity has the impunity to consider remedying the future problems of humankind [on their own terms], while rejecting the realities of the present, in which a substantial part of humanity has no future prospects. It is presumptuous to speak of intergenerational equity when there is no intragenerational equity.¹⁹⁷

C. International Institutions

It is the developed nations which finance international institutions, such as the United Nations Development Programme Global Environment Facility and the World Bank. As a result, the developed nations determine how agendas are set, what problems will be addressed, and how those problems will be addressed. Often these institutions fail to address environmental problems encountered by the developing nations or cause additional environmental degradation.¹⁹⁸

Because of this failure, developing nations have little trust for such institutions. For example, during the negotiation of the Climate Change Treaty, the developing nations wanted an international climate fund to finance a system to police cutbacks on gas emissions.¹⁹⁹ The developed nations proposed to finance those cutbacks through an organization similar to the World Bank.

^{194.} Biotechnology: Industry Trade Groups Laud President Bush for Decision not to Sign Biodiversity Treaty, 16 Chem. Reg. Rep. (BNA) 571, June 12, 1992, available in WESTLAW, BNA-CHEM File.

^{195.} The United States was also concerned about funding provisions, negative characterizations, and regulation of biotechnology. William K. Reilly, *The Road From Rio*, 18 EPA J. 11, 11, Sept./Oct. 1992.

^{196.} U.S. Signs Biodiversity Treaty, Urges Global Patent Protection for Biotech, 16 Int'l Env't Rep. (BNA) 432 (June 16, 1993).

^{197.} Ntambirweki, supra note 28, at 924.

^{198.} See supra notes 35-48 and accompanying text.

^{199.} Climate Change, supra note 77.

However, the developing nations were unwilling to accept such a financing arrangement because they wanted a share of the power.²⁰⁰ They did not "want . . . to come cap in hand [to the developed nations to request funding], . . . [but] to be able to call at least some of the shots themselves."²⁰¹

International institutions generally reflect the concerns of the developed nations because their funding is largely provided by developed nations. UNEP's Montevideo Programme, for example, is funded almost entirely by developed nations and therefore largely reflects their concerns.²⁰² Because the developing nations are unable "to pay the piper and call the tune," they have little access to the decision-making facilities of these institutions.²⁰³ Consequently, these institutions often failed to address the environmental problems pressing the developing nations.

V. RECOMMENDATIONS

It is axiomatic that pollution does not respect national borders, and that the environmental problems of the world must be addressed. In order to do so, the international community must adopt an all encompassing program of global environmental justice. First, developed nations must recognize that global environmental problems cannot simply be addressed from the perspective of how a solution might best benefit them. All attempts at solutions to global environmental problems must recognize that the solutions must address the environmental as well as the social problems. "Dualism must be replaced by interdependence in a world order which calls for '[c]o-operation instead of confrontation, [and] ... great concern for the poor and underprivileged of the world."²⁰⁴

Developed and developing nations should adopt a theory of sustainable development which addresses environmental as well as

^{200.} Id.

^{201.} Id.

^{202.} This feature of UNEP, though, is largely beyond the control of those serving in the organization. The employees of UNEP are all tremendously dedicated to their work and are genuinely concerned with the environmental problems concerning the developing world. However, they are constrained by the influence of the developed nations.

^{203.} See Ntamberweki, supra note 28, at 925.

^{204.} Id. (quoting Kothari, Environment and Development in Asia and the Pacific: Experience and Prospects, UNEP Reports & Proceedings (Series 6) at 31 (1982)).

social problems. Future international-environmental efforts should face issues which have been insufficiently addressed under the current international process, including desertification, poverty, waste management, food security and sustainable production, and population growth. By addressing social as well as environmental problems, potential solutions will be attacking the root of the problem rather than just mitigating the symptoms.

Second, the means by which international environmental agreements are negotiated should be modified. It has been suggested that an environmental security council be established.²⁰⁵ The council would be a permanent organ responsible for negotiating treaties and other instruments in which all nations could be represented equally.²⁰⁶ The council would improve the efficiency with which treaties are articulated, and would dispose of the time-consuming process of forming ad hoc groups which, under the current practice, are formed each time a new treaty is necessary.²⁰⁷

Third, international treaties within this new environmental security council should be adopted by majority vote rather than by unanimous consent. At first blush, this seems a rather radical notion; however, further investigation yields a contrary conclusion. Currently, many amendments of a technical nature are adopted by the International Maritime Organization (IMO) by majority vote.²⁰⁸ This serves to facilitate acceptance and implementation, and decreases the role that pure national interest plays in the decision-making process.

This process of acceptance should be adopted specifically for the creation of treaty duties. Because all nations will have equal access to the articulation of the treaty, ultimately the agreement will embody concerns that are most beneficial to the global commons. If there is wide scale participation, the likelihood of agreements reflective of national interest only is greatly diminished. If, consequently, the benefit inures to the global commons, the

^{205.} Climate Change: Report Calls for Permanent Forum for Negotiation of Environmental Treaties, Int'l Env't Daily (BNA), Mar. 17, 1992, available in LEXIS, Nexis Library, BNAIED File.

^{206.} Id.

^{207.} Id.

^{208.} See EDGAR GOLD, THE INTERNATIONAL LAW AND POLICY OF MARINE POLLUTION 213-14 (1993) (noting that amendments to the 1973 MARPOL Convention may be "tacitly accepted" if not affirmatively rejected by one-third of the contracting parties).

environmental nexus teaches that all nations will be equal beneficiaries, rather than just a select few who either solely or disproportionately benefit.

Fourth, the authority of UNEP should be increased. UNEP is currently designated as a focal point.²⁰⁹ It has no formal powers, and may only recommend potential solutions to the members of the United Nations.²¹⁰ Furthermore, the role of the United Nations through UNEP is presently limited to information gathering, monitoring, and rule making.²¹¹ UNEP should be elevated to the status of an official organ, perhaps even serving as the environmental security council. Its enforcement powers should also be improved²¹² through, for example, ratification of a liability protocol to the Basel Convention on hazardous waste.

Fifth, developed nation influence in the creation of international law should be decreased. Presently, the developed nations may politically appoint positions within the United Nations. As a result, the United Nations, whose responsibility is to the global commons, is staffed by employees with conflicting interests. The international civil service should be improved and nationalistic concerns removed from its operation.²¹³ To accomplish this goal, the United Nations should implement a "common recruiting program monitored by an independent central administration."²¹⁴ This would help to isolate the international civil service from the pressures of national influences. Thus, the independence of United Nations' decision makers could be assured and their concerns turned toward addressing global problems and solutions from a global perspective rather than addressing matters from a domestic perspective.

Finally, developed nations' nongovernmental organizations (NGOs) should take an active role in furthering the concerns of developing nations. Developed nations' NGOs should seek out and train environmental organizations in developing nations. The training

^{209.} Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AM. J. INT'L L. 259, 261 (1992).

^{210.} Id.

^{211.} Tinker, *supra* note 135, at 795.

^{212.} Id.

^{213.} J. Russell Buckley, *Depoliticizing United Nations Recruitment: Establishing a Genuinely International Civil Service*, 23 N.Y.U. J. INT'L L. & POL. 749, 753 (1990).

^{214.} Id.

should emphasize how the developing nations' NGOs can achieve international-environmental goals on their own.²¹⁵ The training should also emphasize that developed and developing nations' environmental organizations can form an important linkage.²¹⁶ Linkage may be used to exert pressure on international institutions dominated by developed world concerns, because developed nations' NGOs generally have a great deal of power within both domestic and international institutions, developing nation NGOs will be assisted in achieving goals by a symbiotic alliance with the developed nation NGOs.²¹⁷ Ultimately, though, the goal of such a relationship should be to have the developing nations' organizations stand on their own.²¹⁸ In that way, more power may be placed at the disposal of the developing nations in an effort to create global environmental power parity.

VI. CONCLUSION

It has not been conclusively determined that legal obligations to address environmental problems faced by the developing nations have risen to the level of enforceable customary international law. Nonetheless, the developed nations have both a moral obligation and a duty to offer developing nations the opportunity to be heard when discussing environmental issues. In order to facilitate this discussion, there must be a change in the means by which internationalenvironmental law is made.

Many global environmental problems are the creation of the developed nations, often at the expense of and most immediately impacting the developing nations. Developed nations, therefore, have a great moral responsibility to see that they do not exercise power solely in their own interests. Furthermore, in solving these problems, the developing nations should not be sacrificed. To this end, dualism should be replaced by globalism, and an all-encompassing concept of sustainable development should be adopted and employed in the creation of future international-environmental law.

^{215.} David A. Wirth, Legitimacy, Accountability, and Partnership: A Model for Advocacy on Third World Environmental Issues, 100 YALE L.J. 2645, 2658-59 (1991).

^{216.} Id. at 2658.

^{217.} See id.

^{218.} See id. at 2662-63.