Morne Trois Pitons National Park in
Dominica: A Case Study in Park
Establishment in the Developing
World

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"I had not believed that anything could be so green."
ALEC WAUGH, describing Dominica in 1931

INTRODUCTION

Dominica lies on the 1000-mile chain of Caribbean islands stretching from the Virgin Islands south to Trinidad. Precipitous peaks bathed in over 300 inches of rain each year plunge steeply to cliffs, black sand, and cobbled beaches. Torrential rivers, sparkling streams and waterfalls, deep valleys, tall trees, and lush vegetation cover the island. Dominica's large expanse of undisturbed flora is one of the last remaining in the Lesser Antilles.2

Despite its idyllic natural setting, Dominica is not without threats to its natural beauty and its human population. Dominica is one of the poorest countries of the hemisphere, with an annual per capita income of $762.3 Many of the 80,000 Dominicans4 are subsistence farmers practicing slash and burn agriculture. The population, ninety percent of which lives along the coast, is growing at a little over two percent each year. Seventy percent of Dominica's exports are bananas, and the value of the country's imports is twice that of its exports.5 In light of this socioeconomic reality, a proposal to preserve a major portion of tropical forest,
which covers half the island and represents one of its few exploitable resources, is not likely to be a priority for government decisionmakers.

Why did the Dominican Government establish Morne Trois Pitons National Park in 1975? This Article attempts to answer that question and the more general question of what motivates other less developed countries to establish their own parks. Part I of the Article describes the natural setting of Dominica. Parts II and III explain the evolution of the park idea and the passage of the park legislation. Part IV outlines the steps taken by the Dominican Government and private conservation organizations to transform the legal concept of the Park into a reality. Finally, Parts V and VI explore the reasons for park creation in general and Morne Trois Pitons in particular. The Article suggests that park creation in less developed countries most often takes place when the government is convinced that creating a national park is in its own best interests. Thus, the primary task for a park proponent is to highlight the benefits of park establishment and to show the particular government that these benefits outweigh any alternative uses of the park site and its resources.

I

THE NATURAL SETTING

Dominica's coat of arms bears the Creole inscription “Apres Bondie C'est La Ter” (After God, the Earth) and the crapaud (a large wood frog known locally as “mountain chicken” and scientifically as *Leptodactylus fallax*) in the upper right quadrant supported by two sisserou (*Amazona imperialis*), one of the two endangered species of parrots found only on Dominica. The last tribe of the Carib Indians, whose former dominance of the archipelago gave the sea its name, lives on a reservation in the northern part of the 289-square-mile island. Morne Trois Pitons National Park covers approximately 17,000 acres (over nine percent of the island), including the virgin forest of the 1000-acre Archbold Preserve. (See map on page 749.) The Park encompasses a spectacular array of natural features, including four forest types: rain forest, elfin woodland (cloud forest constantly bathed in mist), mountain thicket, and palm

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6. The first inventory of the Dominican forest in 1962 estimated that the island had seven million cubic meters of merchantable timber. A recent 1980 survey, which excluded unmerchantable and some smaller species, as well as loss from agricultural clearing and hurricane damage, estimates that the main tracts of northern Dominica have at least 2.5 million cubic meters of commercially exploitable timber. *Forestry in Dominica*, in *FORESTRY IN THE CARIBBEAN* 43, 43 (A. Lugo & S. Brown eds. 1982).

7. The descriptive information in this section is from Wright, *After God the Earth*, *THE NATURE CONSERVANCY NEWS*, Spring 1975, at 8.

8. The Archbold Preserve was originally a private estate owned by American John Archbold. He donated the land for the Park in 1975. For a discussion of the transfer, see *infra* notes 53-57 and notes 60-65 and accompanying text.
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Emerald Pool
Trafalgar Falls
Middleham Estate (Archbold Reserve)
Morne Trois Pitons
Boeri Lake
Morne Micaron
Freshwater Lake
Boiling Lake and Valley of Desolation
Morne Nichols
Watt Mountain
Foundland Mountain
Morne Anglais
Soufriere Hills

SCALE APPROX. 1: 40,000
break. The Park contains mountains ranging in height from 3,683 to 4,400 feet and three strikingly different lakes: Freshwater Lake, Boeri Lake (a crater lake), and Boiling Lake (the world's second-largest boiling lake). The barren Valley of Desolation is a testament to the island’s volcanic origin, with its sulfur springs, steam-belching fumaroles, and streams of black, white, red, gray, and orange water.

The Archbold Preserve is biologically the richest area of the Morne Trois Pitons National Park. The Preserve is dominated by trees rising from broad buttresses to over 100 feet. Branches jut out fifty feet above the dark forest floor and are festooned with cable-like lianas. Epiphyte plants, which live off the moist atmosphere, cover tree branches and vines, providing an aerial habitat for insects and amphibians. As little as ten percent of the bright tropical sunlight penetrates the thick canopy of tree tops, leaving the forest floor relatively free of vegetation. In contrast to North American forests, which are dominated by only a few tree species, the diverse forest of Dominica can contain as many as sixty different species within a ten-acre plot.9

The factors that make tropical forests a system of high biological productivity—the complexity of biological relationships, the number of species, the high rainfall, and a constant temperature—also make the system vulnerable to damage when humans intervene. In a pristine tropical forest, nutrients are quickly absorbed in the living system, often leaving a fragile soil that can be impoverished when exposed to driving rains and blistering sun. The removal of the lush tropical vegetation can quickly produce a soil that is astonishing in its lack of fertility.10 These biological limitations played a critical role in establishment of the Morne Trois Pitons National Park in 1975.

II
EVOLUTION OF THE PARK IDEA

In 1961, Dominica had no national parks. This absence was explained by the lack of adequate legislation, park management capability, public awareness, and political support for parks or for conservation in general. By 1974, the situation still had not dramatically changed, despite thirteen years of conservation efforts.11 Eight years later, the gov-

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ernment finalized the contours of a national park established under the Dominican National Park and Protected Areas Act. The park, Morne Trois Pitons, included a headquarters, an office, and a visitors center and had marked boundaries, access trails, and picnic shelters. A small, trained cadre of staff of the Dominican Forestry and Parks Division operated the Park. Morne Trois Pitons National Park was included on the 1982 United Nations List of National Parks and was suggested as a World Heritage site.

Several changes in the period 1961-75 disrupted progress toward establishment of a Dominican national park. In 1967, Dominica moved from colonial status to a State in Association with Britain; in 1978, it became fully independent. Dominica also suffered from a series of economic crises, civil unrest, and political turmoil during this time. The government was overthrown and two coups were attempted against a successor government. In addition, the country was pounded by massive hurricanes in 1979 and in 1980.

In relating the history of the establishment of the Park, it is tempting to focus on the implementation phase of the 1975-82 period. Such a perspective would, however, distort the story of the evolution of the Park, overlooking the many years and numerous frustrations that park establishment entailed.

A. First Stirrings

The proposal for a Dominican national park was initiated in 1961, when an American scientist, David Lowenthal of the American Geographical Society, visited the rain forests of Dominica. At that time, the government appeared irrevocably committed to commercial development of the forests and unlikely to set aside any Crown Lands for preservation. Two years later, Lowenthal discussed the future of the forest with Sir Hugh F.I. Elliott, head of the West Indies Department of the British

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2. See IUCN COMM'N ON NAT'L PARKS AND PROTECTED AREAS, INT'L UNION FOR CONSERVATION OF NATURE AND NAT. RESOURCES (IUCN), 1982 UNITED NATIONS LIST OF NATIONAL PARKS AND PROTECTED AREAS 60 (1982).
4. B. WEBER, supra note 5, at 119. In 1960, 39% of Dominica, or 75,000 acres, was estimated to be Crown Lands. By 1973, the total figure may have dropped to 30%, or 60,000 acres, most of which was in the mountainous interior. Id. at 113. For an ordinance relating to administration and disposal of Crown Lands, see Crown Lands, ch. 169, LAWS OF DOMINICA (1963).
Colonial Office, which was responsible for governing Dominica. Lowenthal failed, however, to convince the government to set aside a major economic resource for nature preservation.

In 1965, another American scientist, Howard Odum, wrote to the acting Chief Forester of Dominica, Christopher Maximea. Over the course of the Park's development, Maximea was to be the constant force and local presence without which the parade of outside interests could not have effectively influenced decisionmaking on the island. Odum proposed a one-square-mile "wilderness preserve" for research, including comparative studies of growth and regeneration that might aid the timber industry in forest planning. Tourism in the wilderness area also would be encouraged. The preserve in its dual functions as a research and a recreational facility represented one of the several unsuccessful attempts to satisfy economic and preservation interests in the forest. Even so, the preserve proposal served to keep the park idea alive.

The following year, Dominica was suggested as a site for an International Cooperation Year pilot study. This proposal sparked the attention of the Conservation Foundation, a nonprofit organization in Washington, D.C., in 1967. No significant progress toward a park program was made in the six years following the first scientific interest in the preservation of the Dominican forests. International and local awareness of the island's unique biological resources, however, developed during these years. This awareness was a critical precursor to later action.

B. The Threat

In 1971, Bruce Weber warned that Dominica's unique forests were doomed. "Doomed, that is, unless conservationists win the current battle to preserve the forest as a national park." The threat to the preservation of the forest was a concession agreement signed in April 1966 giving a twenty-one year logging privilege to Dom-Can Timbers Ltd. of Canada (Dom-Can) covering all the forest resources of Dominica. After constructing a sawmill, importing machinery, building roads, and planning a veneer mill, the company seemed capable of cutting down the bulk of Dominica's forests at an extraordinary rate. The decision to grant the concession was described as "crass idiocy" by an American scientist who viewed Dominica's forest as a "priceless ... living laboratory where scientists can study tropical biology in a primitive state." The Domini-
can Government, however, had interests other than environmental preservation.

The impoverished Dominican Government had to seriously consider proposals to utilize its forest resources. Dom-Can, at its peak, employed 400 people, and employee wages contributed $20,000 per month to the local economy.21 The first two years of the logging operation, however, were a bitter disappointment to the government, shattering the image of mass logging as a financial cornucopia. Dom-Can produced little timber from Crown Lands. Government royalties, expected to be $100,000 over the first two years, were only $15,000 because the company only felled trees on private lands next to roads rather than on the less accessible but more plentiful Crown Lands in the interior of the island. Some private land owners were actually giving their timber to Dom-Can in exchange for having the company clear land for agricultural use and construct access roads.

Dom-Can’s inappropriate logging practices had severe impacts upon the land, causing erosion hazards and seriously damaging the already fragile road system in Dominica. An English resource survey team noted: “No account appears to have been taken for the steepness of the land and the soil type in the compilation of total volume of available timber or subsequent practices of the company.”22 Although the company had promised to log timber using “the best Canadian practices,” such practices were not necessarily the best for Dominica’s sensitive tropical environment. While the practice of skidding logs to a spar tree is acceptable in the temperate forests of Canada, in Dominica it destroyed virtually every tree and sapling in the area and caused gully erosion and soil compaction along the skid path. Unlike damage to the trees, the damage to the soil represented a loss of an irreplaceable capital asset for Dominica.23 In the end, though, economic disappointment rather than erosion and road damage led to the demise of the Dom-Can project.24

In the late 1960’s, conservationists urged the government to include conservation concerns in Dominica’s comprehensive development plan. They sought international assistance from UNESCO, the United Nations Food and Agriculture Organization, and the Caribbean Development Bank.25 The Director of the Conservation Foundation’s International Program visited Dominica in early 1967 to meet with the president of the

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21. Id. at 14.
22. Id. at 15.
23. Id.
25. The Caribbean Development Bank (CDB) is one of five regional development financing agencies. Given the low capital absorption capacity and the modest financial resources of the Caribbean islands, the CDB has concentrated on small loans, especially in the agricultural sector. The Bank has no formal process to consider negative environmental impacts or the funding of environmental projects. See International Institute for the Environment and Devel-
private, nonprofit Caribbean Conservation Association and with concerned Dominicans. While their efforts were frustrated by the inadequate record-keeping of the Dominica Lands and Survey Department, which prevented recommending precise preserve boundaries, Dom-Can's slower-than-expected rate of logging reduced the pressure for immediate action.

In 1969, Conservation Foundation (the Foundation) representatives again visited Dominica, this time to meet with government officials to discuss the potential for tourism. During this visit, attention focused on an offer by American philanthropist John Archbold to donate the forest lands on his Middleham Estate for inclusion in a park. Middleham was contiguous with the Crown Lands that were the focus of proposals for a large national park in the southern Dominican highlands. The gift would mean some of the unique rain forest of Dominica could be preserved without incorporating valuable government timber land.

The constant promotion of the park idea by Maximea, the Foundation proposals to assist with planning and development, and the proposed Middleham land gift finally captured the attention of the Dominican Government in the late 1960's.

C. The Conservation Foundation Report

In September 1969, three Conservation Foundation planners, supported by a private grant, produced a forty-eight page report that proposed legislation to create both Dominica National Park in south-central Dominica and a Park Service to oversee its management. The Foundation Report, Dominica: A Chance for a Choice, focused on areas with poor soil quality and on water and forest resources needing protection. Relying heavily upon two previous surveys by foreign experts—a 1964 World Health Organization report on water requirements, catchment areas, and power sources and a 1953 report on forestry—the Foundation team developed a "conservation composite." The composite identified areas needing preservation because of critical water, forest, soil, slope, or rainfall characteristics. This basic park plan then was merged with an assessment of the island's basic human and economic needs in

26. Ten years later, the lack of a cadastral survey to clarify ownership was still frustrating attempts to make land use decisions. A. Putney, A National Park and Forest System Plan for Dominica 6 (1977) (unpublished draft).
29. J. Burra, A REPORT UPON LAND ADMINISTRATION IN DOMINICA (1953).
order to serve the Foundation team's fundamental goal: the promotion and acceptance of the national park concept.

To implement the conservation composite, the Foundation Report made, among others, two important recommendations:

[W]e strongly recommend as a basic consideration of a site for a Domini-

We recommend that an area of approximately 18,000-19,000 acres in the south-central portion of the island be established as Dominica Na-

The first recommendation echoed the conclusions of the 1953 forestry report and the 1964 water catchment report, neither of which had resulted in legislative action. As the Foundation team noted, the area outlined as a national park closely coincided with the lands that had been selected for forest reserve, water supply, and hydroelectric power generation by the previous reports.

Several important factors supported the Foundation team's second recommendation designating a specific park site. First, the park would protect from development those lands needed for future water resource and hydroelectric power projects for the capital city of Roseau. Second, some of the outstanding physical features of the island, as well as large tracts of undisturbed rain forest (much of it subsequently excluded) and elfin woodland were within the proposed boundaries. Third, the site would satisfy the basic conditions necessary for the Dominican Government to receive a gift of 1400 acres of private land (Middleham Estate); of the remaining park acreage, only two percent, or approximately 413 acres, was in private hands. And, fourth, the proposed park site was readily accessible to the residents of Roseau.31

The Foundation Report not only outlined the benefits of a national park located in south-central Dominica but also advocated specific steps for obtaining public and private support for the park concept. To foster the highest degree of citizen appreciation for the park, the report proposed the initiation of a major environmental education program as a formal part of school curricula. To minimize enforcement problems, the report proposed that conspicuous geographic features, such as rivers and ridge lines, be used as park boundaries. By proposing the creation of a Dominican national park service, which would recruit technical personnel from the existing Water Resources and Forestry Divisions and enforcement officers from the National Defense Force, the report sought to

30. FOUNDATION REPORT, supra note 27, at 34.
31. See id. at 35.
present a distinct yet easily integrated administrative framework for managing the park.\textsuperscript{32}

Most notably, however, the Foundation team did not seek citizen support for the national park by extolling the promise of increased tourist revenues. Unlike park proponents in other developing countries,\textsuperscript{33} as well as earlier proponents in Dominica, the Foundation team stated that "[i]t would be misleading, in our judgment, to suggest that creating a park would stimulate a dramatic growth in tourism."\textsuperscript{34} The report argues against attempts to attract large numbers of tourists because of the potential destruction of local cultural identity, and it notes the limited appeal of Dominica's unique natural attractions to the existing mass tourist industry. On this point, the report concludes that

the primary purpose of a Dominica National Park . . . should be the protection of those natural resources which directly affect the physical welfare of the people of Dominica. In addition, the park would be a source of pleasure and education for the Dominicans themselves, as well as for tourists who seek a quality experience different from what is offered elsewhere in the Caribbean.\textsuperscript{35}

A salient strength of the Foundation report was its specific park proposal containing a series of recommendations presented to encourage evaluation of the real costs and benefits associated with each of those recommendations. Lacking the power to force favorable decisionmaking, foreign conservationists must avoid stressing the general virtues and principles of conservation and national park development and, instead, articulate specific resource allocation choices. While the presentation and evaluation of a specific park plan does not guarantee park creation, as the Foundation team and those before them learned, such a strategy does greatly facilitate government decisionmaking.\textsuperscript{36}

\textsuperscript{32} Id. at 40-42.

\textsuperscript{33} See Western \& Henry, Economics and Conservation in Third World National Parks, 29 Bioscience 414 (1979). See also R. Nash, Wilderness and the American Mind 342-78 (3d ed. 1982); C. Carlozzi \& A. Carlozzi, supra note 2, at 105-16.

\textsuperscript{34} Foundation Report, supra note 27, at 38.

\textsuperscript{35} Id. at 39.

\textsuperscript{36} Bruce Weber identified eight stages necessary to implement the recommendations of the Foundation report: 1) undertaking an initial reconnaissance of the island by experts in science, education, or planning; 2) initiating discussions with local decisionmakers if the identified resources are unique and threatened; 3) sending a team of experts to evaluate the feasibility of establishing a specific park or reserve if the government is sympathetic to the park idea; 4) building interest in park projects and establishing limits, benefits, and potentials by publicizing the results of the study; 5) presenting the published results in a report designed to influence government and private leaders; 6) familiarizing island leaders with the practical aspects of parks by arranging tours to successful parks established elsewhere; 7) funding practical training for the designated leader of the park project; and 8) providing further expert assistance in park planning, legislation, and funding if enthusiasm persists. See B. Weber, supra note 5, at 127-28.
D. The End of the Beginning

The Foundation Report, formally presented to the government on June 1, 1970, generated a short-lived optimism among the interested conservationists. Within months, the Dominican Minister of Education and Health, a key supporter of the park idea, was replaced after his party's defeat in a general election.37 The ousted Freedom Party, whose leaders were closely identified with the conservation movement and which controlled the island's two major newspapers, severely criticized the newly-elected Labour Party's "lack of concern for the island's environment."38 Thus, in addition to suffering a major setback, the park proposal was in danger of becoming a political issue.

The change in the government, however, did not diminish the outside interest in Dominica. Experts from the Foundation continued to visit the island, and a forestry expert from the United Nations Food and Agriculture Organization concluded after a visit in December 1970 that, despite political tensions, the government remained interested in the national park idea.

The spring of 1971 brought further politicization of the park proposal. The Dominican Tourist Board, chaired by an active member of the Freedom Party, suggested that park legislation would enhance Dominica's industry by protecting prime tourist attractions and minimizing commercialization found on other Caribbean islands. Shortly thereafter, the Dominican Government sternly rebuffed the Foundation's invitation to take a promotional tour of other parks in the Caribbean. In addition, the government accused the Foundation of breaching protocol and attempting to pressure the government into creating the park before it was ready.39 Following this rejection, the Foundation's leadership changed, and it ceased activity on the island.

In late 1971, Dom-Can's island activities suffered a similar fate. After three and one-half years of operations, the Dom-Can venture failed and went into receivership,40 reportedly as a result of under-capitalization and poor management.41 Similar to its ecologically inappropriate

37. Id. at 129-30.
38. Id. at 130.
39. The government felt the Foundation had breached protocol by inviting Dominican leaders on a tour of the park area to promote the national parks concept. See Letter from C. A. Seignoret, Secretary to the Cabinet of Dominica, to Sydney Howe, President, Conservation Foundation (Apr. 23, 1971). Several reasons have been cited for the government's reaction: the invitation should have been sent to the government before letters were sent to other leaders for a trip that had not yet been approved by the Cabinet; the selection of a non-Dominican as trip coordinator offended local sensitivities; and the opposition newspaper carried the trip offer on the same page as a letter from the Tourist Board, suggesting organized pressure tactics. B. WEBER, supra note 5, at 134.
40. With its demise, Dom-Can became the third timber company to go bankrupt in Dominica in this century. B. WEBER, supra note 5, at 197.
41. Reportedly, Dom-Can used fuel-intensive kilns instead of scrap chip and inexpensive
forestry practices, Dom-Can's management decisions also failed to make the necessary cultural adaptations. In addition, the lack of available skilled labor, the deficiency of Dominica's infrastructure (particularly its road system), and the difficulty of taking timber from the inaccessible Crown Lands contributed to inefficient operation of the company.42

Despite the demise of the activism of foreign conservationists, Christopher Maximea continued to promote the park idea on Dominica. While serving as Dominica's delegate to the Second World Conference on National Parks in 1972, Maximea broadened his exposure to park problems through contacts with similarly situated colleagues in other developing countries.43 As a direct consequence of Maximea's participation in the Conference, the Dominican Government wrote to the International Union for Conservation of Nature and Natural Resources (IUCN) requesting outside assistance for park planning and establishment. Apparently, the IUCN failed to respond.

III

BIRTH OF A PARK

Three years after the withdrawal of the Foundation and Dom-Can from the Dominican park controversy, two new institutions appeared on the scene. In 1974, the Canadian International Development Agency (CIDA)44 provided a grant that, along with a second grant in 1978, totaled $200,000 to assist the government of Dominica to establish a na-
ational park. At the same time, the Nature Conservancy, a nongovernmental United States organization, moved into the void left by the Conservation Foundation.

A. The Canadians Arrive

Canadian interest in Dominica was growing in the 1970's as a result of both Canada's shared membership in the British Commonwealth and the increasing number of Canadian nationals vacationing in the Caribbean. In 1971, a representative of the National Museum of Canada went to the Caribbean to investigate ways in which the museum could become involved in historic and natural preservation projects in the region. In 1972, the Museum joined with Parks Canada (the Canadian national park service) to draft a proposal to CIDA to further the creation of Morne Trois Pitons National Park, as the Foundation-proposed park came to be called.

CIDA, although not usually concerned with conservation issues, was responsive to this proposal because of the ecological damage and image problems created by Dom-Can, a Canadian concern. Particularly important to the CIDA involvement was the sympathetic interest of an individual within the nongovernmental organization (NGO) division of CIDA. During 1973-74, a small amount of funds from the NGO division provided support for two Justice Canada (the Canadian department of justice) lawyers to develop park system legislation and for a retired Parks Canada official to serve as in-country advisor to the Dominica Forestry Division. The NGO division funds could not be provided directly to any government, but only to nongovernmental organizations.

The project was handled through the Canadian Nature Federation (CNF). Funding through CNF helped fulfill the CIDA matching fund requirement. Also, CNF funding enabled the Dominican Government

45. In 1974, a contribution from a bilateral or multilateral assistance agency to aid conservation-oriented resource management was extremely unusual. This situation is changing somewhat, as described in part in the Article by Bruce Rich in this issue of the Ecology Law Quarterly. Since the CIDA grant, aid agencies and other wealthy nations have supported parks in other countries. Examples of assistance include support by the World Bank to aid efforts in Kenya and Colombia, by the Inter-American Bank to Costa Rica, by Norway to Tanzania, and by New Zealand to Nepal. Aid from the United States has focused on institution-building with developing country conservation organizations.

46. The nongovernmental organization (NGO) division of CIDA helps voluntary Canadian and international nongovernmental organizations to participate in international development efforts. Financial support from this division to a Canadian nongovernmental organization to work in Dominica does not diminish the bilateral funds available to the government. See supra note 44 (explaining the CIDA Bilateral Assistance Program).

47. The Canadian Nature Federation (CNF) is a nongovernmental organization based in Ottawa, Ontario and originally founded in 1971 as the Canadian Audubon Society.

48. The CIDA matching fund requirement meant that the CIDA NGO division grants had to be matched by nongovernmental organization assistance. When Canadian nongovernmental organizations ran short of counterpart funds for the Dominica park project, World
to spend its regular CIDA funding allotment on other (non-park) projects, such as improving its agriculture and its manufacturing capacity. If CNF funding had not been available, the Dominican Government probably would not have considered the project important enough to deserve regular aid funds.

The CNF connection also had drawbacks. Most significantly, the flow of monies to an outside organization frustrated Dominicans who saw a significant portion of the funds raised "for Dominica" being used to pay foreign experts. Critics overlooked the fact that these NGO division funds could not have gone directly to the government.

The CNF/CIDA program set forth four main areas of cooperation with the Dominican Forestry Department (a park service did not then exist): (1) park planning (leading to park creation); (2) development of access trails and infrastructure; (3) environmental interpretation; and (4) staff training. The initial objective was to proceed beyond the paperwork completed by the Foundation and create a visible presence for the park on the island with the necessary logistical support for its establishment. The 1974 CIDA grant allowed the Dominican Forestry Department to purchase a vehicle and to set up a park office in the capital city of Roseau. This, combined with the presence on the island of a Canadian project advisor and visits by various professional planners and lawyers, created an impression of increasing activity and a sense of inevitability around the park proposal.

Meanwhile, it was necessary to establish park borders more specific than those in the Foundation report's general map. To avoid social and economic disruption and to minimize resistance to park establishment, these detailed boundaries were drawn to exclude privately owned land and lands with significant agricultural or forestry potential.

The Justice Canada lawyers drafted protected area legislation (which enabled the government to set aside lands for parks) and presented their final draft to the Attorney General of Dominica in April 1975. The House of Assembly passed the legislation four months later. While passage of the Act itself and subsequent publicity on the approval of Morne Trois Pitons National Park happened very quickly, establishing the park regulations that would actually create the Park took a number of years. With the creation of the legislation after more than a decade of planning, the time for a Dominican national park had finally arrived.

Wildlife Fund-U.S. "converted" funds into Canadian nongovernmental organization money to match the CIDA grant by a transfer to World Wildlife Fund-Canada.

49. See supra note 44.

50. Thorsell, National Parks in Developing Countries—The Dominican Experience, AGRIC. & FORESTRY BULL., Feb. 1979, at 17, 18.

51. See National Parks and Protected Areas Act, supra note 12.

52. See Thorsell, National Parks from the Ground Up: Experience from Dominica, West Indies, in NATIONAL PARKS, CONSERVATION, AND DEVELOPMENT: THE ROLE OF PRO-
B. The Nature Conservancy and Private Land Conservation Overseas

While park proponents in Canada and Dominica were working to pass the protected area legislation, the Nature Conservancy’s newly established International Program entered the picture in 1974 to try to complete the donation of the privately owned Middleham Estate as an annex to the park. When the Conservancy was first suggested as a potential recipient of the land, the organization lacked the institutional capability and the staff necessary to organize or participate in the project.

John Archbold’s offer to donate his Middleham Estate for part of the Park was important because the land was virgin forest, and the Foundation and subsequent recommendations of the Canadian Nature Federation project team had consciously excluded such areas with economic potential from their park proposal. Thus, the gift represented an opportunity to include a key ecosystem in the park without requiring the government of Dominica to forego potential revenue from Crown Lands.

In 1974, the Conservancy was a small, relatively unknown, private, nonprofit organization that focused its efforts on acquiring environmentally significant lands in the United States. The Conservancy’s International Program sought some means to dramatically demonstrate the program’s viability. Blissfully unaware of the previous thirteen years of effort, the Conservancy viewed Dominica as a logical candidate for a quick success. Thus, in October 1974, a Conservancy representative joined the long list of outside experts to visit Christopher Maximea. The purpose of the visit was to discuss acquisition of Middleham Estate.

The Archbold donation would entail tax and legal complexities. The Dominican Government was distressed to learn that John Archbold proposed to have title held by the Nature Conservancy, on whose Board of Governors he then served. In addition to benefiting the Conservancy, the decision offered tax advantages. After some negotiation, the Do-

53. The Canadian Nature Federation (CNF) project team varied in size and composition according to the specific need. It included the Parks Canada advisor, the Justice Canada lawyers, and other private organization and government agency park specialists working in Dominica and Canada.


Whether the Archbold donation would be deductible was a complex issue. For example, one limitation on deductibility is that a donation by an individual must be to a charity created in or under the laws of the United States. See I.R.C. § 170(c)(2)(A) (West 1985). The Nature Conservancy satisfied this domestic creation requirement, but the Internal Revenue Service probably would have disallowed the deduction if the Conservancy were a “mere conduit” to a foreign recipient. See Rev. Rul. 63-252, 1963-2 C.B. 101, amplified in Rev. Rul. 66-79, 1966-1 C.B. 48. A domestic charity will pass the conduit test, and contributions to it will be deducti-
ominican Government acquiesced to having the title held by an American organization but sought assurance of eventual transfer of title to the government. No legally binding assurance could be given, however, without jeopardizing the tax deductibility of the gift. The government did not want to waive the high Dominican transfer tax which would apply to the transaction. The Dominican Government perceived the Conservancy request for such a waiver as changing the rules of the game. The government feared that, after being granted a license to hold land and having the transfer tax waived, the Conservancy would fail to follow through as had other outside experts during the previous thirteen years.

After extended discussions, negotiators found a partial solution: the Conservancy would retain title but grant the Dominican Government a long-term lease for management of the land. The transfer of title to the Conservancy was again complicated by tax considerations when Conservancy negotiators discovered that title to Middleham Estate was not held by Archbold personally but by his local corporation, Caribbean Plantations (1959) Ltd. Conservancy lawyers worked in the United States to develop a plan to avoid this obstacle, and in December 1974, a Conservancy representative returned to Dominica to present a proposal to the government. The Dominican Government approved their plan in January 1975. After executing a long series of documents, the Conservancy
became owner of the 950-acre Middleham Estate and the Dominican Government became lessee. The passage of the park legislation in July 1975, along with the Archbold donation, provided the foundation for the first national park in Dominica.

IV

PARK CONSOLIDATION

A. Off the Paper and Onto the Ground

Upon the passage of the park legislation, the members of the Canadian Nature Federation (CNF) project team aggressively began transforming the legal concept of the Park into a reality. Between 1975 and 1982, they took seven steps to accomplish this goal.58

1. Preparation of Interim Management Guidelines

Rather than prepare a full-scale comprehensive management plan, the CNF project team identified immediate problem areas through a preliminary plan that outlined basic objectives and general management guidelines for the Park. This plan avoided an extensive period of study and stressed actual problem solving.

2. Field Demonstration Project

The advisors from Parks Canada, working with CNF, proposed the development of a recreational facility to provide a demonstration of one of the main attractions of the Park. The project selected was a nature trail and picnic shelter at Emerald Pool—an accessible and attractive area of the Park. This trail, built by local laborers, was the first physical evidence of the Park’s existence. Trail brochures were printed, and an opening ceremony was held with top Dominican officials. Dominica followed the successful practical approach to park development of Costa Rica described at the Second World Parks Congress. As in Costa Rica,59 practical, visible, low-cost, and accessible facilities were constructed to generate local and foreign use and to provide immediate public understanding and support for the nature-oriented experience the Park offered.

3. Linkage with Tourism and Education

After providing the sample facility and information brochures, Canadian advisors stationed in Dominica targeted island educators whose support could aid the program. As these people became aware of the

58. The description of the Canadian role in development of Dominica’s new park is drawn extensively from an article by a key participant in the process, James Thorsell, National Parks from the Ground Up: Experience from Dominica, West Indies, in McNEELY, supra note 52, at 616.

59. See Boza, supra note 43.
Park, their demand for park information increased. An interpretive program, which resulted from this increased demand for information, fostered greater conservation awareness beyond the confines of the Park and built more support among the local residents.

4. Development of Management Capacity

By 1982, the original Park headquarters staff of one had increased to seven professionally trained Park staff members. Staff training included participation in workshops, attendance at conferences and international study tours (often funded by World Wildlife Fund-U.S.), and field attachments with staff at other parks in the Caribbean. This approach provided an effective supplement to the more traditional training program of long-term education at foreign universities, which is costly and often not relevant to local circumstances.

5. Park Facility Development

As management, protection, and development of the Park progressed, the park staff constructed more trails and picnic sites, and put in boundary markers. The CNF project team advised the government to keep the capital cost for facilities relatively low and build facilities with a focus on minimizing maintenance costs; this approach would allow Dominica to afford the upkeep once foreign assistance ceased.

6. Research Program

Proponents had expected the Park to attract international scientific attention because of its unique ecological attributes. Although research was encouraged, proponents had realized that researchers might be a management problem and that research could lead to conflicts with other uses. Therefore, the CNF team assisted with development of guidelines to encourage proper research.

7. Follow-Up Support

For several years after the Park was established, an outside professional worked directly with the Dominican Forest and Parks Service on a continuing basis. This presence gradually phased out until the Park was firmly in the hands of Christopher Maximea and his staff by 1980.

B. Transfer of the Archbold Preserve

The Nature Conservancy had to decide if and when title to the Middleham Estate (renamed the Archbold Preserve) should be transferred to Dominica, thus consolidating Morne Trois Pitons National Park. Formal Dominican independence from Britain in 1978 seemed an ideal occasion to donate the land to Dominica. Just prior to independence,
however, the government had passed a land development law which would allow timber cutting on Park lands.\textsuperscript{60} Developed with the assistance of the British Development Division, this law put exploitation decisions in the hands of a semi-autonomous corporation which could override the more conservation-minded Park Service. Because of the threat that this law posed to the preservation of the Archbold forests, the Conservancy delayed transfer of the Preserve.

After gaining independence, Dominica experienced a period of turmoil.\textsuperscript{61} Following the press' exposure of a series of scandals involving proposals to establish the northern third of the island as a tax haven for a group of American entrepreneurs, the government was overthrown. The Dominican people subsequently voted the caretaker government out of office. Then, two hurricanes, one of unprecedented force, hit Dominica.\textsuperscript{62} Shortly thereafter, two coup attempts were thwarted.

Twice during this period of turmoil, the Nature Conservancy representative visited the island to discuss transfer of the Archbold Preserve. Except for the steady presence of Maximea, the key ministers in the government varied with each trip. New ministers were not aware of previous agreements and understandings, making it critical that continuous protection of the Preserve be assured through use of a reverter clause in the transfer agreement.\textsuperscript{63} In its final form, the agreement provided that, in the event of a lapse of conservation protection, title to the Archbold Preserve would revert to the Nature Conservancy.\textsuperscript{64} In addition, under the agreement, the Preserve was unequivocally exempted from the forestry development law.\textsuperscript{65} After the new Dominican Government agreed to these terms in mid-April 1982, formal delivery of the legal documents transferring the Archbold Preserve from the Nature Conservancy to Dominica completed consolidation of Morne Trois Pitons National Park.

\textsuperscript{60} See Forest Industries Development Corporation Act, Act No. 14 of 1977, \textit{Laws of Dominica}.

\textsuperscript{61} This post-independence period is described in L. Honychurch, \textit{supra} note 15, at 202-23.

\textsuperscript{62} After Hurricanes David, in 1979, and Allen, in 1980, World Wildlife Fund provided funds to train park wardens in wildlife rehabilitation and protection, and for fellowships for several forestry and park personnel to attend an international park seminar. The wardens conducted surveys of and protected the endangered parrot that some Dominicans caught for black market sales after the hurricanes wiped out normal sources of income. The Fund also provided a three-year grant that initiated planning and development of the proposed Cabrits National Historic Park in Dominica.

\textsuperscript{63} A reverter, or "possibility of reverter," can be created in many ways. The grantor can deed (transfer) land to the grantee for only so long as the grantee uses it for purposes specified in, or not prohibited by, the grant. See R. Cunningham, W. Stoebuck & D. Whitman, \textit{The Law of Property} 97-100 (1984). Here, the Nature Conservancy (grantor) deeded Middleham Estate to the Dominican Government for only so long as the land is used for conservation purposes in the form of Morne Trois Pitons National Park.

\textsuperscript{64} Memorandum of Covenant between the Commonwealth of Dominica and The Nature Conservancy, para. 3 (Aug. 17, 1981) (on file with author).

\textsuperscript{65} \textit{Id.} para. 1(ii)(a).
V

RETROSPECTIVE ON PARK ESTABLISHMENT

Roderick Nash, the eminent chronicler of conservation history in the United States, observes that "[n]ature appreciation is a 'full stomach' phenomenon that is confined to the rich, urban, and sophisticated. A society must become technological, urban, and crowded before a need for wild nature makes economic and intellectual sense." Nash argues that the ability to preserve nature in a developing country that does not meet these criteria depends on its ability to "sell" its wilderness to visitors from wealthy "wilderness poor" countries.

As attractive as Nash's thesis may be in the context of tourist-rich East African parks, it alone is not sufficient to explain the historic development and growth of parks in South America, or the specific experience of Morne Trois Pitons National Park in Dominica. At various intervals, outside park proponents, many of whom closely fit Nash's profile of nature tourists, appealed to the Dominican Government's desire for tourism to attract much needed foreign currency. Park proponents would have been unwise to emphasize raising revenues as a primary goal of establishing the Park for two reasons. The revenues could have failed to materialize, and then the government could have deauthorized the Park. Or, in an effort to increase Park revenues, the government might have encouraged inappropriate uses of the Park. As previously noted, A Chance for a Choice explicitly downplayed the prospects of tourist revenue.

A. Why Parks Are Created

One of the few studies of motives for park establishment in the developing world, a study based on interviews with Latin American delegates to the Second World Parks Conference in 1972, identified seven primary motivations behind park creation:

1. Recognition of natural wonders (spectacular areas such as the Grand Canyon or other landscapes of great attraction);
2. Promotion of foreign exchange and tourism.

66. See R. Nash, supra note 33, at 343.
67. See id. at 343-45.
69. For Nash's profile of nature tourists, see R. Nash, supra note 33, at 347-53.
70. The issue of conservation versus immediate use to attract funds and a constituency has been a constant dilemma for the international park movement. See R. Foster, Planning for Man and Nature in National Parks 15-22 (1973).
71. See supra notes 33-35 and accompanying text.
72. G. Wetterberg, supra note 68, at 21-27.
73. The only in-depth economic analysis of the impact of a national park on a small Caribbean island is B. Posner, C. Cuthbertson, E. Towle & C. Reeder, Economic Impact Analysis for the Virgin Islands National Park (1981). The study concluded
3. Provision of educational study areas (both to study existing ecology and to monitor ecological changes);
4. Projection of an image of political maturity;\(^7^4\)
5. Environmental preservation (including watershed protection, preservation of representative areas, preservation of biological diversity, and preserving and monitoring other ecological values of parks);
6. Satisfaction of acquired needs;\(^7^5\) and
7. Preservation of areas of world interest.\(^7^6\)

Another motivation, not identified by the study, is providing government a legitimate means to assert its authority, either vis-a-vis foreign governments or in relation to its own citizens who may otherwise seek to occupy "vacant" government lands. For example, the assertion of terri-

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that the direct cost-benefit ratio of the Park in the local economy was 2.7:1 (this increased to 23.7:1 when imputed costs and benefits were considered). In contrast to Dominica, however, where the vast majority of the population is engaged in subsistence agriculture, in the Virgin Islands over 40% of all private employment is directly related to tourism. In 1977, tourist stop-over visits in the U.S. Virgin Islands were 718,000, contrasted with Dominica's 23,000.


There has been a growing concern since 1972 that tourism may lead to cultural deterioration and a misallocation of revenues because the tourist dollar accrues primarily to foreign tour operators rather than to the host country, and even less to the local populace. See, e.g., J. McCaughan & E. Towl, *Ecological Guidelines for Island Development* 20-23 (1974) (IUCN publication); Bugnicourt, *The New Colonialism: Tourism with No Return*, DEV. FORUM, June-July 1977, at 1; Bugnicourt, *Tourism: The Other Face*, DEV. FORUM, Aug.-Sept. 1977, at 8; Western & Henry, supra note 33 at 414; Blower, *National Parks for Developing Countries*, in McNeely, supra note 52 at 722, 723; Mishra, *A Delicate Balance: Tigers, Rhinoceros, Tourists and Park Management vs. The Needs of the Local People in Royal Chitwan National Park, Nepal*, in McNeely, supra note 52, at 197, 201; Jefferies, *The Sherpas of Sagarmatha: The Effects of a National Park on the Local People*, in McNeely, supra note 52, at 473, 474-75. The 1972 study by Wetterberg, supra note 68, coupled the tourism revenue argument with observations on the lack of alternative economic uses of "unproductive lands."

In Dominica and other tropical countries, this issue has become a major but separate motivating factor for park creation, as it has also been in the United States debate over national parks. See A. Runte, *National Parks: The American Experience* 48 (1979).

74. Creation of national parks and a park system has increasingly been seen as a sign of the maturity of a country, akin perhaps to having a national airline or a major hydroelectric project.

75. Parks may meet cultural or other "learned" needs. The main thesis of Runte's history of the United States park system, see supra note 73, is that its birth was motivated by a cultural inferiority complex of Americans comparing the United States to Europe, rather than based on environmental needs or ecological criteria. *Id.* at 11-32. Cultural values probably continue to provide a primary justification for the influence of conservationists in the public arena. See J. Sax, *Mountains Without Handrails: Reflections on the National Parks* 51-54 (1980).

76. Wetterberg's study was conducted at a time when the World Heritage Trust concept was increasingly under discussion and potentially could have provided financial support to identified and accepted areas of world interest. See Convention on Protection of the World Cultural and Natural Heritage, done Nov. 23, 1972, 27 U.S.T. 37, T.I.A.S. No. 8226; see generally Train, *An Idea Whose Time Has Come: The World Heritage Trust, A World Need and a World Opportunity*, in SECOND WORLD CONFERENCE ON NATIONAL PARKS 377 (H. Elliot ed. 1974); Hales, *The World Heritage Convention: Status and Directions*, in McNeely, supra note 52, at 744.
torial rights was at least a partial motive of Argentina in creating the string of parks along its border with Chile. The Kuna Yala Biosphere Reserve in Panama was recently created by the Kuna Indians specifically to control physical access to their reservation.

B. Why Morne Trois Pitons Was Created

If not the prospect of immediate tourist revenue, what convinced government decisionmakers in Dominica that resource conservation was an essential development objective in which national parks play a legitimate role? In the fourteen years preceding the Park's establishment, various foreign experts and local park proponents appealed to every possible motive of the government for creating a national park. No single argument was determinative, but in the end the Dominican Government thought the Park would provide multiple benefits to national development. These included protecting water catchment areas, preserving hydroelectric potential, preventing erosion, maintaining natural systems of value to the Dominican people, providing environmental education and local recreation, gaining international recognition, and earning limited foreign currency through tourism.

Particularly influential was that most alternative economic uses in the Morne Trois Pitons area were not promising. Much of the Park's soil was saturated, highly leached, acidic, poorly aerated, and suffered from impeded drainage, thus limiting agricultural use to two or three years in duration. Natural recovery of any disturbed soil and vegetation would be slow and cause much of the land to lie fallow for years. The Dominican experience demonstrated that the economic potential of logging on all but the most accessible land was questionable. With the exception of the Archbold Preserve, the proponents had excluded accessible land with forestry potential from the Park.

Proponents argued that conservation and national parks were not necessarily obstacles to economic development. This approach convinced the government to act because, in addition to pointing out the resource problems, the proponents offered realistic solutions. In other words, successful work on conservation in developing countries requires adoption of a basic insight from mediation: land use conflicts are not over right or wrong, but over different, but nevertheless legitimate priorities and objectives. “To attempt to accommodate these differences, therefore, is not a 'compromise' in the sense of doing something less than

77. Interview with Arturo Tarak, Director National Parks of Argentina (Feb. 4, 1984).
79. See Harjosentono, Hehuwat & Soemarno, Involvement of Politicians in the Development of Parks and Protected Areas, in McNEELY, supra note 52, at 245, 246.
what is "best": it is determining what is best." The economic choice regarding land is not between use and waste but between allowing unplanned cutting (for charcoal, cultivation, cord wood, and commercial logging) and protecting the free goods that the standing forest provides (soil protection, flood prevention, and maintenance of hydroelectric potential).

The written arguments in favor of establishing Morne Trois Pitons National Park came primarily from outside rather than from local advocates. One of the few exceptions is a December 1974 background paper prepared for the Parks Canada advisor to the CNF project by Christopher Maximea, Chief Forest Officer and a principal proponent of the National Park of Dominica. He outlined the park proponents' main concerns:

A. The Aim:

What do we want?

The above question is often asked by most experts coming to Dominica in connection with conservation. The end product of the effort or "what we want" is a thriving, internationally recognized National Park System, comprising the natural areas, historical sites and recreational areas of Dominica.

B. Objectives:

1. To protect some of the natural resources and ecology of Dominica.
2. To provide the people with an appropriate natural setting for inspirational and recreational purposes.
3. To serve as a natural laboratory for Education and Research.
4. To stimulate industries capable of boosting up the island's economy.

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81. C. Maximea, Background Paper Re: Establishment of a National Parks System in Dominica (Nov. 18, 1974) (addressed to H. Eidsvik, then with Canadian Department of Indian and Northern Affairs) (on file with author). One of Dominica's leading newspapers editorialized:

July 24, 1975, will be remembered as the day that Dominica seized its "Chance for a Choice." On that date the Legislative Assembly passed the Bill for the National Parks and Protected Areas Act, and so took another firm step to conserve Dominica's legacy of natural resources. The Act is the culmination of the persevering endeavour by the Government of Dominica and a few far-sighted persons over a period of about fifteen years. Not only does it establish a large national park, but also lays the groundwork for a system of parks throughout the island.

The history of the park concept began with the germ idea originating in the minds of men who came to study the forest resources of the island. They recognized that here was the last opportunity in the Caribbean to preserve a sizable area of mature tropical forests. Not only should these forests be retained for their scientific value but also they should ensure a steady flow of pure water for the use of the people. . . .

Development of all such areas will provide an increasing amount of employment for local residents, greater opportunities for businesses connected with tourism, and will preserve for the people of Dominica & the world the unique natural heritage of
Another local publication supporting establishment of Morne Trois Pitons was written by the Dominican Park Service in 1978. The publication emphasizes the resource limits of small islands and observes that the Park "is established primarily to protect the water catchment areas and enforce the stabilization of land masses composed of a range of forest and soil types."82

**C. Starting from Scratch: Some Lessons**

Whatever the decisive motivating factors, the history of the Morne Trois Pitons National Park reinforces the view that governments do not spontaneously accept the concept of national parks. Rather, park establishment requires the tenacious efforts of concerned individuals who must overcome opposition or, more commonly, indifference. The history of park development around the world shows that the idea often originates with an outside "expert" who becomes so captivated by the concept that he or she will persevere in the face of such resistance.83 In Dominica, this burden was shouldered not by one but by a series of experts and institutions over the course of more than a decade.

**1. Local Initiative**

The initiation of the outside interest may be totally fortuitous, resulting from casual inquiry during a trip taken for other reasons, or such interest may be catalyzed in reaction to an imminent threat to the ecology of the area. Outsiders alone, however, are not able to bring a park into being. Local commitment is an absolute prerequisite to maintaining continuity and leading the way through the subtleties of local cultural and political issues. Although experts and scientists may be critically important at the beginning of park development, their role should not be emphasized over that of both local and outside technicians (in the case of Dominica, the cadre of Canadian lawyers and park professionals) who are needed to shepherd the concept through the institutional maze.84

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84. In addition to the important role played by outside advocates in the establishment of Morne Trois Pitons, technical reports such as the WHO water and Burra forestry studies also played a key role. See supra notes 28-29 and accompanying text. More critical than the role of outside advocates was that of local leaders. Overreliance on the power of local proponents, however, has its risks. Some internationally-encouraged conservation efforts that target
especially during the early stages of park system development, when it is unlikely that the government has focused on specific parks, local decisionmakers must be brought into the process if the results are to be sustainable in the political setting.\textsuperscript{85}

2. Selection of the Site

After the necessary individuals and institutions are marshaled to bring about action, questions of selection or definition of sites and the priority of conservation interests must be answered. Should site selection be based on scientific factors (for example, preserving the range of biological diversity of the country), or political ones (such as siting it on the battle site where independence was won)? Or should economic factors such as protection of the watershed of the country’s major hydroelectric project prevail? Should the parks seek to preserve the monumental and spectacular, as in the United States, or should they instead preserve the representational? Should remote sites be set aside because they are undisturbed and economically and politically defensible, or should those close to population centers be chosen so that the public can easily use them and develop a better appreciation for parks? Should one seek to establish as many parks as possible when the political mood is right, or should attention be focused entirely on protecting, developing, and involving the public in one or two model parks?

In one of the first and most influential papers on the subject, Mario Boza, the first director of the Costa Rican National Parks Service, strongly urged concentration on areas easily accessible to both nationals and foreign visitors where the concept of the park could be expounded and made understandable to the general public.\textsuperscript{86} Employing a pragmatic and political rather than scientific approach, the Costa Rican conservationists displayed remarkable dexterity in persuading the government to move from tentative discussions to a full Costa Rican park system now recognized as one of the most biologically comprehensive and effective in the world.\textsuperscript{87}

Selecting the south central mountain range for Dominica’s first park was an important pragmatic consideration. This site minimized conflicts

\textsuperscript{85} See Harjosentono, Hehuwat & Soemarmo, supra note 79, which makes the point, strongly confirmed by the author’s experience, that however rational and systematic one hopes to be, “[t]iming is of paramount importance. . . . [O]pportunities have to be exploited to the fullest . . . .” Id. at 246 (emphasis omitted).

\textsuperscript{86} See Boza, supra, note 43, at 185.

\textsuperscript{87} For a brief description of the Costa Rican National Park System, see MacFarland, Morales & Barborak, Establishment, Planning and Implementation of a Natural Wildlands System in Costa Rica, in McNEELY supra note 52, at 592.
with other uses and provided the benefits of water and soil protection, proximity to the major population areas, and the inclusion of spectacular physical features. Park proponents also focused primarily on one park, but the parks legislation clearly aimed to establish a more comprehensive national park system in the future. The legislation did not seek to include every type of protected area recognized elsewhere in the world, but did accommodate historic preservation and local recreation. Learning from the Costa Rican experience, Dominica made it a high priority to develop a recreational facility (at Emerald Pool) to increase understanding of the park concept among the local populace.

3. **Using the Existing Structure and Resources**

Common constraints to park establishment in any developing country are budgetary problems and the absence of trained personnel. Thus, park planners should make maximum use of existing institutions with relevant expertise, such as the forest service, rather than attempting to establish an entirely new and separate organization.

This common developing country approach was clearly followed in Dominica with considerable success, although establishing a Park Service as an outgrowth of the Forest Service was not without its risks. The fledgling Park Service could have become a dumping ground for unwanted personnel. Also, the conflicting goal of forestry utilization (as opposed to parks management), especially when combined with a multiplicity of park purposes—recreational, historical, ecological—easily could have led to a lack of a unified sense of mission. In the United States, for example, the Park Service in its early years strove to distinguish itself clearly from the utilization-oriented Forest Service.

In Dominica, the blurring of the Park and Forest Services' missions was somewhat deliberate when the national park legislation was drafted. Internal discussion memoranda of Justice Canada reflect a recognition that outright resistance to hydroelectric utilization within the Park would fail. As noted previously, the Park's watershed capability, along with its concomitant protection of Roseau from landslides on steep slopes above the capital, was perhaps the Park's strongest asset. Thus,  

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88. For a description of the numerous categories of world protected areas, see IUCN COMM'N ON NATURAL PARKS AND PROTECTED AREAS, OBJECTIVES AND CRITERIA FOR PROTECTED AREAS (1978).
91. Memorandum from Thomas B. Marsh to Peter M. Troop, Esq., Q.C. (July 24, 1974); letter from H.T. Cooper, Park Systems Planning Division, National and Historic Parks Branch, Parks Canada, to A.H.E. Popp, Legislation Section, Department of Justice, Canada (Nov. 27, 1974) (both on file with author).
the drafters of the national park legislation acquiesced in the continuation of the authority and activities of the central water authority and the corporation established under the Hydro-Electric Ordinance.92

Park proponents, while choosing to avoid conflict between development and conservation interests by blurring the lines of authority over watershed protection and hydroelectric power, increased understanding among the rural population by clarifying the park concept and boundaries. The park boundaries were drawn to avoid the need to relocate people and to establish clearly recognizable lines on the ground, both goals critical to the Park's success. The Park also sought to appeal to the local population by providing jobs, such as trail developer and park guard. Park proponents hoped these attempts to bring local people to the Park would build a constituency and understanding, and help to prevent the development of a conflict between development and preservation similar to the recreation-preservation conflict in the United States.93

4. **External Assistance**

Even after years of promotion, Dominicans had only a vague idea of the characteristics and functions of a national park.94 International recognition both provided legitimacy for the park concept and helped with financial maintenance of the Park until local support and awareness was solidified. External forces alone, however, could not have propped up the Park indefinitely without supportive action by the local government over whom the external conservationists had no authority.

Until the Dominican Government took legislative action, tangible financial and technical resources were necessary to maintain the effort's credibility. The Conservation Foundation contributed considerable technical expertise to defining the issues before the government and to helping to articulate solutions. Governmental and private organizations in Canada also provided technical expertise, and material and human resources. The Nature Conservancy supplied legal advice and valuable real estate. These economic and technical resources, though limited, made it possible for Dominica to undertake activities that otherwise would not have received sufficiently high priority to justify the government's use of its own limited resources. In addition, these outside interests represented a considerable political resource by providing support and justification for a government decision that might have otherwise been questioned by a skeptical local public.

While outside assistance can provide a useful counterforce to development interests proposing vast changes in the region, even useful contri-

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92. See National Parks and Protected Areas Act, *supra* note 12, §§ 11(3), 14, 15, 16(2).
93. See *R. ForesTa*, *supra* note 90, at 99-104.
butions such as the transfer of technology, training and education opportunities, research on local resource issues, and the provision of funds and equipment can be mixed blessings. Kenton Miller's 1978 study of national parks in the developing world identifies several problems that can result from overexuberant international assistance.\(^9\)

In the end, many of these problems are caused by inflating staff and management capacity and providing exotic equipment at a level that is not sustainable once the international assistance has terminated. The problems did not arise in Dominica because of the careful planning of CIDA and CNF and because financial support never reached a significant level. In addition, in the years since Morne Trois Pitons was established, a continual, albeit not large, influx of training money and projects maintaining outside interest in conservation has flowed to the island.\(^9\)

One problem with external aid in Dominica arose from the transient nature of outside park proponents, which slowed development of institutional support. The international organizations often committed only a few individuals to work on Dominica, and with their departure, institutional support would wane. One frustrated outsider characterized the Dominican attitude as one of "listless realism" (a remark made in reference to the lack of local enthusiasm in response to outside promotion).\(^9\)

This attitude, however, resulted from experience that showed it was unwise for local leaders to risk their limited professional influence to support an idea put forward by foreign experts whose involvement might only be temporary. These attitudes can, of course, create a self-fulfilling prophecy which reinforces the original inaction.

5. Cultural Conflicts

The 1978 study by Miller also indicated that international cooperation carries with it the possibility of cultural and scientific imperialism.\(^9\)

An anthropological study of Dominican perceptions of the environment several years after Morne Trois Pitons Park was established concluded that this imperialism is sometimes necessary to park survival.\(^9\)

It also noted that local residents do not "appreciate" nature in the same way that a foreigner does. In the local patois, there is no word for "nature." Individuals are highly competitive, equally concerned with denying natural resources to their perceived competitors as with furthering their own progress. In this setting,

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95. K. Miller, supra note 84, at 800-28.
96. See, e.g., supra note 62, describing World Wildlife Fund efforts to support specific projects for the Park.
any attempt to set aside or conserve natural resources is bound to be misunderstood if it is understood at all.

To set anything aside is to claim it for one's own, and even if, as in the case of a park, there is no obvious material profit to be gained, one nevertheless increases one's prestige by controlling it.\textsuperscript{100}

Unintentionally echoing Nash's thesis, the anthropologists reached the pessimistic conclusion:

In short, the foreign exponent of environmental concern must face, and be frustrated by, the paradoxical integrity of Dominican culture, which simultaneously guarantees his ethic a sympathetic audience and denies it much chance of realization.

\ldots{} From the outsider's point of view, the issue is clear enough: if Dominica's natural resources are to be conserved throughout a course of development which cannot now be long delayed, to a time when Dominicans may find in them beauty as well as much-needed reserves of water, timber and fish, one must be willing to engage in a little cultural imperialism, if only to thwart the inevitable economic imperialism of foreign lumbermen and fishermen who promise a few jobs and a cut of their proceeds by way of gaining enough temporary local favour to damage local resources permanently.\textsuperscript{101}

The application of such a conclusion to the park development situation in Dominica may be unfounded, however, because a Creole society such as Dominica (or any other developing country) does not have a single cultural complexion. There are the rural Dominicans, the focus of the anthropological study, whose attitude toward nature may of necessity be characterized by exploitation or, at best, indifference.\textsuperscript{102} A second group of Dominicans tends to value and emulate anything foreign—whatever its merits—and may adopt environmental issues merely as a way to distinguish themselves. Finally, there is a third group, a number of whom are in the Park and Forest Services and the newly activated

\textsuperscript{100} \textit{Id. at }45. \textsuperscript{101} \textit{Id. at }47-48. \textsuperscript{102} The tendency to see native residents as traditional and resistant to new ideas and opportunities to improve their lives may in fact merely reflect their inability to take economic risks.

Considerable resistance to innovations and improvement can be expected from most \ldots{} peasants. \ldots{} [T]hey must be totally convinced that no appreciable risk is involved. "Low risk—\textit{not} high yield—is the name of the game in subsistence agriculture," Ewel says. "Low inputs, diverse crops, multiple plots, dooryard gardens, nearly self-sustaining poultry and livestock, and low but certain-to-get-something yields: these are all reflections of the harsh fact that the subsistence farmer cannot absorb a single failure." \textit{Hait\textsuperscript{i}: A Study in Environmental Destruction}, Conservation Found. Letter, Nov. 1977, at 7.

Unlike many developing countries, Dominica has ample farmland but, as is common to other developing nations, ownership is consolidated in relatively few hands. In 1970, 79\% percent of Dominica's farms covered five acres or less, occupying 12\% of the total farmland. Only 2\% of the farms were over 50 acres, but they occupied 64\% of the agricultural land, particularly the most fertile areas. \textit{B. Weber, supra note} 5, at 192.
private Dominica Conservation Society, which shares an interest in the environment not simply because it is fashionable, but out of concern and desire to adapt the advantages of a park to the Dominican setting.

VI
THE SEARCH FOR A NEW PARADIGM

To label conservationists as cultural imperialists is to ignore the reality that only in a few countries, developing or otherwise, has park establishment evolved from a groundswell of public concern.103 As an example of “top down” park creation, the Dominica case study fits a general mold, but this characterization also points out a potential weakness: the Park may not be indefinitely free from threats by politicians whose commitments may lie elsewhere104 or from a local populace which considers the Park at best irrelevant to their real needs.

Even in the Caribbean, there are a few instances where support has come from the “bottom up” through a broad base of local interest, but the process has always been agonizingly slow.105 In many of the world’s existing parks, lack of local support is an increasingly critical manage-

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103. See J. Ise, supra note 83.
104. The present government of Dominica appears to be indifferent to the existence and function of Morne Trois Pitons. A power line now being constructed through the center of the Park will meet an important development objective (electrification of the island’s east coast) and may justify its threat to aesthetic values. Less defensible is the government’s agreement to allow United States military forces to carve a rifle range out of the jungle in the Park’s interior south of the Emerald Pool. See Letter from G. Furness, Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State, to Robert Milne, Chief of International Affairs, U.S. Natural Park Service (May 28, 1985) (report on U.S. Government activities on Dominica); letter from R. Michael Wright to Robert Milne (Sept. 20, 1985) (both on file with author). Also troubling was the desire of the Prime Minister to extract fallen timber from the Archbold Preserve, a proposal discouraged by the Conservancy’s reverter clause on the property. Interview with Eugenia Charles, Prime Minister of Dominica (Aug. 1981).
105. One of the few examples of participatory resource management began in 1981 on the southeast coast of the island of St. Lucia, south of Dominica. Rather than focusing only on establishment of a reserve on two offshore islets with their endemic species, the project addressed the full range of resource issues in the area. Inventories were conducted, using local students and fishermen whenever possible rather than outside experts. Local needs, such as alternative sources of wood or charcoal to relieve pressure on the mangroves, and an equipment storage shed and marketing facility for fishermen, were as high a priority as interpretation at the reserve. Even technical issues of interpretation were subjected to local participation and decisionmaking. Discussions are now under way with the government to include in the project a long-term lease strategy and extension services for landless peasants. In striking contrast to Dominica, the project consultant has been with the project from its inception, living in a local village and spending considerable effort learning how the community works by becoming a part of it. See T. Geoghegan, An Experiment in Participatory Resource Management: A Case from St. Lucia (1984) (unpublished manuscript) (on file with author). See generally Geoghegan, Public Participation and Managed Areas in the Caribbean, PARKS: AN INT’L J. FOR MANAGERS OF NAT’L PARKS, HISTORIC SITES AND OTHER PROTECTED AREAS, Jan.-Mar. 1985, at 12.
ment issue\textsuperscript{106} that inevitably must be addressed after the fact of establishment and, all too commonly, after the outside support has shifted its attention to the next new conservation opportunity.\textsuperscript{107}

However difficult the political aspects of the task of park creation, conservationists have an even more daunting challenge—to bridge the gap between their concerns and those of the isolated, traditional rural population. Resource use planning, including park creation, must involve affected individuals and communities. Such planning aims to improve the quality of human life. To satisfy this goal, "those who depend on the resource base for their livelihood must be involved in the protection of the environment in which they live, and given adequate support and technical assistance to do it, traditional values must be honored, and sites of historic and cultural importance must be protected."\textsuperscript{108} From the perspective of a funding agency, the participatory approach is difficult because it produces few tangible results in the early years and requires flexibility to adapt to local needs and timetables. Funding agencies, not the projects, should adapt to these constraints.\textsuperscript{109}

In short, if Morne Trois Pitons National Park is not to be overwhelmed by the demands of a land-hungry populace, it must be seen by local residents as a valuable resource, and its protectors must also address the perceived survival needs of the local population. The conservationists, both Dominican and outsiders, who helped create Morne Trois Pitons National Park must be prepared in the near future to address the human plight of the Dominican people. Thus, the final irony: the very conservationists who a decade earlier rallied to save Dominica's "doomed" forest from the timber industry are now preparing to fund their own forestry project on the island.\textsuperscript{110} The project does not resemble

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\textsuperscript{107} See K. Miller, supra note 84, at 807-12.
\textsuperscript{109} New programs must be planned with local community participation, on an appropriate scale, and with proper levels of technological sophistication. Programs must consider historic feelings of alienation and impotence, the available levels of skill, broad social and economic goals, and the political structure and constitutional organization.
If the end result of social transformation is the activation of a people to exploit the potentials within themselves and their environment, only an approach which sees the primary importance of a cultural reorientation in the Caribbean, and which designs its measures with this in mind, has any chance of success.
\textsuperscript{110} Recently, conservationists began to support a "cottage industry" approach to exploiting forest resources on Dominica. See E. Towl, Dominica Forestries Development Program (1981) (unpublished draft) (on file with author). They thought that a small scale community forestry approach could create substantially more jobs and output than the traditional indus-
the earlier ill-fated Dom-Can enterprise, but rather seeks to be appropriate in cultural approach and in scale, and ecologically sensitive and selective in its exploitation of the resource and location of operation. Whether this marriage of conservation and development will succeed and provide a sustainable future for Dominica remains to be seen. All agree, however, that the ultimate preservation of the island's natural resources, which include some remnants of Dominica's spectacular natural beauty now protected in Morne Trois Pitons National Park, is the final measure of success.

trial model being proposed for the government's Forest Industries Development Corporation. See S. Charles, Small and Large Scale Forestry Projects, Dominica (July 23, 1981) (unpublished manuscript) (on file with author). If conservationists succeed, however, in developing a cottage forest industry in the areas with logging potential outside the Park, they must then ensure that such an industry is restrained from expanding into other environmentally sensitive areas.