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An Examination of Mexico and the Unreasonable Goals of the United Nations Conference on Environment and Development (UNCED)

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NOTES

AN EXAMINATION OF MEXICO AND THE UNREASONABLE GOALS OF THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED)

*Jeanine E. Dames**

INTRODUCTION

With the new millennium upon us, the time has come to evaluate the environmental goals of the past and the success of following those plans through to completion. Through this type of analysis, improvements can be made in future efforts by adopting more realistic and effective goals.

This Note argues that many of the failures in the international environmental movement have been due to the idealistic goals set for developing nations that are unable to achieve these heights. In particular, this Note provides an analysis on Mexico and its failure to comply with the goals set by the United Nations Conference on Environment and Development (UNCED), established in 1992 at Rio de Janeiro.¹

For the past fifteen years, Mexico has tried to balance its economic needs with its desire to become a player in the international market. Coupled with these demands on the Mexican government, the geography of the nation makes it difficult to build without severely affecting the environment. In addition to the constant threat of earthquakes and other natural disasters, Mexico is confronted with scarce fresh water resources in the north, poor water quality in the central and southeast region, deforestation, and massive widespread erosion along the U.S./Mexico bor-

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1. *The Rio Declaration on Environment and Development*, June 13, 1992, U.N. Doc. A/CONF.151/5/Rev.1 (1992), 31 I.L.M. 874 (1992). See also T.M.C. ASSER INSTITUUT, INTERNATIONAL ENVIRONMENTAL LAW 12-14 (1997).

der.² Further, for years, Mexico City and other urban developments along the U.S./Mexico border have been targeted as serious air pollution areas.³ This environmental vulnerability makes Mexico a prime candidate for environmental regulation, but at what cost to the local people and their economy?

This Note argues that the goals set by the UNCED are unreasonable for a developing nation, such as Mexico, without outside financial and technological support from industrialized nations. Part I of this Note will examine the history of Mexico's environmental effort and the conflicting priorities of the environment and the economy in Mexico. In Part II, this Note will review the UNCED, and a discussion will follow about the Agenda 21 Commitments and the goals set in Rio. Part III will analyze Mexico's response to the UNCED and critique Mexico's adherence to the commitments. Part III will further examine Mexico's frustration with the UNCED, particularly the financial considerations it faces and its refusal to attend the 5-year review in 1997. Finally, in Part IV, some realistic alternatives are presented that attempt to bridge Mexico's economic vulnerability with its environmental needs.

I. MEXICO'S ENVIRONMENTAL EFFORT AND EFFECTS ON ITS ECONOMIC SITUATION

A. *Overview of Mexico's Environmental Effort*

According to customary international law, a nation has exclusive and absolute right to use and exploit its own natural resources.⁴ Regardless of this traditional hands-off view, environ-

2. See U.S. CENTRAL INTELLIGENCE AGENCY, *THE WORLD FACT BOOK, MEXICO* 308 (1997) [hereinafter *THE WORLD FACT BOOK*].

3. See *id.*

4. See *Permanent Sovereignty over Natural Resources*, G.A. Res. 3171, U.N. GAOR, 28th Sess., Supp. No. 30, at 52, U.N. Doc. A/9030 (1973). See also *The Rio Declaration on Environment and Development*, June 13, 1992, U.N. Doc. A/CONF.151/5/Rev.1 (1992), reprinted in 31 I.L.M. 874 (1992) [hereinafter *Rio Declaration*]. Principle 2 of the *Rio Declaration* sets out the principle of national sovereignty as follows:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to

mental needs have sped to the front of many national agendas, including Mexico's. Mexico has maintained federal legislation to address environmental problems.⁵ In addition, Article 73 of the Mexican Constitution grants the federal government the power to protect public health by protecting the environment.⁶

To further this environmental agenda, Mexico has entered into several bilateral and multilateral international agreements addressing environmental issues such as the 1985 Vienna Convention for the Protection of the Ozone Layer.⁷ Moreover, Mexico is a party to several international conventions for the preven-

their own environmental and developmental 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.

5. *See generally* Charles T DuMars & Salvador Beltran Del Rio M., *A Survey of the Air and Water Quality Laws of Mexico*, 28 NAT. RESOURCES J. 787 (1988) [hereinafter DuMars & Del Rio] (discussing Mexico's environmental legislation and constitutional provisions).

6. MEXICAN [Constitution] art. 73, XXIX (Mex.). Congress has the power [t]o levy taxes:

1. On foreign commerce;
2. On the utilization and exploitation of natural resources . . .
3. On institutions of credit and insurance companies.
4. On public services under concession or operated directly by the Federation, and
5. On the following, as special taxes:
 - a. Electric power.
 - b. Production and consumption of processed tobacco.
 - c. Gasoline and other products derived from petroleum.
 - d. Matches and *cerillos*.
 - e. Maguey and its fermented products.
 - f. Forestry exploitation, and
 - g. Production and consumption of beer.

Article 73 further establishes that the Congress shall have the power "[t]o expedite laws that establish the concurrence of Federal Government, of the governments of the States and of the municipalities, in the areas of their respective competencies, as regards to environment protection of the preservation and restoration of the ecological balance." *Id.* at XXIX-G.

7. Vienna Convention for the Protection of the Ozone Layer, Mar. 22, 1995, 26 I.L.M. 1516.

tion of marine pollution.⁸ In the early nineties, Mexico signed and ratified the Basel Convention on the Control of Hazardous Wastes and Their Disposals requiring exporting nations to provide advance notice and receive consent from the receiving nation for proposed waste shipments.⁹

Mexico has also signed and ratified several bilateral agreements with the United States. Among the most noteworthy is the Treaty for the Utilization of Waters of the Colorado and Tijuana Rivers of the Rio Grande, also known as the Water Treaty of 1944.¹⁰ Another vital treaty is the 1983 Agreement between the United States and Mexico on Cooperation for the Protection and Improvement of the Environment in the Border Area.¹¹

In order to enforce its environmental priorities both internationally and domestically, Mexico adopted the General Law of Ecological Equilibrium and Environmental Protection, which became effective March 1, 1988.¹² The Secretariat of Ecology and Urban Development of Mexico, also called SEDUE, was the major enforcement body of the General Ecology Law.¹³

8. *See generally* The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, March 24, 1983, 22 I.L.M. 221; The International Convention for the Prevention of Pollution from Ships, Nov. 2, 1973, 12 I.L.M. 1319 (1973); The 1972 Convention on Prevention of the Marine Pollution by Dumping of Wastes and Other Matter, Feb. 16, 1978, 17 I.L.M. 546; The Third United Nations Convention on the Law of the Sea, Nov. 13, 1972, 11 I.L.M. 1291.

9. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, U.N. Doc. UNEP/WG.190/4, *reprinted in* 28 I.L.M. 649 (1989).

10. Water Treaty of 1944, Feb. 3, 1944, U.S. - Mexico, 28 U.S.T. 7399 (1944).

11. 1983 Agreement between the United States and Mexico on Cooperation for the Protection and Improvement of the Environment in the Border Area, Aug. 14, 1983, T.I.A.S. No. 10827, 22 I.L.M. 1025.

12. General Law of Ecological Equilibrium and Environmental Protection, art. 8 (V) (1988) (Mex.) [hereinafter called General Ecology Law]. English translation found in, MEXICAN ENVIRONMENTAL DOCUMENTS, August 1991, (unpublished documents), provided by the World Environmental Center.

13. *See* General Ecology Law, *supra* note 12, art. 8(V).

The General Ecology Law was enforced by SEDUE, with the use of Technical Ecological Norms (Normas Tecnicas Ecologicas or "NTE"), regulations that establish ecological standards, including tests and procedures.¹⁴ Activities, both public and private, that threaten to exceed the limits provided in the relevant NTE require an environmental impact evaluation.¹⁵ This environmental impact statement must provide assessments of risk for proposed activities and preventative or corrective measures to alleviate the adverse environmental impacts.¹⁶

Through the General Ecology Law, Mexico attempted to confront several environmental issues on a federal level. For example, SEDUE had authority to issue NTE's to control, reduce, or avoid air pollution.¹⁷ Further, the General Ecology Law encourages the rational use of water sources in a manner that preserves and protects aquatic ecosystems.¹⁸ Ecological criteria for soil protection programs are provided, and the development of a national land system is authorized.¹⁹ The General Ecology Law also provides for the designation of protected natural areas within the Mexican territory to aid in the protection of endangered species and habitats.²⁰ Finally, under the General Ecology Law, SEDUE attempted to limit hazardous activities to designated areas.²¹

Mexico has responded to the need for environmental regulation, through the General Ecology Law and International Agreements; however, a major hurdle remains with the implementation of these laws. Under the General Ecology Law, Mexico's environmental laws are enforced through inspection and oversight procedures.²² Failure to comply can result in administrative and criminal sanctions.²³ The administrative action ranges from

14. *Id.* art. 8.

15. *See id.* arts. 28-35.

16. *See id.* art. 34.

17. *See id.* art. 112.

18. *Id.* art. 88.

19. *See id.* art. 107.

20. *Id.* art. 44 (Articles discussing the protection of natural areas are located in General Ecology Law, Title 2.).

21. *Id.* arts. 145-49.

22. *Id.* arts. 161-69.

23. *See id.* art. 160.

finer to an administrative arrest of up to thirty-six hours.²⁴ In 1991, SEDUE began to require firms in non-compliance to put up bonds equal to the cost of installing pollution abatement equipment.²⁵ Further non-compliance could lead to the forfeiture of the bond.²⁶

Although the General Ecology Law appears thorough and impressive in form, SEDUE lacked the resources to execute an effective enforcement program.²⁷ This ineffective plan led to concern across Mexico's northern border. Critics of the North American Free Trade Agreement (NAFTA) feared that the Agreement would make it easy for U.S. Companies to relocate and take advantage of Mexico's poor environmental enforcement.²⁸ Congressman Robert T. Matsui stated that essentially, what the Agreement now provides is a chance for Mexico to wink and not enforce its own laws to attract our businesses.²⁹ As a result, serious attention was directed at strengthening the enforcement of Mexico's environmental regulations.³⁰

In May 1992, the Mexican Congress passed new legislation reducing the role of the federal environmental authorities.³¹ Through this legislation SEDUE was transformed to the Secreta-

24. See *id.* arts. 171-75.

25. See *Companies Face New Environmental Scrutiny*, *Bus. Int'l; Bus. Latin Am.*, Nov. 4, 1991, available in LEXIS, Intlaw, North/South America, Mexico.

26. See *id.*

27. See Maryanne Foronjy, Note, *Mexico and the North American Free Trade Agreement Growing Clean?*, 4 FORDHAM ENVTL. L. REP. 211, 228 (1993) (citing Interagency Task Force, Review of U.S.-Mexico Environmental Issues, Feb. 1992, at 41).

28. See Douglas A. Levy, *Administration Hails Trade Deal's Environmental Provisions*, UPI, Aug. 13, 1992, available in LEXIS, Nexis Library, Omni File.

29. Keith Schneider, *Trade Pact vs. Environment: A Clash at the House Hearing*, N.Y. TIMES, Sept. 16, 1992, at D1. Congressman Robert T. Matsui is a Democrat from California and member of the Ways and Means Trade sub-committee.

30. See William A. Orme, Jr., *'Fast-Track' Opponents Can't Hide Behind a Green Fig Leaf Anymore*, L.A. TIMES, May 12, 1991, at M2.

31. See *Mexico Localizes Environmental Enforcement*, *BUS. INT'L; INVESTING, LICENSING & TRADING*, Oct. 5, 1992, available in LEXIS, North/South America, Mexico.

riat of Social Development (SEDESOL).³² With this change local authorities were granted greater power and discretion in interpreting and enforcing environmental regulations.³³

In 1994, Mexico's environmental agencies were reformed once again when President Zedillo established a new Secretariat of Environment, Natural Resources, and Fisheries (SMARNP), which today has jurisdiction over environmental matters.³⁴ Normas Oficiales Mexicanas (NOMs), previously referred to as NTEs, are promulgated by SMARNP and establish the requirements, conditions, and procedures that regulated industries are required to observe.³⁵ As of 1996, SEMARNAP had developed 206 NOM's for air emissions, wastewater discharge limitations, and hazardous waste management.³⁶

Even with the shift in federal legislation and the interest of the United States focused on Mexico's environmental enforcement, the economic situation of Mexico continues to weigh against strict protection, as discussed in the next section.

B. *The Conflict Between the Environment and the Economy in Mexico*

Mexico has a free market economy that combines modern industry and agriculture.³⁷ Economic activity suffered in 1995 with the aftermath of the previous year's peso crisis of 1994, when activity dropped more than 6%.³⁸ Fortunately, in the comeback year of 1996, economic activity grew an estimated 5.1%.³⁹ Fueled

32. See *SEDUE Re-Emerges Under SEDESOL*, BUSINESS MEXICO, Sept. 1992, available in LEXIS, North/South America, Mexico.

33. See *Mexico Localizes Environmental Enforcement*, *supra* note 31.

34. See Paulette S. Wolfson et al., *Mexican Environmental Regulations: How They Affect Your Business Decisions*, 10 NAT. RESOURCES & ENV'T 48 (1996); See also Armin Rosencranz et al., *Rio Plus Five: Environmental Protection and Free Trade in Latin America*, 9 GEO. INT'L ENVTL. L. REV. 527, 540 (1997).

35. See Wolfson, *supra* note 34.

36. See *id.* at 49.

37. See THE WORLD FACT BOOK, *supra* note 2, at 309.

38. See *id.* The new peso replaced the old peso on January 1, 1993, at the rate that 1 new peso would equal 1,000 old pesos. See *id.* at 310.

39. See *id.* at 309.

by increased exports (up about 16% from 1995) Mexican government statistics show that increased domestic consumption also helped lead to recovery.⁴⁰ Yet, it is still extremely premature to say that the Mexican economy has overcome its frailty.

Low savings rates have kept Mexico dependent on foreign capital, as seen by the plunge in the national savings as a share of Gross Domestic Product (GDP) from 25% in 1983 to less than 14% in 1994.⁴¹ Further, Mexico's trade is still highly dependent on the U.S. market.⁴² Due to the devaluation of the peso in 1994, Mexican exports have grown quickly, leading to a trade deficit between the U.S. and Mexico, an enormous contrast from the \$1.3 billion trade surplus of 1994.⁴³

Exports and investments continued to grow through 1996 and 1997; however, in the middle of 1997, real average earnings had dropped to 20% below their 1994 pre-crisis level.⁴⁴ Inflation declined from 28% in December of 1996, but remained high at 18% by the end of 1997.⁴⁵ With the unemployment rate at 10% and underemployment rampant,⁴⁶ environmental regulations face an uphill battle for implementation in Mexico.

A prime example of the conflict between environmental priorities and economic needs is seen in the maquiladora zones.⁴⁷ These zones consist of foreign manufacturers who are allowed to import materials duty free into Mexico to assemble or manufacture products for re-export to the country of origin, most often the United States.⁴⁸

This practice allows the re-entry into the United States of goods assembled in Mexico from materials originally made in the

40. *See id.*

41. *See id.*

42. *See id.* at 310.

43. *See id.*

44. *See* OECD, *Economic Survey of Mexico*, February 1998, (visited 11/5/98) <<http://www.oecd.org/eco/surv/esu-mex.htm>>.

45. *See id.*

46. *See* THE WORLD FACT BOOK, *supra* note 2, at 310.

47. *See* Michael Satchell, *Poisoning the Border*, U.S. NEWS & WORLD REP., May 6, 1991, at 32.

48. *See* Rodolfo Villalobos and Bruce B. Barshop, *Social Infrastructure Needs of the Maquiladora Industry: A Proposal for United States Corporate Contributions*, 22 ST. MARY'S L.J. 701, 705 (1991).

U.S. and only the value added to the raw materials is subject to a duty.⁴⁹ As a result, lower manufacturing costs increase the market for U.S. goods by lowering the cost of goods to the consumer.⁵⁰ In addition to benefiting U.S. corporations, the maquiladora industries breathe life into the Mexican economy. In the late eighties, the maquiladora industry was one of the fastest growing sectors in the Mexican economy, ahead of tourism and second only to Mexico's petroleum export in the generation of foreign exchange.⁵¹

Although both the United States and Mexico have benefited economically from the maquiladoras, the environment of northern Mexico has not fared as well. The maquiladoras are required to comply with all of Mexico's environmental regulations.⁵² However, Mexico's thirst for economic stability has led to the relaxation of environmental enforcement in the maquiladora region in order to lure U.S. industries to the south side of the border.⁵³ As a result, thousands of maquiladora industries have thrived by locating themselves along the U.S./Mexico border where enforcement of environmental regulation is traditionally lax.⁵⁴

The result has been massive environmental degradation in these areas. For example, Mexican Law requires that hazardous waste generated by the maquiladoras be returned and disposed of in the country of origin. The lack of enforcement in the maquiladora region has resulted in the development of a toxic wasteland along the border of Mexico and the United States.⁵⁵ During the NAFTA negotiations, this issue received great attention by both Mexican and U.S. environmental officials who were concerned by the high number of children being born with missing or incomplete brains to women who lived or worked in the maquiladora region.⁵⁶

49. *See id.* at 705-06.

50. *See id.*

51. *See id.* at 705-06.

52. *See id.*

53. *See* Foronjy, *supra* note 27, at 235.

54. *See* Satchell, *supra* note 47.

55. *See* Foronjy, *supra* note 27.

56. *See id.* (citing *North American Free Trade Agreement Greeted With Suspicion By Environmental Groups*, INT'L ENV'T. DAILY (BNA), Sept. 10,

As Mexico and other developing nations continued the struggle to bridge the gap between economic demands and environmental needs, the United Nations stepped forward in 1992 and initiated a Conference that would attempt to solve international and cross-border environmental problems without violating national sovereignty or the right of development.⁵⁷ The goals and successes of this Conference are discussed in Part II of this paper.

II. THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED) IN RIO DE JANEIRO

A. *Overview of UNCED and Agenda 21*

Representatives from 178 national governments met in June of 1992, in Rio de Janeiro, to develop a scheme of international environmental regulation that would de-compartmentalize environmental protection both nationally and internationally.⁵⁸ The Conference, also labeled the Earth Summit, was seen by some as a continuation of the 1972 United Nations Conference on the Human Environment in Stockholm, which for the first time brought environmental issues to an international forum.⁵⁹ Taken

1992, available in LEXIS, Nexis Library, Omni File).

57. See Rogelio Gonzalez Garcia et al., *Climate Change and Environmental Policies in Mexico*, 9 ARIZ. J. INT'L & COMP. L. 217, 220 (1992).

58. See LYNTON KEITH CALDWELL, INTERNATIONAL ENVIRONMENTAL POLICY FROM THE TWENTIETH TO THE TWENTY-FIRST CENTURY 104 (3d ed. 1996). The UNCED charter declared: "The Conference should elaborate strategies and measure to halt and reverse the effects of environmental degradation in the context of strengthened national and international efforts to promote sustainable and environmentally sound development in all countries." See LAWRENCE E. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS 37 (1994).

59. See LYNTON KEITH CALDWELL, INTERNATIONAL ENVIRONMENTAL POLICY FROM THE TWENTIETH TO THE TWENTY-FIRST CENTURY 104-05 (3d ed. 1996). After the Conference in Stockholm, the United Nations began to coordinate its environmental activities through the creation of the United Nations Environmental Programme (UNEP). UNEP is not an executive agency, nor is it capable of carrying out its own programs. The functioning of the UNEP depends on other national and international agencies to implement the programs it helps to design. In 1989,

together, these two events have forwarded a single message: that a healthy world environment depends on national environmental policies being made and enforced with consideration of the nature and scope of their international effects.⁶⁰

Three official agreements achieved at the conference were the Rio Declaration of Environment and Development,⁶¹ a Statement

UNEP encouraged the United Nations General Assembly to create the UNCED. See LAWRENCE E. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS 37 (1994).

60. See LYNTON KEITH CALDWELL, INTERNATIONAL ENVIRONMENTAL POLICY FROM THE TWENTIETH TO THE TWENTY-FIRST CENTURY 104 (3d ed. 1996).

61. The Rio Declaration on Environment and Development, June 13, 1992, U.N. Doc. A/CONF.151/5/Rev.1 (1992), *reprinted in* 31 I.L.M. 874 (1992). The Preamble set out the goal for the Conference in the following way:

The United Nations Conference on Environment and Development,

Having met at Rio de Janeiro from 3 to 14 June 1992,

Reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972, and seeking to build upon it,

With the goal of establishing a new and equitable global partnership through creation of new levels of cooperation among States, key sectors of societies and people,

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

Recognizing that integral and interdependent nature of the Earth, our home . . .

Id. at 876.

The Declaration goes on to introduce twenty-seven principles, the second of which is an updated version of the famous principle 21 of the Stockholm Declaration. The Declaration also contains new elements, including a statement of the precautionary approach, reference to a right of development and assertion of an obligation to undertake environmental impact assessments. Further, the Declaration makes an affirmation of the desirability of a "supportive and open economic system", and a statement that "each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes." See *id.* at 876-80; see also Edith Brown Weiss, *Introduc-*

of Forest Principles,⁶² and Agenda 21.⁶³ In addition, two treaties, the Framework Convention on Climate Change⁶⁴ and the Convention on Biological Diversity,⁶⁵ were also signed by several nations while at the Conference. These latter two treaties were negotiated before the Rio Conference; although they were offered for signature, they were not direct products of the Conference.⁶⁶ Although all the agreements that came out of Rio are important to the environmental movement, Agenda 21 will be the focus of this discussion.

The most significant aspect to emerge from the UNCED proceedings in Rio was Agenda 21, a thorough statement of principles to guide industrialized and developing nations into the twenty-first century with an emphasis on environmental awareness and sustainable development.⁶⁷ In its early stages, Agenda 21 was to be solely a plan of action to lead the world toward sustainable development in the next millenium.⁶⁸ However, to make this possibility a reality, the framers of the document sought to add and develop an agreement on the financial resources needed to

tory Note: United Nations Conference on Environment and Development, 31 I.L.M. 814 (1992).

62. U.N. Conf. on Env't & Dev.: Statement of Principles for a Global Consensus on the Management, Conservation, and Sustainable Dev. of all Types of Forests, U.N. Doc. A/CONF.151/6/Rev.1 (1992), *reprinted in* 31 I.L.M. 881 (1992).

63. U.N. Conf. on Env't & Dev., Agenda 21, U.N. Doc. A/CONF.151/6/Rev.1 (1992) [hereinafter Agenda 21]; *see also* U.N. GOAR, Programme for the Further Implementation of Agenda 21 para. 4 (advance unedited text, July 1, 1997).

64. U.N. Conf. on Env't & Dev.: Framework Convention on Climate Change, U.N. Doc. A/AC.237/18 (1992), *reprinted in* 31 I.L.M. 849 (1992).

65. U.N. Conf. on Env't & Dev.: Convention on Biological Diversity, U.N. Doc. DPI/1307 (1992), *reprinted in* 31 I.L.M. 818 (1992).

66. *See id.*

67. *See* CALDWELL, *supra* note 59, at 110. *See also* NICHOLAS A. ROBINSON ET AL., AGENDA 21 & THE UNCED PROCEEDINGS XVI (1992). Agenda 21 also consists of substantive political recommendations to protect the environment and promote sustainable development. *Id.*

68. *See* LAWRENCE E. SUSSKIND, ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS 37 (1994).

implement Agenda 21.⁶⁹

Before the actual Conference in Rio, in 1991, the UNCED Secretariat established several working groups to draft proposals to be presented at Rio.⁷⁰ One of those working groups was designated the task of developing a legal, financial, and institutional framework for Agenda 21.⁷¹ Upon the completion of drafts by the workings groups, four preparatory meetings were held with representative membership drawn from the over 150 delegates who were to attend the conference in Rio.⁷²

The fourth and final preparatory conference was held in New York in March of 1992, immediately before the UNCED Conference was to begin in Rio.⁷³ During that session, the Agenda 21 draft was considered.⁷⁴ The group called for a special fund for the implementation of Agenda 21 that would (1) be in addition to the official development aid already targeted from developed countries; (2) require mandatory contributions from developed countries; (3) give equal voice to all parties in determining project selection, eligibility criteria, and release of funds; and (4) fund activities according to priorities and needs of developing countries.⁷⁵ During the preparatory conference, the present industrialized nations attacked each of these ideas and provided varying alternatives.⁷⁶ The Chairperson directed a small group to meet behind closed doors in order to work out a compromise, but after two weeks no progress had been made.⁷⁷ Consequently, a draft of Agenda 21 was sent to Rio, but most of the specific financial considerations were left to the negotiators at the

69. *See id.*

70. *See* NICHOLAS A. ROBINSON ET AL., *AGENDA 21 & THE UNCED PROCEEDINGS XVI* (1992).

71. *See id.*

72. *See* SUSSKIND, *supra* note 68, at 38.

73. *See* ROBINSON, *supra* note 70.

74. *See id.*

75. *See* SUSSKIND, *supra* note 68, at 39.

76. *See id.* Among the critics from the industrialized world, the European Community insisted that only the Global Environmental Facility, a creation of the World Bank, United Nations Environmental Programme, and the United Nations Development Programme, had the authority to allocate funds for the implementation of Agenda 21.

77. *See id.*

conference.⁷⁸

At Rio, Agenda 21 grew more and more as parties both edited and added to it. The finished product amounted to almost eight hundred pages with 40 chapters plus appendices.⁷⁹ However, in some respects it failed to be the action plan for the twenty-first century, because it did not list any priorities of action.⁸⁰ Instead, Agenda 21 provided an equitable course of action for achieving a healthy, sustainable environment around the world, but the actual implementation of the plan is left to individual governments.⁸¹

B. *The Practicality of the Agenda 21 Commitments*

Two disheartening statistics triggered the massive concern for international environmental protection in the next century and the creation of Agenda 21. By 2050, the current global population of almost 6.0 billion will grow to between 7.9 and 11.9 billion.⁸² At the same time the world's economy is estimated to grow four or five times.⁸³ These two facts combined have the potential to lead to a huge increase in production, rise in consumption, and massive environmental degradation. A degraded natural environment will lead to difficulties in several forms. Global warming could raise ocean levels thereby targeting lands and nations located at sea level,⁸⁴ while scarce resources could lead to

78. *See id.*

79. *See id.* at 41.

80. *See id.*

81. *See* CALDWELL, *supra* note 60, at 110. As discussed *supra*, "States have the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies." Rio Declaration, *supra* note 61, at 876. In addition, Principle 11 declares that: "States shall enact effective legislation. Environmental standards, management objectives and priorities should reflect the environmental and development context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries." *Id.* at 878.

82. *See* WORLD RESOURCES INST., *WORLD RESOURCES 1996-97*, at 173 (1996).

83. *See* WORLD RESOURCES INST., *RESOURCES FLOWS: MATERIAL BASIS OF INDUSTRIAL ECONOMIES iv-v* (1997).

84. *See* John Dernbach, *U.S. Adherence to Its Agenda 21 Commitments:*

poverty, overcrowding, and violent competitive action.⁸⁵

Agenda 21 claims that in order to confront and overcome these possible disasters, the planet must adopt a collective plan of sustainable development. The Brundtland Commission of 1988 defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.⁸⁶ Agenda 21 expands this definition by setting out a broad plan of action to provide for sustainable development in all areas of the world based on the varying situation and needs of the nation in question.⁸⁷

The preamble to the Agenda 21 draft, which emerged from the preparatory conferences, and was presented at Rio, best summarizes its hopeful role as follows:

Humanity stands at a defining moment in its history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well being. However, integration of environment and development concerns, and greater attention to them will lead to fulfillment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can be in a global partnership for sustainable development.⁸⁸

The scope of Agenda 21 is extremely vast. In general, the massive plan is broken into four sections: (1) social and economic development; (2) conservation and management of resources for development; (3) strengthening the role of major groups; and (4) means of implementation.⁸⁹ Within each of these sections, chapters further develop the aspirations of the enormous plan. The social and economic development section includes chapters on international trade and development, poverty, changes in

A Five-Year Review, 27 ENVTL. L. REP. 10,504 (1997).

85. *See id.* (citing World Comm'n on Env't & Dev., *Our Common Future* 43 (1987)).

86. *See id.*

87. *See id.*

88. *See* ROBINSON, *supra* note 70, at xxv (citing Doc. A/CONF.151/PC/L. 78 of 3 April 1992).

89. *See* U.N. Conf. on Env't & Dev., *Agenda 21*, U.N. Doc. A/CONF.151/6/Rev.1 (1992) [hereinafter *Agenda 21*].

consumption, sustainability based on demographics, promotion of human health and sustainable human development, and the integration of the environment with development.⁹⁰

In the second section, which covers conservation of resources, the chapters address: the atmosphere, land resources, deforestation, desertification, mountain development, agriculture, biological diversity, biotechnology, oceans, freshwater resources, toxic chemicals, hazardous waste, solid waste, and radioactive waste.⁹¹

The third section of Agenda 21 identifies how different groups can become involved in the advancement of sustainable development. Among the groups identified are women, youth, indigenous people, non-governmental organizations, local authorities, workers, industry, the scientific community, and farmers.⁹² Finally in section four of Agenda 21 proposes a means of implementation. This plan calls for financial support, transfer of technology, advancement of science, promotion of education, international institutional arrangements, international legal mechanisms, and information for decision-making.⁹³

An analysis of the enormous scope of Agenda 21 and its practicality would far surpass the bounds of this Note. Therefore, several main points of the implementation section will be examined in depth. In particular, this critique will focus on the general implementation methods, the transfer and advancement of science and technology, and the financial support required to make the Agenda 21 goals a reality.

According to Agenda 21, implementation of the plan will vary between different nations, depending on individual circumstances. However, that is the only guidance Agenda 21 provides. For example, the chapter addressing the management of land resources states that governments at the appropriate level, with the support of regional and international organizations, should strengthen regional cooperation and exchange of information on land resources.⁹⁴ Individual governments are also responsible for determining the level of government that is best to carry out the commitments of Agenda 21. The only help provided by the document is a general suggestion that planning and manage-

90. *See id.* chs. 2-8.

91. *See id.* chs. 9-22.

92. *See id.* chs. 23-32.

93. *See id.* chs. 33-40.

94. *See id.* para. 10.12.

ment should take place at the lowest public authority level, because local governments are more attuned to the environmental needs of their particular location.⁹⁵ While this may be true, local governments are also more knowledgeable about local poverty and unemployment rates; such problems are likely to consume the limited resources of municipalities before the items on the environmental agenda are met. Furthermore, if regulations are to be developed based on individual community needs, there is a risk of townships in a single geographic area having vastly different environmental regulations. Air and water pollution does not remain stagnant; many such problems spread greatly, thus, localized regulation is an inadequate way to confront them.

The goals set by Agenda 21 recognize the importance of science and technology in pollution control and sustainable development.⁹⁶ Many developing countries do not have the technology, resources, or research facilities necessary to reduce environmental degradation.⁹⁷ Simple technological advances could have a significant environmental impact in developing nations.

For example, basic education about crop rotation could lead to less depletion of soil minerals, less erosion, and therefore less abandoned farmland. Similarly, advancements in fertilizers could improve soil conditions, leading to less use of tropical forests for farmland, thereby reducing deforestation and benefiting local farmers. Farmers who cut down tropical forests soon learn that the soil can produce crops for only a few years. The land then becomes subject to erosion and the farmer must seek new tropical land to make a living.

By encouraging communication and cooperation among the scientific and technological community, decision makers, and the public,⁹⁸ Agenda 21 seeks to further sustainability goals, inform government officials about the benefits and limits of science and technology, and increase public knowledge and participation.⁹⁹

95. *See id.* para. 8.5(g).

96. *See id.* chs. 31, 35.

97. *See generally Latin American Environment in Ruins*, ROCKY MOUNTAIN NEWS, March 2, 1997, at 51A; Elliot Diringer, SAN FRANCISCO CHRONICLE, June 20, 1997.

98. *See* Agenda 21, para. 31.1.

99. *See* Dernbach, *supra* note 84. Principle 9 of the Rio Declaration states that, "States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific under-

However, this idealistic plan has not fared as well as was expected.

A major practical consideration not addressed at Rio was the inhibiting effect of intellectual property law on the transfer of technology. As of 1994, 105 countries were members of the Berne Convention, including most major industrialized countries.¹⁰⁰ The Berne Convention provides international protection to scientific and other works.¹⁰¹ Thus, the need to share technology with developing nations, is weighed against a creator's property right to exploit his or her creation. As a result, companies are slow to share technological secrets.¹⁰²

During the conference at Rio, major discussion surrounded financial support from industrialized nations in order to achieve the goals enumerated in Agenda 21.¹⁰³ After much debate and controversy, the final version of Agenda 21 included a commitment by developed countries to provide 0.7 percent of their GNP as official assistance to developing countries for sustainable development and implementation of Agenda 21.¹⁰⁴ This commitment has tremendous implications for developing nations.¹⁰⁵ Each of the programs set out in Agenda 21 details an estimated cost for effective implementation.¹⁰⁶ Funding is needed for technical assistance, for increasing the capacity of local and national governments, and to meet the start-up costs of facilities.¹⁰⁷ This mone-

standing through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies." Rio Declaration, *supra* note 61, at 877.

100. The Berne Convention For The Protection of Literary and Artistic Works, July 24, 1971, art. 2(1).

101. *Id.*

102. *See generally* Elliot Diring, *SAN FRANCISCO CHRONICLE*, June 20, 1997.

103. *See* Susskind, *supra* note 68, at 41.

104. *See* Agenda 21, *supra* note 89, para. 33.13.

105. *See* Dernbach, *supra* note 84. This financial commitment was consistent with the idea set out in Principle 6 of the Rio Declaration which states that "[t]he special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority." Rio Declaration, *supra* note 61, at 877.

106. *See id.*

107. *See id.*

tary assistance, if used wisely, could prevent environmental problems that would cost an enormous amount to correct in the future.¹⁰⁸

Unfortunately, the 0.7 goal has not been adhered to, especially by the United States. The U.S. official development assistance to other countries declined from 0.15 percent in 1993 to 0.10 percent in 1995.¹⁰⁹ In 1997, the U.S. was the lowest among all of the developed nations in this category.¹¹⁰ Developed countries on the whole have reduced their aggregate contribution from 0.34 percent in 1995 to 0.27 percent.¹¹¹ Denmark, Norway, Sweden, and the Netherlands lead the group by contributing more than 0.7 percent of their GNP to other countries for development assistance.¹¹²

Agenda 21 provides little help in enforcing this provision. In fact, the text of Agenda 21 may actually allow developed nations to ignore the commitment. Specifically, the text calls for developed countries who have not reached the 0.7 target to only make their best efforts to increase their level of official assistance.¹¹³ U.S. negotiators at Rio referred to this language when they informed the press that the United States had not agreed to the 0.7 percent target rate.¹¹⁴

The developed world has failed to adhere to the commitments of technological and scientific sharing established at Rio. More importantly, developed nations have not followed through with the financial goals set in Rio. As a result, many of the objectives set for developing nations, including Mexico, India, and China,¹¹⁵

108. *See id.*

109. *See* Dernbach, *supra* note 84.

110. *See id.*

111. *See* U.N. GOAR, Programme for the Further Implementation of Agenda 21 para. 18 (advanced unedited text, July 1, 1997).

112. *See* Dernbach, *supra* note 84.

113. *See* Agenda 21, *supra* note 89, para. 33.15.

114. *See* Dernbach, *supra* note 84. On the issue of financing sustainable development, all nations agreed that additional resources were needed, and that all available means should be utilized, including the Global Environmental Facility of the World Bank. Contrary to the language of the statute, the industrialized nations never agreed to commit 0.7% of their GNP to aid developing countries. *See* Edith Brown Weiss, *Introductory Note to United Nations Conference on Environment and Development*, 31 I.L.M. 814, 815 (1992).

115. *See generally* *World Leaders to Give Environment a Checkup*, CHI.

have been frustrated or stunted.

III. MEXICO'S RESPONSE TO THE AGENDA 21 COMMITMENTS

After Rio, in January of 1995, environmental officials from ten Latin American countries met in Mexico City with representatives from the United Nations Environmental Programme (UNEP) to discuss the integration of Agenda 21's environmental and economic goals into national policies in the region.¹¹⁶ Hope was high as participants recognized that market factors alone are not enough to promote environmental protection.¹¹⁷ The parties agreed that without comprehensive policies across several governmental agencies, economic development would not be compatible with environmental protection.¹¹⁸ Secretary Julia Carabias Lillo, head of SEMARNAP, commented that Mexico's approach to Agenda 21 was to establish priorities and possibilities from a socioeconomic viewpoint,¹¹⁹ an area in which Agenda 21 offers little assistance in.

In March of 1997, two years after the Latin American Environmental Ministers met in Mexico and five years after Rio, these priorities were still being searched for. Mexico did establish a Secretariat for the issue, to allow for the implementation of laws, the limitation of contamination in Mexico City, and the establishment of the right of compensation for those affected by development programs.¹²⁰ However, National Greenpeace representative, Alejandro Calvillo stated that since the Rio meeting the processes of environmental destruction have not slowed in Mexico.¹²¹ He asserted that anti-ecological projects such as industrial waste dumps were still being approved, while at the same time no lim-

SUN-TIMES, June 23, 1997, at 17.

116. See *Latin American Environmental Ministers Meet in Mexico*, ENV'T WATCH LATIN AM., Feb. 1995, available in LEXIS, News Library, ZEV1 File.

117. See *id.*

118. See *id.*

119. See *id.*

120. See IPS Correspondents, *Latin America: "Rio Plus Five," the NGO's Hour Has Come*, INTER PRESS SERVICE, March 11, 1997, available in 1997 WL 7074129.

121. See *id.*

its had been placed on motor vehicle use.¹²² Further, pollution in the capital, Mexico City, had not improved.¹²³ Calvillo summarized the effectiveness of Agenda 21 in Mexico by saying that only the formal aspects have been fulfilled — but in reality, Mexico is still bad and overall evaluation is negative.¹²⁴

A report released by the UNEP, in February 1997, declared that Latin America's environmental ruin was continuing at an alarming pace.¹²⁵ It stated that almost half the region's grazing areas have lost their ability to sustain animals or crops, and about half of Latin America's mangrove swamps have been polluted with agricultural pesticides.¹²⁶ Further, the report warned that between 100,000 and 450,000 species of plants and animals could disappear in the next forty years from the Latin American region alone.¹²⁷ Approximately eight out of ten people in Latin America live in dense urban areas, where they breathe unhealthy levels of air pollution.¹²⁸ Arsenio Rodriguez, a UNEP representative for Latin America, declared in a news conference that there is neither the money nor the political will to stop the destruction of the environment in Latin America.¹²⁹

In June of 1997, frustrated by the lack of financial assistance and technological support by the developing nations, leaders of Mexico and other Third World Nations refused to attend the Earth Summit Plus Five held in New York.¹³⁰ Ambassador Daudi Mwakawago of Tanzania spoke on behalf of 128 developing countries at the Earth Summit Plus Five: The benefits have not been even. Those countries without the technology and infrastructure have been marginalized even more.¹³¹ In response, the U.S. Assistant Secretary of State remarked that developing nations have to

122. *See id.*

123. *See id.*

124. *See id.*

125. *See Latin America Environment in Ruins*, ROCKY MOUNTAIN NEWS, March 2, 1997, at 51A.

126. *See id.*

127. *See id.*

128. *See id.*

129. *See id.*

130. *See World Leaders to Give Environment a Checkup*, *supra* note 115.

131. *See* Elliot Diringer, SAN FRANCISCO CHRONICLE, June 20, 1997.

be practical. There is never going to be the 0.7.¹³²

Sixty leaders did meet in New York for a five-year review that was not positive.¹³³ Global annual emissions of carbon, which contribute to the key greenhouse gas, carbon dioxide, had risen to 6.2 billion tons a year.¹³⁴ Fresh water was estimated to be increasingly scarce, and the number of people living in absolute poverty, on less than \$1 a day, had risen above 1.1 billion.¹³⁵

In response to the world's continued depleting environmental state, after Rio, President Clinton made a plea to developing nations in November of 1997, to join us to meet the challenge.¹³⁶ In particular, President Clinton was referring to the challenge of reducing emissions of greenhouse gases to 1990 levels by the year 2000.¹³⁷ The nations present at the UNCED in Rio agreed to take voluntary steps to achieve this goal, but shortly thereafter 130 developing countries, including Mexico, China, and India, were exempted from having to reduce their emissions, although they account for 40% of the emissions presently in the atmosphere.¹³⁸ This exemption was in response to the constant economic instability of many developing nations, as well as the unrealistic goal of achieving such a reduction in emissions, while still developing a prosperous economy. The developing nations refused President Clinton's plea. They argued that they should not be required to reduce their emissions, since they were not responsible for the high level of carbon dioxide in the atmosphere for the past two centuries.¹³⁹

In November of 1997, the U.N. appointed a committee to review the implementation and recommendations of the UNCED and Agenda 21.¹⁴⁰ During this committee review, Mexico claimed

132. *See id.*

133. *See World Leaders to Give Environment a Checkup, supra* note 115.

134. *See id.*

135. *See id.*

136. *See* Ronald Bailey, *Bill and Al's Global Warming Circus*, FORBES, Nov. 3, 1997, at 346.

137. *See id.*

138. *See id.*

139. *See id.*

140. *See UN: Sustainable development Commitments Must be Consolidated and Acted Upon, Not Continually Redefined*, M2 PRESSWIRE, Nov. 7, 1997, available in 1997 WL 15142868.

that sustainable development commitments must be consolidated and acted upon.¹⁴¹ The Mexican representative argued that the continual redefinition and adjustment of the plan needed to end.¹⁴² He stated that as international negotiations continued at length about specific adjustments, several governmental bodies did not even have a clear idea of sustainable development. Thus, sustainable developmental measures were not being implemented in these areas.¹⁴³

During the committee meeting, Agerico O. Lancanlale, Officer-in-Charge of the New York Office of the United Nations Industrial Development Organization (UNIDO), heralded that UNIDO was aimed at promoting economic growth, protecting the environment, and creating employment opportunities.¹⁴⁴ He further stated that sustainable development rested on industrial development and environmental sustainability complementing one another through appropriate technology, institutions, policy framework, and market based incentives.¹⁴⁵ Unfortunately, as discussed in Part II, these appear to be the very goals that the UNCED is failing to achieve.

Mexico and several other developing nations, have been severely frustrated by the slow moving, and at times stagnant, force of the UNCED. The commitments are vast and impressive on paper, but without the financial support from developing nations or the sharing of technology, the goals are unrealistic for Mexico in its current state of economic vulnerability and sporadic growth. In the final part that follows, alternatives for environmental protection in Mexico and the developing world are discussed.

IV. REALISTIC ALTERNATIVES FOR MEXICO AND THE DEVELOPING WORLD

Against the backdrop of economic instability, environmental regulation must fight an uphill battle in Mexico. A balance is re-

141. *See id.*

142. *See id.*

143. *See id.*

144. *See id.*

145. *See id.*

quired between environmental protection and Mexico's industrial, urban, and developmental policies.¹⁴⁶ It is no surprise that one of Mexico's top priorities is development, along with the goal of decreasing poverty and leading Mexico toward the path of becoming a world power. It seems both unfair and unrealistic to deny Mexico the economic benefits that come with increased consumption and increased development. It is, however, important to note that as Mexico develops, it will increase its energy consumption and its pollution.¹⁴⁷ If adhered to, Agenda 21 could help to promote efficient energy use and sustainable use of natural resources, while not violating Mexico's national sovereignty. In order to work, however, developed nations that are members of Agenda 21 must adhere to the commitments made in Rio. Until this occurs, Mexico and the developing world must find alternatives to protecting their environment while promoting their development.

Increased trade may be one possible solution. Such an increase in trade could lead to more investment in Mexico and in turn create greater means for the promotion of environmental enforcement.¹⁴⁸ Further, economic growth could also advance environmental efficiency among industry in Mexico.¹⁴⁹ Increased trade alone is not a complete remedy to Mexico's environmental degradation. Under a basic economic scheme, the cost of pollution prevention must be less than the cost of polluting, or it would not be economically beneficial to use preventive materials. To achieve this lower cost, vast amounts of funds cannot be spent on researching pollution control technology. Thus, Mexico is forced to look to developed nations for assistance in sharing their already advanced technology.

A second alternative would be environmental audits, with which Mexico has already succeeded in creating incentives for private environmental compliance.¹⁵⁰ Environmental audits in-

146. See Garcia et al., *supra* note 57, at 219.

147. See *id.*

148. See Questions and Answers about the North American Free Trade Agreement, 1991 National Trade Data Bank, *available in* LEXIS, Intlaw, AM.

149. See *id.*

150. See Juan Francisco Torres-Landa et al., *Mexican Law*, 31 INT'L

volve a procedure initiated by a private party and carried out under the supervision of the Mexican Federal Environmental Protection Agency.¹⁵¹ The company volunteers its violations and is evaluated to determine the actions needed to achieve compliance over a period of time with pre-approved budgets and deadlines.¹⁵² The result of the audit binds the party to perform the requisite corrective action with the incentive that they will not be sanctioned for those matters covered by the audit.¹⁵³

There are obstacles to implementing an environmental auditing system. Audits, especially when comprehensive are extremely expensive.¹⁵⁴ Further, an industry may be hesitant to make an audit out of fear that it could be used against them. For example, an audit may reveal that a company committed a violation resulting in civil or criminal sanctions, and the audit may be used against them in an enforcement proceeding or a citizen suit.¹⁵⁵ An audit may also bring forward potential plaintiffs in an environmental tort action or reveal trade secrets to competitors.¹⁵⁶ To remedy this potential problem, Mexico may look to follow the lead of the United States and consider granting immunity to companies that voluntarily disclose their violations.¹⁵⁷

In light of the possible drawbacks, the Mexican Environmental Protection Agency has provided three reasons for promoting the Environmental Audit System.¹⁵⁸ First, private companies are given

LAW. 535 (1997).

151. *See id.*

152. *See id.*

153. *See id.*

154. *See* Miri Berlin, *Environmental Auditing: Entering the Eco-Information Highway*, 6 N.Y.U. ENVTL. L.J. 618, 622 (1998).

155. *See id.*

156. *See id.* (explaining that in the United States, proposals for evidentiary privileges and enforcement leniency have attempted to address these concerns).

157. *See* Steven P. Solow, *Audit Privilege and Immunity Legislation and the Department of Justice: Policy on Voluntary Disclosure*, ALI-ABA COURSE OF STUDY, STUDY OUTLINE, SD19 ALI-ABA 21, 25 (September 17, 1998) (explaining that in recent years bills have been presented in the United States Congress proposing that immunity be granted to facilities that disclose their violations).

158. *See Mexican Law*, *supra* note 150, at 535.

incentives to come forward with their environmental violations and to reach economically efficient solutions that can be implemented over time to remedy the existing problems.¹⁵⁹ Second, the audits create a system in which the private party allocates the resources necessary for environmental compliance.¹⁶⁰ Through this mechanism, the budget of the Environmental Protection Agency can be focused on industries that must still be subject to inspections and sanctions.¹⁶¹ Finally, the audit system may increase the levels of compliance by setting out examples that other industries may follow.¹⁶² Thus, the audit system creates a device whereby industries can meet the applicable environmental regulations without facing initial disciplinary measures.¹⁶³

Mexico can also enforce its environmental program through public right-to-know laws and through labeling potentially harmful environmental products, also called eco-labeling. These laws could create increased public awareness about the environmental harms of products. Furthermore, these laws may lead to public pressure on industries to reduce pollution and comply with national regulations. However, this method has the potential of being a double-edged sword. Strict labeling requirements on products might lead to restrictive business practices in developing countries and thus further limit access to markets.¹⁶⁴ In many developing nations, such as Mexico, producers lacking financial resources oppose strict labeling requirements for fear of being unable to compete in the global market.¹⁶⁵

There is some indication that eco-labeling is effective in combating environmental degradation. In Germany, the labeling of low-emissions oil and gas heating appliances reduced the quantities of sulfur dioxide, carbon dioxide, and nitrogen oxides emit-

159. *See id.*

160. *See id.* at 536.

161. *See id.*

162. *See id.*

163. *See id.* at 537.

164. *See* Kristin Dawkins, *Ecolabelling: Consumer Right-to-Know or Restrictive Business Practice?*, in *ENFORCING ENVIRONMENTAL STANDARDS: ECONOMIC MECHANISMS AS VIABLE MEANS?* 501, 503 (Rüdiger Wolfrum ed., 1996).

165. *See id.* at 544.

ted by thirty percent.¹⁶⁶ The labeling of low-solvent paints and varnishes increased the market share of the products from one percent to fifty percent, which in turn reduced the amount of solvent released into the environment by 40,000 tons.¹⁶⁷

One suggestion that addresses the fears of the developing nations that their trade will be restricted is to set up a system of credit among the nations that produce goods and those that consume goods.¹⁶⁸ For example, Mexico, an exporter of coffee, could negotiate an international commodity agreement with a major importer of coffee, such as the United States. Under this agreement, the two nations finance the transition to sustainable commodity production. Mexico would gradually comply with stricter environmental standards for processing and production in exchange for preferential access to the importer's market.¹⁶⁹ This basic method of providing credit could ensure market access for developing countries, while at the same time promoting greater competition.¹⁷⁰

A final way Mexico can confront their environmental agenda without the support of the developed nations is through education. Juan Jose Gonzalez Marques, Regional Advisor to Mexico from the UNEP, discussed such an alternative at a symposium at the University of Texas at Austin in 1996.¹⁷¹ Marques commented that Mexico's main problem was not lack of laws, but rather lack of enforcement by administrators, prosecutors, and judges.¹⁷² He further explained that this lack of enforcement created a need

166. See *id.* at 540 (citing R.V. Hartwell and L. Bergkamp, *Eco-labeling in Europe: New Market-Related Environmental Risks?*, BNA INTERNATIONAL ENVIRONMENTAL DAILY, October 20, 1992.)

167. See *id.*

168. See *id.* at 546.

169. See *id.* (citing H.L.M. Cox, *International Agreements to Deal with Environmental Externalities of Primary Commodity Exports*, Paper presented to the European Parliament's conference on Striking a Green Deal: Europe's Role in Environment and South-North Trade Relations, Brussels, Belgium, November 7-9, 1993.)

170. See Dawkins, *supra* note 164, at 546.

171. See Roger W. Findley, *Symposium: Sustainable Development in Latin American Rainforests and the Role of Law*, 32 TEX. INT'L L.J. 1, 4 (1997).

172. See *id.*

for implementing new environmental law courses in law schools and instructing judges on environmental laws and regulations.¹⁷³ Continuing education programs for attorneys, which update practitioners on trends in the field of environmental law, may also be beneficial. Finally, Mexico may consider subsidies, from the Mexican government or from private industries, to fund increased environmental law educational programs.

CONCLUSION

Mexico has exemplified its commitment to the environment by adopting domestic environmental law. Mexico has realized that any improvement in the global environment will only be achieved through a global commitment. Although Mexico has pledged its dedication to the environmental agenda, the needs of its vulnerable economy are frequently at odds with its environmental goals. Agenda 21 provides a strong and thorough framework for achieving a global environmental commitment while still preserving and nurturing the growth of the Mexican economy. For the plan to work, however, there must be a commitment not only from Mexico, but also from the developed nations of the world to share technology and to help fund the environmental efforts of the developing world. Thus far, this commitment has been slow in coming.

Until the industrialized nations realize that their continued growth depends on a healthy and prosperous global environment, achievable through the Agenda 21 commitments, Mexico must continue to regulate its environmental situation on its own while balancing the needs of its ever fluctuating economy.

173. *See id.*