

KEY ENVIRONMENTAL LEGISLATION FOR CUBA'S TRANSITION PERIOD

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There is a growing body of literature that addresses the environmental problems which Cuba faces today and which most likely will, in similar or aggravated form, be present when the country makes its transition to a free-market, democratic society.² Likewise, the environmental legislation that has been enacted to date in Cuba has also been the subject of some analysis. Relatively little attention, however, has been given to the need that will develop during Cuba's transition for suitable legislation to provide environmental protection and remediation of the environmental damage already sustained. There has also been little in the way of analysis of the inevitable tradeoffs between environmental needs and the political and economic realities of the transition, and between the potentially inconsistent goals of stimulating economic growth and addressing the environmental needs of the country.

This paper represents a modest attempt to start addressing these issues. The task is as daunting as it is important. Like a snake biting its own tail, the health of the environment is inseparable from the prospects for Cuba's economic growth and well-being; on the other hand, environment and development are likely to compete in the short term for governmental funds and legislative priority. The paper does not seek to resolve these fundamental issues, but only to offer suggestions as to potential compromises between conflicting sets of legitimate priorities.

CUBA'S CURRENT FRAMEWORK FOR ADDRESSING ITS ENVIRONMENTAL PROBLEMS

Cuba has in place a reasonably detailed legal framework for environmental protection. The obligation to protect the environment is vested on both the State and the citizenry by the Constitution. A first framework environmental law was enacted in 1981, and a new law became effective in mid-1997. Environmental legislation in Cuba consists today of trea-

1. The author gratefully acknowledges the assistance of Mark Chavez and Edgar Velazquez in the preparation of this paper.

2. This paper will not describe in detail the environmental problems facing Cuba. Soil degradation, water contamination, industrial pollution and the threat to natural habitats and bio-diversity are primary environmental concerns, although others (e.g., urban decay, poor sanitary conditions, air pollution) are also important problems. For accounts of the environmental situation in Cuba *see, e.g.*, Sergio Díaz-Briquets & Jorge Pérez-López, CONQUERING NATURE: THE ENVIRONMENTAL LEGACY OF SOCIALISM IN CUBA (unpublished manuscript on file with Shaw Pittman, Washington D.C. [hereinafter LEGACY]; José R. Oro, *The Poisoning of Paradise: The Environmental Crisis In Cuba* (1992) [hereinafter ORO]; Carlos Wotzkow, *NATUMALEZA CUBANA* (1998); Agencia Ambiental Entorno Cubano (AAMEC), *Informe Anual de la AAMEC: Situación Ambiental de Cuba, 1997* (1997); República de Cuba, Ministerio de Ciencia, Tecnología y Medio Ambiente, *Consulta Nacional Río +5, Taller "Medio Ambiente y Desarrollo"* (1997); María D. Espino, *Environmental Deterioration and Protection in Socialist Cuba*, in *CUBA IN TRANSITION—VOLUME 2, ASSOCIATION FOR THE STUDY OF THE CUBAN ECONOMY* 327 (Aug. 1992) [hereinafter ESPINO].

ties, laws and administrative regulations.³ In addition, agencies have been created to implement the environmental laws and regulations. The primary environmental protection agency is the Ministry of Science, Technology, and the Environment ("CITMA"). CITMA replaced its predecessor, the National Commission for Protection of the Environment and the Rational Use of Natural Resources ("COMARNA") in 1994. Other government organs, including several ministries, retain environmental powers and responsibilities.

Environmental Laws

Law 33 of 1980: Cuba's initial environmental legal framework was founded on Article 27 of the Constitution of 1976.⁴ That article stipulated that all citizens and cognizant government agencies are to take measures to ensure a clean environment.⁵ Supported on this broad mandate, in 1981 the Cuban National Assembly passed the first environmental law enacted by Cuba's socialist government. Law 33, known as the "Law on Environmental Protection and the Rational Use of Natural Resources," remained Cuba's key environmental law for nearly two decades.⁶

Law 33 provided an ineffective mechanism for addressing Cuba's serious environmental problems.⁷ While the intent of Law 33 was to "establish the ba-

sic principles to conserve, protect, improve and transform the environment and the rational use of natural resources, in accordance with the integral development policies" of the Cuban government, the law did not set forth any concrete steps towards achieving its goals.⁸ Law 33 provided only general statements of policy with no implementation directions.⁹ The law's substantive provisions were also so vague that they did not establish a useful framework from which enforcement actions could be taken.¹⁰ The failure of Law 33 to provide definitions, environmental contamination standards, or means of enforcement made implementation of the statute nearly impossible.¹¹ In addition, environmental regulations issued by government agencies a decade after the law's enactment were too general and unenforceable.¹² These shortcomings rendered Law 33 ineffectual.

Constitution of 1992: In 1992, Cuba's current Constitution was enacted.¹³ Art. 27 of the new Constitution states:

The State protects the environment and the natural resources of the country. It recognizes their close connection with sustainable social and economic development, so as to make human life more rational and ensure the survival, well-being and safety of the current and future generations. It is the responsibility of the cognizant State organs to apply this policy.

3. For the texts of number of national laws, decrees and other regulations applicable to Cuba's environment see Rajendra Ramlogan, *Protection of the Environment in Cuba: Piercing the Caribbean Iron Curtain*, 29 U. Miami Inter-Am. L. Rev. 37, 90 (1998) [hereinafter Ramlogan].

4. See Constitución de la República de Cuba (1976) art. 27, published in *Gaceta Oficial* (Feb. 24, 1976) at p. 7.

5. Article 27 of the 1976 Constitution provided: "To ensure the wellbeing of citizens, the State and society are the protectors of nature. It is incumbent on the competent state organs, and on each citizen, to see to it that the waters and the air remain clean, and that the soil, flora and fauna be protected."

6. Ley Número 33 de Protección del Medio Ambiente y del Uso Racional de los Recursos Naturales, published in *Gaceta Oficial*, Feb. 12, 1981.

7. See generally B. Ralph Barba and Amparo E. Avella, *Cuba's Environmental Law*, in CUBA IN TRANSITION—VOLUME 5, ASSOCIATION FOR THE STUDY OF THE CUBAN ECONOMY 276 (Aug. 1995) [hereinafter Barba and Avella].

8. *Id.*

9. *Id.*

10. *Id.*

11. *Id.*

12. Fredric Evenson, Note, *Comment: A Deeper Shade of Green: The Evolution of Cuban Environmental Law and Policy*, 28 Golden Gate U. L. Rev. 489, 507 (1998) [hereinafter Evenson].

13. CONSTITUCION DE LA REPUBLICA DE CUBA (1992), published in *Gaceta Oficial* (Aug. 1, 1992).

It is the duty of all citizens to contribute to the protection of the waters and the air, and to preserve the soil, the flora, the fauna, and all of nature's rich potential.

The language in Art. 27 in the new Constitution has been interpreted as an effort to bring it in line with the conclusions of the 1992 Rio Summit Declaration, and expressly link environmental protection with sustainable development.¹⁴ Whatever the rationale of the Cuban Government in implementing the change, it evidences an intent to link potential environmental initiatives to the country's developmental needs, as well as the other way around.

Law 81 of 1997: In 1997, the National Assembly sought to rectify the shortcomings of Law 33 by repealing it and enacting a new, comprehensive and detailed environmental law, known as the "Law of the Environment."¹⁵ Law 81's express intent is to create a legal framework through which socioeconomic activities are developed in a manner that is environmentally compatible¹⁶ based on the principles of sustainable development.¹⁷ To this end, the law designates the Ministry of Science, Technology, and the Environment (CITMA) as the primary administra-

tive organ in charge of advancing environmental policy and directing its enforcement.¹⁸

Law 81 establishes a three-tier system of environmental legal standards.¹⁹ The first tier is Law 81 itself; the second tier are sector-specific laws and decrees to be issued by the National Assembly or the Council of Ministers; and the third tier are detailed regulations and standards to be issued by CITMA.²⁰

- a. Establishment of CITMA as Central Environmental Agency: Law 81 constitutes an improvement over Law 33 in several significant respects. First, it establishes CITMA as the central, ostensibly independent, agency for environmental protection, with power and authority to resolve environmental issues—a situation that did not exist under the previous law.²¹ Law 81, however, does not expressly repeal the system of interagency responsibilities set in Law 33 and its implementing regulation, Decree-Law No. 118 of 1990.²² Instead, Law 81 establishes that "regulations issued to complement Law No. 33 of January 10, 1981 remain in effect as long as they do not contradict this Law. Within two years of promulgation of this Law, the competent agencies, in coordination with [CITMA], will present

14. See LEGACY, *supra* note 2, at 3:4; EVENSON, *supra* note 12, at 500.

15. Ley Número 81 del Medio Ambiente, *published in* Gaceta Oficial, July 11, 1997 [hereinafter Law 81].

16. *Id.* art. 9(a).

17. *Id.*, art.1. See Nicholas A. Robinson, *Legal Structure and Sustainable Development: Comparative Environmental Law Perspectives on Legal Regimes for Sustainable Development*, 3 WID. L. SYMP. J. 247 (1998) for a general discussion of the interrelationship between environmental law and sustainable economic development.

18. Law 81, *supra* note 15, art. 11.

19. EVENSON, *supra* note 12, at 504-09.

20. EVENSON, *supra* note 12, at 504. The Council of Ministers is supposed to issue within three years of enactment of Law 81 such additional legislation as is necessary to fully implement the law. Law 81, *supra* note 15, First Final Provision.

21. The main environmental agency established by Law 33, COMARNA, was only a coordinating agency comprised of representatives from 21 state agencies, the Presidents of 14 provincial environmental commissions, and representatives of mass organizations. COMARNA had no power to resolve inter-agency disputes, nor it had authority to enforce environmental law and regulations, which were implemented by other state agencies with a greater interest in development than in protecting the environment. David S. Collis, *Environmental Implications of Cuba's Economic Crisis*, in Georgetown University Cuba Briefing Paper Series, Number 8 (July 1995) [hereinafter Collis] at 1-2; EVENSON, *supra* note 12, at 512; ESPINO, *supra* note 2, at 339; Sergio Díaz-Briquets & Jorge Pérez-López, *The Environment and the Cuban Transition*, in Cuba In Transition—VOLUME 7, Association for the Study of the Cuban Economy (ASCE-7) 488, 492 (Aug. 1997) [hereinafter Environment and Transition].

22. Decree-Law No. 118 of January 18, 1990 "On the Structure, Organization and Operation of the National System for the Protection of the Environment and the Rational Use of Natural Resources (Gaceta Oficial, January, 18, 1998). Law 81, however, expressly repeals Law 33 and Decree-Law No. 118. Law 81, *supra* note 15, Second Final Provision.

to the Council of Ministers proposals for the modification of those regulations, when required.”²³ This provision is interpreted as leaving in the other agencies (such as the Ministry of Tourism, the Ministry of Fishing Industries, etc.) the environmental responsibilities they previously had, but now subject to CITMA's leadership.²⁴

CITMA is under the authority of the Council of Ministers with regard to the approval of the National Environmental Strategy and the National Program of Environment and Development, the resolution of disputes between state agencies, the designation of environmentally protected areas and buffer zones, and the taking of measures with respect to specific areas, ecosystems or resources, as warranted.²⁵ In reality, the Council of Ministers and President Fidel Castro have the final say on environmental issues, thus CITMA is not truly an “independent agency” as the term is applied in Western democracies.

- b. Requirement for Environmental Evaluation of New Projects: Another way in which Law 81 differs from its predecessor is that it provides mechanisms for incorporating environmental considerations into development projects. Law 81 includes provisions to require the issuance of

permits or licenses in order to engage in activities that may affect the environment.²⁶ Article 24, for example, requires any activity that may significantly affect the environment to secure an environmental license through CITMA.²⁷ In addition, an environmental impact assessment (“EIA”) must be submitted to CITMA to determine whether a particular activity requires a license.²⁸ The law defines a long list of construction projects and activities that require an EIA.²⁹ Among these are construction of tourism installations, industrial parks, airports, petrochemical and chemical facilities, hospitals, roads, and mining operations.³⁰

In addition, Law 81 requires CITMA to set up an environmental inspection system intended to prevent environmentally destructive activities.³¹ The inspectors have the power to define corrective measures, establish deadlines for achieving compliance, and seek fines and other sanctions against violators.³²

It should be noted that before Law 81 was enacted, Cuba had instituted measures to require the performance of environmental impact assessments in connection with joint ventures involving foreign investors.³³ Nonetheless, Law 81 makes the performance of EIAs and the securing

23. Law 81, *supra* note 15, First Transitory Provision.

24. EVENSON, *supra* note 12, at note 175.

25. Law 81, *supra* note 15, art. 17.

26. *Id.*, art. 24.

27. *Id.*, art. 24.

28. *Id.*, art. 27.

29. *Id.*, art 28.

30. *Id.*

31. *Id.*, art. 39-45.

32. *Id.*, art. 42-43.

33. Thus, art. 55 of the Foreign Investment Act (Law 77 of 1995, published in Gaceta Oficial, September 6, 1995) [hereinafter “Law 77”] states: “The Ministry of Foreign Investment and Economic cooperation will in appropriate cases submit the investment proposals it receives to the consideration of the Ministry of Science, Technology and the Environment so that the latter may evaluate the investment's suitability from the environmental point of view and determine whether an environmental impact evaluation is required as well as the suitability of granting pertinent environmental licenses and establishing a control and inspection program in accordance with the legislation then in effect. Shortly after the release of Law 77, regulations were issued for the performance and approval of environmental impact assessments and the granting of environmental licenses. Resolución No. 168195, Reglamento para la Realización y Aprobación de las Evaluaciones de Impacto Ambiental y el Otorgamiento de las Licencias Ambientales, in Gaceta Oficial, September 15, 1995.

of environmental licenses explicit legal requirements affecting any activity that “may have significant impacts on the environment,”³⁴ including but not limited to the types of projects identified in the law.³⁵ By doing so, the law seeks to ensure that environmental impacts be considered in essentially all development projects.³⁶

The merits of the EIAs and other environmental reviews now being conducted have been brought into question by some analysts, both as to the adequacy of the personnel and resources available to conduct the assessments and the consideration given to the results by the decision-makers.³⁷ The EIAs can only be performed by state-authorized “institutes,” the most important of which is a joint venture between the Cuban Government and a Spanish corporation.³⁸ This setup creates the risk that EIAs will only be pro-forma documents used to justify already-made investment decisions by the State, and to extract funds from the foreign investors, who pay the costs of the environmental evaluations and of any identified remedial measures.³⁹

Be it as it may, the requirement in Law 81 that environmental licenses be secured for new development projects is an important step forward, even if imperfectly implemented at the present time.

c. Specific Laws and Regulations: As noted earlier, Law 81 acknowledges that there is much in the way of legislation that needs to be written for specific aspects of environmental protection,⁴⁰ and that new or amended regulations need to be issued to provide implementation details.⁴¹

For the time being, the collection of laws, decrees and regulations that has developed since the enactment of Law 33 remains in place.⁴² Unfortunately, however, many of these regulations are too general to be enforceable.⁴³

d. Enforcement Provisions: Chapters XI through XIII of Law 81 institute a system of administrative, civil and criminal sanctions against those who violate environmental laws and regulations.⁴⁴ Only the skeleton of such a system is provided in the law, with the details to be left to subsequent legislation. Thus, for example, Chapter XI ordains that sanctions be levied against those who do not comply with the law and its related regulations.⁴⁵ Article 67 states that every individual and entity is subject to administrative sanctions for violating Law 81, with the sanctions to be defined in complementing legislation. Article 68 states that administrative sanctions shall be made by using fines, and that every individual violation is punishable by a separate fine. No schedule of fines is, however, provided. Article 69 directs anyone who knows of any breach

34. Law 81, *supra* note 15, art. 24.

35. *Id.*, art. 28.

36. EVENSON, *supra* note 12, at 505.

37. LEGACY, *supra* note 2, at 3:35-36.

38. EVENSON, *supra* note 12, at 519.

39. Law 81, *supra* note 15, art. 30.

40. Law 81, *supra* note 15, Primera Disposición Final (First Final Provision).

41. *Id.*, Primera Disposición Transitoria (First Transitory Provision).

42. EVENSON, *supra* note 12, at 507. See RAMLOGAN, *supra* note 3, Appendix A and Tulane Law School, CUBAN ENVIRONMENTAL LAW (Jerry Speir, ed.) (1999) for texts and summaries of Cuba's environmental laws and regulations.

43. EVENSON, *supra* note 12, at 507.

44. Law 81, *supra* note 15, art. 67-75.

45. Conversely, Law 81 includes provisions to grant “environmentally-friendly” companies financial support from the government in the form of tariff reductions, allowing accelerated capital depreciation, or direct government funding. *Id.*, art. 63.

of the environmental laws and regulations to notify the competent authorities.

Chapter XI does not provide therefore a basis for the imposition of fines, does not define the administrative procedures to be followed to levy fines, and is silent on the amount of the fines and on what avenues are available to enforce or contest a proposed fine.

Similar flaws are found in the other chapters. Thus, for example, art. 71c gives a right of action for damages to anyone who is adversely affected by an action or omission that impacts the environment, but there is no definition of the mechanisms for exercising this right.⁴⁶

- e. Environmental Education: A critical problem with environmental protection in Cuba has been the lack of public awareness of environmental issues.⁴⁷

Law 33 sought to increase environmental awareness by including topics relating to the protection of the environment and the rational use of natural resources in school curricula.⁴⁸ Ultimately, responsibility for the implementation of public education programs was vested on CITMA.⁴⁹ Law 81 formally assigns to CITMA, in coordination with the Ministries of Education and Secondary Education the duty of developing and implementing Cuba's environmental education strategies and programs.⁵⁰ Environmental information is also to be imparted upon workers through their training programs, and conveyed to the general population via the mass media.⁵¹

- f. Assessment: While Law 81 strives to better address environmental concerns, it contains flaws that, along with the island's governmental structure, make positive environmental action difficult. It has serious omissions: for example, the law does not address the critical issue of cleaning up past environmental damage. CITMA's independence is not guaranteed by the law and is essentially negated by Cuba's autocratic political structure, which restricts the agency's power to promulgate and enforce regulations. The law's enforcement provisions are weak and ill-defined, and much of the specific legislation needed to implement the law still remains to be written.

Regulatory Agencies and Regulations

COMARNA: In 1977, COMARNA was created to develop national environmental policies; perform studies to support long and medium-term plans to protect the environment and utilize natural resources rationally; and analyze specific environmental problems including those associated with water pollution, sand erosion, and agriculture.⁵² At the time of its creation, COMARNA had no legislative mandate and therefore no authority, and did not contribute much to the resolution of environmental problems.⁵³ Upon enactment of Law 33, COMARNA was given the role of coordinating the work of a National System for the Protection of the Environment and the Rational Use of Natural Resources, comprised of ministries, regional and local governments, and mass organizations.⁵⁴ Under this organizational setup, COMARNA had no real authority and had no power to impose its views on environmental issues over

46. There are no norms to govern individual suits under Law 81, and it is even unclear who has standing to bring any such suits. EVENSON, *supra* note 12, at 523-24.

47. Barba and Avella, *supra* note 7, at 279.

48. Law 33, *supra* note 6, art. 14. The law also provided for the systematic dissemination through the media of materials on the protection of the environment. *Id.*, art. 13.

49. RAMLOGAN, *supra* note 3, at 71-72.

50. Law 81, *supra* note 15, art. 46.

51. *Id.*, art. 47-56. See generally Evenson, *supra* note 12, at 503.

52. LEGACY, *supra* note 2, at 3:28.

53. RAMLOGAN, *supra* note 3, at 48.

54. Law 33, *supra* note 6, art. 117.

those of pro-development ministries and government agencies.⁵⁵

COMARNA's weakness as a regulatory agency was exacerbated by the lack of autonomy and power environmental agencies have in Cuba.⁵⁶ Jurisdictional and enforcement lines among agencies were unclear, which led to conflict as each agency sought to assert its presumed authority.⁵⁷ In addition, COMARNA was understaffed and lacked the resources needed to effectively monitor compliance with regulations.⁵⁸ As a result, environmental laws were often administered by various ministries, which in general were better funded.⁵⁹ This created a clear conflict of interest since environmental regulations were being enforced by agencies responsible for meeting production goals that would be adversely impacted by enforcement of the regulations.⁶⁰

CITMA: In 1994, the Cuban government sought to remedy the problems of unenforceable laws and inter-agency conflict by reorganizing its bureaucratic framework and creating a single agency, CITMA, in which the environmental functions of the various bureaucracies would be consolidated.⁶¹ CITMA has two main divisions, the Board of Environmental Policy which develops policy and the Environmental Agency which implements it and performs public information, education, and other support functions.⁶² CITMA also serves as an advisor to the Council of

Ministers on environmental matters and helps organize the environmental programs of other state agencies.⁶³

The Environmental Agency performs its duties through various institutes and centers, each assigned to a particular environmental protection area and given a range of tasks.⁶⁴ For example, the Center for Environmental Management and Inspection grants environmental licenses and conducts environmental inspections, while the Center for Environmental Information, Dissemination and Education is responsible for educating the public on environmental matters and providing information about the environment.⁶⁵

Despite the improvements that the new regulatory framework provides, it appears that the factors which made previous regulations unenforceable remain in place, particularly the lack of autonomy or enforcement capacity.⁶⁶ Cuba's environmental policies must still be approved by the Council of Ministers, so CITMA has no authority to independently advance its policies.⁶⁷ Although Article 12.f of Law 81 grants CITMA authority on paper to mediate inter-agency conflicts in matters relating to the environment, it fails to give the agency real power to prevail in case of inter-agency conflicts that pitch environmental versus economic issues.

55. COLLIS, *supra* note 21, at 1-2.

56. Environment and Transition, *supra* note 21, at 492.

57. *Id.*

58. Collis, *supra* note 21, at 2.

59. *Id.*

60. *Id.*; EVENSON, *supra* note 12, at 512.

61. *Id.*

62. Evenson, *supra* note 12, at 512-13.

63. *Id.* at 512.

64. *Id.* at 512-13.

65. *Id.*

66. Environment and Transition, *supra* note 21, at 492.

67. Evenson, *supra* note 12, at 511.

Treaties: Cuba has adhered since 1959 to over two dozen conventions, treaties, protocols and other international agreements on matters relating to the environment.⁶⁸ While those agreements are legally binding on Cuba and constitute expansions of Cuba's environmental commitments, there is little evidence that they have had any measurable influence on Cuba's domestic environmental policies.⁶⁹

Policy Issues Arising Under Cuba's Current Environmental Regime

Government As Regulator and Major Polluter: As the owner of the means of production on the island, and as the institution primarily responsible for the environmental problems in Cuba, the Cuban government faces an obvious conflict of interests in the implementation of an effective environmental regime. This conflict of interests has resulted in an environmental regime that (1) is based on ambiguous legislation; (2) has not yet established an independent and empowered regulatory authority; (3) lacks public participation in the environmental decision-making process and in the enforcement of environmental laws; (4) lacks environmental planning and (5) disregards the need to correct the severe environmental damage caused by its policies to date. Each of these deficiencies helps make environmental pro-

tection in Cuba a process that achieves only marginal results.

Ambiguous Legislation: The broad and vague language that permeates Law 81 makes many of its provisions unenforceable.⁷⁰ Cuba's legal environmental framework also fails to provide many necessary definitions or standards. For example, Chapter IV of Law 81 contains provisions on the handling of hazardous and radioactive waste, but nowhere in Law 81 are these terms precisely defined. Article 155 states that the authorized agencies shall establish the norms and standards for classifying, transporting, and exporting hazardous waste, but the current regulations on hazardous waste contain no such provisions.⁷¹ Chapter V of Law 81, which discusses toxic chemicals, fails to provide definitions for identifying toxic chemicals, and delegates the authority to establish norms and standards to the relevant agencies. The relevant agencies, however, have not promulgated any such regulations.⁷² Even where attempts have been made to classify and define pollutants, the failure to establish limits on their emissions makes the standards unenforceable.⁷³ Indeed, interviews with individuals in several Cuban environmental administrative agencies have yielded virtually no examples of

68. For a listing of the environmental agreements to which Cuba is a party, see <http://sedac.ciesin.org/prod/charlotte>. See also LEGACY, *supra* note 2, at 3:19-22 for a summary discussion of those agreements.

69. For example, Cuba is a party since October 1988 to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region ("Cartagena Convention"), which requires parties *inter alia* to "take all appropriate measures in conformity with international law and in accordance with this Convention and those of its protocols in force to which they are parties to prevent, reduce and control pollution of the Convention area and to ensure sound environmental management, using for this purpose the best practicable means at their disposal and in accordance with their capabilities among other obligations." (Art. 4.1) The Cartagena Convention also requires parties to "take all appropriate measures to prevent, reduce and control pollution of the Convention area caused by coastal disposal or by discharges emanating from rivers, estuaries, coastal establishments, outfall structures, or any other sources on their territories." (Art. 7). Despite these commitments, Cuba has engaged in the widespread and indiscriminate dumping of pollutants into the seas surrounding the island, undeterred by the prohibitions in the Cartagena Convention. See, e.g., LEGACY, *supra* note 2, 5: 35-38, and Carolina Hospital, Cuba's Contamination Threatens Caribbean Basin, GABLES PAPER, Nov. 4, 1992 at 6.

70. For example, art. 70 of Law 81 reads: "Every natural or juridical person who, through his actions or omissions harms the environment is under the obligation to stop its conduct and remedy the damages it causes." There is, however, no other mention in the law as to how the remediation of environmental damages is to take place, particularly if the damage has been inflicted by the State or one of its agencies.

71. See Ramlogan, *supra* note 3, at 113-115.

72. *Id.*, at 104-106.

73. For example, in an effort to curb air pollution specific gases and substances were identified as environmentally harmful, but no limits were placed on the emissions amounts of such pollutants. *Id.*, at 65.

legal actions taken to enforce the environmental laws against violators.⁷⁴

Absence of Independent and Empowered Regulatory Authority: The absence of environmental enforcement becomes easy to understand when one considers the limited independence and authority granted to the environmental regulatory authority, CITMA. The limitations of CITMA are even more pronounced in practice because, under the centralized decision-making structure that exists in Cuba, any action by CITMA would risk being overturned if the Communist Party felt that compliance would undermine an important economic objective. The practical consequences of the Cuban political system and the structural limitations of the Cuban bureaucracy combine to make CITMA and its supporting environmental regulatory agencies ineffective.

Decision-Making Process: For over forty years the Castro regime has successfully managed to prevent any form of open public participation in governmental decision-making.⁷⁵ The operation of environmental groups is tightly controlled by the central government, as is the dissemination of information on environmental issues.⁷⁶ To date, no independent organization has played a significant part in environmental decision-making.⁷⁷ Groups that protest against decisions that may have a negative impact on the environment are often branded dissidents for opposing official policy. Thus, in 1988, the Cuban government abolished the *Asociación Naturista Vida*

(Life Naturalist Association), an organization that discussed environmental matters.⁷⁸ The leaders of the *Movimiento Ecopacifista Sendero Verde* (Green Path Ecopacifist Movement), a group that favored solar rather than nuclear energy for electricity generation, advocated the restructuring of the Cuban political system to promote ecological principles, and sought the return of land to farmers, were also arrested by the Cuban government.⁷⁹

Various so-called environmental NGOs operate in Cuba ostensibly independent of government influence. The most important of these organizations is *Pro-Naturaleza*, which in reality operates under the tight scrutiny of CITMA, since it is sponsored by CITMA, and headquartered within the Ministry.⁸⁰ In addition, most of its leadership is employed at CITMA, and although the organization does not receive state funds, it receives money from CITMA to pay for its office needs.⁸¹

Lack of Environmental Planning: The National Program on the Environment and Development outlines Cuba's national environmental policy.⁸² This document provides the general objectives from which various government agencies were to draft comprehensive strategies to implement the goals described in the policy document.⁸³ Unfortunately, the environmental strategies that have been developed by the relevant agencies are incomplete and ineffective.⁸⁴ For example, to date no strategy or plan exists to protect or promote bio-diversity.⁸⁵

74. See Collis, *supra* note 21 at 2; Ramlogan, *supra* note 3, at 88-89; LEGACY, *supra* note 2, at 3:30-32.

75. Environment and Transition, *supra* note 21, at 494-95; Sergio Díaz-Briquets and Jorge Pérez-López, *Socialism and Environmental Disruption Implications for Cuba*, ASCE-8 154, 168 [hereinafter Environmental Disruption].

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.* at 168-69.

80. Environment and Transition, *supra* note 21, at 494.

81. *Id.*

82. Ramlogan, *supra* note 3, at 66.

83. *Id.*, at 68.

84. *Id.*

85. *Id.*, at 68-69.

Lack of Remediation Policies: As noted early, Law 81 is silent on any efforts to remedy the environmental damage that has been inflicted by the State over the last forty years. In the absence of such a plan, and given the current environmental situation in Cuba, all the legislation that Cuba has enacted or may in the future enact is incomplete and will not serve to restore the environment to an acceptable condition.

ENVIRONMENTAL POLICY OBJECTIVES FOR CUBA DURING ITS TRANSITION

Lessons learned from environmental initiatives in Latin America and Eastern Europe, as well as Cuba's current environmental situation, suggest that Cuba should set three major objectives for its environmental program during the transition years. First, Cuba should implement measures that further, as much as possible, remediation of the environmental disasters inherited from the socialist regime.⁸⁶ Second, Cuba must define and implement realistic goals to promote future conservation and environmental protection. Third, Cuba needs to harmonize its remediation, conservation and environmental protection policies with those guiding the country's economic recovery.

The rest of this section describes these policy objectives in some detail. The next section provides recommendations on legislation to help accomplish these objectives.

Remediation

During its transition to a free-market economy, Cuba should seek to remedy the most critical environmental problems created under the socialist regime. For example, the pressing need for clean water in Cuba must be addressed with policies that pro-

mote the clean-up of the most polluted sources of coastal, inland, ground, and drinking water.

It is important that the remediation plan state its goals in a measurable and manageable fashion. An effective plan should consist of specific goals, timetables for achieving them, milestones, and indicators of progress. The Polish National Environmental Policy of 1991 provides a good example of how a country in transition may develop a workable remediation plan.⁸⁷ Poland set short-, medium-, and long-term remediation priorities, each with its own completion dates.⁸⁸ The short-term priorities addressed immediate dangers to human health, which were to be mitigated by 1994-95.⁸⁹ The medium-term priorities, scheduled to be completed by the year 2000, would help bring Poland in line with the environmental standards of the European Union.⁹⁰ Examples of these priorities include the goal of a 50% reduction in discharges of untreated sewage and a significant improvement in rural drinking water quality.⁹¹ A long-term priority is to integrate the concept of sustainable development into the entire Polish economy, and incorporate environmentally sound techniques into all aspects of the production process.

During its transition to a free-market economy, Cuba should establish a remediation policy that is realistic and has clearly defined, achievable goals. Initially, Cuba's government should target conditions that represent dangers to human health and safety. Cuba should achieve measurable improvements in these areas before attempting other projects since there will probably be limited resources available for remediation, and these resources will require careful management.⁹² In addition, the success of the initial

86. Legacy, *supra* note 2, at 11:22.

87. Resource Renewal Institute, *Environmental Atlas: Environmental Atlas: Poland*, <http://www.rri.org/envatlas/europe/poland/pl-index.html> [hereinafter POLAND ENVIRONMENTAL POLICY].

88. *Id.*

89. *Id.*

90. *Id.*

91. *Id.*

92. See Aldo M. Leiva, *Promoting and Financing the Development of an Environmental Infrastructure in a Post-Castro Cuba*, in CUBA IN TRANSITION—VOLUME 8, ASSOCIATION FOR THE STUDY OF THE CUBAN ECONOMY (“ASCE-8”) 85, 86 (Aug. 1998) [hereinafter LEIVA] for a discussion of strategies that could be used to maximize the funds available for environmental remediation activities.

projects will establish a track record that may attract additional resources to support remediation efforts, thus it is essential that the initial goals be achievable and actually met.

Promotion of Conservation and Environmental Protection

Long-Term Goals: As it undergoes its economic transition, Cuba will need to develop an environmental protection strategy for both the long term and the immediate future.⁹³ Such a strategy should be directed towards promoting conservation and environmental protection based on defined environmental objectives for the country.⁹⁴

Cuba will therefore need to start by setting long term goals (i.e., those to be achieved ten or more years into the future) for its environmental program. These goals should be fairly broad and include items such as: (1) achieving the rational use of natural resources leading to sustainable development; (2) reaching an agreement between central, provincial and municipal governments on the subject of the environment; (3) preventing further significant air, water, and soil pollution; (4) establishing a strong and effective national environmental agency; and (5) preserving resources so as to maintain ecological equilibrium.⁹⁵ These broad objectives should be supplemented by more specific medium and short-term goals, and reflected in appropriate legislation.

Medium-Term Objectives: Once Cuba has established its general long-term goals, it must then turn to defining more specific short (zero to five years) and medium (five to ten years) term environmental objectives. Cuba should set as medium-term objectives those that will take several years of effort to accomplish, and those that can be accomplished in a

relatively short time but do not necessarily yield an immediate positive impact on the environment.

Medium-term objectives could be items such as: (1) developing a re-defined system of protected natural areas; (2) establishing an environmental technical registry; (3) implementing a system of incentives to engage in environmental research and development; and (4) establishing programs to support environmental education.

Short-Term Objectives: Establishment of specific short-term environmental goals and implementation deadlines will be a crucial element of Cuba's environmental strategy, because at the start of the transition the country will be confronted with multiple environmental problems requiring resolution and very limited financial resources. In addition, setting goals and deadlines will serve to give direction both to government agencies and the private sector as to where the emphasis of the government efforts should be during the initial phases of the transition.⁹⁶

The following are, for example, half a dozen short term goals and implementation deadlines that could be set with respect to alleviating the problem of pollution of the water bodies in the Greater Havana area:

- Reducing, within five years, the volume of inorganic and untreated organic waste released into Havana Harbor by 50% from the average level measured at the start of the transition.
- Building and bringing into operation waste treatment facilities having sufficient capacity to achieve the previous goal.
- Performing, within five years, all needed repairs and upgrades to restore Havana's water and sanitary sewer system to its pre-1959 design capacity, and completing conceptual designs and prelimi-

93. Legacy, *supra* note 2, at 11:1.

94. For a description of the environmental policy experiences of other transition countries see generally Shelley Bookspan, *When the Smoke Clears: Environmental Restoration in Central and Eastern Europe*, 21 Real Est. L.J. 407 (1993) [hereinafter Bookspan]. For a discussion of the Latin American environmental experience, see Felipe Paez, *Environmental Framework Laws in Latin America*, 13 Pace Envtl. L. Rev. 625, 642 (1996) [hereinafter Paez].

95. See PAEZ, *supra* note 94, at 626 (Brazil); 646-47 (Mexico).

96. LEGACY, *supra* note 2, at 1:12.

nary plans for the development of a modern new water system to be awarded on a concession basis to a private operator.

- Establishing, within five years, such additional landfills and other solid waste disposal facilities as are required to provide for the adequate disposal of solid urban waste in the city of Havana and its environs.
- Establishing, within five years, an adequate network of environmental monitoring stations that can measure the levels of various contaminants released from specific sources.
- Issuing within five years regulations establishing specific limits on the amounts of various named pollutants that can be discharged from industrial facilities, imposing fines and fine collection mechanisms, and establishing a system for issuing discharge permits and reporting standards.

As the above example shows, addressing any one of the serious environmental problems facing Cuba is a complex task that will require a multitude of efforts by various government bodies. For that reason, the list of short-term objectives needs to be kept short and focused on the most urgent problems.

Minimization of Impacts on Economy

Cuba will undoubtedly face serious economic problems during its transition, as have many other countries in similar situations.⁹⁷ Some of these problems, such as rising unemployment and marginal or unprofitable state-owned enterprises, will tend to impose limitations on the environmental recovery initiatives that can be implemented.⁹⁸ Additionally, pressure to attract foreign investment may curtail the government's willingness to impose extensive envi-

ronmental requirements.⁹⁹ Although there may be commitments by the government to harmonize environmental strategies and economic development policies, the question at the end of the day will be whether environmental initiatives will survive against pressing economic needs.¹⁰⁰

The real issue for Cuba during its transition will, however, be whether the economic strains and political uncertainty of an unstable transition period will erode support for democracy itself.¹⁰¹ The new government must achieve a degree of economic stability before it is able to deal fully with the environmental problems the country faces.¹⁰²

This economic reality does not mean that the country must forego addressing environmental problems. Considering the importance that the tourism and agriculture sectors will have during Cuba's transition period and beyond, Cuba may not be able—as an economic issue—to ignore for long the environmental issues affecting those sectors. Efforts to remedy the most environmentally threatened areas should therefore receive priority. These efforts should at a minimum include arresting the increase in pollution of Cuba's inland and coastal waters and stopping further erosion and salinization of the arable land. For the tourism and agricultural sectors, these environmental protection measures represent an investment in the country's economy.

On the other hand, Cuba has to be careful not to impose excessive environmental requirements, especially in sectors (such as manufacturing) where foreign investment is likely to be an important factor.¹⁰³ The new government may also need to limit the liability

97. Ruth Greenspan Bell, *Environmental Law Drafting in Central and Eastern Europe*, 22 ENV. L. RPT. 10597 (1992) [hereinafter BELL].

98. *Id.*

99. Matías F. Travieso-Díaz & Steven R. Escobar, *Comment: Cuba's Transition to a Free-Market Democracy: A Survey of Required Changes to Laws and Legal Institutions*, 5 Duke J. Comp. & Int'l L. 379, 421.

100. Barba and Avella, *supra* note 7, at 280.

101. BELL, *supra* note 97.

102. *Id.*

103. Matías Travieso-Díaz & Alejandro Ferraté, *Recommended Features of a Foreign Investment Code for Cuba's Free Market Transition*, N.C. J. Int'l L. & Com. Reg. 511, 558 [hereinafter Travieso-Díaz & Ferraté].

of investors for environmental damage created under the previous regime.¹⁰⁴ More generally, environmental legislation affecting foreign investment needs to have realistic goals and defined implementation provisions.¹⁰⁵ These features will allow investors to factor environmental issues into their investment decisions.¹⁰⁶

ENVIRONMENTAL LEGISLATION RECOMMENDATIONS FOR CUBA'S TRANSITION PERIOD

It is probable that the environmental legislation enacted during Cuba's transition will have as its centerpiece a broad framework law supplemented by laws and regulations covering specific subjects. If enactment of a new framework law is not immediately feasible, it may be necessary to promulgate interim legislation that addresses the most urgent problems or fills the gaps in the legislation that is in place at the onset of the transition.¹⁰⁷

At the same time Cuba is developing its environmental legislation, it will also be seeking to attract foreign investment to assist with the country's economic reconstruction.¹⁰⁸ The environmental legislation that is enacted must ensure that foreign investment is an ally in improving the environment rather than a contributor to its further deterioration. Thus, for example, the environmental legislation applicable to foreign investment projects will need to include: (1) regulations concerning emissions of toxic substances, (2) incentives for the installation of technologies that minimize the releases of such substances, and (3) an enforcement system that imposes well-defined penal-

ties for the release of toxic materials. The environmental laws may also need to establish distinctions between existing sources of pollution (i.e., already existing facilities) and newly established operations.

The remainder of this section provides recommendations for legislation that seeks to accomplish these objectives and those outlined in the preceding section.

Constitution

A new constitution will most likely be enacted at some point during Cuba's transition. When this happens, an opportunity will present itself for laying down environmental goals and aspirations in the form of constitutional provisions.¹⁰⁹ Such provisions should be in the nature of general policies, such as placing environmental values on an equal footing with other important societal goals. The substantive elements of environmental protection would be contained in the framework environmental law and other lower-tier legislation.

Framework Law

As discussed in previous sections, the framework environmental laws enacted by Cuba's current government – Laws 33 and 81 – are broad in scope and, at the same time, lacking in implementation guidelines or priorities.¹¹⁰ A framework environmental law for Cuba's transition period should, on the other hand, have five characteristics:

- It should prioritize the environmental protection and remediation efforts so that the most pressing problems are addressed first;

104. *Id.*, at 559.

105. *Id.*

106. *Id.*

107. See BELL, *supra* note 97.

108. Matías F. Travieso-Díaz, THE LAWS AND LEGAL SYSTEM OF A FREE-MARKET CUBA 105 (Quorum Books, 1997) [hereinafter "LAWS AND LEGAL SYSTEM"].

109. The 1940 Constitution was virtually silent on environmental issues. The Constitutions of 1976 and 1992 provided some broad declarations of principles indicating that the State protects the environment and that it is the duty of the citizens to contribute to such protection. (1976 Constitution, *supra* note 4, Art. 27; 1992 Constitution, *supra* note 13, Art. 27.)

110. Cuba framework laws are not unlike those enacted in the Eastern European countries starting in the 1970s. Those laws, in varying degrees of detail, set standards that could not be implemented and which were regarded as many as mere window dressing. BELL, *supra* note 97, at 2.

- It should set specific, attainable goals and realistic timetables for their accomplishment;
- It should set practicable enforcement mechanisms, assign enforcement responsibilities and authority to specific agencies, and grant rights of action to private citizens or non-government organizations;
- It should provide the means for public education on environmental issues and participation by the general public and interested parties in the development of implementing laws and regulations;
- It should provide for periodic re-examinations of the framework legislation to assess the continued validity and attainability of the goals and implementation schedules and address enforceability problems as they arise.

Setting Priorities for Environmental Initiatives:

Each of the environmental problems that Cuba is experiencing is serious and merits attention. However, given the economic constraints within which the transition government will have to operate, it will be necessary to prioritize the environmental initiatives that are undertaken, particularly in the first few years of the transition.

Establishing priorities is relatively simple at the conceptual level, since the principal problems are well recognized.¹¹¹ The framework law should declare the main problems, or a subset of them, to be the prime areas of priority in Cuba's environmental program for the transition period. Such a declaration, however, would need to be accompanied by specific goals and deadlines for dealing with each priority area.

Establishing Enforcement Mechanisms: The framework law should establish the basic elements of a system for defining environmental duties and prohibitions, and provide the bases for the implementation of the system. The law should, *inter alia*, (1) define which environmental protection activities are retained within the central government and which, if any, are delegated to other entities, such as provincial or municipal governments; (2) create an agency with the mandate of coordinating all environmental activ-

ities not delegated to organizations outside the central government; (3) define the powers of the environmental agency and declare its independence from the executive and its supremacy over other agencies in matters within its jurisdiction; (4) establish mechanisms for the resolution of inter-agency environmental disputes; (5) empower the environmental agency to issue implementing regulations, establish pollutant discharge limits, perform audits and inspections of private and public facilities, and impose and collect fines from violators; (6) grant the environmental agency power to obtain injunctive and other judicial relief against parties that contravene the agency's regulations; (7) empower the agency to issue and administer permits for those activities that may result in the discharge of contaminants; (8) define sources of funding for the agency's discharge of its duties; and (9) grant private parties the right to seek judicial redress from adverse actions by the agency, and the limited right to bring judicial actions against the government or other private parties for failure to comply with the environmental laws.

Re-Examining Fundamental Laws and Policies:

The transition period in Cuba will likely be characterized by frequent and perhaps dramatic changes in economic and political conditions. These changes may in turn impact the pace of environmental recovery and may require refocusing—through either acceleration, modification, slowdown, or shift in emphasis—of elements of the environmental framework. Accordingly, the fundamental law must be considered “work in progress” legislation, and may expressly provide that it is subject to periodic re-evaluation, at least during the first decade of the transition.

Legislation Regulating New Activities

Economic necessity may force a Cuban transition government to allow many of the existing sources of pollution to remain in operation with only partial reduction in their environmental impacts, while at the same time instituting stricter regulations for new economic activities undertaken in the island. Cuba cur-

111. See note 2, *supra*.

rently has a number of aging industrial facilities for which it may not be feasible to backfit the equipment needed to make them environmentally-friendly. This being the case, the most stringent environmental protection standards will have to be made applicable only to newly developed facilities.

Cuba should impose environmental standards on new installations that take into account the technical state of the art on environmental protection and reflect economic analyses, scientific studies, and the input of public and private organizations.¹¹² One system of regulations that Cuba might want to apply to new operations is the one currently in use in Poland. The Polish system levies fees based on the volume of emissions of various pollutants. A set of fees applies to discharges within permitted limits, and a substantially higher set of fees is imposed for discharges above legal limits.¹¹³ This system creates a range of options for facility operators beyond simple compliance with emissions laws, and provides a method of financing other environmental projects within the nation.

Cuba could also establish incentives that encourage compliance with environmental standards and the adoption of environmentally friendly technologies. One example of such an incentive is found in Brazilian law, under which public agencies give funding priority to research and development programs on ecological issues.¹¹⁴ This form of incentive could provide motivation for entities seeking to operate in Cuba to take an active role in developing new envi-

ronmental technologies and bringing other forms of environmental development programs to Cuba.

Another type of incentive Cuba may wish to include into its environmental framework is a system of tax benefits, patterned after incentive programs adopted in Mexico and Brazil, for facilities that incorporate anti-pollution technologies.¹¹⁵ These and other types of incentives may serve to bring the investors' environmental practices in line with the country's policies.

The Cuban environmental framework must also include an effective system for evaluating which new projects will be allowed to proceed, based on environmental impact assessments. Such environmental impact assessments will have to be prepared efficiently and evaluated quickly, so as not to impede project development.¹¹⁶ Cuba will also need to develop a comprehensive list of the types of project that will have to submit to environmental assessments. Such a list may include, as does Chile's environmental law, projects that: (1) pose a risk to health, (2) pose a threat to renewable natural resources, (3) affect resettlement of communities, (4) are in proximity to towns, protected areas, or resources that may be affected, (5) significantly alter scenic or tourist areas, or (6) alter monuments.¹¹⁷

Legislation Regulating Existing Facilities

Over the course of Cuba's socialist history numerous facilities have come to operate in ways that inflict damage to the environment. Sugar mills, cement plants, mines, steel mills, oil refineries and other industrial facilities have become major contributors to

112. PAEZ, *supra* note 94 at 640 (Chile).

113. POLAND ENVIRONMENTAL POLICY, *supra* note 87, at <http://www.rri.org/envatlas/europe/poland/pl-inst.html>.

114. PAEZ, *supra* note 94 at 629.

115. *Id.*, at 629 & 652.

116. In Chile and Venezuela, for example, if no decision on the approval of a project is rendered by the reviewing authorities within a specified period after the environmental assessment is completed, the project is deemed approved. *Id.* at 635-36 (Chile), 673 (Venezuela).

117. *Id.* at 634. An example of over-inclusion in the types of project requiring EIAs is the Bulgarian environmental law, adopted after its transition to a market economy. The law subjected almost any individual, business, or government activity to an EIA. The broad and unrealistic language in the Bulgarian legislation apparently deterred investment and resulted in ambiguity about the law and its implementation. BELL, *supra* note 97.

Cuba's current environmental problems.¹¹⁸ Yet, no viable environmental framework Cuba adopts is likely to succeed in eliminating pollution from these facilities. To attempt to do so might put many of them out of business and aggravate the country's economic crisis.

Rather than attempting to comprehensively eliminate the polluting activities of facilities currently in existence in Cuba, the Cuban government will need to institute legislation that allows facilities currently in existence to operate under less restrictive regulations than those imposed on new facilities. As time passes, requirements on the older facilities can be tightened until they are subject to the same standards as new ones or are decommissioned. Several countries, such as the Czech and Slovak Republics, Bulgaria, and Hungary have adopted variations of "phase-in" plans for environmental regulations that allow new facilities to come into operation subject to a full set of environmental requirements, while allowing existing facilities time to adjust to these requirements.¹¹⁹

Included in any "phase-in" legislation will have to be definite compliance schedules and adjustment periods, which may need to be set on an industry-by-industry basis.¹²⁰ Those schedules will need to be supervised by the government and penalties will have to be assessed in the event that the facilities miss their compliance deadlines.¹²¹

Existing facilities should also be eligible for incentives to improve their environmental performance. The environmental incentives and penalties discussed earlier with respect to new facilities can be adapted for application to existing ones. The granting of tax incentives for adopting anti-pollution technologies, for example, would give older facilities motivation to improve their operations and reduce pollution levels.

The privatization of existing government-owned facilities would provide an opportunity for bringing about improvement (from the environmental standpoint) in the facilities' operations and the remediation of the environmental impacts associated with these facilities. Environmental improvement and remediation requirements could be imposed on the new owners of privatized companies; however, such requirements would likely result in the reduction of privatization proceeds and would therefore need to be analyzed in the light of the transition government's economic priorities.¹²² Alternatively, privatization proceeds could be earmarked for environmental remediation projects—whether or not related to the privatized facilities.

Remediation of Accrued Environmental Impacts

As noted earlier, regulating the environmental impacts of future economic activities in Cuba will not make up for the decades of neglect that have led to soil erosion and salinization, water and air pollution, the destruction of forests and natural habitats, the loss of biodiversity, etc. To adequately address these very serious environmental problems Cuba will have to issue specific legislation designed to deal with them.

The legislative efforts directed at environmental remediation can be seen as having two aspects: how to address the remediation needs in publicly-owned lands and bodies of water, and what remediation obligations will be imposed on the owners of property that remains in private hands or which is conveyed to private parties by the State. These two issues will be discussed separately in this section.

Remediation of Environmental Impacts in Publicly-Owned Areas: The State, through its transition government, will need to assume responsibility for the reclamation of the vast areas of the country that

118. See ORO, *supra* note 2 at 47-61, for a description of the worst industrial sources of pollution operating in Cuba.

119. BELL, *supra* note 97.

120. *Id.*

121. *Id.*

122. See LAWS AND LEGAL SYSTEM, *supra* note 108, at 173-75.

are now suffering from environmental degradation. This responsibility will have technical, economic and legal components, and will require a concerted government effort lasting perhaps a generation.

From the technical standpoint, the transition government will need to commission detailed studies of the environmental degradation at the various sites identified as “high priority,” together with proposed remediation plans. The cost of performing such studies could be shouldered by grants or loans to Cuba from international lending agencies,¹²³ and perhaps financed in part by the environmental technology industry, which may see the performance of such studies as the launching pad for subsequent contracts to implement the identified solutions.¹²⁴

The economic issues revolve around finding the massive sums of money that will be required to accomplish the reclamation projects. These funds will probably need to come from a combination of domestic and external sources, since the Cuban transition government will not have the resources to pay for the required cleanup projects.¹²⁵ The extent to which the transition government is successful in raising those funds, and the decision to allocate scarce government funds to environmental reclamation as opposed to other government priorities, will dictate the speed with which the reclamation process is implemented.

There are a number of domestic sources that could be tapped to finance environmental reclamation projects. Environmental review and licensing fees, as well as fines collected from noncompliance with environmental regulations, could be placed in an envi-

ronmental action fund, and used to finance cleanup efforts.¹²⁶

From the legal standpoint, the transition government needs to issue a statute to address the reclamation of sites where the environmental injury consists of the presence of hazardous materials.¹²⁷ The statute would, *inter alia*: (1) define and establish the levels of substances regarded as hazardous in various physical environments; (2) establish a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites; (3) impose prohibitions and requirements concerning closed and abandoned hazardous waste sites; (4) provide for liability of persons responsible for releases of hazardous waste at these sites; (5) specify short-term remedial steps (e.g., removal actions that must take place when toxic releases or threatened releases requiring prompt response) and long term remedial measures to permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening; and (6) empower the environmental agency to respond directly to releases threatened releases of hazardous substances that may endanger public health or the environment.¹²⁸

It should be noted, however, that environmental degradation in Cuba is not limited to industrial pollution of the type dealt with by statutes like CERCLA. In Cuba, much of the environmental damage is the result of agricultural practices which are not confined to individual sites. Reclamation of the areas affected by those practices may require a combination of

123. See LEIVA, *supra* note 92, at 91-93.

124. *Id.*, at 93-94.

125. *Id.* at 90-95.

126. Additional domestic funds could be made available through a process known as debt swapping, in which a country's international debt is reduced in exchange for funding environmental protection measures. Debt swapping has been adopted as a funding method for environmental projects in Poland and should be considered in Cuba as a way of financing its environmental programs; the money that would otherwise be devoted to reducing Cuba's international debt could be applied to environmental reclamation. POLAND ENVIRONMENTAL POLICY, *supra* note 87, at <http://www.rri.org/entatlas/europe/poland/pl-inst.html>.

127. LEIVA, *supra* note 92, at 95.

128. See, e.g., Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), 42 U.S.C. § 9601 et. seq.

treatment methods and a significant change in agricultural techniques.¹²⁹

Remediation Obligations of Private Parties: The transition period laws dealing with remediation may impose different remediation obligations on private parties who have ownership interests in assets in Cuba at the onset of the transition from the obligations that will accrue on parties that acquire assets in Cuba through the privatization of state-owned enterprises.

At the time the transition gets underway, it is likely that there will be a number of foreign parties conducting business activities in Cuba, either through joint ventures with state-owned enterprises¹³⁰ or through direct investments.¹³¹ Such investors will have been subject to the environmental laws in place at the time of their investment, and should therefore be fully liable under those laws for the remediation of any environmental damages caused by their activities.¹³² Thus, for example, companies drilling for and exploiting oil reserves, mining companies, and the

operators of industrial facilities such as cement plants, should be liable for the environmental damages caused by their operations.¹³³

It is fair to impose such liability on those who are conducting business in Cuba now, because the need to comply with Cuba's environmental laws is a factor that sophisticated foreign investors should have included in their investment decisions.¹³⁴ Pre-investment planning typically includes examining existing environmental laws to find ways of structuring the investment so that compliance with the laws is achieved while minimizing its impact on the cost of the projects.¹³⁵

The situation is somewhat different with respect to foreign investors who become involved in the privatization of state-owned enterprises ("SOEs"). The issue in those cases will be the extent, if any, to which an investor acquiring a state enterprise will be required to assume liability for environmental damage or hazards created by the enterprise while in the hands of the state.

129. As a result of the ongoing economic crisis in Cuba, farmers have turned to using more primitive, but environmentally more benign, agricultural techniques. These include fewer tillings per year; plowing using animal traction, and the use of bio-fertilizers and bio-pesticides, instead their polluting chemical equivalents. LEGACY, *supra* note 2, at 10:6 – 10:9. By applying these farming methods on a widespread basis and combining them with reforestation operations that reduce soil erosion, Cuba could reverse some of the damage caused to the soils by previous farming methods. On the other hand, these environmentally friendly agricultural methods result in low productivity, so there may be a temptation when economic conditions allow to return to the practices that prevailed before the crisis. *Id.* at 10:9.

130. According to Cuba's Minister of Foreign Investment and Economic Cooperation, at the end of 1998 Cuba had 340 joint ventures with foreign investors, 57 of which were approved in 1998. *Se acelera en 1999 la inversión extranjera*, EL NUEVO HERALD (March 28, 1999).

131. Cuba's Foreign Investment Law, Law 77, authorizes the establishment of wholly owned foreign enterprises. Law 77, *supra* note 33, art. 12(c), 15. However, only one such enterprise has been approved to date. *Cuba allows first 100 pct foreign-owned investment*, Reuters, Feb. 8, 1999.

132. Cuba's first joint venture with a foreign investor was completed in 1990. See LAWS AND LEGAL SYSTEM, *supra* note 108, at 106. This was ten years after Law 33 went into effect.

133. See ORO, *supra* note 2, at 47-56.

134. Anecdotal evidence suggests that businesses increasingly factor environmental issues into their foreign investment decisions. See, e.g. Norman E. Gelber, *Apparel Dominates Caribbean Conference*, BOBBIN, Feb. 1993, at 76 (comment by a Levi Strauss & Company's executive).

135. Frederick R. Anderson, *Environmental Aspects to Foreign Investment in Latin America*, in INVESTMENT AND TRADE IN ARGENTINA, BRAZIL, CHILE, MEXICO AND VENEZUELA (1992), at 151, 154-55 (PLI Commercial Law and Practice Course Handbook Series No. 643, 1992).

One of the most serious obstacles encountered in the Eastern European privatization programs were the huge environmental liabilities accrued by the state-owned enterprises.¹³⁶ These liabilities often complicated and in many cases prevented the sale of the SOEs.¹³⁷ Those seeking to invest in former state-owned enterprises could not factor into their plans the environmental cleanup costs because the extent of the environmental hazards associated with the assets they were to purchase would not be known until after the purchase.¹³⁸

The handling of environmental liabilities in Cuba's privatization program will present a difficult challenge. As discussed earlier, Cuban SOEs have generated large amounts of pollutants which have contaminated many regions of the island. The allocation of responsibility for cleaning up the damage to the environment caused by the SOEs will be a policy-balancing issue that the legislators will need to address.

The approaches used in other countries range from very limited successor enterprise liability (a method employed by Germany during its privatization program for SOEs in former East Germany)¹³⁹ to full successor liability (represented by the US's CERCLA

regime).¹⁴⁰ In all likelihood, Cuba will not want to implement an environmental liability system that relies solely on state funding for the cleanup and environmental reclamation associated with enterprises that are turned over to the private sector. Therefore, absent a massive infusion of foreign economic assistance for this purpose, Cuba will have to adopt a legal framework that allocates the cleanup costs associated with privatized SOEs to those who acquire them. However, in order to avoid discouraging investment in the privatization of SOEs, the Cuban government may want to impose a cap on the liability to which a successor enterprise owner would be subject. This approach recognizes the limited resources and options available to resolve the issue.¹⁴¹

Whatever method is chosen, the applicable legislation should clearly define the liabilities to which the enterprises are subject, else there is a substantial risk that the environmental legislation will become an obstacle to the efforts of investors to acquire the enterprises.¹⁴² The Cuban environmental legislation (in coordination with the country's privatization program) should, therefore, contain clear guidelines defining the environmental obligations of acquirers of

136. Randall S. Thomas, *The Impact of Environmental Liabilities on Privatization in Central and Eastern Europe*, 28 U.C. DAVIS L. REV. 165, 167 (1994).

137. Francis S. Kiefer, *Air Clears Up in Eastern Germany*, CHRISTIAN SCIENCE MONITOR, Mar. 19, 1992, at 12.

138. Sam Loewenberg, *Pollution Often Part of Package Deal with Eastern Block Firms*, L.A. TIMES, Aug. 28, 1994, at D3.

139. Germany provides a good example of limiting successor liability to facilitate the sale of SOEs to investors. The German system for handling environmental liabilities did not promote private cleanup activity. Randall S. Thomas, *The Impact of Environmental Liabilities on Privatization in Central and Eastern Europe: A Case Study of Poland*, 28 U.C. DAVIS L. REV. 165, 170 (1994). "German law is intended to release investors in the new Eastern states from liability for past environmental damage resulting from preexisting waste sites. The law was designed to alleviate the fears of potential investors that they would acquire immeasurable environmental risks." *Id.* Such an approach may have worked for Germany, which could afford to finance the cleanup with state-funds, but a poor country like Cuba certainly could not bankroll such a system.

140. The primary U.S. environmental liability law is CERCLA, *supra* note 128. CERCLA imposes strict liability for both present and past owners and operators of contaminated vessels and facilities. *Id.* at 188. Purchasers of contaminated assets also face successor liability under CERCLA. *Id.* CERCLA has been criticized because of its enormous cost and the protracted litigation it has generated. Allan Rickman & Scott Smith, *Environmental Law: An American Agenda Europe Should Avoid*, INT'L CORP. LAW 35-38 (Mar. 1994). Since CERCLA imposes requires that the polluter pay the cost of cleanup, in conjunction with joint and several liability, complex litigation has erupted as involved parties seek to avoid liability. *Id.* Using a strict-liability scheme, such as CERCLA, during Cuba's privatization process would likely deter investors from acquiring SOEs offered for privatization.

141. As an alternative, the costs of environmental cleanup could be passed on to the buyer of the enterprise in exchange for tax reductions or a period of market advantage. BOOKSPAN, *supra* note 94, at 410.

142. Susan S. Cummings, *Environmental Protection and Privatization: The Allocation of Environmental Responsibility and Liability in Sale Transactions of State-Owned Companies in Poland*, 17 HASTINGS INT'L & COMP. L. REV. 551, 554, 562 (1994).

SOEs and the steps investors have to take to achieve compliance.

Other Laws

In addition to those laws deal directly with environmental protection issues, there are other laws that may contain provisions that further the environmental goals of the transition government. This section discusses briefly half a dozen of those laws.

Tax Laws: Cuba may use the tax laws as a mechanism for providing incentives for environmental restoration initiatives by private parties. As indicated earlier, Cuba could imitate other countries that offer tax benefits to businesses that install anti-pollution devices and to parties who engage in research and development activities. Other tax incentives are also possible.

Foreign Investment Law: The foreign investment law promulgated during Cuba's transition should have few points of intersection with the environmental laws, because the foreign investment code should be based on the principle of "guaranteed national treatment" under which a foreign investor is guaranteed to be subjected to the same treatment afforded local individuals and enterprises, hence foreign investors should be equal to domestic citizens with respect to the applicability of environmental laws. There may be some procedural points of connection, however, in that the investment code (and the environmental laws) should include prohibitions against protracted evaluations of a foreign investment projects for purposes of granting environmental licenses or performing EIAs.¹⁴³

Privatization Law: One of the top priorities of a transition government in Cuba will probably be to

privatize many, if not most, of the country's state-owned enterprises.¹⁴⁴ As discussed above, the privatization legislation must be carefully coordinated with the environmental laws in order to address the prickly issue of accrued environmental liabilities due to prior operations of the enterprises while in the hands of the State.

On the positive side, the privatization program will provide a unique opportunity for the government to negotiate, on a deal by deal basis, agreements with the buyers for improvements in the environmental behavior of the enterprises. To accomplish this, the agency that is created to administer the privatization program should include among the rules that will govern the privatization process the requirement that environmental improvements be included, if applicable, in the terms of the agreement to be negotiated with the buyer.¹⁴⁵

Health and Safety Laws: Environmental problems such as air and water contamination have the potential of becoming public health and safety issues. Indeed, there is some indication that the severe levels of water pollution may be having an adverse impact on public health.¹⁴⁶ The health and safety codes in effect during the transition period must reinforce the environmental protection legislation by defining those pollution-related conditions (e.g., severe water contamination) that may affect public health and safety, and impose appropriate penalties to those who violate or contribute to the violation of health and safety standards.

Industry-Specific Laws: Some industry-specific laws may set forth provisions that complement the requirements in the environmental laws. For example, the mining laws may impose on mining concession-

143. See LAWS AND LEGAL SYSTEM, *supra* note 108, at 116. Cuba's current Foreign Investment Code, Law 77, requires that joint venture applications by foreign investors be evaluated by CITMA for their potential environmental impacts and that CITMA decide whether to grant an environmental license, whether to order the performance of an EIA, and whether environmental monitoring and inspection mechanisms should be set in place. *Ley 77*, *supra* note 33, art. 55. The law also explicitly makes a foreign investor who inflicts damage or harm upon the environment the obligation "to re-establish the previous environmental situation, repair the material damage and indemnify the injured parties." *Id.* art. 56(2).

144. See generally, LAWS AND LEGAL SYSTEM, *supra* note 108, at 137-63.

145. *Id.* at 148-49.

146. See LEGACY, *supra* note 2, at 10:28.

holders reclamation requirements that go beyond those in the environmental laws.¹⁴⁷ Care should be taken, however, to avoid imposing inconsistent or unclear requirements on enterprise operators.

Public Participation in Environmental Decision-Making

The framework law and other environmental legislation should establish a program of public information and education to increase the environmental understanding of the citizenry and elicit public support for environmental initiatives. Gaining public support for environmental remedial actions will be particularly important, because those measures will be costly and may impose additional sacrifices on the population. It is also likely that the parties affected by increased environmental requirements will lobby strongly against their implementation. For those reasons, formal and informal public information and education mechanisms should be established in the framework law and implemented by the appropriate agencies.

The transition government should also promote environmental education and public dialogue on environmental issues.¹⁴⁸ Environmental education builds awareness of environmental issues for the future, and increases the likelihood that appropriate policies will be adopted by the government over time.¹⁴⁹ Such education will also establish an environmental con-

sciousness that has not existed to date, but which is critically important to lasting environmental change.

Administrative Framework and Resolution of Conflicts Between Agencies

Well drafted environmental laws are of little value unless they are backed by an institutional structure that has sufficient enforcement capabilities.¹⁵⁰ Therefore, it is essential for Cuba to create and maintain credible and effective institutions to manage environmental policies.¹⁵¹ During Cuba's transition period and after, the administrative agencies responsible for overseeing the island's environmental matters should be given political and fiscal independence.¹⁵² Environmental oversight activities such as licensing and environmental impact assessments must be administered independently and without the threat of central government pressure.¹⁵³ Since the experiences at Cuba show that governments are notoriously poor at policing themselves, the institutional framework must not allow the public sector to regulate itself directly or indirectly,¹⁵⁴ or have the environmental regulator engage in economic activities.

Another reason for establishing independent environmental administrative agencies in Cuba is the need to foster confidence in the impartiality of the regulators in the eyes of foreign and domestic investors. Mexico is an example of a country that has increased the authority and independence of its envi-

147. Art. 41(c) of Cuba's current mining law ordains that every mining concession holder is obligated to: "preserve adequately the environment and ecological conditions of the area under concession, elaborating studies on the environmental impact and plans for preventing, mitigating, controlling, rehabilitating and compensating for the impact that comes from its activities, in those areas and also in the ecosystems in areas related to those that can be affected. Ley No. 76 de Minas, published in Gaceta Oficial, January 23, 1995, art. 41(c). The extent of these broad obligations and the mechanisms for enforcing them remain to be defined.

148. Environment and Transition, *supra* note 21, at 495.

149. *Id.*

150. Environment and Transition, *supra* note 21, at 492.

151. *Id.*, at 491.

152. *Id.*

153. The lack of independence in the performance of environmental evaluations has become evident in Cuba since the government created GEOTECH, a joint venture between the State and a Spanish corporation. GEOTECH performs 95% of all EIAs in Cuba. Most of GEOTECH's clients are in the mining, tourism and agricultural industries, in all of which the state has a controlling interest. Evenson, *supra* note 12, at 519. This arrangement leaves the government in charge of administering the EIAs for its own industries, which creates a serious conflict of interest and questions the integrity of the EIAs.

154. Environment and Transition, *supra* note 21, at 492.

ronmental agencies.¹⁵⁵ An extensive administrative reorganization in 1994 created a more independent environmental regulatory structure that established decentralized entities and investigative institutes.¹⁵⁶ Mexico also delegated to the Secretariat of the Environment the authority to issue all official Mexican standards pertaining to the use of natural resources, waste water discharges, mining and hazardous wastes, and the management of solid wastes.¹⁵⁷

In addition to providing independence and empowerment to the agency, the environmental framework legislation, transition government must establish a method for inter-agency cooperation and dispute resolution.¹⁵⁸ Since environmental laws usually affect many government agencies, it is paramount that cooperation among the pertinent agencies be fostered in the legislation.¹⁵⁹ Inter-agency conflicts restrict environmental planning and paralyze the implementation of environmental policy.¹⁶⁰

Recognizing the inter-agency problems that may occur under any political regime, not only socialist ones, Chile integrated an inter-agency cooperation requirement into its environmental law.¹⁶¹ The provision requires the Chilean National Environmental Commission to "seek to standardize any environmental criteria, requirements, conditions, background, certificates, proceedings, technical demands and procedures that the ministers and other competent State bodies may establish."¹⁶²

Inter-agency conflicts may also be mitigated through decentralization. Cuba's diverse environment problems and varying degrees of pollution among the provinces suggests the establishment of localized administrative structures. Local administrators usually have more knowledge than a central government agency about environmental threats in their particular locality, and are thus better suited for prioritizing and addressing environmental concerns. The decentralized nature of such a structure may also free local agencies from central government pressure, and foster public participation.¹⁶³

CONCLUSIONS

Some scholars studying the environmental situation in Cuba have expressed the view that the main problem with the country's legal framework is not that it is inadequate, but that it is inadequately enforced. As one commentator put it:

The State, as the primary economic agent in the society, has been largely responsible for the environmental problems currently facing Cuba. Agricultural, industrial, and other economic activities have been pursued with little regard for the environmental consequence. While the right things have been said about the need to protect the environment, the rhetoric has not been translated into practice. The sad reality is that within the framework of Cuba's authoritarian political structure, the impressive environmental legal regime, which started with the Cuban Constitution of 1976 and manifests itself today in the Basic Environmental Law, has remained impotent in the face of environmental infractions perpetuated by the State.¹⁶⁴

155. See Commission for Environmental Cooperation, 1996 Annual Report, 80-87 (1997) [hereinafter CEC].

156. *Id.* One of the decentralized entities is the office of the Federal Attorney General for Environmental Protection (PROFEPA). The PROFEPA is responsible for enforcing environmental laws, regulations and Official Mexican Standards. There are three deputy attorneys general each devoted to a different aspect of environmental enforcement. *Id.* at 83.

157. See generally CEC, *supra* note 157.

158. Paez, *supra* note 94, at 683.

159. *Id.*

160. *Id.*

161. *Id.*

162. *Id.*

163. There is a decentralization provision in the Cuban environmental law, but the extent to which local agencies will be able to exercise their powers remains to be seen. See Law 81, *supra* note 15, art. 15, 16.

164. RAMLOGAN, *supra* note 3, at 100-01.

While this view is clearly correct insofar as it underscores the reluctance of Cuba's current government to enforce environmental laws against itself, the discussion of this paper demonstrates that, even under the new framework represented by Law 81, Cuba lacks an adequate set of environmental laws and regulations, a truly independent agency empowered to administer the laws, and workable enforcement mechanisms that allow both public and private parties to obtain redress from environmental transgres-

sions. Without those elements in place in the manner discussed in this paper, a change in governmental attitude towards environmental issues (such as would hopefully occur in the event of a free-market transition) would not be enough to "turn the corner" on the environment and start restoring Cuba to its once status, in Christopher Columbus' alleged famous phrase, as "the most beautiful land that human eyes have seen."