

International Tourism and Protection of Cuba's Coastal and Marine Environments

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I. INTRODUCTION

Imagine the southeast coast of Florida, from West Palm Beach, south to Fort Lauderdale and Miami, and then down to Key West. What comes to mind?

On the one hand, one might envision a robust economy anchored by major cities and fueled by a remarkable climate, a coastline of sandy beaches, and an almost endless supply of recreational and cultural opportunities. In short, a magnet for businesses and travelers from around the world.

On the other hand, one can also picture the miles of mangrove forests and associated wetlands that have long been drained and bulldozed to accommodate massive marinas, manicured golf courses, gated communities, and sprawling, zero-lot subdivisions with thousands of houses absent real yards. Or maybe large metropolitan areas compressed into narrow coastal fringes and the multilane causeways that crisscross open water to connect them. Or one can think of the massive Everglades, an ecological treasure that was drained over the last century and is reduced to a remnant of what it once was, but now the focus of a tenuous, multibillion dollar restoration effort to recreate portions of the functioning ecosystem it once was. These are a few stark reminders of some of the sacrifices that have been made in the name of aggressive development in coastal Florida, and the lowered quality of life generated by this sprawl.¹

Now imagine the chance to try again—ninety miles to the south of Key West in Cuba.

Cuba is by far, the largest and most ecologically diverse island in the Caribbean, with several archipelagos equaling or exceeding the Florida Keys in length. Cuba’s extensive coastal areas are still home to massive mangrove wetlands, tropical wet forests, coastal mountains, and a variety of associated habitats for a diverse range of plants and animals. It has a great variety of marine ecosystems, including many diverse coral reef habitats, extensive grass beds, and more than a dozen enormous estuaries and coastal lagoons.² The country, as a whole, is by no means a

1. See JOINT CTR. FOR URBAN AND ENVTL. PROBLEMS, IMAGING THE REGION: SOUTH FLORIDA VIA INDICATORS AND PUBLIC OPINIONS 135 (2000).

2. See CITMA, CUBA: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT—10 YEARS AFTER RIO DE JANEIRO SUMMIT [hereinafter RIO +10] 38 (2002).

pristine environment. Cuba has witnessed substantial environmental degradation both before and after the 1959 Revolution, and current threats to coastal and marine ecosystems from water pollution, coral bleaching, and other impacts are significant.

But all in all, many of the country's coastal and marine resources are in remarkably good condition. And compared to coastal areas in the United States and the Caribbean, Cuba's coastlines are characterized predominantly by natural environments, not developed ones.

Whether Cuba is on the verge of making the same mistakes made in coastal areas of the United States and the Caribbean or, instead, can craft a new model for coastal protection, is on the minds of many, both inside and outside of Cuba. Cuba has real opportunities to develop a profitable and resilient tourist economy while still maintaining a rich and magnificent environment that ensures visitors will return. Such opportunities have been seriously compromised in Cancun, South Florida, and countless other coastal areas around the world. But Cuba is facing extreme economic difficulties, and the temptation to cut corners and sacrifice long-term sustainability for short-term gain will be great if economic recovery is prolonged. Nations in the Caribbean, and elsewhere, struggling to confront problems of poverty typically underinvest in environmental infrastructure. Though Cuba has fallen into this trap in the past, there are intriguing efforts to try to do things differently as it pulls itself out of a decade-long economic crisis.

In this delicate equation, Cuba has advantages and disadvantages when compared to other developing countries that have counted on tourist dollars to rescue their economies. To Cuba's distinct disadvantage is the fact that its economy is still very much struggling to recover from a near total collapse following the fall of the Soviet Union in the late 1980s and the subsequent loss of billions of dollars in annual financial support in the years immediately following that collapse. As the economy of Cuba grows, its wastewater and air emissions from vehicles, power plants, and factories will also grow, just as its production of solid waste can be expected to increase. Tourism development, especially in coastal areas, has emerged as the country's chosen way out, and has now replaced sugar as the country's top money maker.³ As the tourism economy expands, with new resort hotels and other tourist facilities, extensive networks of new roads, bridges, and environmental infrastructure (e.g., stormwater controls, sewage treatment, solid waste

3. David Gonzalez, *Cuba's Bittersweet Move to Trim Its Sugar Crop*, N.Y. TIMES, Oct. 9, 2002, at A3; see also José Mena Álvarez, *El Sector del Turismo en Cuba, Diagnóstico y Proyecciones*, 2 PLANIFICACIÓN FÍSICA-CUBA 2001, at 7.

disposal, etc.) will be needed to avoid and minimize foreseeable adverse impacts to coastal air and water quality and natural resources such as mangroves, beaches, seagrass beds, and coral reefs. The annual increase in the number of foreign visitors to the island over the last decade has already been robust, and is significantly higher than most other countries in the Caribbean.⁴ This growth rate could soar if the United States eases travel restrictions, or completely lifts the almost forty-three-year-old trade embargo altogether. Whether, in the face of severe economic pressures, Cuba can manage current demands, much less a dramatic spike upward in the demand for tourism (particularly the U.S. brand of tourism), is no easy question.⁵

To Cuba's advantage, and not to be underestimated, is the will of its environmental professionals to get it right. Human capital may be the country's greatest asset, and Cuban environmental agencies and institutes are blessed with highly educated and experienced scientists, economists, lawyers, and other professionals. While environmental protection may have played second fiddle to efforts to rekindle the economy in the early 1990s, things have taken a turn for the better in recent years. As Professor Houck accurately concludes in his introduction to this Special Issue, "environmental protection in Cuba is not a charade."⁶ Since the mid-1990s, the country has truly mobilized around the environment, creating a new cabinet-level environmental department and developing in record time an unprecedented array of environmental laws. And, though encumbered by aging and inadequate environmental infrastructure, a mounting foreign debt, and a serious lack of financial and capital resources, Cuba's environmental agencies are moving steadfastly toward implementing this new environmental regime.

This Article will examine Cuba's efforts to develop international tourism as its principal engine for economic growth, a strategy that has precedent and is logical in the short-term. But this plan will be of long-term economic and cultural value only if accomplished in a manner that protects coastal and marine resources from the adverse impacts typically associated with tourism facilities and the infrastructure necessary to accommodate them. Cuba faces great challenges in developing tourism

4. Charles Suddaby, *Cuba's Tourism Industry*, in CUBA IN TRANSITION 122, 129 (1997) (noting that Cuba outperforms its neighbors in percentage of tourism increase).

5. As discussed in more detail, there are already between 130,000 and 206,000 U.S. travelers to Cuba each year in recent years. Cynthia Carris Alonso, *The Dough in Trading with Cuba*, BUS. WK. Aug. 6, 2002, available at http://www.businessweek.com/bwdaily/dnflash/avg2002/nf2002086_8614.htm.

6. Oliver A. Houck, *Thinking About Tomorrow: Cuba's "Alternative Model" for Sustainable Development*, 16 TUL. ENVTL. L.J., {____?}, {____?} (2003).

that is both profitable over the long-term and solidly protective of sensitive coastal resources. Many countries have failed in trying to strike such a balance, but Cuba—by virtue of its human capital, its current environmental policies, and the relatively good shape of its marine and coastal ecosystems—has a unique opportunity to build a different path. This Article will also discuss economic, legal, and political challenges to sustainable tourism development—challenges that are significant, but not overwhelming. Success or failure will ultimately depend on a strong body of environmental laws, regulations, and policies and their implementation and enforcement in the face of many contradictory pressures, adequate funding, and a suite of nonregulatory incentives and other tools. Cuba must ensure that its environmental ministry and component agencies are fully empowered to lead the country's efforts to protect its coastal and marine resources. This will require its environmental ministry to be fully involved with other ministries in economic planning, land-use planning, and foreign investment decisions. Finally, Cuba should also have practical and resilient policies for sustainable tourism under two distinct scenarios: i.e., if the United States' embargo is (or is not) lifted or eased in the near term.

II. THE SETTING

Cuba's potential for developing a successful and truly sustainable tourism-based economy must be measured against several factors: the condition of its natural environment; current and future threats to the environment; the current and potential state of its economy; the political and economic relationship between Cuba and the United States; and the legal and political infrastructure needed to develop and implement environmentally sustainable tourism.

A. *The Natural Environment*

In 1502, Christopher Columbus pronounced that Cuba “*esta es la tierra mas hermosa que ojos humanos hayan vista*” [“is the most beautiful land human eyes have ever seen”].⁷ Though written five hundred years ago, these words are virtually sacred to modern-day Cubans and are often repeated by contemporary travelers and writers. With over 3000 miles of coastline and 3200 islets and keys, Cuba is a biological crown jewel, home to some of the world's most spectacular and least-disturbed coral reefs, at the seam of the Atlantic Ocean,

7. DAVID STANLEY, LONELY PLANET GUIDE: CUBA 13 (1997); *see also* Oliver A. Houck, *Environmental Law in Cuba*, 16 J. LAND USE & ENVTL. L. 1, 3 (2000).

Caribbean Sea, and the Gulf of Mexico. Its massive reefs provide key spawning grounds for economically important species such as grouper, snapper, and lobster.⁸ The country has hundreds of miles of sandy beaches, and a number of natural, well-protected harbors throughout the country.⁹ Coastal ecosystems include vast mangrove forests, coral reefs, wetlands, and spectacular backreef systems associated with hundreds of keys around the island. One prime example is the Jardines de la Reina (Gardens of the Queen) Archipelago, a 1000-square-mile marine and terrestrial wilderness off the southeast coast that is also the site of an innovative ecotourism joint-venture, and a potential national park.

Another jewel in Cuba's ecological crown is the vast Zapata Swamp on Cuba's southern coast, the country's largest wetland system and the host to a large number of endemic bird species.¹⁰ The 1.1 million-acre Zapata Swamp is characterized by expanses of sawgrass and mangroves and is extremely rich in both plant and animal species.¹¹ Though not as thoroughly researched as other natural areas in Cuba's coastal zone and mountains, by latest count this area is home to almost 900 plant species (121 of which are endemic to the country), 172 species of birds (2 of which are locally endemic to the swamp), and the Cuban crocodile, the only endemic crocodile species of the Caribbean insular region.¹² Zapata Swamp is also an important stopover for migratory birds flying south from Florida to South America.¹³ Zapata also has approximately 15% of the total forest cover in the country, or about 634,790 acres, and is considered to be "one of the most important green zones in the Caribbean insular region."¹⁴

Overall, Cuba is home to thousands of animal species, many which are endemic to the country.¹⁵ The island has more than 300 species of birds, 18,000 species of insects, 38,000 species of crustaceans, and 1500 species of mollusks.¹⁶ Cuba's plant diversity is also remarkable. With

8. See Carlos Rodriguez Otero, *El Ordenamiento Territorial en Cuba y el Manejo de las Zonas Costeras* 1, 7 (May 2002) (unpublished manuscript, on file with author).

9. *Id.*

10. See Lazaro Miguel Echenique, *Zapata Swamp: Cuba's Largest, Wildest Wetland*, 4 *INT'L J. WILDERNESS* 17, 17-18 (1996).

11. *Id.*

12. *Id.*

13. *Id.* at 18.

14. *Id.*

15. Letter from Carlos Rodriguez Otero to Daniel Whittle (Dec. 2002) (on file with author) (citing Tomado de Sistema Nacional de Áreas Protegidas Plan 2003-2008 (Centro Nacional de Áreas Protegidas, July 2002)). With respect to fauna, there are an estimated 26,953 species, of which 16,516 are confirmed.

16. SERGIO DÍAZ-BRIQUETS & JORGE PÉREZ-LÓPEZ, *CONQUERING NATURE: THE ENVIRONMENTAL LEGACY OF SOCIALISM IN CUBA* 31-32 (2000).

more than 6700 species,¹⁷ the island has more than four times as many flora species as in Jamaica, and more than twelve times the number in Puerto Rico.¹⁸ Cuba is also blessed with a wide array of insular terrestrial ecosystems, including the Sierra del Rosario Biosphere Reserve in Pinar del Rio. A 1995 report divides Cuba into five terrestrial macrocoregions—tropical moist broadleaf forests, tropical dry broadleaf forests, tropical and subtropical coniferous forests, flooded grasslands, and deserts and xeric shrublands.¹⁹

B. Environmental Problems and Threats

Cuba has been spared many of the impacts associated with extensive coastal sprawl and development and, as such, still has miles of beaches, undeveloped coastlines, and intact reef systems. Cuba has been working for a number of years now to address environmental problems in interior watersheds that result in downstream impacts in coastal waters. That said, Cuba certainly has considerable pollution from a variety of sources, including intensive agricultural practices, mining, and municipal and industrial waste treatment. A good number of these problems exists in coastal areas and in regions targeted for new and/or expanded tourism development. If not remediated and avoided in the future, the vestiges of unsustainable industrial and agricultural practices of the past could thwart the country's plans to protect the very coastal treasures that underlie Cuba's special appeal to foreign tourists.

In its report to the World Summit on Sustainable Development in Johannesburg, South Africa, in the summer of 2002 (Rio +10 report), the Cuban Ministry of Science, Technology and the Environment (CITMA) highlighted what it considers to be the country's principal environmental problems: *soil degradation, deforestation, inland and sea water pollution and human settlement deterioration, loss of biological diversity*.²⁰ Each of these has implications for coastal and marine resources, but those with the most direct and profound consequences to coastal ecosystems are water pollution and a decrease in biodiversity associated with the loss of

17. *Id.*

18. Brian Simpson, *Ecotourism in Cuba*, ZOOGOER (1999), available at [http://www.fonz.org.zoogoer/az1999/28\(1\)cuba.htm](http://www.fonz.org.zoogoer/az1999/28(1)cuba.htm) (quoting Michael Smith, Director of the Caribbean Biodiversity Program and the U.S.-Cuban Scientific Exchange at the Center for Marine Conservation).

19. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 159 (citing a 1995 World Bank/World Wildlife Fund Conservation Assessment); see also Eugene Linden, *The Nature of Cuba*, SMITHSONIAN, May 2003, at 94-106.

20. RIO +10, *supra* note 2, at 32-39.

key natural areas. Tourism development in coastal zones can contribute to and exacerbate both of these problems.

1. Water Pollution

Water pollution, in the form of both organic and inorganic pollution from runoff, sewage, and industrial discharges is a serious threat to Cuba's coastal ecosystems.²¹ The delivery of excess nitrogen and phosphorus (i.e., nutrients) from upstream point and nonpoint sources degrades coastal waters in multiple manners that cascade through time, resulting in a range of serious impacts including algae blooms, fish kills, loss of seagrasses and other important fish habitats, coral reef degradation, and shellfish poisoning.²² For example, nutrient over-enrichment is a major problem throughout coastal areas in the United States and is particularly severe in the mid-Atlantic region, Florida, and the Gulf of Mexico, where nutrient pollution has resulted in a massive "dead zone" at the mouth of the Mississippi River.²³ Nutrient pollution from sewage, stormwater, and agricultural runoff is jeopardizing coral reefs off the southeast coast of Florida, and, similarly, is a major threat to reefs and other coastal systems in some regions of Cuba.²⁴

More than 70% of domestic wastewater, including most of the human sewage from Havana, is untreated or receives only primary treatment before being discharged into rivers, bays, and other coastal waters.²⁵ The Rio +10 report indicates that there are 2112 major water pollution sources in Cuba and fewer than 1 in 5 effectively treat wastewater discharges.²⁶ The most problematic sources of water pollution cited include human waste, effluent from sugar refineries, and discharges from food processing facilities.²⁷ Sediment and nutrient runoff from agricultural sources, such as wastes from sugar plantations, and a wide array of inorganic pollutants from harbor activities are also

21. *Id.*

22. NAT'L ACAD. OF SCIS., CLEAN COASTAL WATERS: UNDERSTANDING AND REDUCING THE EFFECTS OF NUTRIENT POLLUTION 1 (2000) [hereinafter NAS].

23. *Id.* Overenrichment of the nutrients in an area tends to lead to accelerated and unnatural growth of algal biomass that often leads to eutrophication of an area. Too much organic matter in an area can be toxic. Indeed, this is what has happened at the mouth of the Mississippi River. *Id.* at 1-2.

24. *E.g.*, John Christopher Fine, *Pollution Puts Coral Reefs Off Florida's Coast in Peril*, CHRISTIAN SCI. MONITOR, Oct. 3, 2002, at 12.

25. *See* RIO + 10, *supra* note 2, at 32.

26. *Id.*

27. *Id.*

major sources of pollution to Cuba's bays and other coastal waters.²⁸ More localized problems include runoff from deforestation associated with strip mining for nickel, which has caused serious pollution to the Levisa and Moa Rivers and has damaged the waters of Moa Bay on the northeast coast of Cuba in the Holguin Province.

2. Biodiversity Loss

The elimination of natural habitats from, among other things, conversion of natural forests into farm fields, has resulted in a significant loss of biodiversity. Continued loss of biodiversity remains a major threat to Cuba's terrestrial and coastal environments.²⁹ The Rio +10 report states that large numbers of resident and migratory birds, including 9 of the 21 endemic bird species, are endangered due to deforestation, poaching, and habitat alteration and destruction.³⁰ Several species of reptiles, amphibians, and mammals are also endangered or threatened due to habitat change.³¹ These problems are well-illustrated in Zapata Swamp, where habitats have been altered and lost due to draining for agricultural uses, harvesting of mangroves for charcoal production, grazing, peat extraction, and invasion by exotic plant species.³² The threats to the flooded grasslands of Zapata Swamp are not unlike those that have plagued the Florida Everglades for decades. A 1995 report concluded that two of the five Cuban macro-ecoregions, tropical broadleaf forests and flooded wetlands, are endangered, and the other three, moist broadleaf forests, coniferous pine forests, and the desert scrub, are considered vulnerable.³³

3. Impacts from Tourism

As discussed in more detail below, Cuba has been a major tourist destination for well over one hundred years. And though it virtually turned its back on international tourism for nearly three decades following the 1959 Revolution, Cuba has not escaped unscathed from the adverse environmental impacts that all too often accompany "*sol y*

28. Sergio Díaz-Briquets & Jorge Pérez-López, *The Special Period and the Environment*, in CUBA IN TRANSITION, *supra* note 4, at 287-88.

29. See RIO +10, *supra* note 2, at 37-40.

30. *Id.* at 39.

31. *Id.* The reptiles are classified as in extreme danger.

32. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 159 tbl. 6.2.

33. *Id.* at 265. The status of "endangered and vulnerable" lies between extinct/critical and stable/intact. *Id.*

playa” (sun-and-sand) tourism development in natural areas.³⁴ For example, Cuba’s most popular beach resort, Varadero Beach on the north central coast, about a ninety-mile drive from Havana, was first developed in the 1940s on a long and narrow spit of land that juts out from the shore.³⁵ Over the last decade, Varadero has been targeted for extensive new growth and now boasts a new airport with an annual capacity for 4 million visitors,³⁶ a golf course, 22 kilometers of beaches, no fewer than 41 hotels, and an array of nightclubs and recreational facilities.³⁷ Prior to its conversion to a beach resort, the peninsula was dominated by a diverse natural complex of mangrove swamps, pristine cays, coastal caves, sand dunes, and other natural features.³⁸ Only relics of these natural systems/habitats remain and many species that depend on those habitats have been lost to the area. Sewage treatment facilities for older tourist hotels and local communities are often primitive and foster coastal nutrient pollution near reefs already subject to some localized overfishing.

Because Cuba’s coastline is dotted with small islets and keys, access by large numbers of tourists is not easy or practical without the development of a network of roads, bridges, causeways, and marinas in and over sensitive marine waters. In fact, the transportation and other infrastructure (e.g., wastewater treatment, landfills) needed to support large numbers of tourists have already resulted in severe impacts in some areas and represent one of the most significant threats to coastal and marine resources associated with developing international tourism. One of the problems often cited by Cuban fishery scientists and marine biologists is the impact to fish habitats associated with the construction of stone causeways that connect the island of Cayo Coco to the mainland of the Sabana-Camaguey region.³⁹ These and other causeways, estimated to influence over 1760 square kilometers of fragile marine systems, impede the natural flow of waters in and out of the bays and coastal lagoons and degrade nursery areas and other essential habitats for a wide

34. See Michael A. Stein & Lani Kane-Hannan, *Cuba-Tourism as a Replacement Industry*, HOTEL ONLINE (1996), at http://www.hotel-online.com/Trends/Andersen/Cuba_Tourismindustry_Spring1996.html.

35. Interview with Norman Medina, Advisor to Cuban Tourism College Network, in Havana, Cuba (Aug. 2002).

36. Carroll McCormick, *Terminal Delights*, AIRPORTS INT’L, Mar. 2002, at 38 (noting that in 2001, 865 to 965 passengers passed through the Varadero Airport).

37. 2001 Cuba Tourism Brochure (on file with author).

38. *Id.*

39. *Id.*; see DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 264.

array of coastal fishes and invertebrates.⁴⁰ Development of hotels and other resort facilities in Cayo Coco may also have degraded important breeding habitat for the roseate spoonbill and the greater flamingo.⁴¹

Many of the problems discussed above (e.g., habitat loss and nutrient pollution in coastal waters) are typical in both developed and developing countries and certainly not unique to Cuba. Others (e.g., aging or non-existent environmental infrastructure) are more prevalent in developing countries and especially pronounced in Cuba, where the decade-long economic crisis has made matters worse. The Rio +10 report outlines a series of strategies, laws, investments, and other actions for addressing current problems and preventing future ones, especially those associated with the four problem areas cited above.⁴² Some of these actions are discussed below.

Perhaps the greatest obstacle to developing a sustainable tourist-based economy in Cuba lies not in remediating past impacts, though the importance of doing so should not be understated, but in developing and sticking to a different model for new and expanded tourism development on the coast that does not rely upon the destruction of vast areas of natural habitats or cuts corners on waste treatment, transportation development, and land-use planning. Cuba has developed such a model and so far appears to be moving toward implementation of it with an iron will.⁴³ Ultimate success will depend on the country's resolve to resist the promise of lucrative, but short-term economic gains that accompany rapid coastal development in favor of more profitable and environmentally sustainable development over the long run. We examine these issues in more detail below.

C. *The Economic Picture*

Cuba's current motivation in aggressively developing international tourism boils down to economics, pure and simple. But that is where the agreement generally stops. Whether significant environmental sacrifices are justified while the economy recovers is and will continue to be a

40. Interview with Rodolfo Claro, Scientist, Institute of Oceanology, in Havana, Cuba (Dec. 2002).

41. See DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 234.

42. *Id.*

43. The Cuban government has elevated environmental protection as a top policy priority since the mid-1990s. John Thorbjarnarson, a zoologist with the Wildlife Conservation Society, says that Cuba "stands head and shoulders above anywhere else in the Caribbean in terms of government support for conservation." Linden, *supra* note 19, at 96-97.

subject of intense debate among policymakers.⁴⁴ Professor Houck accurately notes that environmental protection has surfaced as a major player in Cuba's plans to build and maintain a stable economy.⁴⁵ A look at the country's past and present economic situation reveals how bold this direction is.

Prior to the collapse of the Soviet Union in 1989, Cuba's economy had been relatively stable and the standard of living of the average Cuban citizen, by some measures, was comparatively good as measured against many other developing countries in the Caribbean and Latin America.⁴⁶ The country's much publicized successes in literacy, higher education, and health care set Cuba apart from other developing countries and, by many accounts, reduced overall poverty throughout the country, particularly in rural areas.⁴⁷ Bolstered by Soviet trade and financial support throughout the 1970s and 1980s, sugar production became the cornerstone of the Cuban economy, with an annual output of approximately 7.4 million tons⁴⁸ accounting for billions of dollars in yearly revenues.⁴⁹ Sugar production in Cuba became mechanized in the 1960s and industrial-sized operations rapidly replaced smaller, family-farm-sized operations that were most prevalent before the Revolution. Industrial sugar production in Cuba (like intensive agricultural practices in other parts of the world) is a major polluter and over the last few decades produced vast amounts of liquid and solid waste that were discharged untreated to fresh water rivers and streams, wetlands, and coastal waters.⁵⁰ In addition, thousands of acres of forest lands were cleared to make way for sugar fields needed to meet ever increasing sugar quotas.⁵¹

44. Orlando Rey Santos, Director of the Environmental Directorate (DMA) in CITMA, states that in the mid-1990s during the debate on Cuba's environmental framework law, Law No. 81, a vocal minority in the government argued that the proposed environmental policies could stifle economic development. Mr. Santos writes, "One proponent of this position commented that 'environmental protection is a game for the rich; our priority is development, and later we will see.'" Orlando Rey Santos, *Introduction to CUBAN ENVIRONMENTAL LAW* 15 (Jerry Speir ed., 1999).

45. Oliver A. Houck, *Introduction to CUBAN ENVIRONMENTAL LAW*, *supra* note 44, at 8.

46. See Houck, *supra* note 6, at 60-61 (citing statistics describing Soviet support of the Cuban economy).

47. The extent of Cuba's successes in these areas has of course been the subject of intense debate for decades and, for many, a discussion of these reforms is incomplete without discussing the relative merits of Cuba's social and economic policies following the Cuban Revolution of 1959. This Article does not attempt to analyze these issues.

48. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 169.

49. See Gonzalez, *supra* note 3, at A3.

50. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 171.

51. See Carmen Gonzalez, *Seasons of Resistance: Sustainable Agriculture and Food Security in Cuba*, 16 TUL. ENVTL. L.J., {pp}, {pp} (2003).

Other leading industries during the 1970s and 1980s included mining, oil production and refining, cement production, chemical production, food processing, and various kinds of manufacturing.⁵² All of these industries were significant sources of water, air, and land pollution until the early 1990s.⁵³

Tourism, particularly international tourism, was a relatively minor industry in Cuba from the 1960s until the mid-1980s and the development of new tourism facilities and related infrastructure virtually ground to a halt for more than twenty years following the Revolution.⁵⁴ As described in more detail below, Cuba began a gradual push to develop its international tourism in the 1980s when it significantly expanded the beach resort at Varadero.⁵⁵

With the demise of the Soviet Union, Cuba lost its biggest trading partner and almost \$5 billion in annual support.⁵⁶ Its economy unraveled, virtually overnight. Before 1990, the Soviet Union and the Eastern European bloc of socialist countries accounted for no less than 85% of Cuba's exports and supplied the country with most of its imported goods, including oil, food, chemicals, machinery, and a variety of consumer goods.⁵⁷ By 1991, the Soviets and their eastern European allies had virtually cut off all trade and financial assistance to Cuba.⁵⁸ By 1993, Cuba's economy had shriveled—its GDP in 1989 was 19.3 billion pesos, by 1993 it had fallen by almost 50% to 10 billion pesos.⁵⁹ Per capita income dropped in that same period by more than one-half.⁶⁰ Imports dropped dramatically by 75% in that same four-year period.⁶¹ A steady decline in fuel, chemicals, consumer goods, and transportation equipment sent shock waves throughout the country and prompted Cuba to adopt a number of emergency measures aimed at avoiding total collapse of its economy; these included food rationing, fuel conservation, increased domestic food production, and the development of plans and

52. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 167.

53. *See id.*

54. *See* Suddaby, *supra* note 4, at 123.

55. *See* Álvarez, *supra* note 3, at 6-7.

56. Houck, *supra* note 6, at 60-65.

57. Díaz-Briquets & Pérez-López, *supra* note 28, at 281, 283.

58. *Id.* at 281.

59. *Id.* at 283.

60. *Id.* (measuring per capita income by per capita GDP).

61. *Id.*; *see also* Interview with Carlos Rodríguez Otero, Planner, Institute of Physical Planning (IPF), Ministry of Economics and Planning (Ministry of Planning), in Havana, Cuba (Feb. 13, 2002). Higher fuel prices during the Special Period also significantly drove up the cost of sugar production, further weakening the economy. *Id.*

incentives to attract foreign investors.⁶² Given the economic dire straits, spending on even basic environmental infrastructure, such as water supply systems and waste handling and treatment, was predictably a low priority, and in most places environmental problems received little or no attention or funding.⁶³

The economic crisis, dubbed the “Special Period in Peacetime,” forced Cuba to go beyond mere emergency measures and reconsider its nearly 30-year-old economic strategy altogether.⁶⁴ Government leaders soon concluded that success would depend upon attracting an unprecedented amount of foreign capital from trading partners such as Canada, Spain, Italy, and other European and Asian countries.⁶⁵ While Cuba has been able to attract significant investments from foreign mining companies and a smattering of other industries, foreign investors have been especially interested in the lucrative opportunities associated with developing mass international tourism in the country.⁶⁶ By the end of 1998, Cuba had finalized 374 joint ventures in 32 sectors with investors from more than 35 countries.⁶⁷ Foreign entities were directly investing \$300 million in Cuba,⁶⁸ much of which was in the tourism industry.⁶⁹ Cuba’s economy has gradually improved since 1996, but its

62. See Interview with Carlos Rodriguez Otero, *supra* note 61.

63. See Díaz-Briquets & Pérez-López, *supra* note 28, at 286.

64. Otero, *supra* note 8, at 1-2. May 2002: In 1990, the poor economy brought about significant changes in the life of the country, which were immediately evident in the exhausted ecosystems, landscapes, or the physical integrity of an area. The magnitude of the social and economic impacts were of such extreme severity that, out of necessity, they drove the search for new formulas for financing and development to maintain the hard won gains of the prior period, to work intensely to find internal solutions and alternative development that would allow new conditions, to conquer the crisis, to make the way for reinserting the Cuban economy into the international context, and at the same time to allow recouping service levels, consumer and environmental protection, improved living conditions and standards of living, and to perfect the tools for sustainable development. [*En 1990 las dificultades económicas provocaron cambios significativos en la vida del país que se evidenciaron de inmediato en señales de agotamiento de los geosistemas, paisajes o las unidades físicas del territorio. El impacto económico y social alcanzo magnitudes significativas de extrema severidad para la población imponiéndose la necesidad de buscar nuevas formulas de financiamiento y programas de desarrollo para sostener los logros alcanzados en la etapa anterior y trabajar intensamente en la búsqueda de soluciones internas y alternativas de desarrollo que permitiesen en las nuevas condiciones, superar la crisis, encontrar la vía para la reinserción de la economía cubana en el contexto internacional y a la vez permitir recuperar los niveles de servicio, consumo y protección ambiental alcanzados, mejorar las condiciones y el nivel de vida de la población y perfeccionar los mecanismos conducentes a la obtención de un desarrollo sostenible.*]

65. See Díaz-Briquets & Pérez-López, *supra* note 28, at 287.

66. See *id.*

67. Delia Acosta, *No End to Crisis This Year, Say Experts*, INTER PRESS SERVICE, Mar. 17, 2002.

68. *Id.*

69. Díaz-Briquets & Pérez-López, *supra* note 28, at 287.

trade imbalance is still severe (in 1998 Cuban exports totaled \$1.45 billion while the value of its imports were more than \$4.33 billion) and its foreign debt is staggering for a country its size (in 1999 Cuba's foreign debt was approximately \$12 billion).⁷⁰ Cuban officials assert that the country's movement toward expanding foreign investment has not been carried out in a vacuum and that environmental protection was emerging as a top priority even before the new economic strategy was fully conceived.⁷¹

Tourism steadily grew in the 1990s and emerged as the number one industry by the end of the decade. The tourism industry in Cuba now reportedly generates more than \$2 billion in direct revenues, compared with approximately \$440 million for the sugar industry.⁷² Indirect revenues associated with service and manufacturing sectors that supply the tourism industry are also substantial and growing steadily.⁷³ These trends, along with Cuba's plans to further expand its tourism industry are examined in more detail below.

D. The United States Factor

No discussion of modern-day Cuba or its economy is complete, of course, without some examination of the United States' almost forty-three-year-old trade embargo on Cuba and of some forecasting of the economic implications of easing or lifting U.S. travel and trade restrictions in the future. Historically, the United States and Cuba were virtually joined at the hip socially, culturally, and economically.⁷⁴ The exchange of ideas, music, culture, sports (especially baseball and boxing), consumer goods, and capital flowed freely between the two close neighbors for well over 150 years. Before 1959, the United States had always been Cuba's largest trading partner, a role it will resume if and when relations between the two nations finally normalize.⁷⁵ Historian Louis Pérez Jr. writes of the special relationship of the two countries between 1850 and 1959 as follows:

70. Acosta, *supra* note 67.

71. Letter from Carlos Rodriguez Otero to Daniel Whittle, *supra* note 15.

72. Houck, *supra* note 6, at 7; Gonzalez, *supra* note 3.

73. Interview with Norman Medina, *supra* note 35.

74. See Houck, *supra* note 6, at 4.

75. See generally Dorothy Robyn et al., The Impact on the U.S. Economy of Lifting Restrictions on Travel to Cuba 2 (July 15, 2002) (unpublished manuscript prepared for the Center for International Policy, on file with author) [hereinafter CIP Report]; Ed Sanders & Patrick Long, Economic Benefits to the United States from Lifting the Ban on Travel to Cuba (June 2002) (unpublished manuscript prepared for the Cuba Policy Foundation), available at <http://www.cubapolicyfoundation.org/pdf/CubaTravel.htm> [hereinafter CPF Report].

Change in Cuba always seemed to involve the United States as cause or effect, as a source or a means of change, or both. The well-being of many people, specifically as it related to economic development and prosperity, which also implies social peace and political order, was increasingly linked to the United States: entry to its markets, access to its products, use of its capital, application of its technology. At some point late in the nineteenth century, it became all but impossible for Cubans to contemplate their future, especially their future well-being, without first pausing on their relationship to North Americans.⁷⁶

After the 1959 Revolution, U.S.-Cuba political and economic relations took an about face. In 1960, the United States sought to isolate the Castro government and deprive it of U.S. dollars through a series of economic sanctions, first restricting imports of Cuban sugar and then eliminating military and economic assistance to Cuba.⁷⁷ By the end of the year, the United States imposed a total embargo on U.S. exports to Cuba, except for food and medicine.⁷⁸ As Cuba's relationship with the Soviet Union grew more politically and economically intimate,⁷⁹ Washington's relationship with Cuba grew ever chillier. The United States broke off diplomatic relations with the Castro Government in 1961 and continued to tighten the trade embargo throughout the early 1960s.⁸⁰

This embargo, or blockade as it is referred to in Cuba, remains in place today, though its restrictiveness has waxed and waned several times over the last four decades. For example, the Ford Administration conducted a series of secret talks with Cuban diplomats in the fall of 1974 aimed at normalizing relations between the two nations.⁸¹ Talks broke off allegedly over Cuba's support of the Marxist government of Angola.⁸² President Carter extended an olive branch to Cuba in March

76. LOUIS A. PÉREZ, JR., *ON BECOMING CUBAN: IDENTITY, NATIONALITY & CULTURE* 7 (1999). But this historical relationship had negative consequences as well and some assert that Cuba's economical dependence on the United States resulted in haves and have-nots in Cuba. *See, e.g.*, Letter from Carlos Rodriguez to Daniel Whittle, *supra* note 15.

77. 15 C.F.R. § 515 (1963); ANN LOUISE BARDACH, *CUBA CONFIDENTIAL: LOVE AND VENGEANCE IN MIAMI AND HAVANA* app. 13 (2002).

78. Trading with the Enemy Act, 50 App. U.S.C.A. §§ 2-3 (2002).

79. BARDACH, *supra* note 77. In May of 1960, diplomatic relations resumed between the Soviet Union and Cuba and Soviet economic and military assistance steadily increased shortly afterward. In April of 1961, President Castro pronounced, "We have made a revolution, a socialist revolution, right here under the very nose of the United States."

80. In February 1962, the United States banned all Cuban imports and cut off aid to countries that furnished assistance to Cuba. One year later (after the Cuban Missile Crisis of October 1962), President Kennedy prohibited travel by U.S. citizens to Cuba. In the summer of 1963, under pressure from the United States, the Organization of American States enacted economic sanctions and broke off diplomatic ties with Cuba. *See id.*

81. *Id.*

82. *Id.*

1977 by lifting the ban on travel to Cuba and allowing U.S. citizens to spend money on Cuban goods during visits to the country.⁸³ Each government opened "Interests Sections" in each other's country in March to May 1977.⁸⁴ But despite attempts to settle differences, relations between the two countries did not significantly thaw and the travel ban was reinstated by the United States in 1982 when Congress reimposed the prohibition on spending money in Cuba by U.S. citizens.⁸⁵

The last twenty years have also been marked by regular ups and downs in U.S.-Cuba relations. In 1992, for example, Congress enacted the Cuban Democracy Act banning foreign-based subsidiaries of U.S. corporations from doing business with Cuba.⁸⁶ In 1995, the Clinton Administration inched back the other way by adopting measures to promote people-to-people contact, to allow U.S. nonprofits to provide funding for projects in Cuba, and to allow U.S. citizens to remit limited amounts of money to Cuban family members or other Cuban nationals.⁸⁷ But following the downing of two civilian aircraft from the United States by the Cuban Air Force in February 1996, Clinton signed into law the Cuban Liberty and Democratic Solidarity Act (commonly called the Helms-Burton Act)⁸⁸ codifying the existing embargo and imposing sweeping new trade sanctions on Cuba.⁸⁹ Most importantly, this new law empowers U.S. citizens to sue foreign entities who invest in or make use of previously owned U.S. lands that were seized after the Revolution.⁹⁰ To date, however, both Presidents Clinton and Bush have temporarily suspended implementation of this authority because of complaints from foreign governments.⁹¹ This, and other legal provisions aimed at penalizing foreign companies doing business in Cuba, are among the toughest measures imposed by the United States to discourage foreign investment in Cuba and deprive the country of hard currency.⁹² In 2000, Congress passed the Trade Sanctions Reform and Export Enhancement Act that authorizes the commercial export of U.S. food and agricultural products to Cuba.⁹³ The law, however, requires that Cuban purchases of

83. *Id.*

84. *Id.*

85. *Id.*

86. 22 U.S.C. §§ 6001-6010 (2002).

87. *Id.* §§ 6021-6091.

88. Cuba asserted that the pilots of the aircraft were terrorists flying in Cuban airspace.

See id. § 6046(a)(3) (concerning the Cuban allegations).

89. *Id.* § 6032.

90. *Id.* § 6082.

91. *See id.* § 6085.

92. *See id.* § 6038.

93. *Id.* §§ 7201-7209.

U.S. goods be in cash, a condition that prompted harsh criticism from the Cuban government.⁹⁴ More recently, in March 2003 the Bush Administration proposed further restrictions on travel by U.S. citizens to Cuba.⁹⁵

The extent to which the U.S. trade embargo is to blame for Cuba's economic problems over the years has long been the subject of intense debate. Most would agree, however, that the absence of large numbers of U.S. tourists to Cuba is costing the island at least hundreds of millions of dollars each year in foregone revenues and that lifting the embargo would bring substantial economic benefits to both countries.⁹⁶ In fact, some predict that if the embargo were lifted the United States would swiftly emerge again as Cuba's main trading partner and could supply up to 80% of all imports to Cuba,⁹⁷ worth billions of dollars annually to U.S. business. It is also expected that U.S. businesses and tourists would pump billions of dollars into the Cuban economy as well.⁹⁸ For these reasons, there is mounting interest among U.S. agricultural and tourism sectors to do business in Cuba. And despite the current Administration's continuing hard-line policy toward Cuba,⁹⁹ there is unprecedented bipartisan support in Congress to ease travel and trade restrictions and to lift the embargo entirely.¹⁰⁰ For example, the Cuban Working Group is a bi-partisan coalition of U.S. Representatives and Senators formed in March 2002 to push for normalizing relations with Cuba. Asserting that alternative policies are needed to bring about a "peaceful transition to a stable, democratic form of government," the group's agenda sets forth a measured approach to reforming U.S. policy toward Cuba and calls for ending the travel ban and allowing U.S. exports of agricultural products and medical supplies.¹⁰¹ The Cuban Working Group is also urging that the Helm-Burton Act be allowed to sunset and in turn calls upon the

94. *See id.*

95. David Gonzalez, *Cuban Crackdown on Critics Stalls a Drive to Ease U.S. Embargo*, N.Y. TIMES, Apr. 13, 2003, at 4.2. In March 2003 the Bush Administration proposed new regulations that would restrict "people to people" cultural and educational exchanges. Cuban Assets Control Regulations, 68 Fed. Reg. 14,141-42 (Mar. 24, 2003).

96. *See* Suddaby, *supra* note 4, at 123.

97. *Sixty Minutes: The End of the Embargo?* (CBS television broadcast, Oct. 13, 2002) (transcript p.17) (noting that the minimum economic boom would be a 70% share of the import market) [hereinafter *Sixty Minutes*].

98. *See generally* CIP Report, *supra* note 75.

99. *Sixty Minutes*, *supra* note 97, at 16 (broadcasting a May 2002 speech by President George W. Bush). In March 2003, President Bush announced additional measure to tighten the embargo. *See* Gonzalez, *supra* note 95, at 4.2.

100. *Sixty Minutes*, *supra* note 97, at 16.

101. CUBA WORKING GROUP, U.S. HOUSE OF REPRESENTATIVES, A REVIEW OF U.S. POLICY TOWARD CUBA 1 (2002), available at <http://www.lawg.org/cwgreview.pdf>.

Cuban government to begin implementing a series of political and economic reforms.¹⁰² In July 2002, the U.S. House of Representatives approved a bill that would prevent the United States Treasury Department from enforcing travel restrictions.¹⁰³ The Senate did not take up the House measure before the 107th Congress adjourned in November 2002.

Pressure to ease travel and trade restrictions is also mounting from governors in the Farm Belt states, the U.S. Chamber of Commerce, and business leaders from agriculture, the travel industry, and other sectors. A recent pair of reports project that annual economic benefits to the United States from lifting the embargo could reach as much as \$1.9 billion in direct benefits to the travel industry and indirect benefits to the overall economy within five years.¹⁰⁴ Despite requirements that Cuba pay cash for any farm products imported from the United States, farmers and companies from at least 30 states are already supplying up to \$105 million worth of food and agricultural products to Cuba¹⁰⁵ and agricultural leaders are pushing for greater access to Cuban markets.¹⁰⁶ In September 2002, Cuba hosted a high profile U.S. Food and Agribusiness Trade Fair that attracted more than 750 people from state agricultural departments and 288 U.S. companies from 33 states, the District of Columbia, and Puerto Rico.¹⁰⁷ Cuban officials estimate that the country could be among the top twenty importers of U.S. farm products and import as much as \$250 million of U.S. goods by 2003 if the United States were to allow financing of purchases and to further ease trade barriers.¹⁰⁸

Though commerce between the two countries is limited to relatively small amounts of food, farm products, medical supplies, and other humanitarian supplies, Cuba is increasingly benefiting from U.S. tourist dollars. Although travel restrictions remain in place and legal travel is

102. *Id.* at 4-5. In May 2003, the Cuba Working Group renewed its call for easing travel and trade restrictions on Cuba. See Latin Working Group, *Urgent Action Needed: Support New Bill in Senate to End Travel Ban* (May 5, 2003), at <http://www.lawg.org/cuba/travelbillaction.htm>.

103. 148 Cong. Rec. H5322 (daily ed. July 24, 2002) (statement of Rep. Blumenauer).

104. See CIP Report, *supra* note 75, at 2; see also CPF Report, *supra* note 75, at 3.

105. See Alonso, *supra* note 5. The bulk of these purchases were prompted by the devastation to agricultural lands caused by Hurricane Michelle in 2001. Prior to that, Cuban purchase of U.S. farm goods had been significantly lower because of the Cuban government's objection to the requirement that purchases must be in cash. *Id.*

106. *Id.*

107. Kevin Sullivan, *At Havana Trade Show, They're Talkin' Turkey*, WASH. POST FOREIGN SERVICE (Sept. 26, 2002).

108. *Sixty Minutes*, *supra* note 97.

restricted to U.S. citizens who qualify for a general or specific license,¹⁰⁹ the number of U.S. tourists to the country has steadily climbed upward over the last few years and it is estimated that between 130,000 and 206,000 people from the United States traveled to Cuba in 2001.¹¹⁰

E. The Push to Modernize Environmental Laws

Ultimately Cuba's capacity to design, build, and implement a successful strategy for sustainable tourism in coastal areas will boil down to a conscious decision on the part of Cuban officials to elevate environmental protection to a footing equal to or greater than that accorded to the development of new markets. There is evidence that Cuba has made a deliberate decision not to simply rely on economic growth to save its environment like so many countries have done.¹¹¹ That Cuba has made environmental protection a priority is reflected in part by the lengths it has gone to amend its Constitution and adopt a host of environmental and natural resources laws, regulations, and policies over the last decade.¹¹² Environmental protection was first recognized in Article 27 of the 1976 Constitution of the Cuban Republic and then strengthened in 1992 to provide:

The State protects the environment and natural resources. It recognizes the close links they have with sustainable economic and social development to make human life more rational and to ensure the survival, well-being and security of present and future generations. The application of this policy corresponds to the competent bodies. It is the duty of citizens to contribute to the protection of the waters, atmosphere, the conservation of the soil, flora, fauna and nature's entire rich potential.¹¹³

In 1994, as part of a broader reorganization of government, Cuba abolished its thirteen-year old National Commission for Environmental Protection and the Rational Use of the Natural Resources (COMARNA) and replaced it with the more focused and powerful CITMA.¹¹⁴ This marked the first time in Cuba that a cabinet-level agency was established exclusively for the environment.¹¹⁵ CITMA almost immediately turned

109. See Cuban Assets Control Regulations, 31 C.F.R. § 515 (2002).

110. Interview with Norman Medina, *supra* note 35.

111. See Houck, *supra* note 7, at 62; see also Enrique Lanza Macías, *El Planeamiento del Turismo a Escala Nacional: necesidades y retos*, 2 PLANIFICACIÓN FÍSICA-CUBA 2001, at 9-15.

112. Professor Houck has chronicled the development of some of these laws and policies in an earlier article. See generally Houck, *supra* note 7.

113. CUBAN CONST. ch. I, art. 27.

114. See Houck, *supra* note 7, at 16-17 (describing Cuba's response to the 1982 World Summit in Rio de Janeiro).

115. *Id.* at 19-20.

its attention toward developing an assessment of the status of Cuba's environment and a vision and strategy for environmental protection in the future.¹¹⁶ In 1997, CITMA finalized its first National Environmental Strategy, a look at the country's most serious environmental problems and a broad set of principles for addressing them. Shortly thereafter, CITMA completed intensive negotiations over an ambitious environmental framework law that had been two years in the making.¹¹⁷ In July of 1997, the National Assembly formally ratified Law No. 81, the Environmental Law.¹¹⁸ Final passage of Law No. 81 paved the way for the prompt adoption of a series of implementing laws, regulations, and policies over the next few years. This Article will examine Law No. 81 in more detail below, focusing on particular laws, policies, and guidelines that are critical to ensuring that coastal tourism development is carried out in an environmentally sustainable manner.

III. TOURISM IN CUBA: A LOOK BACK AND TO THE FUTURE

Cuba has long attracted tourists from around the world and particularly has captivated U.S. vacationers for at least 150 years. Tourists followed on the heels of U.S. businessmen who flocked to Havana and other Cuban cities as far back as the mid-1850s, drawn by Cuba's proximity to the United States and its tropical climate, fascinating culture, and bustling nightlife. Cuba's old world charm and its other worldliness has infatuated U.S. travelers for centuries, and continues to do so today. A 1920s postcard beckoned U.S. travelers to Cuba with the tag line: "Visit Cuba: So Near and Yet So Foreign—90 Miles from Key West."¹¹⁹ That same motto would work today. The United States' fascination with the island state did not end with the chill in political relations or the imposition of travel restrictions. Instead U.S. infatuation with Cuba seems only to have been enhanced by Cuba's political and economic isolation over the last four decades.

116. *Id.* at 19.

117. CITMA, NATIONAL ENVIRONMENTAL STRATEGY 48 (1997); see Houck, *supra* note 45, at 4; Santos, *supra* note 44, at 17. This strategy is intended to be revised every five years. CITMA is currently in the process of revising it and expects to complete a revision in early 2004. Interview with Teresa Cruz, Attorney, DMA, in Havana, Cuba (May 9, 2003).

118. Houck, *supra* note 6, at 23.

119. PÉREZ, *supra* note 76, at 172.

A. *Cuba as a Major U.S. Destination Pre-1959*

Cuba of the mid-nineteenth century was a bustling trade center and a leading exporter of sugar, minerals, and other commodities.¹²⁰ During the California Gold Rush, Cuba was located along the major shipping routes and served as a stopover for a large number of merchant ships.¹²¹ United States businesses invested heavily in Cuba in the nineteenth and early twentieth centuries and played a key role in the development of rail, roads, and other transportation and environmental infrastructure.¹²² Cuba remains the only island in the Caribbean with a fully developed and operational rail system. By 1850, Cuba was the third leading trade partner with the United States, trailing behind only Canada and England.¹²³ As early as mid-century, more than two thousand U.S. citizens were living in Cuba,¹²⁴ prompting one observer to remark in 1855 that “Havana is crowded with *Americanos*.”¹²⁵

Tourism sprouted up in the 1850s to accommodate the demands of U.S. businessmen passing through or setting up shop in the country¹²⁶ and its allure to its neighbors to the north was overwhelming. U.S. travelers were attracted by the country’s tropical beauty and by a sense of timelessness. “Few travelers to Cuba failed to invoke the image of an earlier time, in fact the beginning of time, which, of course, was to transcend temporal dimensions and imply another place altogether.”¹²⁷ Cuba was variously referred to as “that Garden of Paradise, whence our first parents had been driven at the will of their offended Maker,” “a Paradise on Earth,” and the “outer court of paradise.”¹²⁸ Cubans responded well to U.S. demands and by the turn of the twentieth century the country provided a wealth of recreational activities, sporting events, and other amusements and entertainments to foreign visitors.¹²⁹

Cuba’s approach to tourism development over time has continued to be, if nothing else, opportunistic and distinctly flavored by the interests and tastes of U.S. travelers.¹³⁰ With the onset of World War I, and the virtual shutdown of travel between the United States and Europe, Cuba

120. *Id.* at 20.

121. *Id.* at 23.

122. *Id.* at 166.

123. *Id.* at 20.

124. *Id.*

125. *Id.*

126. *Id.* at 23.

127. *Id.* at 22.

128. *Id.*

129. *See id.* at 23.

130. *Id.* at 166.

successfully seized the opportunity to promote tourism to North Americans.¹³¹ Starting in 1914, Cuba began a four-decade-long push, interrupted only by WWII, to establish itself as a major tourist destination, particularly for its closest neighbor.¹³² Cuba led other Caribbean nations in U.S. tourists from 1915 to 1930.¹³³ The numbers are impressive: U.S. tourism in Cuba increased from 33,000 visitors at the beginning of World War I in 1914 to approximately 56,000 only six years later. Until 1921, U.S. tourists reached Cuba almost exclusively by steam ship, with service to Havana or Santiago de Cuba from New Orleans, Miami, Boston, New York, Baltimore, Jacksonville, and Mobile, making this growth in tourist visits even more remarkable.¹³⁴ In 1921, air travel from Key West to Havana started, making Havana one of the first cities in the world with an international airport.¹³⁵

By 1928, U.S. tourists in Cuba numbered 90,000, and then almost doubled in the next nine years to 178,000 in 1937.¹³⁶ Overall, between 1920 and 1940, Cuba attracted over 2 million tourists from the United States.¹³⁷ Following a downturn during World II, U.S. tourism shot up dramatically again after the War. In 1946, 120,000 U.S. tourists, who did not even need a passport to enter the country,¹³⁸ were already back in Havana's nightclubs and on Cuba's beaches.¹³⁹ Within eleven years, that number had nearly tripled to 356,000 in 1957.¹⁴⁰

By the late 1950s, Havana was considered a true world class city and getaway, variously described as "the Riviera of the Caribbean," the "Monte Carlo of Latin America," and the "Paris of the West Indies."¹⁴¹ All of this came to an abrupt end after the Revolution. By the early 1960s, the government had shut down the casinos, run out U.S. mafia interests, and begun to confiscate private businesses and properties in Havana and throughout the country.¹⁴² U.S. tourism to Cuba grinded to a halt.

131. *Id.*

132. *Id.* at 167.

133. Álvarez, *supra* note 3, at 5.

134. PÉREZ, *supra* note 76, at 166-67.

135. *Id.*

136. *Id.* at 167.

137. *Id.*

138. CUBAN TOURIST COMM'N, CUBA: IDEAL VACATION TOURIST GUIDE 1951-1952, at 9 (1951).

139. PÉREZ, *supra* note 76, at 167.

140. *Id.*

141. *Id.* at 179-80.

142. See BARDACH, *supra* note 77, app. B.

B. International Tourism in Post-Revolution Cuba

In Cuba's transition to a communist state in the 1960s, and the concomitant transformation of its political, property, and economic systems, international tourism, as might be expected, fell to the bottom of the heap. "Tourism was perceived as too closely associated with the capitalist evils of prostitution, drugs, gambling, and organized crime. The revolutionary government discounted tourism as a vehicle for economic growth and development."¹⁴³

Throughout the 1960s and much of the 1970s, little, if any, investment was made to develop new areas of the country for tourism, and existing tourist hotels and facilities were dedicated to serving the needs of vacationing Cubans and handfuls of foreign tourists from the Soviet Union and eastern bloc countries well into the 1980s.¹⁴⁴ In fact, tourist infrastructure actually contracted in the first fifteen years of the new regime with hotel capacity dropping by 50% by the mid-1970s.¹⁴⁵ This gradually began to change in the mid-1970s when the Cuban government, recognizing the potential economic benefits associated with long-dormant international tourism, began to promote tourism abroad.¹⁴⁶ Major efforts to develop international tourism in Cuba did not really take off for another decade, however, until the mid- to late 1980s when the government began to actively recruit foreign investors for joint ventures in tourism development.¹⁴⁷ It was during this time that Cuba significantly expanded the premiere Varadero beach resort area east of Havana along with other coastal resorts in Cayo Coco and Cayo Guillermo in the Sabana-Camaquey archipelago.¹⁴⁸ In 1984, international tourists in Cuba numbered approximately 158,000,¹⁴⁹ and in four years, the numbers almost doubled to 300,000 in 1988.¹⁵⁰ Since 1988, the number of foreign tourists to the island has steadily increased, even during the early years of the Special Period, and beginning in 1993, began a steeper rise upward.¹⁵¹

143. See DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 261 (quoting Maria Dolores Espino).

144. *Id.*; see also Álvarez, *supra* note 3, at 6.

145. See DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 261.

146. *Id.* In 1976, Cuba established the Instituto Nacional de Turismo (National Tourism Institute). *Id.*; see also Álvarez, *supra* note 3, at 6-7.

147. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 261. In 1987, Cuba created its first corporation, Cubanacan, to develop joint ventures with the foreign tourism sector. Since then additional state-run tourist corporations have been established. See Álvarez, *supra* note 3, at 5-8.

148. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 261-62.

149. *Id.* at 262.

150. Suddaby, *supra* note 4, at 123.

151. *Id.* at 124; Álvarez, *supra* note 3, at 7.

The rise in tourism to Cuba dramatically outpaced tourism growth rates in the rest of the Caribbean and throughout the world.¹⁵² In 1996, a record 1 million foreign tourists visited the country, a three-fold increase in eight years and an average annual increase of 16%.¹⁵³ U.S. travelers, the dominant force in Cuban tourism before the Revolution, represented a marginal percentage of the foreign tourist arrivals in Cuba in the late 1980s through the mid-1990s, hovering between 10,000 and 20,000 visitors annually.¹⁵⁴ Europeans came to the island in the greatest numbers during this period, with large numbers of visitors from Canada and Mexico as well.¹⁵⁵

C. *Tourism in Cuba Today: Trends and Policies*

Toward the end of the 1990s, international tourism to Cuba continued its steep rise with the European and Mexican percentage share of the market beginning to decline, while that of Canada and the United States showing dramatic increases.¹⁵⁶ Cuban tourism officials estimate that the number of foreign tourists to Cuba reached 1.7 million in the year 2000 and was on track to top 2 million in 2001, but fell short of that mark because of the fallout from the September 11 attacks.¹⁵⁷ Canadians now represent 25% of the tourism market in Cuba, while Europeans (especially the British, Germans, French, Italian, and Spanish) continue to come in large numbers.¹⁵⁸ Most significant, however, are the large numbers of U.S. travelers who visit the island despite the continuing restrictions on travel. Cuban officials estimate that in 2000 more than 130,000 U.S. tourists (legal and illegal) came to Cuba.¹⁵⁹

Officials from Cuba's Ministry of Tourism (MinTur) and the Ministry of Planning project that international tourism will continue to rise approximately 10% per year over the next few years, assuming that U.S. travel restrictions are not lifted or significantly eased.¹⁶⁰ These officials assert that current supply is greater than demand and that the country has the capacity to accommodate a steady increase of 300,000

152. Suddaby, *supra* note 4, at 123, 129. From 1988 to 1996, Cuba's 16.9% growth rate was three times greater than global and Caribbean tourism growth rates. *Id.*

153. *Id.* at 124.

154. *Id.* at 125.

155. *Id.*; Álvarez, *supra* note 3, at 7.

156. Suddaby, *supra* note 4, at 125.

157. Interview with Norman Medina, Advisor, Cuban Tourism College Network, in Havana, Cuba (Jan. 16, 2002).

158. *Id.*

159. *Id.* Some estimates range as high as 206,000. See Alonso, *supra* note 5.

160. Interview with Norman Medina, *supra* note 157; see also Macías, *supra* note 111, at 12-13.

additional tourists each year for the next several years (or about 15% above current levels).¹⁶¹ Cuba is racing to train new employees and construct new hotels and related infrastructure necessary to keep up with such a strong growth rate.¹⁶² As of 2002, Cuba had almost 40,000 hotel rooms and expects to add 3000 new rooms each year over the next few years.¹⁶³ Jobs in tourism, relatively high paying because of employees' access to U.S. dollars and other hard currencies, numbered approximately 100,000 in 2001 and trade schools throughout the country are training several thousand more hotel clerks, waiters, and other hospitality workers each year.¹⁶⁴ Cuban officials also estimate that approximately 200,000 service and manufacturing jobs are indirectly linked to tourism.¹⁶⁵

Under current plans, the bulk of the near-term growth in tourism facilities will occur in coastal areas. Planning officials indicate that there are 558 kilometers of sand beaches of high interest for tourism development.¹⁶⁶ Currently there are 85 acres (*polos*) in the country where tourism may be developed.¹⁶⁷ Of these, MinTur and the Ministry of Planning have identified eight priority areas for tourism development over the next five to ten years;¹⁶⁸ the majority of these eight zones are on the coast including the four regions—Havana, Varadero, Sabana-Camaguey, and North Holguin—where the most intensive hotel developments are currently underway.¹⁶⁹ In addition to new hotels, Cuba is investing heavily in new and expanded airports¹⁷⁰ and in tourist infrastructure needed to prolong the average stay of foreign tourists, such as golf courses, restaurants, nautical excursions, and other recreational opportunities. One Cuban official noted that development of hotels has

161. Interview with Norman Medina, *supra* note 157.

162. *Id.* MinTur has established a national system of tourism, schools (*Formatur*) that provides training throughout the country. See Lindeman et al., *Sustainable Coastal Tourism in Cuba: Roles of Environmental Assessments, Certification Programs, and Protection Fees*, 16 TUL. ENVTL. L.J. _____, _____ (2003).

163. Interview with Norman Medina, Advisor, Cuban Tourism College Network, in Havana, Cuba (Oct. 29, 2002). Officials predict that maximum hotel capacity in the country is 190,000 rooms, or almost five times the current number of rooms. Cuba is in the process of revising its projections for the next ten-year period. *Id.*

164. *Id.*

165. *Id.*

166. Otero, *supra* note 8, at 7.

167. Interview with Carlos Rodriguez Otero, IPF, Ministry of Planning, in Havana, Cuba (Feb. 13, 2003).

168. Interview with Norman Medina, *supra* note 163.

169. The eight Principal Tourist Zones are: Habana; Varadero; Jardin de Rey; Norte de Camaguey; N. Holguin; Santiago and Sud Oriente; Cienfuegos—Trinidad; and Canarreos. There are eight other zones also designated for tourism development. *Id.*; see also Álvarez, *supra* note 3, at 7.

170. See generally McCormick, *supra* note 36.

outpaced the construction of critical support facilities, remarking that in some places tourists have excellent accommodations, but “nowhere to eat!”¹⁷¹ To that end, current plans include adding new restaurants, 5 to 6 new golf courses over the next 3 to 4 years,¹⁷² improving 3 ports to accommodate cruise ships, and building new roads and bridges.¹⁷³

Cuban tourism officials generally acknowledge that the model they used for accelerating the development of international tourism in the 1990s was not fully based on principles of sustainability and that rapid expansion of tourist facilities came with a high environmental price tag.¹⁷⁴ Sustainable tourism development is now the official policy in Cuba and is reflected in large part in the suite of coastal protection, environmental licensing, and other environmental laws enacted in the late 1990s.¹⁷⁵ Sustainable tourism in Cuba is built on four “pillars” of sustainability—economic, environmental, cultural, and social.¹⁷⁶ This policy emphasizes the direct and indirect economic benefits of international tourism (economic pillar) and is predicated on growing in a measured fashion that recognizes and respects both physical and capital limitations (e.g., lack of sufficient roads, airports, and other transportation infrastructure, waste water treatment facilities, and landfills) and environmental limitations of building in or near fragile areas (environmental pillar).¹⁷⁷ Cultural sustainability, the third pillar, demands that tourism be consistent with and not be disruptive of existing cultures and lifestyles.¹⁷⁸ This policy is premised on the concern over the globalization of culture that can accompany international tourism and on the express goal that Cuban cultures and identities be strengthened, not diminished, over time.¹⁷⁹ The fourth pillar, social sustainability, is measured by the number of Cubans employed in the tourism sector, the availability of housing for

171. Echenique, *supra* note 10, at 19.

172. *Id.* One official stated that their goal is to develop one golf course for every 2000 hotel rooms.

173. *See* Stein & Kane-Hannan, *supra* note 34.

174. *See* DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 262-65. In the mid-1990s some pristine, previously undeveloped outer cays were subjected to intense tourism development before new environmental laws and policies were in place:

The northern cays of Ciego a Avila Province, for example, did not have a single hotel room in 1993: by 1997, they had over 1,500 rooms, an airport, more than 200 kilometers of roads—including seventeen kilometers of roads over the sea—electricity generating units, and 100 kilometers of pipes to supply water from the mainland.

Id.

175. Interview with Norman Medina, *supra* note 35; *see also* Álvarez, *supra* note 3, at 8.

176. Interview with Norman Medina, *supra* note 35.

177. *Id.*

178. *Id.*

179. *Id.*

employees, and tourism offerings for Cuban vacationers.¹⁸⁰ This sustainable tourism policy is also reflected in Cuba's 1995 Foreign Investment Act, Law No. 77, which directs that projects developed by joint ventures with foreign investors be consistent with the principles of sustainable development and environmental conservation.¹⁸¹

Cuba's tourism ministry and state-owned tourist enterprises primarily market the country as a premier destination for sun-and-sand vacations. Tourism planners distinguish between "traditional" beach resorts, such as Varadero, which are highly developed, and "*naturalista*" beach resorts, such as parts of Cayo Coco, which are not as densely developed and which generally offer more space and natural areas.¹⁸² And though generally inexpensive, sun-and-sand package tours of both types draw the largest number of tourists to the island currently, Cuba offers a broad diversity of natural and cultural tourism opportunities that few other Caribbean countries can come close to matching.¹⁸³ For example, Old Havana, recently classified a World Heritage Site, is a 500-year-old architectural gem that lures visitors by its many museums, castles, music, nightlife, and other historical and cultural offerings. Cuba's size and geographic diversity also offer a wide variety of outdoor experiences such as spelunking, bird watching, hiking, camping, biking, and scuba diving. Much of this potential remains untapped. The country's tourism planners are well aware that additional and more lucrative opportunities exist outside of the sun-and-sand context and are implementing plans to further expand "nature tourism" (*turismo de naturaleza*), a broad label that includes ecotourism (e.g., scuba diving, snorkeling, hiking, bird watching, etc.), agrotourism (e.g., organic farming), and adventure tourism (e.g., mountain biking, rock climbing, cave diving, etc.).

"Ecotourism" has been defined as "[r]esponsible travel to natural areas that conserves the environment and improves the well-being of local people."¹⁸⁴ Carefully implemented, ecotourism can have several

180. *Id.* Cuba also adheres to the system of sustainability indicators adopted by the Association of Caribbean States.

181. Ley de la Inversión Extranjera, LEY NO. 77 [Foreign Investment Law, LAW. NO. 77], art. 54 (1995) (Cuba).

182. Interview with Norman Medina, Advisor to Cuban Tourism College Network, in Havana, Cuba (Feb. 11, 2003).

183. *See, e.g.*, Suddaby, *supra* note 4, at 123. Cuba offers several different categories of natural and cultural tourism: sun-and-sand (traditional and *naturalista*), nautical, nature, health, cultural, and religious.

184. *See* MARTHA HONEY, ECOTOURISM AND SUSTAINABLE DEVELOPMENT: WHO OWNS PARADISE 6 (1999) (quoting Ecotourism Society Newsletter 1, no. 1 (spring 1991)). Honey asserts that real ecotourism has seven characteristics: (1) involves travel to natural destinations,

distinct environmental and economic advantages over traditional sun-and-sand tourism and other nature-based tourism.¹⁸⁵ First and foremost, ecotourism generates interest in parks, forests, rivers, caves, and other natural areas and provides the incentive to protect such areas so that visitors return. In addition, tourists drawn to outdoor activities and nature-based experiences are often “higher-end” tourists who spend more money during their stay. Providing expanded and upgraded tourist products to these “exclusive markets” has the potential to raise significantly higher revenues than more traditional and inexpensive package tours typically do.¹⁸⁶ In many developed countries the spending on tourism has a multiplier effect of 1.5 to 3.5 in the local economy, which is much higher than that generated by the all-inclusive package tours that dominate Cuba’s coastal resorts.¹⁸⁷ In addition, many ecotourism opportunities are, by their very nature, less dependent on networks of roads, hotels, stores, and other infrastructure and thus overall impose fewer impacts on the environment.¹⁸⁸

Cuba now has a dedicated entity for ecotourism, the National Commission for Ecotourism. The Commission is comprised of officials from CITMA, MinTur, and the Ministry of Agriculture and publishes guidelines and criteria for ecotourism, approves guides and tour leaders, and promotes tour packages worldwide.¹⁸⁹ Several state-owned companies now exclusively book and operate eco-tours. Working with CITMA, MinTur, the Ministry of Agriculture, and the Commission, the IPF in the Ministry of Planning has identified 50 areas with nature tourism potential throughout coastal and interior Cuba.¹⁹⁰ Many, but not all of these, are in national parks or other protected areas and emphasize ecotourism over other natural tourism offerings.¹⁹¹ And though income

(2) minimizes impact, (3) builds environmental awareness, (4) provides direct financial benefits for conservation, (5) provides financial benefits and empowerment for local people, (6) respects local culture, and (7) supports human rights and democratic movements. *Id.* at 22-24.

185. Honey distinguishes ecotourism from other kinds of nature-based tourism. “Nature tourism involves travel to unspoiled places to experience and enjoy nature. It usually involves moderate and safe forms of exercise such as hiking, biking, sailing, and camping.” *Id.* at 6.

186. MICHAEL A. STEIN & LANI KANE-HANAN, ARTHUR ANDERSON, CUBA—TOURISM AS A REPLACEMENT INDUSTRY, available at http://www.hotel-online.com/Trends/Anderson/Cuba_TourismIndustry_Spring1996.html (last visited June 26, 2003).

187. *Id.*

188. See, e.g., Díaz-Briquets & Pérez-López, *supra* note 28, at 263.

189. Interview with Norman Medina, *supra* note 35.

190. Álvarez, *supra* note 3, at 8.

191. See DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 263. Specific areas targeted for ecotourism include Zapata Swamp, Sierra del Rosario, and Jardines de la Reina. See HONEY, *supra* note 184, at 182-84. One of Cuba’s ecotourism showpieces is the Moka Ecolodge in the forested hills above Las Terrages in the province of Pinar de Río.

from ecotourism and other forms of nature tourism still represents a small percentage of Cuba's tourism-based revenues, their popularity is on the rise. In 1999, revenues from ecotourism packages were \$11 million, in 2000 they had almost doubled to \$19 million, and by the end of 2001, ecotourism generated \$25 million in income.¹⁹²

Cuba's intention to develop and expand ecotourism is promising, but not without its skeptics. They fear that these efforts could easily be overwhelmed by the attention given to conventional "large-scale beach and urban tourism" and observe that "[m]any Cubans openly worry that the island is on a slippery slope back towards the Caribbean-style, foreign-owned tourism."¹⁹³ They wonder whether ecotourism is simply a "window dressing over the island's mushrooming conventional tourism."¹⁹⁴ These are legitimate concerns and present challenges to planners and environmental officials who are working to keep environmental protection on an equal footing with economic development, in many places as well as Cuba.¹⁹⁵ But in the case of Cuba, early efforts to invest in real models of ecotourism are encouraging and offer hope that the country will emerge as a leader, not a follower, in Caribbean ecotourism.

D. The United States Factor in Tourism Development and Coastal Protection in Cuba

Cuba has long appealed to celebrities and high-end travelers from the United States drawn to Havana's casinos, cabarets, and beach resorts.¹⁹⁶ Havana's premier hotels, including the storied Hotel Nacional and the Habana Libre (formerly the Havana Hilton), are packed with photos and other memorabilia of movie stars, athletes, business leaders, politicians, and other famous visitors from the United States. But Cuba has long been accessible and affordable to middle and working-class U.S. citizens as well, and tourist facilities were developed to accommodate all visitors.¹⁹⁷ Louis Pérez Jr. argues that the tastes, preferences, and past-

192. Interview with Norman Medina, *supra* note 35.

193. DÍAZ-BRIQUETS & PÉREZ-LÓPEZ, *supra* note 16, at 265.

194. *Id.*

195. See Díaz-Briquets & Pérez-López, *supra* note 28, at 290; see also HONEY, *supra* note 184, at 25 (asserting that the "principles underlying ecotourism are being 'greenwashed' by superficial, feel-good rhetoric and minor cost-saving modifications that do not transform tourism into a tool that protects the environment, benefits local communities, and educates the tourists"). This observation notwithstanding, Honey cites to some good examples of ecotourism and argues that ecotourism is "still in its infancy, not on its deathbed." *Id.*

196. PÉREZ, *supra* note 76, at 167-68.

197. *Id.*

times of North Americans heavily shaped the nature of tourism in Cuba and the kind of services provided.¹⁹⁸ “From the outset Cuban tourist industry was driven by North American tastes and preferences. . . . The travel market was obviously North American, around whose needs the tourist infrastructure developed its definitive characteristics.”¹⁹⁹ Professor Houck notes a downside to such influence in his introduction: “American consumers walk heavily on the earth and leave large scars,”²⁰⁰ an observation with profound significance to future tourism development in coastal Cuba.

As discussed above, U.S. travelers have been making the short jaunt to Cuba for more than 150 years, and until 1959, made up the lion's share of tourists on the island. And now after a four-decade long hiatus, U.S. citizens are ready to come back to Cuba in droves, and many already have. In 2001, between 130,000 and 206,000 U.S. citizens traveled to Cuba, many of whom were authorized to travel by the U.S. Department of Treasury and thousands more who were not.²⁰¹ If travel restrictions are lifted (as has been proposed by bills that have been passed by the U.S. House of Representatives, most recently in July 2002), estimates of the number of U.S. citizens who would travel to Cuba vary widely. Some conservatively predict that between 300,000 and 500,000 U.S. citizens would travel to the island in the first year and within five years numbers would reach up to 1.4 million U.S. tourists to Cuba.²⁰² Officials with the United States International Trade Commission predicted in 2001 that absent the embargo, only 100,000 to 350,000 more U.S. tourists would travel to the island, while the private consultants, The Brattle Group, forecast that within a few years approximately 3 million U.S. citizens would visit Cuba annually, many as tourists and others for business and

198. *Id.* at 167.

199. *Id.* Pérez asserts that North American tourists considered themselves “privileged visitors” who in Cuba “could do whatever they pleased,” quoting a visitor from the Canary Islands in 1916:

Every *yanqui* defines and imposes the primacy of his country in the smallest acts, in the slightest gestures. Each citizen of the United States travels with his citizenship in his suitcase, with an authoritarian and overbearing *yanquisimo*. Each one moves about the world bolstered by a sense of a supreme power that authorizes him to speak overbearingly and give orders.

Id. at 187.

200. Houck, *supra* note 6, {at ???}.

201. See Stein & Kane-Hannan, *supra* note 34 (estimating that 176,000 authorized and 30,000 unauthorized U.S. tourists arrived in Cuba in 2001).

202. CPF Report, *supra* note 75, at 2. The authors of this study base their projections on three distinct scenarios: (1) U.S. travel to Cuba is authorized, but other trade embargo restrictions stay in place; (2) U.S. carriers and tour operators are allowed to take U.S. tourists to Cuba, but the other embargo restrictions stay in place; and (3) the trade embargo is completely lifted.

family visits.²⁰³ Cuban planning officials predict that total tourist arrivals could range between 5 and 10 million by the year 2010, if the embargo is lifted or significantly eased.²⁰⁴ Some experts in Cuba anticipate that up to 1 million U.S. tourists could travel to Cuba in the first year alone after the embargo is lifted.²⁰⁵ Of the U.S. tourists to Cuba, many would be “diverted” (i.e., they would have otherwise gone to another destination), while others would be “incremental” (i.e., passengers who would not otherwise have traveled).²⁰⁶

Whatever the actual numbers, lifting the travel sanctions promises to result in billions of dollars in new revenues yearly to both countries. Some predict that economic benefits to Cuba from tourism could reach \$18.5 billion by 2007, and significantly more than that if the U.S. embargo is lifted.²⁰⁷ The Cuban government is keenly aware of the economic boost that unrestricted U.S. travel to the island will provide and is already working to cater to U.S. demands for tourism.

Increased travel by U.S. tourists to Cuba brings with it special implications, in part because of the proximity of the two countries to each other and in part because of the tastes and travel habits of U.S. travelers. For example, U.S. citizens in pleasure boats would surely flock to the island in great numbers, filling the country’s existing marinas and driving up the demand for new ones. In addition to expansions of existing commercial airports, many would want to pilot their own private planes to the island, creating the need for even further airport capacity. Cruise ship industry demands will skyrocket throughout some of the most pristine areas of the island (e.g., there are already impacts from cruise ship activities at Punta Frances on the Isle of Youth). High speed ferries from Miami or Key West could provide transportation for thousands of U.S. travelers to Cuba.²⁰⁸ And with ferries would come cars and trucks, tens of thousands of them. All of this would require additional investments in transportation infrastructure (roads, port and marina facilities, airports, etc.) above and beyond what is currently on the drawing board in Cuba. This scenario also demands that those Cuban environmental laws and policies already on the books stay in place post-embargo, and that implementation and enforcement of those laws be a top priority. Successful and sustainable tourism development in Cuba

203. CIP Report, *supra* note 75, at 19 tbl. 1.

204. Álvarez, *supra* note 3, at 8; *see also* Macías, *supra* note 111, at 12-13.

205. *See* Interview with Norman Medina, *supra* note 35.

206. CIP Report, *supra* note 75, at 1.

207. Houck, *supra* note 6, at 42.

208. *See generally* CIP Report, *supra* note 75.

post-embargo will also require the identification of public and/or private funding sources sufficient to upgrade and modernize transportation and environmental infrastructure.²⁰⁹

Some claim that the absence of U.S. visitors, and the foregone billions of dollars in potential income, is an obstacle to sustainable tourism development because without such revenues Cuba may not be able to afford the facilities, infrastructure, and other services needed to protect the environment.²¹⁰ That might be true, but it should not serve as an excuse to ease environmental protection requirements in the near term. Even while U.S. travel restrictions are still in place, Cuba should move forward quickly to invest in infrastructure and implement and enforce recently enacted environmental laws and policies needed to ensure that U.S. tourism, when it finally comes, is not overwhelming.

IV. CUBAN ENVIRONMENTAL LAW: THE FIRST LINE OF DEFENSE

Without adequate law or political will, most coastal cities of the world build right down to the beach, bulldoze the vegetation, drain and fill the wetlands, and dump raw sewage into the sea where it mixes with eroded sediments, algae, oil spills, bilge water, and untreated industrial wastes. The natural systems die.²¹¹

In addition to the economic obstacles of protecting coastal and marine resources from poorly planned and/or executed tourism development, Cuba faces a number of legal and political challenges as well. Cuba's environmental laws and policies are impressive and far-reaching. They provide the first line of defense against unsustainable development in coastal and other fragile areas. But this legal framework is young and untested, and implementation and enforcement of statutory and regulatory mandates remains the wild card. CITMA, Cuba's principal environmental ministry, has broad powers over new hotels and other developments and has the authority to veto projects that are not environmentally sound.²¹² But, if the United States and many other countries are any guide, conflicts between CITMA and the many ministries responsible for economic development are inevitable and will not favor strong position-taking regarding conservation.²¹³ Debates over

209. See Stein & Kane-Hannan, *supra* note 34.

210. See *id.*

211. Houck, *supra* note 6, at 40-41.

212. *Id.* at 19-21.

213. *Id.* at 18-19 (describing the debate that took place in the development of Law No. 81 and its implementing decree laws and resolutions).

the relative environmental and economic benefits of projects have long occurred in Cuba and will increase as the country moves ahead with its ambitious tourism development plans. Pressure to accelerate the environmental review process or waive or relax environmental standards for particular projects will surely be placed on environmental officials. There also remain obstacles to timely and meaningful involvement of the public in environmental decision making. These conflicts may become even more commonplace if the U.S. trade embargo is lifted and efforts to develop tourism opportunities accelerate and pressure to build in pristine coastal areas intensifies.²¹⁴

This Part provides an overview of Cuba's environmental framework law, Law No. 81, and the particular statutory and regulatory provisions applicable to foreign investment, siting, environmental review, and licensing for new construction in coastal areas. Full and faithful implementation of all of these provisions by a strong CITMA will be essential in Cuba's quest for sustainable tourism.

A. *The Environmental Law*

If the National Environmental Strategy provides the vision for environmental protection in Cuba, then Law No. 81 provides the roadmap for getting there. Law No. 81, commonly referred to as the "Law of the Environment," is a broad and far-reaching framework law.²¹⁵ The law sets forth environmental objectives, establishes the administrative framework within which CITMA and other environmental agencies and institutes operate, and creates a set of legal instruments that agencies must use in carrying out their many mandates. In a nutshell, it provides the central nervous system for a large body of specific substantive and procedural environmental laws and resolutions needed to implement the country's environmental protection goals.

The six express objectives of Law No. 81 are to: (1) direct the adoption of laws and regulations that ensure that development is environmentally sound; (2) provide the basis for establishing environmental standards and criteria for projects and activities that

The tug-of-war among resource agencies and their constituencies over environmental policies and the substantive provisions that would carry them out, mirrored those seen daily in Washington, D.C., Brussels, and other capitals. The arguments were virtually the same, of pro-development versus pro-environment, and who would hold what old turf and what new power within whatever compromises shook out.

Id.

214. *Id.* at 30.

215. *Id.* at 18-25 (discussing the history of Law No. 81).

pollute and otherwise adversely impact the environment; (3) provide opportunities for public notice and participation in environmental decision making; (4) promote public awareness of environmental problems; (5) provide for environmental assessment of proposed activities, monitoring of environmental compliance, and enforcement of environmental requirements; and (6) foster protection of health, and the improvement of the quality of life and the environment in general.²¹⁶ Together these objectives provide a sweeping and coherent mandate to the legislative and executive entities charged with managing the environment.

The institutional framework for environmental management is set forth in Title II of Law No. 81. Article 11 establishes CITMA as the lead entity for the environment:

The Ministry of Science, Technology and the Environment is the governmental agency of the Central Administration of the State in charge of proposing environmental policy and guiding its execution through the coordination and control of the nation's environmental management, promoting its coherent integration in order to contribute to sustainable development.

The details for carrying out the law's objectives are to be established pursuant to a series of legal instruments, including:

- The National Environmental Strategy and other programs and plans;
- Law No. 81 and environmental regulations and technical standards;
- Environmental land-use planning;
- Environmental impact assessment (EIA);
- Environmental Information System;
- State Environmental Inspection System;
- Environmental education;
- Scientific research and technological innovation;
- Economic regulation;
- National Environmental Fund; and
- Regimes of administrative, civil, and criminal liability.²¹⁷

Taken together, these instruments provide the legal infrastructure needed to develop a comprehensive system of environmental, planning, review,

216. Ley del Medio Ambiente, LEY NO. 81 [Environment Law, LAW NO. 81], tit. 1, ch. III, art. 9 (1997) (Cuba), *translated in* CUBAN ENVIRONMENTAL LAW, *supra* note 44, at 21.

217. *Id.* tit. III, art. 18.

management, and enforcement and education. Since passage of Law No. 81 in 1997, a number of implementing environmental laws, decree laws, resolutions, and guidelines have been adopted, including measures addressing forest protection, coastal zone management, environmental assessments, inspections, protected area management, and a host of others.

Below we discuss some of the particular legal instruments applicable to the siting and construction of hotels and other projects and facilities in coastal areas. (Our companion piece discusses in more detail non-regulatory approaches to environmentally sound siting, construction and operation of projects in coastal areas.)²¹⁸

B. Foreign Investment

Since the collapse of the Soviet Union more than a decade ago, a centerpiece of Cuba's economic strategy has been to attract foreign investment in tourism, mining, and a range of other sectors. Cuba amended its Constitution in 1992 to liberalize property laws, to allow limited private commercial enterprises, and to authorize joint ventures with foreign companies.²¹⁹ In 1995, the National Assembly enacted Law No. 77, the Foreign Investment Law, which provides the legal framework for joint ventures and other foreign investments in Cuba.²²⁰ The Ministry of Foreign Investment and Economic Cooperation (Ministry of Foreign Investment) is the principal agency in charge of negotiating foreign investments in the country.

A central purpose of Law No. 77 is to promote and encourage foreign investments "in order to carry out profitable activities which contribute to the country's economic capacity and sustainable development, on the basis of respect for the country's sovereignty and independence, and the protection and rational use of natural resources."²²¹ Within this broad mandate, the Ministry of Foreign Investment has broad discretion to negotiate a wide range of foreign investments; final authorization of foreign investments is subject to approval by the Executive Committee of the Council of Ministers or by the Government Commission appointed by the Executive Committee.²²² Law No. 77 does

218. See generally Lindeman et al., *supra* note 162.

219. CUBAN CONST. art. 27.

220. Ley de la Inversión Extranjera, LEY NO. 77 (Foreign Investment Law, LAW NO. 77), art. 12 (providing that foreign investments may be in three forms: joint venture, international economic association contract, or totally foreign capital company).

221. *Id.* art. 1.1.

222. *Id.* art. 23.5.

not favor investments in any particular activity or sector, but article 10 excludes foreign capital going to health, education, and the armed forces.²²³

Article 1.2 of the law provides generally that investments be consistent with “the norms related to the protection of the environment and the rational use of natural resources.”²²⁴ Chapter XVI, entitled “Environmental Protection,” sets forth more specific principles and procedural requirements. Article 54 of chapter XVI directs that foreign investment should be carried out “in the context of the country’s sustainable development,” and that over the course of the investment, “environmental conservation and the rational use of natural resources shall be carefully undertaken.”²²⁵ More important than this broad directive though, is the requirement in article 55 that the Ministry of Foreign Investment solicit CITMA’s review of the “investment’s suitability from an environmental point of view.”²²⁶ In this review, CITMA must also determine whether an EIA is warranted and whether an environmental license should be granted.²²⁷

Consulting with CITMA’s scientific, technical, and legal experts upfront is critical toward ensuring that proposed projects funded with foreign capital are environmentally sound and are capable of being constructed and operated in compliance with all environmental standards and other requirements. With respect to tourism development in coastal areas, CITMA’s greatest contribution has been and will continue to be in helping to ensure that hotels and transportation infrastructure are not located in fragile areas.²²⁸

In at least a few instances to date, CITMA’s involvement in the foreign investment process has proved timely and critical. For example, in the year 2000, CITMA worked with the Ministry of Foreign Investment to review a joint venture proposal by a foreign company and the Ministry of Agriculture to develop a vineyard between downtown Havana and the international airport just outside of town. In that case, CITMA officials concluded that the technology to treat and control organic waste and chemical effluents was not adequate and that siting the proposed viticulture operation in the proposed location would threaten

223. Article 10, however, does provide a limited exception for commercial activities of the armed forces. *Id.* art. 10.

224. *Id.* art. 1.2.

225. *Id.* art. 54.

226. *Id.* art. 55.

227. *Id.*

228. *See* Houck, *supra* note 6, at 28.

the city's water supply watershed.²²⁹ Because of these concerns, the proposed project was canceled.²³⁰ In another instance, CITMA expressed several concerns over a proposed new international airport in Cayo Coco because of impacts on bird habitat and other areas. CITMA indicated it was successful in attaching several mitigating conditions in the environmental license for the airport and secured a commitment from the investors to build a new public park in the area.²³¹

The above examples are encouraging, but as noted elsewhere, it is still too early to tell whether CITMA will have the political muscle to play a lead role in foreign investment decisions over the long haul.²³² The level of foreign investment in Cuba since the mid-1990s has been relatively high and spread out across many industrial sectors, including tourism. So far it appears that environmental concerns are fairly well scrutinized in the foreign investment process and further down the chain at the land-use planning and environmental review stages, as discussed below. But if the United States eases or lifts its embargo in the near future, interest in investing in Cuba will skyrocket, particularly in the travel and tourism sectors. It remains to be seen whether U.S. travelers' pent-up demand to experience Cuba, and the promise of lucrative economic benefits that would flow from free trade between the two countries, will prompt the Cuban government to revise its foreign investment policies in order to expedite the construction of new marinas, airports, hotels, and other facilities to accommodate U.S. tourists' demands as swiftly as possible. Whether environmental safeguards will remain in place and be upheld when pushed will be a true test of Cuba's current resolve to grow its economy in a measured and sustainable fashion.

C. Project Siting—Land-Use Planning

Prior to the 1959 Revolution, land-use planning in Cuba was generally limited to Havana and other urban areas.²³³ In the early 1960s, Cuba began a system of national planning that focused largely on shifting population to rural areas and developing the capacity for large-scale

229. Interview with Carlos Rodríguez Otero, IPF, Ministry of Planning, in Havana, Cuba (Aug. 12, 2002). In that case, the Ministry of Planning also raised objections, citing that agriculture might be an incompatible use in a corridor targeted for commercial and industrial development.

230. *Id.*

231. *Id.*

232. Houck, *supra* note 6, at {_____}.

233. Interview with Carlos Rodríguez Otero, IPF, Ministry of Planning, in Havana, Cuba (Jan. 16, 2002).

sugar production and other agricultural endeavors.²³⁴ In the 1970s, the government overhauled the planning system with an eye toward making “decisions over its land base that were more rational than those that previously committed over half the island to sugar.”²³⁵ Land-use planning in Cuba originates at the top, and national strategies and plans for land use are integrally tied to annual economic plans. As such, the early 1990s land-use planning at the national level has emphasized tourism development, first and foremost, and mining development to a lesser extent.²³⁶ Cuba is continuing to downsize its sugar industry and over the last few years has closed a large number of sugar mills.²³⁷

Land-use planning is administered principally by the IPF in the Ministry of Planning and is carried out at the national, provincial, and municipal levels.²³⁸ There are several instruments or documents for land-use planning in Cuba, from the broad to the specific. Territorial Land Use Schemes (*Esquemas de Ordenamiento Territorial*) are broader documents developed at the national, provincial, and municipal levels that set forth general priorities, guidelines, and policies for land use and development, and are intended to be consistent with economic plans for those areas.²³⁹ From the broader strategies, planners adopt territorial and urban land-use plans that are regulations that set forth legally binding requirements for the allocation and use of lands within specific geographic areas.²⁴⁰ These plans are developed at the provincial and municipal levels. The municipal level includes the following kinds of planning documents:

1. *General Plans*. These set forth the land-use policies for the area, coordinate sectoral policies with investment programs, define the nature and intensity of land uses, and provide direction for the development of residential areas, among other things.²⁴¹

234. *Id.*

235. Houck, *supra* note 6, at 29. In the 1970s, planning officials also began studying the potential for expanding tourism in the country. See Álvarez, *supra* note 3, at 6.

236. Interview with Carlos Rodríguez Otero, *supra* note 229.

237. See González, *supra* note 3.

238. Land-use planning in Cuba is governed by Decree No. 21 of 1978 and the more recent Resolution No. 3808, enacted in 2000. The Ministry of Planning is in the process of overhauling the legal mandate for land-use planning and is expected to adopt a new decree in 2003. Planning officials indicate that, as part of this process, they are making a concerted effort to forge a “strategic alliance” between their land-use planning and environmental planning carried out by CITMA. Otero, *supra* note 8, at 3.

239. *Id.*

240. *Id.*

241. *Id.*

2. *Partial Plans.* These are more specific plans that provide requirements for specific rural and urban areas or other spheres of planning, and control the investment process during its execution phase.²⁴²

3. *Special Plans.* These plans address specific sectors, such as transportation infrastructure, that demand special attention and detail and that are not sufficiently addressed or regulated in the more general land-use plans outlined above.

Underlying these plans are periodic detailed feasibility studies of the physical and social implications of different types of land uses and investments in particular areas.²⁴³ The land-use planning process at the local level culminates with a *Reunión de Acuerdo*, a meeting of planning officials and representatives from a range of other ministries, including MinTur, CITMA, Foreign Investment, Basic Industries, Transportation, and others.²⁴⁴

In the case of tourism planning, the process begins with an inventory of tourism resources across the country, an evaluation of the potential for tourism development in specific regions of the country, and various other diagnostic studies.²⁴⁵ Planners work with tourism officials to develop a set of national level policies and regulations that guide tourism planning at the provincial and municipal levels.²⁴⁶ It is at this stage that IPF identifies specific areas throughout the country that have the best potential for tourism development and where the highest level of investments in tourist infrastructure and facilities should occur.²⁴⁷ As noted above, IPF and MinTur have identified 8 priority tourist zones, most of which are in coastal areas. Pursuant to national policies and regulations, planning officials at the provincial and municipal levels develop more specific plans that provide detailed guidance for where tourist facilities may be located. When priority tourist zones span more than one province, as is the case with Sabana-Camaguey, which extends across four provinces, provincial officials collaborate to produce joint plans.

Once local land-use plans are in place, specific projects are subject to the review and approval by local planning officials, as described in more detail below. For most proposed projects, local planning officials

242. *Id.*

243. *Id.* at 4.

244. Interview with Carlos Rodríguez Otero, *supra* note 167.

245. Interview with Carlos Rodríguez Otero, *supra* note 61.

246. *Id.*

247. *Id.*

have final say in whether to approve or disapprove.²⁴⁸ One exception to this rule are so-called “special investments,” such as high dollar investments in a new rum factory, or a cement plant, the approval of which triggers the need for collateral investments in infrastructure, energy production, or transportation.²⁴⁹ Another exception is investments in tourist facilities.²⁵⁰ All special investments and tourism projects must be approved at the national level by IPF officials in Havana.²⁵¹

Siting of specific projects must also comply with environmental laws. One such law is Decree Law No. 212, which prohibits new construction in certain coastal zones, and requires consistency with national, provincial, and local land-use plans.²⁵² All new construction projects, whether financed by foreign investors or domestic enterprises, are also subject to a series of licensing requirements.²⁵³ Projects must receive from IPF certificates of macrolocalization and microlocalization (called the macro- and microlocalization processes) which ensure that the proposed project and project site are consistent with all relevant land-use and economic plans.²⁵⁴ These instruments set forth the location of the project, the nature and scope of how the land will be transformed, the potential environmental impacts, mitigation measures, and other conditions.²⁵⁵ Following the issuance of these approvals, the project applicant must also obtain a construction license and a certificate of habitability.²⁵⁶ The project is then subject to a territorial inspection to ensure compliance with all relevant requirements.²⁵⁷ As noted below, projects may also be subject to an EIA and environmental license.

Until the 1990s, environmental impacts were not routinely considered in land-use planning at any level, nor were siting decisions for specific projects subject to any formal environmental review.²⁵⁸ This has changed in the 1990s with the emergence of environmental protection and sustainable development as explicit national policy goals.²⁵⁹ Article 19 of Law No. 81 requires broadly that land-use plans at all levels, national, provincial, and municipal, must be developed in a manner

248. *Id.*

249. *Id.*

250. *Id.*

251. *Id.*

252. Otero, *supra* note 8, at 4.

253. *Id.*

254. *Id.* at 5.

255. *Id.*

256. *Id.*

257. *Id.*

258. See Houck, *supra* note 6, at 29.

259. See *id.*

consistent with the principles in Law No. 81 and with “environmental policies, strategies and programs” adopted pursuant to the framework law.²⁶⁰ Article 20 provides that environmental protection measures “are a priority and form an integral part of the plans for the execution of construction projects and activities.”²⁶¹ Chapter II of Law No. 81, entitled “Environmental Land Use Planning,” aims to integrate land-use planning with environmental protection and, most importantly, directs the Ministry of Planning to work with CITMA and other appropriate agencies to ensure that zoning is consistent with environmental protection.²⁶²

Specific laws and decree laws also direct that CITMA participate in the zoning process. Under the Coastal Zone Management Decree Law, Decree Law No. 212, discussed in more detail below, the Ministry of Planning retains the authority over zoning and project siting approvals through the microlocalization process provided that siting decisions are consistent with setbacks and other requirements in that law.²⁶³ Decree Law No. 212 also directs CITMA to participate in evaluating land-use plans and all projects that affect the coastal zone.²⁶⁴ To this end CITMA, through its DMA, now reviews and provides comments on proposed national land-use plans, and CITMA field staff is typically involved in the development of local land-use plans and the microlocalization process in coastal areas.²⁶⁵ One shortcoming in the current approach to land-use planning in Cuba, however, is the sequence of siting decisions relative to the EIA for particular proposed construction projects and other activities that adversely impact the environment. While the CITMA staff provides input on whether sites for proposed new construction and other activities are appropriate from an environmental point of view, the microlocalization process is completed before a thorough environmental review of proposed projects even begins.²⁶⁶ This means that locations for new hotels, roads, and sewage treatment plants are practically fixed before experts take a closer look at the potential environmental impacts of such activities and before they weigh the relative environmental implications of alternative project sites.²⁶⁷

260. Ley del Medio Ambiente, LEY NO. 81 [Environmental Law, LAW NO. 81], art. 19 (1996) (Cuba), *translated in* CUBAN ENVIRONMENTAL LAW, *supra* note 44, at 21.

261. *Id.* art. 20.

262. *Id.* art. 23.

263. Gestión de la Zona Costera, DECRETO-LEY NO. 212 [Coastal Zone Management Decree Law, DECREE LAW NO. 212], art. 8(a) (2000) (Cuba).

264. *Id.*

265. Interview with Carlos Rodríguez Otero, *supra* note 229.

266. Houck, *supra* note 6, at 29.

267. This shortcoming is not unique to Cuba. For example, in the United States the location of many construction projects and other facilities which are not subject to federal

Although CITMA has the legal authority under Resolution No. 77/99 to deny issuance of an environmental license based on concerns with the project's location, making project siting decisions before the environmental assessment places an unnecessary burden on environmental officials and threatens to compromise the objectivity of the alternatives analysis. An alternative approach (and one that is taken in the United States and many other countries) would be to conduct a thorough EIA early in the process that includes a comprehensive analysis of alternative project sites before planners commit to specific locations for proposed projects.²⁶⁸

Shortcomings aside, Cuba's system of centralized land-use planning and zoning has some built-in environmental safeguards not available in other countries, like the United States, where land-use planning is done only at the local level or simply does not exist in many areas, particularly rural ones. A national planning process allows Cuba to identify environmentally sensitive areas that are unfit for certain kinds of activities and to steer commercial, industrial, and other kinds of development away from these areas. Regional and local land-use planning complement this process by ensuring that specific projects are compatible with the local environment.

As is the case with foreign investment decisions, it is too early to tell whether environmental review will be meaningfully integrated into the land-use planning process or whether CITMA will play a major role in land-use planning. CITMA's influence over the process will surely be put to the test as Cuba continues its push to develop international tourism in the coming years. Postponing microlocalization approvals until environmental reviews are completed would be a critical first step in strengthening the land-use planning process.

D. Project Siting—Coastal Zone Management

The Ministry of Planning is the lead agency for land-use planning and project siting approvals (microlocalization) in coastal areas, but its discretion over where to locate new hotels and other construction projects

permitting or environmental review laws, such as the National Environmental Policy Act (NEPA), is determined prior to completion of state or local environmental reviews. The location of those projects subject to NEPA, though, is not finalized (at least in theory) until the environmental review and the requisite alternatives analysis is complete. The scope of Cuba's EIA resolution, however, is arguably broader and greater than that under NEPA (i.e., a greater number of projects and activities trigger the EIA requirement) and, as such, there is a strong argument for better integration of siting and environmental review for a larger number of projects. *See id.* at 29-36.

268. *See* NEPA §§ 2-209, 42 U.S.C. §§ 4321-4347 (2002); Council on Environmental Quality Regulations, 40 C.F.R. §§ 1500-1508 (2002).

is limited by setback and other requirements in Cuba's coastal zone management law, Decree Law No. 212.²⁶⁹ This three-year-old decree law, patterned in part after coastal zone management statutes from coastal states in the United States, is designed to avoid and mitigate impacts to lands and waters from new construction and other activities. The law provides for two zones or setbacks where new construction is either prohibited or restricted: the "coastal zone" and its "zone of protection."²⁷⁰ The coastal zone, which is officially designated to be open, public, and free of charge for public use,²⁷¹ extends inland from the high water mark for a minimum of 20 to 40 meters depending on the type of coastline at issue.²⁷² The seaward boundary is the edge of the island's shelf, generally between 100 and 200 meters in depth.²⁷³ The coastal zone is generally off-limits to permanent structures, subject to a limited exemption for water- or coastal-dependent structures such as piers, marinas, ports, and other structures and activities.²⁷⁴ Other new or expanded construction projects and activities are prohibited in the coastal zone unless justified for public utility or social interests.²⁷⁵ Some construction projects, structures, and activities are expressly banned in the coastal zone, including new and expanded hotels, residences, waste disposal, most vehicles, horseback riding, and the extraction of sand.²⁷⁶

269. Houck, *supra* note 6, at 43-45. Professor Houck provides an excellent overview of the history behind the making of Decree Law No. 212 and an excellent summary of the law's major provisions. *Id.*

270. Gestión de la Zona Costera, DECRETO-LEY NO. 212 [Coastal Zone Management Decree Law, DECREE LAW NO. 212] (2000) (Cuba).

271. *Id.* art. 12 (providing that "the use of the coastal zone is to be unrestricted, public and free of charge for common uses consistent with its nature, such as walking, sunbathing, swimming, fishing, boating and similar uses that do not require works or facilities of any type").

272. For example, the setback from beaches must be at least 40 meters from the first line of stable vegetation. *See id.* art. 4(c). The setback from coastal cliffs must be at least 20 meters. *Id.* art. 4(b). For mangroves, the inland boundary of the coastal zone is determined by the point of maximum penetration of the mangrove forest; if swamp vegetation is present in the mangrove forest, then the inland boundary is the external border of the forested area. *Id.* art. 4(d).

273. *Id.* art. 4.

274. *Id.* art. 15.1 provides:

The coastal zone shall preferably remain unoccupied, authorization given only for the development or the execution of activities or facilities that by their very nature do not allow any other location, such as ports, wharves, shipyards, marinas, docks, thermo-electrical facilities, marine cultivation, submarine effluents, submarine parks, oil perforation platforms, navigation signals, salt mines, works for protecting, regenerating, improving, and conserving said zone, afforestation and reforestation activities, and others of similar nature will be authorized as long as they comply with the environmental impact assessment process.

Id.

275. *Id.* art. 15.2.

276. *Id.* art. 16.

Adjacent to the coastal zone is another buffer area called the “zone of protection” that extends inland another 20 to 40 meters from the outer boundary of the coastal zone.²⁷⁷ This zone is intended to further mitigate the adverse impacts of coastal developments and other “human activities.”²⁷⁸ Decree Law No. 212 also prohibits most permanent structures in the zone of protection, including hotels, residences, and the other structures and activities expressly banned from the coastal zone pursuant to article 16.²⁷⁹ The law provides for some light construction of nonpermanent structures in the zone of protection, such as concession stands that can be easily assembled and disassembled, in “exceptional cases and with the previous authorization of [CITMA].”²⁸⁰ The production of agricultural crops may also be allowed in the zone of protection provided that such production does not impede the public’s right of way, threaten the stability of the ecosystem, or cause the removal of the natural vegetation.²⁸¹

Decree Law No. 212 provides additional special protections for small islands and keys. New construction is prohibited on any island or key on which coastal and protection zones encompass the entire land mass, which are covered by mangrove vegetation, exhibit incipient development of beaches, or are fragile due to their stage of geomorphological development.²⁸² CITMA is charged with determining whether any of the above factors exist.²⁸³ The only exception to this construction ban is where construction is needed for national defense purposes.²⁸⁴

In the foreseeable future, most new tourism development will be limited to those 16 regions of the country targeted by the planning ministry in coordination with MinTur.²⁸⁵ A majority of these 16 regions are on the coast. Foreign and domestic tourism development should be minimal or nonexistent along the coastlines in other regions at least until tourism plans are revised. In the coastal regions targeted for tourism, the across-the-board setbacks mandated by Decree Law No. 212 are significant and, if strictly enforced, and not deleted by the common

277. *Id.* art. 5.

278. *Id.*

279. *Id.* art. 18.

280. *Id.*; see also Houck, *supra* note 6, at 44.

281. DECRETO-LEY NO. 212, art. 18.2.(b).

282. *Id.* art. 26.1.

283. *Id.* art. 26.2.

284. *Id.* art. 26.1.

285. See Otero, *supra* note 8, at 3 (discussing the current national plan, which identifies 16 regions for tourism development (8 principal and 8 secondary)).

granting of variance requests as in many other countries, will do much to protect the most vulnerable wetlands, mangroves, and waters.²⁸⁶ These setbacks will ensure that new hotels, roads, and environmental infrastructure are not placed directly on beaches, sand dunes, swamps, or in coastal waters.²⁸⁷ These buffer areas will be most effective, however, if combined with careful and well-planned development outside of the two zones. This area, dubbed by Professor Houck as a “third zone of protection,”²⁸⁸ is where new hotels, roads, sewage treatment plants, and other facilities will be located. Specific projects in this third zone are subject to zoning and must receive microlocalization approval from planning officials. As discussed above, Decree Law No. 212 authorizes CITMA to participate in the planning and microlocalization processes and confers upon CITMA a number of rights and duties related to development in coastal areas.²⁸⁹ Most importantly, CITMA is in charge of conducting EIAs and of issuing licenses for proposed construction projects. It is through these avenues that CITMA has the greatest leverage over the placement, construction, and operation of tourist and other facilities in and around coastal zones. Professor Houck has written, “it is clear that [Decree] Law [No.] 212 grants CITMA the maximum amount of decisionmaking power short of repealing the long-standing functions of the Ministry of Planning and starting anew.”²⁹⁰ In a positive development, the DMA within CITMA has recently established the Coastal Zone Management Group, a multiagency group that includes officials from CITMA, the Ministries of Planning, Tourism, and others. The charge of this working group is to move toward integrated management of coastal zones.²⁹¹

The full extent to which CITMA will exercise its power remains to be seen, but early signs are promising.

286. See Houck, *supra* note 6, at 44.

287. See *id.*

In effect, Cuba has created a narrow, but well-defined zone of highly limited development. Under this law, new tourist hotels, roadways and the like will be stepped back from at least forty to eighty meters from the vegetation line, which is to say from the dunes and the beach. When one considers seaside development along Tampa, Florida, for example, or Cape Hatteras, North Carolina, these become significant requirements.

Id.

288. *Id.*

289. DECRETO-LEY NO. 212, art. 8.

290. Houck, *supra* note 6, at 44-45.

291. Interview with Anyeli Cruz, Biologist, DMA, CITMA, in Havana, Cuba (Feb. 13, 2003).

E. Project Siting—Protected Areas

Cuba has developed a broad system of protected areas and is in the process of expanding its network of marine protected areas throughout the country. These marine protected areas frequently include adjacent coastlines and natural areas that are off-limits to some or all development. Marine and coastal protected areas are a critical component in Cuba's efforts at sustainable development.²⁹² Combined with the setbacks in Decree Law No. 212 and restrictions imposed on development through land-use planning and microlocalization, these protected areas play a key role in managing coastal development in a sustainable manner.

Cuba began setting special natural areas aside in the 1930s when it established its first national park.²⁹³ Law No. 81 establishes and provides a legal framework for a formal National System of Protected Areas.²⁹⁴ Article 90 of the law sets forth thirteen specific objectives for the National System of Protected Areas, including the following:

- (d) to protect, restore, and manage the coastal and marine resources and environment for their conservation and sustainable use;
- (e) to maintain and manage biotic resources, whether terrestrial or aquatic, for long term availability of various goods and services for the population, always considering the vital function that they play in the balance of ecosystems and taking into consideration the national and international regulations regarding these resources;
-
- (l) to allow recreation and development of tourism in a manner compatible with the management of the area in question.²⁹⁵

In December 1999, Cuba enacted Decree Law No. 201 establishing the details for the establishment and management of protected areas.²⁹⁶ The decree law provides that protected areas, be they marine, terrestrial, or a combination of both, are designated areas which are ecologically, socially, historically, and/or culturally important and which are managed for the protection and maintenance of their biological diversity and

292. Linden, *supra* note 19, at 94 (according to Antonio Perefá, Former Director of the Center for National Protected Areas (CNAP), 22% of Cuba's land is under some form of protection).

293. *Id.* at 14, n.82.

294. Ley del Medio Ambiente, LEY NO. 81 [Environmental Law, LAW NO. 81] ch. III, arts. 89-91 (1996) (Cuba), *translated in* CUBAN ENVIRONMENTAL LAW, *supra* note 44, at 21.

295. *Id.* art. 90.

296. Del Sistema Nacional de Áreas Protegidas, DECRETO-LEY NO. 201 [Decree Law of the National System of Protected Areas, DECREE LAW NO. 201] (1999) (Cuba).

related natural, historical, and cultural values.²⁹⁷ Protected areas fall within one of three classifications: *Protected Areas of National Significance*, *Protected Areas of Local Significance*, and *Special Regions of Sustainable Development*.²⁹⁸ Within the first two classifications there are eight categories of protected areas based on the degree of management intensity and the level of human activity allowed in the areas.²⁹⁹ They are as follows (from the most protective to the least):

- a. Natural Reserve;
- b. National Park;
- c. Ecological Reserve;
- d. Outstanding Natural Element;
- e. Floral Management Reserve;
- f. Fauna Refuge;
- g. Protected Natural Landscape; and
- h. Protected Area of Managed Resources.³⁰⁰

Natural Reserves are the least disturbed and most pristine protected areas, akin to wilderness areas in the United States. They are also the most restrictive in terms of human uses of the area. Natural reserves are terrestrial or marine areas (or both) in a natural condition

without human population, of international, national or regional significance, primarily designated for protection, scientific study, and monitoring activities. The area contains physical and geographical elements, species, communities, or flora and fauna ecosystems of unique value, endangerment of extinction or vulnerability, therefore necessitating strict protection in order to preserve its genetic resources. The only activities to be performed at a Natural Reserve are those required for its administration and management.³⁰¹

National Parks, accorded the next highest level of protection, are areas “in natural or semi-natural conditions, with little or no population, designed to protect the ecological integrity of one or more ecosystems of international, national or regional importance and primarily managed with ecosystem conservation goals.”³⁰² To be considered for designation as a national park, an area must contain at least “one complete ecosystem in pristine condition, unaltered by human intervention or exploitation.”³⁰³ The law provides that national parks are to be managed primarily for the

297. *Id.* art. 2.

298. *Id.* art. 3.

299. *Id.*

300. *Id.*

301. *Id.* art. 10 (emphasis added).

302. *Id.* art. 13.

303. *Id.* art. 15.

preservation of the area's natural and scenic resources and "ecological integrity," but it also allows for educational, recreational, and tourism related activities in a manner consistent with the ecological objectives of the area. Under the law, indigenous people may also make use of the natural resources in national parks, provided that use is sustainable and does not interfere with the management objectives of the park.³⁰⁴

Environmental education, recreation, and tourism opportunities are to be made available in each of the remaining categories, but must remain off limits to development and other activities that are incompatible with an area's environmental and ecological objectives.³⁰⁵ The eighth category, "Protected Area of Managed Resources," is the least restrictive category and such areas are intended to enhance economic development by allowing natural resources to be used for a variety of purposes.³⁰⁶ The law further provides that these areas should be contained within the boundaries of more restrictive protected areas in order to produce environmental benefits.³⁰⁷

The final classification of protected areas is the "Special Region of Sustainable Development," which is a populated area that has significant economic development potential in addition to its important natural values.³⁰⁸ These areas typically have a mix of economic and noneconomic uses and are aimed at enhancing local economies. Finally, Decree Law No. 201 authorizes the establishment of buffer zones around protected areas in all categories in order to "minimize the impacts of an exterior activity that could affect the protected area's integrity."³⁰⁹

Under Decree Law No. 201, CITMA is the lead ministry for protected areas and is in charge of administration and management of the National System of Protected Areas through its CNAP. CNAP develops a five-year master plan for the system,³¹⁰ facilitates the development of management plans for each protected area,³¹¹ and establishes rules and regulations governing allowable uses and activities in protected areas and adjacent buffer areas.³¹² Other agencies, such as the Ministries of Fisheries, Interior, and Agriculture, may share management duties with

304. *Id.* art. 14.

305. *Id.* art. 3.

306. *Id.* arts. 31-32.

307. *Id.* art. 31.

308. *Id.* arts. 36-37.

309. *Id.*

310. *See id.* arts. 45-46.

311. *See id.* arts. 47-50.

312. *See id.* arts. 55-60.

CNAP in some protected areas.³¹³ CNAP also makes proposals for new protected areas and adjacent buffer zones to the Council of Ministers or its executive committee.³¹⁴

Many natural reserves, national parks, and other areas, including the several international biosphere reserves in Cuba, can be major magnets for tourism and some of them are situated within the 16 regions targeted for tourism development by the Ministry of Planning and MinTur. While tourism and recreational opportunities are allowed in most categories of protected areas, the law contemplates that tourism and recreational development be low-intensity and be consistent with the principal ecological and environmental objectives supporting protection of the area in the first place. The law also provides for important buffers to mitigate impacts from off-site development. To that end, much of the tourism planned for national parks and other protected areas centers on ecotourism, hiking, bird watching, camping, and the like. For marine parks, such as the protected area at Jardines de la Reina, Cuba is developing scuba diving and other low-impact ecotourism opportunities centered around the area's magnificent reefs and mangrove forests.

To date, Cuba has established protected areas throughout the country and officials estimate that 98% of Cuba's ecosystems are represented in the protected area system.³¹⁵ As indicated, CNAP officials and experts from the Institute of Oceanology and other agencies are in the process of identifying many additional land and marine protected areas for designation in the next few years. Cuba's resource agencies are blessed with a talented and experienced cadre of biologists, ecologists, and other scientists with the expertise needed to carry out the country's ambitious plans for protected areas. What the country lacks, however, are sufficient financial resources to establish and manage parks and other protected areas.³¹⁶ Decree Law No. 201 provides that funding for protected areas shall come from general appropriations allocated to the agency administering the particular area.³¹⁷ The law also encourages agencies to solicit funding from other sources, like international funding agencies. Presently, CNAP is being partially funded by a multimillion dollar grant from the Global Environment Faculty to identify marine and terrestrial areas in the Sabana-Camaguey region for inclusion in the protected area system.

313. *See id.* arts. 43-44.

314. *Id.* art. 7.

315. Interview with Pedro Ruiz, CNAP, in Havana, Cuba (Aug. 12, 2002).

316. *Id.*

317. DECRETO-LEY NO. 201, art. 61.

Importantly, the law also authorizes agencies to impose fees on those who visit or use protected areas. These user fees are to be used to fund conservation and management of the protected area in which they are collected.³¹⁸ To date, Cuba has not experimented much with user fees, but the potential to rely on them to generate revenues, particularly in heavily visited tourist areas, is significant.³¹⁹ The tourist users of these protected areas require places to stay. A lucrative and relatively simple way to generate substantial revenues for long-term park management is through dedicated environmental protection fees, such as bed taxes (e.g., a hotel room would cost \$86/night, instead of \$85, with the revenue dedicated to audited conservation needs). Such tractable and innovative market-based approaches could generate badly needed conservation revenues and reinforce Cuba's desire to be a sustainable tourism leader with both the tourists and the industry.³²⁰

In summary, establishing and managing protected areas, particularly those that include coastal waters and lands, will be especially vital in protecting reefs and other fish habitat from tourism development and other land-based activities that degrade coastal and marine resources. These areas can also serve as shining symbols of the country's new ethic of environmental protection and sustainable development.

F. Project Siting—Environmental Impacts Assessments and Licensing

The final tool in CITMA's toolbox, and potentially the most important one, is the EIA and environmental license authorized pursuant to Law No. 81 and implemented through Resolution No. 77/99.³²¹ Like its counterparts in the United States and other countries, the fundamental purpose of the EIA in Cuba is to ensure that decision makers take a hard look at the potential environmental impacts of a proposed project before allowing the project to proceed.³²² Unlike the environmental assessment process in the United States, which requires certain procedures and processes but does not mandate any particular outcome, the EIA in Cuba is substantive and intended to drive the final decision on the

318. DECRETO-LEY NO. 201, art. 63.

319. For a more thorough discussion of user fees to generate conservation funding, see our companion piece in this Issue. Lindeman et al., *supra* note 162, at {____?}.

320. *Id.* at {____?}.

321. Houck, *supra* note 6, at 25-39 (providing an excellent overview of Resolution No. 77/99 and the circumstances under which it was enacted).

322. See generally *Kleppe v. Sierra Club*, 427 U.S. 390 (1976).

environmental license (i.e., whether to approve the license and if so under what conditions).³²³

The need for an EIA is triggered by an application for an environmental license to the Center for Inspection and Environmental Control (CICA) within CITMA. CICA is charged with determining whether a proposed project or activity requires an EIA and its discretion is guided by consideration of a number of factors including, but not limited to: human health risks; adverse impacts to natural resources and ecosystem integrity; impacts on scenic and tourism values; proximity to protected areas; and public opinion of the proposal.³²⁴ Pursuant to article 28 of Law No. 81 and articles 5 and 6 of Resolution No. 77/99, EIAs must be conducted for most construction projects and a range of activities including, but not limited to: sewage storage, management, and treatment facilities; mining activities; construction of roads, causeways, and other transportation infrastructure; tourism facilities, *in particular those sited in coastal ecosystems*; and “any other project or activity occurring in a fragile ecosystem that significantly alters the ecosystem, its composition or balance, or affects the population’s access to natural resources or the environment in general.”³²⁵

Article 25 requires that the EIA include detailed information on the potential adverse environmental impacts of a proposed project or activity, an examination of potential alternatives to the proposal, including a “no-action” alternative, and the identification of the most environmentally benign alternative, information on measures proposed to be taken to avoid, minimize, and mitigate environmental impacts, proposed monitoring protocols, and other information.³²⁶ CICA has published guidelines on the methodology for preparing EIAs and is in the process of updating them.³²⁷

Most, if not all, new and expanded tourism development in coastal areas—hotels, roads, environmental infrastructure, etc.—will require preparation of an EIA as a prerequisite for obtaining the necessary construction and operation license.³²⁸ Based on the information in the

323. See generally Houck, *supra* note 6, at 25-38.

324. Ley del Medio Ambiente, LEY NO. 81 [Environmental Law, LAW NO. 81], art. 23 (1997) (Cuba), *translated in* CUBAN ENVIRONMENTAL LAW, *supra* note 44, at 21.

325. Reglamento del Proceso de Evaluación de Impacto Ambiental, RESOLUCIÓN NO. 77/99 [Environmental Impact Assessment Regulations, RESOLUTION NO. 77/99], art. 6(2) (1999) (Cuba).

326. LEY NO. 81, art. 25.

327. See CICA, GUÍAS PARA LA REALIZACIÓN DE LAS SOLICITUDES DE LICENCIA AMBIENTAL Y LOS ESTUDIOS DE IMPACTO AMBIENTAL (2001).

328. *Id.*

EIA, CICA may approve the license outright, deny it outright, or approve it subject to conditions aimed at avoiding or mitigating adverse impacts.³²⁹ CICA may also deny a license based upon location and direct that the applicant consider more environmentally sound alternative sites.³³⁰

CITMA's legal authority under Resolution No. 77/99 is significant and with the EIA tool it wields considerable influence over coastal tourism and other development. As Professor Houck and others have pointed out, however, several important issues must be resolved to ensure that the EIA process lives up to its potential.³³¹ A major concern, as discussed above, is the timing of the EIA relative to microlocalization approvals (i.e., siting approvals). As things currently stand, locations of new hotels, other structures, and even roads and bridges are generally fixed before the detailed EIA is completed, defeating the purpose of the EIA's alternatives analysis. As discussed above, better integration of the environmental review process and the microlocalization process for facilities, roads, and other infrastructure is essential. In coastal areas, for example, EIAs should carefully examine alternative locations and designs for roads and bridges to ensure that estuarine connections are maintained. There are other important issues involving the Cuban EIA process that we discuss in more detail in our companion piece. For example, the information in EIAs is generally not made available to the public and CITMA has not yet determined how to fully involve stakeholders and other interested members of the public in the EIA process.³³² CICA specialists are designing a general methodology to carry out public consultations.³³³ On April 10, 2003, CICA began testing this methodology with a public hearing on an EIA for a waste water treatment lagoon in the town of Caibarién, in the province of Villa Clara.³³⁴ This was the first public hearing that CICA has conducted pursuant to Resolution No. 77/99.

329. *Id.*

330. *Id.*

331. See Houck, *supra* note 7, {at ???}.

332. CICA, *supra* note 327.

333. Interview with Candice Kanepa, Professional Environmental Inspector at CICA, in Havana, Cuba (Feb. 14, 2003); see also Candice Kanepa, Public Participation within the Environmental Impact Assessment Process (2002) (unpublished research paper, Maastricht School of Management) (on file with author).

334. Interview with Candice Kanepa, in Havana, Cuba (May 6, 2003); see also CANDICE KANEPA ET AL., CICA, PRIMERA CONSULTA PÚBLICA REALIZADA SEGÚN LA METODOLOGÍA DISEÑADA Y APROBADA POR EL CICA (2003) (on file with author).

G. Other Tools

Cuba's first and strongest line of defense against unsustainable coastal development is environmental regulation, its core laws, decree laws, resolutions, and guidelines. But command-and-control regulation alone—against a backdrop of limited financial and human resources to implement and enforce the new rules and inevitable political pressures to favor short-term economic gains over environmental requirements—cannot, and will not, keep the country on its intended path toward sustainable tourism. For every stick, Cuba will need a carrot to persuade domestic and foreign investors alike to go the extra mile to protect the country's fragile coastal and marine resources. Incentive-based tools, like ISO 14000, global certifications like Green Globe, and home-grown initiatives like the Environmental Recognition program established pursuant to Resolution No. 27/00, are good first steps towards rewarding environmentally sound siting, construction, and operation of tourist facilities and related infrastructure. Other rewards for good stewardship might include emissions trading or mitigation requirements (e.g., allow some localized environmental impacts for new projects emissions to those companies who remediate and restore environmental degradation elsewhere). User fees, such as adequate concession and vendor fees, hotel/bed taxes, entrance fees on businesses and consumers alike, can set to promote good stewardship and to raise much needed cash to fund conservation efforts.³³⁵

V. CONCLUSION

Developing sustainable tourism in Cuba presents a classic chicken-egg situation. Must cash-strapped Cuba first increase numbers of foreign visitors (the chicken) to stimulate an economic recovery that then provides the wherewithal to build the environmental infrastructure to ensure that tourists have clean water, more attractive facilities, and a diverse range of opportunities? Or, must Cuba first focus on finding the financial resources needed to invest in environmental improvements (the egg) to enhance the quality of tourists' stay in the country before it intensifies efforts to attract higher numbers of tourists? The answer to this riddle is anything but straightforward, and may be "both of the above." Simply increasing the number of visitors alone does not guarantee economic recovery, particularly if increased tourism comes predominantly in the form of low-cost wholesale package tours that have

335. See Lindeman et al., *supra* note 218, at 162.

a minimal ripple effect in the economy.³³⁶ But slow growth in international tourism could deprive the country of the hard currency it needs to dig its way out of debt and construct a more stable economy. An upfront focus on upgrading and diversifying tourist products can help Cuba generate substantially higher revenues over time, but will joint ventures with foreign investors provide Cuba sufficient cash to make such extensive capital improvements? Add unrestricted travel and trade with the United States to the equation and the calculus gets much murkier.

Cuba's first steps at developing its economy while protecting its environment are promising, particularly in light of the fact that policymakers have few if any internal models to follow. Borrowing lessons from other countries they are, so far, off on the right foot. Shortly after the Rio Earth Summit in 1992, the Cuban government announced its commitment to environmental protection. Shortly thereafter, the government moved quickly to match its words with concrete action. First, it replaced an ineffective environmental commission with CITMA, a powerful new ministry with the focus, mandate, and expertise needed to ensure that environmental concerns are addressed at many stages of the economic development process. Environmental officials, who traditionally played second fiddle to those in charge of agriculture, foreign investment, and economic development, are now much closer to being equal partners than they were and have a distinctly prominent voice in charting the country's future direction. Second, Cuban officials forged a far-reaching national environmental strategy that acknowledged the country's serious environmental problems and challenges and set a vision for confronting them. This national plan provided the groundwork for Law No. 81, an impressively sweeping environmental framework law. This in turn sparked the adoption of a series of complex implementing laws and resolutions in almost record time.

The greatest challenges lie in implementing and enforcing environmental requirements, and in concocting new incentives, as the pressure to rebuild the economy intensifies. Cuba's cadre of environmental and natural resources professionals are highly expert, but human capital alone will not be sufficient. Environmental agencies and institutes need bigger budgets to ensure that they have sufficient staff to be fully engaged in all aspects of the development of international tourism along the country's vast and varied coastlines. Financial

336. Stein & Kane-Hannan, *supra* note 34.

resources are also needed now to ensure that existing staff are well paid and have the technology and equipment needed to monitor and enforce compliance with new environmental laws. Cuba also needs capital, and lots of it, to replace worn out water and sewage facilities, to upgrade housing and basic amenities in urban areas, to build new roads and transit systems, acquire new, low-polluting buses, and establish a transportation infrastructure that services new developments but is light on the environment. How to secure such capital resources for conservation funding is beyond the scope of this Article, but opportunities clearly do exist now to generate significant revenues through creative use of incentives, taxes, and user fees, which will pay back in terms of sustainable economic growth.

Eventually travel and trade between the United States and Cuba will resume. Whether this occurs next year or next decade is not easily predicted. What is most important in the meantime is that Cuba be fully prepared for the dramatic changes, both positive and negative, that could result once U.S. citizens are free to come to the island in unprecedented numbers. Full and timely implementation and enforcement of its environmental laws and regulations are the logical and necessary first steps toward achieving a truly new model for sustainable tourism in the Caribbean. Existing kinks in siting, EIAs, public participation, and judicial review of permitting and other decisions, should be resolved, or at least fine-tuned, as rapidly as possible.

But it should not end there. Ultimately, greater public awareness of environmental issues and involvement in environmental decision making will strengthen CITMA's ability to make environmental protection a priority.

Those in charge of attracting foreign investors should choose their partners carefully to ensure that how and where economic development takes place is driven from within, not outside of the country. To accomplish this, the Ministries of Foreign Investment, Planning, Environment, and others must work closely together and strengthen existing working relationships so that planning and decision making of the three bodies are well integrated. The establishment last year of an inter-ministry coastal management working group is a strong step in the right direction. Cuba runs little risk of running off prospective investors with a cautious, pro-environmental protection foreign investment policy, as the country is simply too good of an opportunity to pass up for investors from a wide range of service and industrial sectors including, but not limited to, tourism. Cuban leaders recognize that investing in new development and other activities that degrade the environment

would ultimately be both a losing economic and environmental strategy. U.S. hotel and tourism investors should realize as well that, in the event of an end to the embargo, haphazard construction of new hotels and other tourism infrastructure that pays scant heed to the protection of Cuba's coastal resources is a self-defeating strategy.

Tourism planners, with assistance from CITMA, must craft realistic and durable plans for developing new resorts, hotels, and related facilities that ensure that tourism development does not outpace progress in building an environmental infrastructure and putting in place other safeguards needed to accommodate new development. More importantly, they must stick to these plans even if it means keeping tourism growth to a modest level for the next few years.

Cuba's vast and varied coastal resources are worth saving and so are the environmental laws, regulations, and policies that have been developed to do so. This impressive body of environmental law is in many respects comparable in scope and quality to that in the United States and with time and careful and full implementation will mature into a formidable line of defense against unsustainable development practices. Providing greater opportunities for public involvement in environmental decision making and ensuring strict and visible enforcement of environmental requirements will only make this body of law more robust and capable of surviving unpredictable changes in the economy or in domestic or foreign affairs. Cuba's far-reaching environmental requirements are still young, little-tested, and not extremely well-known outside of the country. Chances are that few of the U.S. businesses seeking unrestricted travel and trade with Cuba are aware of the detailed land-use planning, environmental licensing, and other environmental laws and regulations that apply to their proposed projects and activities. CITMA should publicize its environmental laws far and wide and educate the public and investors alike on the long-term importance (and economic benefits) of its efforts to protect the environment. Such publicity should in turn breed critical recognition and acceptance of this body of law both domestically and internationally.

Cuba is on the right track in its efforts to protect its bountiful and ecologically rich coastlines from overexploitation and unsustainable development that have plagued the United States and other coastal countries. Strong environmental laws and sheer will, two things Cuba already has, may well be the critical factors in making sure that such efforts stay on track now and in the future.