

MEXICAN ENVIRONMENTAL LAW: ENFORCEMENT
AND PUBLIC PARTICIPATION SINCE THE SIGNING
OF NAFTA'S ENVIRONMENTAL COOPERATION
AGREEMENT

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I. INTRODUCTION

With the negotiations surrounding the Free Trade Area of the Americas ("FTAA") raging, the debate over what is the proper relationship between international trade and environmental protection that colored the NAFTA negotiations a decade ago is being rekindled.¹ This is a manifestation of globalization trends, which, if defined as the growing interdependence between peoples across national borders, have provided opportunities for international cooperative efforts to address common challenges. Notably, experimentation with the regional side agreements that made NAFTA possible concerning labor rights and environmental protection, has widened the potential for proliferating human rights

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1. See generally Christopher M. Bruner, *Hemispheric Integration and the Politics of Regionalism: The Free Trade Area of the Americas (FTAA)*, 33 U. MIAMI INTER-AM L. REV. 1 (2002) (citing hearing before the House Subcommittee on International Economic Policy and Trade concerning the linkage between trade, labor, and environment).

along side of liberalized trade in less industrialized countries such as Mexico.

A recent article in the American Bar Association's International Law News noted the successes and challenges remaining within Mexico's labor and employment laws since the signing of NAFTA.² The article reports that recent legislation is improving labor-management relations and wage rates are on the rise.³ However, concerns about freedom of association have been raised by non-governmental labor rights organizations and labor unions who have submitted their grievances beyond national government resources to the labor institution created by the North American Agreement on Labor Cooperation.⁴ A parallel institution for environmental cooperation exists which was created by the North American Agreement for Environmental Cooperation ("NAAEC"). This institution, called the Commission for Environmental Cooperation ("CEC"), accepts submissions from any citizen or non-governmental organization that resides in one of the parties to NAFTA which petition the CEC to investigate and publish a factual record of alleged failures by a member state to enforce its environmental laws.⁵

Because the CEC has accepted numerous submissions concerning Mexico's environmental protection record, like the ABA article on Mexico's labor laws, this article outlines Mexico's successes and its remaining challenges in the realm of the environment. Unlike the ABA article, the author will take a more historically comprehensive and comparative approach to outlining the trends in Mexico's promulgation and enforcement of its environmental laws. Throughout this article particular attention is paid to the role of the public and its potential to influence these critical aspects of environmental regulation at the grass roots level.

II. BACKGROUND OF MEXICO'S ENVIRONMENTAL LEGISLATION

Before one can engage in a serious comparison between two legal regimes such as United States and Mexican environmental laws, a couple of preliminary contrasts must be made. Although both countries' constitutions provide for federal structure of government, each has approached its concept of federalism differently over the centuries. Notably, if one defines federalism by

2. Phillip Berkowitz & Eduardo Ramos Gomez, Recent Developments in Mexico A Labor and Employment Law Perspective, 31 INT'L L. NEWS 12 (2001).

3. Id.

4. Id.

5. Francisco S. Nogales, The NAFTA Environmental Framework, Chapter 11 Investment Provisions, and The Environment, 8 ANN. SURV. INT'L & COMP. L. 97, 104-06 (2002).

how rigidly a nation's governmental powers are bifurcated into State and federal spheres, Mexico's governmental structure is more federal than the United States. According to Article 117 and 124 of Mexico's Constitution, all powers not expressly attributed to federal authorities and not prohibited from the States are reserved to the States.⁶ This rigid system for the division of powers allows no room for concurrent powers (i.e. a State's ability to "occupy" a field delegated to the federation) but does allow for cooperation or coordination in the design and implementation of public policy.⁷

A. A History of Centralization

The history of Mexico's Constitution shows a tendency towards centralization. This centralization has determined whether State or federal actors have primary jurisdiction over environmental protection. Much like England's colonial structure in early North America impacted the United States' constitutional evolution, the Spanish colonial structure in Mexico during the 16th Century had profound repercussions on Mexico's constitutional evolution.⁸ The English colonies were established separately over time for varying reasons the pursuit of business enterprises, the avoidance of religious persecution, etc.⁹ As a result, the English colonies were under no central royal authority comparable to the Spanish Viceroy. This centralized Spanish authority assisted the conquistadors in their common goals of gold and "heathen" conversion.¹⁰

Although Mexico achieved independence from Spain in the early 19th Century, an independence movement would linger for two more generations as it strove to overcome the de facto rulers of Mexico, the centralized military and clergy.¹¹ Even then, as liberal proponents ascended to power and drafted the 1857 Constitution, civil liberties and anti-clerical clauses in the Constitution were not enforced until the 1910 Mexican revolution, which resulted in the 1917 Constitution of the United Mexican States that is still in force today.¹²

Despite the long history of centralization, the 1917 Constitution codified powers retained by state and local authorities, which can

6. See José Ma. Serna de la Garza, *Constitutional Federalism in Latin America*, 30 CAL. W. INT'L L.J. 277, 287 (2000) (contrasting the Mexican Constitution's use of the word "expressly" in defining federal legislative jurisdiction with the absence of the word in the Tenth Amendment of the United States Constitution).

7. *Id.* at 289.

8. JAMES E. HERGET & JORGE CAMIL, *AN INTRODUCTION TO THE MEXICAN LEGAL SYSTEM* 4 (1978).

9. *Id.*

10. *Id.* at 5.

11. FRANCISCO AVALOS, *THE MEXICAN LEGAL SYSTEM* 2-3 (1992).

12. *Id.* at 3-4.

trace their roots back to the relationship between the Spanish crown and the indigenous Aztec legal system. As early as 1530, the centralized Spanish crown had given up on applying uniform laws to all of its colonial possessions. Such tolerance of local customs was reflected in the concept of *derecho indiano*, which accorded respect for indigenous law wherever such laws did not directly conflict with Catholicism or the “basic principles of the Spanish people.”¹³ This system of concordant authority survives in Title 2, Chapter 1, Article 40 of the 1917 Constitution, which ensures a “federal, democratic, representative Republic composed of free and sovereign States.”¹⁴

Much like in the United States, the latter half of the 20th Century saw the erosion of state’s rights as the centralized federal government expanded its jurisdiction.¹⁵ This could be seen in the dominance of the executive branch of the Mexican federal government, constitutional amendments, and the institution of several federal models for state legislation.¹⁶ In the face of such erosion, Mexican State legislatures have retained exclusive rights to certain environmentally hazardous industries, which they have used to protect their environments from foreign investors. Such activities exclusively reserved to the Mexican States include oil and other hydrocarbons, basic petrochemicals, electricity, generation of nuclear energy, and radioactive materials.¹⁷

B. Foreign Investment

During the mid-1990s, Mexico was praised by prospective investors as having foreign investment rules that have been considerably liberalized, “strong government efforts to reduce inflation, a continuing trend to reprivatize government-owned enterprises, a low-cost, easily trainable workforce, and a generally mild climate.”¹⁸ This attractive climate for trade and foreign direct investment (“FDI”) was not always so inviting. From the formation of the 1917 Constitution until the 1970s, foreign investment was

13. Francisco Avalos, *The Legal Personality of the Colonial Period of Mexico*, 83 *LAW LIBR. J.* 393, 395 (1991) (quoting *J. OTS CAPDEQUI, INSTITUCIONES* 231 (1959) (quoting *Reales Cédulas y Ordenes*, tomo VII, folios 468-69, 836-41)).

14. *Constitución Política de los Estados Unidos Mexicanos*, [CONST. 1917] [Constitution] art. 40 (Mex.) (as amended), translated in *ORGANIZATION OF AMERICAN STATES, CONSTITUTION OF THE UNITED MEXICAN STATES* (1964).

15. See Robert Bejesky, *An Analytical Appraisal of Public Choice Value Shifts for Environmental Protection in the United States & Mexico*, 11 *IND. INT’L & COMP. L. REV.* 251, 279 (2001).

16. James F. Smith, *Confronting Differences in the United States and Mexican Legal Systems in the Era of NAFTA*, 1 *U.S.-MEX. L.J.* 85, 89 (1993).

17. PRICE WATERHOUSE, *DOING BUSINESS IN MEXICO* 49-50 (1991).

18. *Id.* at 1.

severely restricted and investment in some activities was closed outright.¹⁹ The 1973 Foreign Investment Law (“FIL”) set forth a principle that foreign investment could not exceed 49% of any business venture within Mexico with special exceptions only rarely granted and difficult to obtain.²⁰ The 1973 FIL set up the Foreign Investment Commission (“FIC”) from which all potential investors had to receive approval.²¹ It exercised this discretionary authority in line with the nationalistic xenophobic philosophy of the time and thus permitted very few foreign investors.²²

Throughout the presidential term of Miguel de la Madrid (1982-1988), Mexico experienced a mild reversal of the government’s attitude toward foreign investment as a reaction to worldwide recession and the withdrawal of foreign loans.²³ As President he passed the Guidelines on Foreign Investment and Proposals for its Promotion in 1984, which turned Mexico’s formerly defensive policies to active promotion of “foreign investment alternatives” in order to meet the new national development priorities.²⁴ The FIC fell into line with the new attitude approving 93% of all requests for majority foreign ownership presented to it from 1982 to 1988.²⁵

This new attitude toward foreign investment was further solidified with the election of President Carlos Salinas de Gortari.²⁶ President Salinas’ 1989 Regulations greatly liberalized restrictions on foreign investment but were still limited by the 1973 FIL.²⁷ However, in 1993 the 1973 FIL gave way to a new FIL that shifted presumptions to accepting foreign investment unless the FIL expressly provided otherwise.²⁸ Mexico’s signing of the NAFTA,²⁹ which went into force on January 1, 1993, committed Mexico to phase out many of the remaining restrictions on foreign investment over a fifteen-year period.³⁰ Annual flows of foreign investment have doubled between the first and second half of the 1990s.³¹

19. Jorge Camilet. al., Restrictions on Foreign Investment, in AN INTRODUCTION TO DOING BUSINESS IN MEXICO 45, 46 (William E. Mooz, Jr. ed., 1995).

20. *Id.* at 47.

21. J. Hayden Kepner, Jr., Mexico’s New Foreign Investment Regulations A Legal Analysis, 18 SYRACUSE J. INT’L L. & COM. 41, 44 (1992).

22. *Id.* at 45.

23. Camil, *supra* note 19, at 47.

24. Kepner, *supra* note 21, at 47.

25. *Id.*

26. Camil, *supra* note 19, at 47.

27. *Id.*

28. *Id.* at 47-48.

29. North American Free Trade Agreement, Dec. 17, 1992, Can.-Mex.-U.S., 32 I.L.M. 289 (entered into force Jan. 1, 1993).

30. Camil, *supra* note 19, at 49.

31. Claudia Schatan, The Environmental Impact of Mexican Manufacturing Exports Under NAFTA, in GREENING NAFTA THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION (David Markell & John Knox eds., forthcoming July 2003)

These political and legal changes reflected a public willingness to suffer the inevitable environmental deterioration that follows rapid industrialization in order to counter poverty and rampant financial crisis.³²

C. Environmental Responses

In response to the environmental problems inherent in industrial growth and trade liberalization, Mexico adopted the General Law on Ecological Balance and Environmental Protection, which took effect March 1, 1988 (the Ecology Law).³³ The Ecology law was followed by numerous regulations later that year: "Environmental Impact Regulations" (June 8, 1988), "the Atmospheric Pollution Regulations" (November 26, 1988), and "the Hazardous Waste Regulations" (November 26, 1988).³⁴

In 1994, Anne Rowley, a staff attorney in the International Activities Division of the United States Environmental Protection Agency ("EPA") Office of General Counsel noted that "in only six years Mexico has established the foundation of a credible legal framework to control environmental contamination."³⁵ Many United States environmental statutes are media specific such as the Clean Water Act, the Clean Air Act and the Resource Conservation and Reclamation Act. They were generally developed individually and in response to specific crises. Mexico's Ecology Law, however, has a broad reach contained in one comprehensive law.³⁶ Furthermore, Mexico's legislature was able to enact such a comprehensive legal framework in a short amount of time because Mexican law derives expressly from the 1917 Mexican Constitution.³⁷

At the top of the framework provided by the Ecology Law, sits the Ministry of Social Development ("SEDESOL"), the executive agency entrusted to administer the Ecology Law.³⁸ It issues ecological Technical Standards which, as defined by the Ecology Law, set forth the "requirements, specifications, conditions,

(manuscript at 219, on file with author).

32. Bejesky, *supra* note 15, at 274 (relying on investigations done by environmentalists who interviewed public leaders, businesses and, white and blue collar workers).

33. Douglas W. Alexander & L. Roberto Fernandez R., *Environmental Regulation of Business in Mexico*, in *AN INTRODUCTION TO DOING BUSINESS IN MEXICO* 233-34 (William E. Mooz, Jr., ed., 1995).

34. *Id.* at 234-35.

35. Anne Rowley, *Mexico's Legal System of Environmental Protection*, 24 *ENVTL L. REP.* 10,431, 10,448 (1994).

36. *Id.* at n.12.

37. *Id.* at 10,432.

38. Alexander & Fernandez, *supra* note 33, at 235 (SEDESOL stands for the Secretaria de Desarrollo Social or the Ministry of Social Development).

procedures, parameters, and permissible limits that must be observed” where activities cause or may cause ecological imbalance, or harm the environment.³⁹

NAFTA directives for the harmonization of member state’s environmental laws make it “likely that Mexico will develop a body of Technical Standards comparable in scope” to those issued by the EPA.⁴⁰ During the mid-1990s, Mexico intended to complete and promulgate 71 new technical norms. This was touted a “very ambitious goal” due to the Federal Law on Measurements and Standardization enacted in 1993, which required proposed norms to achieve desired goals at the highest net benefit feasible to society feasible.⁴¹ Although capable of hindering environmental legislation, this requirement does not appear to be as rigid as the cost-benefit analysis requirements of Executive Order 12291 for United States regulatory initiatives.⁴² This executive order requires all United States Federal agencies take no regulatory action unless they chose the regulatory alternative “involving the least cost to society” with objectives that will “maximize net benefits to society.”⁴³

Beyond issuing technical standards, SEDESOL also has the important task of Environmental Impact Evaluation. Under Article 28 of the Ecology Law, all works or actions that may either 1) cause ecological imbalance or 2) exceed the limits and conditions of environmental regulations or technical standards, “cannot be carried out without preparation of an environmental impact statement environmental impact statements and prior authorization from the corresponding federal, state or local environmental agencies.”⁴⁴ Under the United States National Environmental Policy Act of 1969 (“NEPA”)⁴⁵ and its implementing regulations, EISs are required to be prepared only for “major Federal actions significantly affecting the quality of the human environment.”⁴⁶ Since Mexico has a greater amount of nationalized industries that function as federal entities⁴⁷ and EISs are required

39. *Id.* at 235-36.

40. *Id.*; see also Michael Robins, Comment The North American Free Trade Agreement: The Integration of Free Trade and the Environment, 7 *TEMPLE INT’L. L. J.* 123, 129 (1993) (stating that harmonization of Technical Standards are common in trade liberalizing agreements).

41. Rowely, *supra* note 35, at 10,433 (citing Federal Law on Measurement and Standardization, in *Diario Oficial de la Federación*, July 1, 1992, at 48-66).

42. *Id.* (citing Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (Feb. 19, 1981)).

43. *Id.* at n.23.

44. Alexander & Fernandez, *supra* note 33, at 237.

45. 42 U.S.C. § 4321, et seq. (2000).

46. Rowely, *supra* note 35, at 10,436 (citing a portion of the National Environmental Protection Act, 42 U.S.C. § 4332(C)).

47. JAMES E. HERGET & JORGE CAMIL, *AN INTRODUCTION TO THE MEXICAN LEGAL SYSTEM* 72 (William S. Hein ed., 1978).

in Mexico for all activities with potential environmental impact, public and private,⁴⁸ Mexico's impact evaluation system is potentially more comprehensive than the United States system.

By requiring risk studies and contingency plans to combat environmental emergencies, Mexico's environmental impact evaluation system may also be broader in its scope of monitoring highly dangerous activities than the United States system.⁴⁹ However, the Mexican environmental impact evaluation system may be less comprehensive than the United States system in that it does not require evaluation of the cumulative impact of past, contemporaneous or potential future projects.⁵⁰ Whether more comprehensive or broader in scope, Mexico's environmental policies are significantly more centralized due to the source of most environmental laws concentrated in the federal Ecology Law.⁵¹

1. State versus Federal Authority

This centralization, however, does not mean complete deprivation of participation for states. Title I, Chapter II of the Ecology Law allows state and local governments to legislate in all environmental areas except those specifically reserved to the Federal Government, so long as such laws are consistent with the Ecology Law.⁵² Article 46 gives federal, state, and local authorities power to designate protected natural areas, each with certain specific restrictions depending on the character of the area in question.⁵³ Special reserves of land which specifically prohibit population centers in such areas can be established so long as the areas are "biogeographically" representative of the country and their uses are educational, recreational or investigative in nature.⁵⁴ National parks, natural monuments, national marine parks, areas for protection of natural resources, areas for the protection of flora and fauna, urban parks, and zones subject to ecological preservation can also be established with only the latter two open to State and local jurisdiction.⁵⁵

As an example of State and local power vis a vis federal power, the Mexican State of San Louis Potosi entered the international spotlight when its ecological decree of September 20, 1997

48. Alexander & Fernandez, *supra* note 33, at 237.

49. Rowely, *supra* note 35, at 10,436

50. *Id.*

51. Joseph E. Sinnott, *The Classic Civil/Common Law Dichotomy and its Effect on the Functional Equivalence of the Contemporary Environmental Law Enforcement Mechanisms of the United States and Mexico*, 8 *DICK. J. ENVTL. L. & POL'Y* 273, 285-86 (1999).

52. Alexander & Fernandez, *supra* note 33, at 236-37.

53. *Id.*

54. *Id.*

55. *Id.* at 239-41.

expropriated land owned by an American corporation for the preservation of certain species of cacti.⁵⁶ This action by the state came after a controversy arose between its municipality of Guadalcázar, near where the American corporation built their landfill without receiving a municipal permit, and Mexican federal authorities, which represented that the corporation had the authoritative permission required to commence the project.⁵⁷ The municipal government officially denied a permit but only after the corporation secured permission to operate the landfill through an agreement with federal sub-agencies of the Secretariat of the Environment, Natural Resources and Fishing.⁵⁸ Although the controversy between local and federal power was never decided on its merits,⁵⁹ it is representative of the new conflict of laws issues flowing from Mexico's promulgation of environmental protection policies.

2. Public Participation

Mexico's Constitution states that all government power is derived from the people⁶⁰ and it provides the mechanism of amparo to empower citizens to call upon Constitutional rights embodied therein.⁶¹ Amparo or "shelter" suits grant federal courts jurisdiction to decide controversies arising from laws or acts of authorities that violate individual guarantees under the Constitution. Such suits are limited by Article 107, which requires that amparo suits be prosecuted at the instance of only injured parties and that such judgments only affect the right of the individual who brought the suit.⁶² This express grant of federal judicial jurisdiction by the Mexican Constitution is comparable to the United States' version of standing. Considering the many nationalized industries which count as federal entities, citizen

56. *United Mexican States v. Metalclad Corp.*, [2001] 89 B.C.L.R.3d 359 (Can.), additional reasons stated in [2001] 95 B.C.L.R.3d 169 (Can.), *aff'g* *Metalclad Corp. v. United Mexican States*, 16 ICSID REV.—FOREIGN INV. L.J. 168 (2001) (Int'l Centre for Settlement of Investment Disputes Aug. 30, 2000), available at 40 I.L.M. 36 (2001) (holding that Metalclad's property had been improperly expropriated in violation of Article 1110 of NAFTA).

57. *Id.*

58. *Id.*

59. *Id.* The writ of amparo (defined *infra* text accompanying notes 59-60) filed by the municipality was ultimately dismissed on the basis that such a proceeding was not available to a municipal body (as opposed to a private person) for the purpose of challenging a decision of another level of government, the proper method being a Constitutional Controversy.

60. *Constitución Política de los Estados Unidos Mexicanos*, [CONST. 1917] [Constitution] tit. I, ch. I, art. 39 (Mex.) (as amended), translated in ORGANIZATION OF AMERICAN STATES, CONSTITUTION OF THE UNITED MEXICAN STATES (1964).

61. *Id.* tit. II, ch. IV, art. 103.

62. *Id.* art. 107.

enforcement is potentially greater in Mexico than in the United States.⁶³

The large public role with respect to the Ecology Law begins with Article 18, which requires SEDESOL to promote the participation of social groups and organizations in all environmental planning. Article 33 of the Ecology Law and Article 39 of the Environmental Impact Regulation ("EIR"), require SEDESOL to allow any person to consult the files of any mandatory EIS. Article 41 of EIR allows anyone to request that SEDESOL compel any entity undertaking an activity with potential environmentally negative effects to submit an EIS. The Federal Law on Measurements and Standardization requires that proposed Norms be published and subject to a ninety-day public review and comment period.⁶⁴

Despite these avenues open to civil society, there have been no regulations adopted to implement the public participation provisions of the Ecology Law which would provide needed guidance to the public on how to obtain access to files on mandatory EISs.⁶⁵ Unlike the United States' NEPA requirement for an opportunity for public comment on draft EISs, the Mexican public cannot even view an EIS until it is final.⁶⁶ But all hope is not lost for public access and participation in the promulgation of environmental legislation. Non-governmental organizations have been growing in political strength since the meeting between the Mexican Secretary of Social Development on May 28, 1992 and more than 100 environmental ("NGOs"), which resulted in documented procedures for consultation on matters concerning the environment.⁶⁷

III. EXAMPLES OF MEXICO'S ENVIRONMENTAL ENFORCEMENT

Regardless of who promulgates them, or with what level of public participation, environmental legislation is worthless unless effectively enforced. As a general example, the maquiladora program, which dates back to the 1965 "Border Industrialization Program" and was intended to promote Mexican exports,⁶⁸ resulted in rapid industrialization near the United States-Mexican border. This program ultimately lead to serious environmental contamination and pollution-related diseases.⁶⁹ Under the

63. HERGET & CAMIL, *supra* note 8, at 72.

64. Rowely, *supra* note 35, at 10,434 n.39.

65. *Id.* at 10,435.

66. *Id.* at 10,436.

67. *Id.* at 10,434.

68. Carlos Angulo & Jorge Vazquez, Export Promotion Programs, in *AN INTRODUCTION TO DOING BUSINESS IN MEXICO* 87 (William E. Mooz, Jr. ed., 1995).

69. Laura J. Van Pelt, Countervailing Environmental Subsidies A Solution to the

maquiladora program “foreigners were permitted to set up 100% foreign owned and managed companies” that could import, duty-free, all component and maintenance parts in order to eventually export them from Mexico abroad.⁷⁰ “In 1990 there were an estimated 1,857 plants and 449,587 workers in the maquiladora industry.”⁷¹ This number had risen to over 560,000 workers by 1994.⁷² Between 1994 and 1998, foreign investment in the maquila industry grew 24% annually and by September of 2000 made up 21% of the total foreign investment within Mexico.⁷³ Due to high levels of industrialization and congestion, the establishment of maquiladoras within Mexico City faced severe restrictions unless investing companies did not generate pollution during production.⁷⁴ Nevertheless, as of 1994, only slightly more than half of the United States maquiladora plants were complying with Mexican hazardous waste disposal regulations.⁷⁵

During the United States Congressional NAFTA negotiations, many NGOs and individuals warned of a myriad of detrimental consequences of further trade liberalization—a possible increase of trans-boundary pollution having already begun in the maquiladora program; the migration of United States industries to escape expensively strict United States environmental laws increasing overall pollution in Mexico; the integration and interdependence of bi-national economics leading to the harmonization of environmental laws and an overall decrease in the United States’ strictness; and under-regulated Mexican imports posing health risks from misuse of pesticides.⁷⁶ These concerns were politically appeased with the NAAEC, the supplemental environmental

Environmental Inequities of the North American Free Trade Agreement, 29 *TEX. INT’L L.J.* 123, 126 (1994).

70. *Id.* at n.23.

71. *Id.*

72. Elvia R. Arriol, *Voices from the Barbed Wires of Despair: Women in the Maquiladoras, Latina Critical Legal Theory, and Gender at the U.S.-Mexico Border*, 49 *DePaul L. Rev.* 729, 755 n.115 (2000) (criticizing a range of socioeconomic and cultural effects resulting from the maquiladora industry).

73. Schatan, *supra* note 31, at 221.

74. Angulo & Vazquez, *supra* note 68, at 88.

75. Van Pelt, *supra* note 69, at 133.

76. Rowely, *supra* note 35, at n.39; 139 *CONG. REC.* 9875-10048 (daily ed. Nov. 17, 1993) (debate in the United States House of Representatives); 139 *CONG. REC.* 16602-22, 16709, & 16712-13 (daily ed. Nov. 20, 1993) (debate in the United States Senate). Cf. Schatan, *supra* note 31, at 212 (concluding that no shift of pollution-intensive industries to Mexico has occurred since the signing of NAFTA, although neither has intensified trade created funds used for environmental protection); see generally Alejandro Nadal, *Corn in NAFTA Eight Years After: Effects on Mexican Biodiversity*, in *GREENING NAFTA: THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION* (David Markell & John Knox eds., forthcoming July 2003) (manuscript at 228, on file with author) (discussing the detrimental effects of intensified trade between the United States and Mexico on the genetic resources on the North American ecosystem).

agreement attached to NAFTA but because the NAAEC provides for very limited relief to individuals, it offers the parties to NAFTA little incentive to actually improve environmental enforcement.⁷⁷

As a result of this debate, two theories accounting for the disparity of enforcement effectiveness between the United States and Mexican environmental law have been documented by Joseph E. Sinnott: inadequate funding and differing legal traditions (civil law versus common law) theory.

A. Inadequate Funding

The more prevalent inadequate-funding theory is supported by the fact that Mexico's overall enforcement performance has increased as more money has been devoted to enforcement endeavors.⁷⁸ "During the second half of his administration, President Salinas increased the budget for environmental enforcement steadily and significantly, which translated into a similar increase in inspections and plant closures."⁷⁹ When the Ecology Law was originally adopted, the Mexican government increased the environmental protection budget from \$95 million in 1988 to \$1.8 billion by 1991.⁸⁰ Of those funds, enforcement allocations increased from \$4.2 million in 1988 to \$78 million by 1992.⁸¹ Actual enforcement followed suit; the amount of inspections tripled and the amount of fines assessed and plants either partially or permanently closed increased one hundred fold between 1988 and 1993.⁸²

However, after NAFTA was adopted by Mexico the rate of environmental inspections fell dramatically leading some to speculate the motives behind what initially appeared to be improvements.⁸³ As of 1999, Mexico's gross domestic product ("GDP") was growing by 10-14% annually.⁸⁴ However, only 0.6% of the GDP are being invested into environmental protection.⁸⁵ Mexico, unfortunately, has not attempted to encourage industry to comply with environmental rules by providing federal money to

77. Van Pelt, *supra* note 69, at 132; North American Agreement on Environmental Cooperation, Sept. 13, 1993, Can.-Mex.-U.S., 32 I.L.M. 1480 (1993).

78. Sinnott, *supra* note 51, at 274.

79. Alexander & Fernandez, *supra* note 33, at 261.

80. Sinnott, *supra* note 51, at 295.

81. *Id.*

82. *Id.*

83. Kevin P. Gallagher, *The CEC and Environmental Quality: Assessing the Mexican Experience*, in *GREENING NAFTA: THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION* (David Markell & John Knox eds., forthcoming July 2003) (manuscript at 193, on file with author).

84. Schatan, *supra* note 31, at 219.

85. *Id.*

purchase new technology.⁸⁶ Much of the maquila industry lacks sufficient infrastructure to combat the serious environmental damage caused by the intensified trade along the border.⁸⁷ Between 1985 and 1999, scholars calculate, that Mexico has suffered the following increases in environmental damage:

[R]ural soil erosion grew by 89%, municipal solid waste by 108%, water pollution by 29%, and air pollution by 97%. Disaggregating air pollution, sulfur dioxide grew by 42%, nitrous oxides by 65%, hydrocarbons by 104%, carbon monoxide by 105%, and particulate matter by 43%.⁸⁸

B. Differing Legal Traditions

The more adventurous differing legal traditions theory was developed from imposing classic models of the civil and common law traditions on to their respective enforcement mechanism. Regardless, a closer look at each environmental enforcement mechanisms shows that differing legal traditions have little impact on enforcement effectiveness.⁸⁹ The environmental enforcement mechanisms found in both countries today defy the classic and stereotypical characteristics of their respective legal traditions.⁹⁰ Comparing early models of these legal traditions emphasizes the differences in the sources of law and the role played by the judiciary in the law-making process.⁹¹ The classic model says that civil law codes like the one in Mexico rely less on binding judicial precedent and more on administrative proceedings as a means of developing and enforcing the law.⁹² In contrast, judicial review of constitutional violations by the Mexican government through the writ of amparo has given rise to the limited form of binding precedent known as “jurisprudencia.”⁹³ Taken together with the fact that United States law has come to rely primarily on statutory sources of law, especially in the area of environmental protection, this represents a convergence of the legal traditions towards “practical uniformity.”⁹⁴

86. Gallagher, *supra* note 83, at 193.

87. Schatan, *supra* note 31, at 221.

88. Gallagher, *supra* note 83, at 189-90.

89. *Id.* at 275.

90. *Id.* at 279.

91. *Id.*

92. Rowely, *supra* note 35, at 10, 432.

93. Sinnott, *supra* note 51, at 281.

94. *Id.*

Sinnott also discusses another possible basis for the disparity in enforcement effectiveness: the fact that environmental enforcement efforts are primarily centralized in Mexico's federal government under SEDESOL even though the Ecology Law does not mandate this.⁹⁵ Most municipalities and even States lack adequate resources to "implement their own enforcement mechanisms" leaving SEDESOL to pick up the slack.⁹⁶ According to the Ecology Law, inspections should be coordinated among federal, state and local authorities, with states and municipalities empowered to inspect cities and verify compliance, "even in areas and matters of federal jurisdiction."⁹⁷ Enforcement efforts are not centralized under the Environmental Protection Agency ("EPA"), SEDESOL's United States counterpart; rather states and municipal governments play an active role in administering environmental protection needing only to report their progress back to the EPA.⁹⁸ Neither legal framework is more advantageous if implemented properly. Centralized systems with sufficient staffs of inspectors can provide as comprehensive jobs as local ones; while decentralized systems, if there is efficient cooperation between authorities, can provide coordinated, holistic evaluations of the environmental impact on individual entities.⁹⁹

As further evidence of systemic convergence, the EPA's continual commitment to avoid litigation has resulted in reliance on negotiated settlements and has diminished their reliance on the judiciary for dispute resolution.¹⁰⁰ Nearly 95% of all administrative and civil judicial actions are resolved through negotiated consent agreements, which reflects the EPA's recognition of litigation as an inefficient dispute resolution tool.¹⁰¹

C. Enforcement Trends and Public Participation

Negotiated settlements and voluntary environmental audits have provided Mexico low-cost enforcement mechanisms.¹⁰² Through the threat of stiff sanctions, SEDESOL is able to negotiate settlements to remedy both current violations and even pre-1988 violations, to which the Ecology Law's retroactivity does not reach, in exchange for leniency on the current violation.¹⁰³ Through

95. *Id.* at 287.

96. *Id.* at 288.

97. Alexander & Fernandez, *supra* note 33, at 256.

98. Sinnott, *supra* note 51, at 288.

99. *Id.* at 289.

100. *Id.* at 291.

101. *Id.*

102. Alexander & Fernandez, *supra* note 33, at 260-61.

103. *Id.* at 260.

environmental audits, if companies risking environmental violation voluntarily submit to inspection and commit to remediation, SEDESOL tacitly waives its right to sanction the company and gives it a reasonable amount of time to carry out remediation.¹⁰⁴

Despite the drastic disparity in funding, e.g. in 1991, Mexico's budget towards environmental enforcement was \$.48 per capita compared to \$24.40 per capita in the United States,¹⁰⁵ Rowely's article concluded that Mexico's environmental law had a "solid foundation and beginning structure that [was] sufficient to alleviate some of the concerns expressed by NGOs and others. . . ."¹⁰⁶

Mexico's government has taken some steps to further this progress. In June of 1992, Mexico decentralized SEDESOL into several units including the National Institute of Ecology ("INEC") and the Federal Attorney for the Protection of the Environment ("PFPA").¹⁰⁷

Citizens are able to register complaints about harmful environmental conditions to PROFEPA, which is then responsible for receiving, investigating and otherwise addressing such complaints.¹⁰⁸ Unfortunately, the Ecology Law only grants the right that complaints to PROFEPA must, within 30 days, receive confirmation that an investigation has occurred and what, if any, enforcement steps are being taken.¹⁰⁹

Whereas citizens' groups and non-profit organizations serve in the United States as "private attorneys general" by monitoring industry and government compliance with environmental laws, since 1992 Mexico lacked all of the following: "community right-to-know" laws which allow public monitoring of industrial compliance; required examinations of alternative actions or opportunities for public comment on environmentally impacting projects; and citizen suit provisions authorizing citizens to bring actions against Mexican industries or the government for noncompliance.¹¹⁰ But would these mechanisms be appreciated or even utilized? Rapid industrialization in response to financial crisis tends to develop public interest only in regulations that protect labor and society interests, but it does not enhance environmental protection despite blatant detriments to the natural environment.¹¹¹ Without any

104. *Id.* at 261.

105. Alicia A. Saimos, *NAFTA's Supplemental Agreement: In Need of Reform*, 9 *N.Y. INT'L L. REV.* 49, 63 (1996).

106. Rowely, *supra* note 35, at 10,432.

107. John R. Zebrowski, *Pollution Gets Attention: Mexico's Environmental Laws Get Tougher*, 16 *NAT'L L. J.* 25, 28 (1993) (PROFEPA stands for la Procuraduría Federal para la Protección Ambiental or the Federal Procurator for Environmental Protection; INE stands for el Instituto Nacional de Ecología or the National Institute of Ecology).

108. Rowely, *supra* note 35, at 10,434.

109. *Id.*

110. Van Pelt, *supra* note 69, at 133.

111. Bejesky, *supra* note 15, at 253-54.

grassroots incentives, it is possible that NAFTA's intermingling of environmental concerns with Mexico's dependence on foreign direct investment was the best way to foster change in their "environmental protection regime."¹¹²

But to rely on decisions made at the NAFTA level, far from the level where their effects take place, may run the risk that international political interests will take priority over local environmental interests. Mexico's El Cuchillo Dam Project offers an unfortunate example of the consequences that result from an entanglement of international politics with environmental protection leading to a lack of vigorous environmental enforcement. The Project's immediate harms caused severe reduction of water levels in certain reservoirs down river, the remainder of which became highly polluted, centered in the Mexican State of Tamaulipas.¹¹³ The dam project took place in less than six years between 1988 and 1994 during former President Carlos Salinas de Gortari's administration.¹¹⁴ A comparable project in the United States would have taken over ten years just to get through the litigation over potential environmental impacts.¹¹⁵ The environmental impact statements made by Mexican authorities and released by the Inter-American Development Bank ("IDB") that funded the project never contemplated potential impacts to Tamaulipas.¹¹⁶

Raul M. Sanchez compared the actions of both the United States and Mexican governments with respect to the Project, with principles found in the International Conference on Water and the Environment, on January 31, 1992. These principles state that development and management of water projects should be based on a "participatory approach," where each level of user, planner and policy maker, is involved and aware of the project's importance.¹¹⁷ Such an approach involves decisions being made at the lowest appropriate level with full public consultation with regard to planning and implementation.¹¹⁸ Against this measure Sanchez

112. *Id.* at 272-73.

113. Raul M. Sanchez, Mexico's El Cuchillo Dam Project: A Case Study of Nonsustainable Development and Transboundary Environmental Harms, 28 U. MIAMI INTER-AM. L. REV. 425, 429 (1996) [hereinafter Sanchez, El Cuchillo I].

114. *Id.* at 426.

115. Raul M. Sanchez, Mexico's El Cuchillo Dam Project: A Case Study of Nonsustainable Development and Transboundary Environmental Harms, 30 U. MIAMI INTER-AM. L. REV. 629, 642 (1999) [hereinafter Sanchez, El Cuchillo II] (relying on D. Kevin Dunn & Jessica L. Wood, Substantive Enforcement of NEPA Through Strict Review of Procedural Compliance: Oregon Natural Resources Council v. Marsh in the Ninth Circuit, 10 J. ENVTL. L. & LITIG. 499, 501 (1995)).

116. Sanchez, El Cuchillo I, *supra* note 113, at 434.

117. *Id.* at 425.

118. *Id.* at 425, n.1.

found that both governments fall short: the Mexican government for directly failing to consult the population of Tamaulipas,¹¹⁹ and the United States government for failing to recognize the indirect impacts on American citizens whose taxes indirectly contributed to the Project through the IDB.¹²⁰

IV. CONCLUSION

Through the unfortunate example of El Cuchillo, a microcosmic landscape of Mexico's environmental protection policies unfolds, leaving foreign investors and the common people of Mexico in diametric tension. The federal authorities, with primary influence over the shape and enforcement of Mexico's environmental laws, play the critical role of intermediary between the two groups. Meanwhile, as Mexico's states and municipalities receive more tax revenues from foreign investment funds, their potential to eventually exercise their legislative and policing influence over their own environments grows. At Mexico's grassroots level, however, participation seems more ambiguous. While the NAAEC provides Mexico's general public with a unique political mechanism for environmental protection,¹²¹ the public's capacity to formally participate on matters of promulgation and enforcement in Mexico may remain deficient as the debate whether to prioritize poverty alleviation over environmental protection takes place among international trade ministers with little accountability or transparency.

119. *Id.* at 429, n.12.

120. *Id.* at 434.

121. See generally Jonathan Graubart, Giving Meaning to New Trade-Linked "Soft Law" Agreements on Social Values: A Law in Action Analysis of NAFTA's Environmental Side Agreement, 6 *UCLA J. INT'L L. & FOREIGN AFF.* 425 (2001-2002) (demonstrating how environmental activists can use the citizen submission process as political pressure on Mexico to enforce environmental standards); see also Paul Stanton Kibel, The Paper Tiger Awakens: North American Environmental Law After the Cozumel Reef Case, 39 *COLUM. J. TRANSNAT'L L.* 395 (2001) (concluding that the CEC's factual record, while not determining that Mexico failed to enforce its environmental law, demonstrates Mexico's action inconsistent with Mexican environmental law).