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Governmental responses to tourism development: three Brazilian case studies

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Abstract

This article examines how and why governments responded to actual or potential investments in tourism development in terms of strategies for environmental management. Three case studies were selected in the Brazilian Northeast to examine how development in the tourism sector created change in environmental policy and management at local level. Government strategies were managed by different jurisdictions of government and had diverse interactions with civil society and external actors. From the case studies, the most typical responses of local and regional governments could be divided into four groups: (a) building institutional capacity, (b) investing in environmental projects, (c) controlling development and tourist flow, and (d) creating protected areas. The article analyzes under what conditions governments tend to adopt each of the different strategies.

Keywords: Tourism development; Environmental management; Public policies; Brazil

1. Introduction

The environment of the coast of the Northeastern Brazil,[1] with beaches surrounded by a landscape formed by dunes, lagoons, coconut trees and small villages, has emerged as a competitive asset to bring tourists and tourism investments to the region. To attract private investment, governments have heavily invested in infrastructure for tourism throughout the region (Banco do Nordeste, 1997). Also, the main governmental financing institutions have opened special credit lines for private sector tourism enterprises (Bahia State Government, 1997; Becker, 1995a). As a consequence, tourism activity has quickly grown in many states of the Northeast in the last decade (Almeida, 1996; Melo & Souza, 1996).

The same environment that attracts tourists and tourism investment can also be destroyed by tourism, and consequently, the loss of environmental quality can ultimately destroy tourism itself. Places like Acapulco in Mexico, the French Riviera and Mallorca and Torremolinos in Spain have faced environmental problems related to tourism (Bosselman, 1978; Llinás, 1996; Pollard & Rodriguez, 1993). Concerns about the ability of the environment to sustain some economic activities are not new (Ioannides, 1995). In tourism, these issues appeared in 1970s when the environmental and social impacts of tourism on certain regions became more evident (Hunter & Green, 1995).

In the Brazilian Northeast, these debates arise especially now that the federal and state governments have invested more than US$1 billion in regional tourism infrastructure over the last decade, with financial support from the Interamerican Development Bank (IDB) channeled through the Bank of the Northeast (BN, a state development bank). Consequently, some authorities in the Northeast have realized the importance of adequate tourism planning to avoid environmental degradation (and consequently losses in tourism activity).

Some actors in the policy-making process have voiced concerns in response to the claims that government investment has been singled out as one of the main causes of environmental degradation in many developing countries. For instance, the deforestation of the Brazilian Amazon in the 1960s and 1970s was mostly

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[1] From now on, the Brazilian Northeast is called as Northeast.

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provoked by government large investments in the region (Moran, 1983; Mahar, 1989). The federal government and multilateral financial institutions, like the World Bank, are blamed as the main stimulators of this environmental "tragedy". Another famous case is the huge environmental and social impacts of the Sardar Sarovar Project in the Narmada River, India (Fisher, 1995; Morse, 1992; Baviskar, 1995). Also, key leaders of developing countries have claimed that they do not want to sacrifice their economic development for environmental protection and that they do not have sufficient resources to invest in environmental quality.[2]

However, the environmental agenda of many governments in such countries seems to be changing. Nowadays, it is common to find governments in developing countries dedicating part of their investment to environmental protection. In addition, government investment has opened the process of discussing environmental issues among different local and external actors in the public and private sphere conjointly with a process of democratization.[3] In the Northeast, some authorities have realized the importance of adequate tourism planning in order to try to avoid environmental degradation (and consequently losses in the tourism activity). Government strategies for environmental policy and planning in tourism have been created in various forms, managed by different jurisdictions of government and diverse interactions with civil society and external actors.

The objective of this article is to understand what kinds of responses local governments have adopted to tourism development, to explain why these policies are initiated and how they have been implemented. To this end, three case studies were studied in the Brazilian northeastern region: Porto Seguro, Icapuí and Fernando de Noronha.

2. The setting

2.1. Tourism in Brazil and in the Northeast

Tourism is said to be one of the fastest growing economic activities in the world (Filion et al., 1994). Within tourism, ecotourism[4] has probably grown even faster. In numbers of tourists from industrialized countries who visit Latin America, between 50% and 79% have been claimed to potential ecotourists (Boo, 1990). Brazil appears to follow this trend. In one of the case studies, Porto Seguro, natural attractions were quoted as the main purpose of the trip by 84% of the tourists in a survey (Bahiatursa, 1997). Ecotourism was mentioned as the decisive factor to come to Brazil by 14% of the international tourists arriving in Brazil in the year 2000 (EMBRATUR, 2000).

Table 1
Number of rooms classified by the Brazilian Institute of Tourism (EMBRATUR)

State/region	1980	1994	Change 1994/1980 (%)
Ceará State	1884	3151	67.3
Pernambuco State	3092	5687	84.0
Bahia State	5111	7338	43.6
Northeastern region	14,429	24,498	69.8
Brazil	99,854	140,563	40.8

Source: Melo and Souza, 1996 (based on EMBRATUR, 1981, 1991, 1995a).

In Brazil, tourism is an important part of the economy. It provided 4.7% of export revenue between 1987 and 1990. In 1990, the economic role of tourism was even greater than that of traditional products, such as orange juice and coffee (Becker, 1995a). In the year 2000, revenues generated by international tourism in Brazil was estimated at US$4.2 billion (EMBRATUR, 2000). Domestic tourism also represents a significant economic activity. In 1986, approximately 42 million trips occurred within Brazil for tourist purposes (Becker, 1995a). The construction of lodges has grown steadily, despite the slowdown of the Brazilian economy in the 1980s and 1990s (see Table 1). Moreover, as the middle class grows in number and income, and road access improves, the ownership of second houses has become common among many urban Brazilians. Furthermore, planners in Brazil suggest that there is still a tremendous growth potential for tourism activity, especially international tourism, as Brazil attracted only 0.24% of the total worldwide number of international tourists in 1990 (EMBRATUR, 1991). In 1998, Brazil ranked only 29th for international tourism destination in terms of international arrivals (WTO, 1999).

Tourism is expected to become the most important economic activity in the 21st century (Banco do Nordeste, 1997, p. 12). In this context, tourism has increasingly become a key economic activity for the economy of the Northeast. This region possesses a significant potential for the development of tourism: a warm climate year round, cultural diversity and over 2.5 thousand kilometers of seashore with attractive beaches. Thus, policymakers believe that tourism can sustain the regional economy, attracting investments, creating jobs and generating income to diminish poverty (Paiva, 1989; Banco do Nordeste, 1996, 1997).

[2] The well-known discourse of some developing countries in the United Nations conferences in Stockholm (1972) and Rio (1992): "the industrialized nations destroyed their environment to be rich, so why can't we do the same?" (Viola, 1992; Loureiro & Pacheco, 1995).

[3] Government investments can open a "window of opportunity" for environmental change, in the sense coined by Bentley (1949).

[4] In this article, ecotourism is defined as "traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestation" (Ceballos-Lascurain, 1988).

However, it is only recently that the potential of the "industry" of tourism has attracted government attention in the Northeast of Brazil (Rodrigues, 1996). Although this region has an enormous potential for tourism development, especially on its coastal areas, the activity was not a priority for government action previously. In the efforts to draw the Northeast out from economic backwardness, through bringing industries to the region using economic incentives, the focus had always been on "real" industries, such as chemicals, metal-mechanics, textiles and food processing (Soares & Rocha, 1994; SUDENE and BNB, 1988). The past "low" status attributed to the economic potential of tourism has not solely been a characteristic of the Brazilian Northeast alone. Researchers and practitioners of economic development have been tardy in the attention given to tourism as a tool for regional economic development (Ioannides, 1995). Nonetheless, a belief that tourism can aid in the economy of the Northeast has been translated into the finance of investments in the tourism sector. Between 1980 and 1990, the private sector received financing of over US$350 million for projects related to tourism (Melo & Souza, 1996). In the public sector, over US$1.5 billion are planned for investment in infrastructure projects in the period of 10 years following the creation of a government-sponsored program called PRODETUR-NE (Ministry of Economy, Treasury and Planning, BN and IDB, 1992). As a result of such initiatives, tourism has grown faster in the Northeast compared to the Brazilian average growth (Table 1).

3. Impacts of tourism

The literature on tourism has evolved over time, shifting the way of stressing different facets of tourism's impacts. In the 1960s and until the middle of 1970s, research about the impacts of tourism looked almost exclusively at its positive economic impacts on local, regional and national economies (Mathieson & Wall, 1996). Tourism was viewed as a means of improving the balance of payments, employment, income and tax revenues (World Bank, 1972; Peters, 1969). In the 1970s, research on the negative effects of tourism started to emerge (Hall, 1970; Bryden, 1973; Young, 1973; Turner & Ash, 1975; Graburn, 1976; Smith, 1977; Pizam, 1978). Negative social and environmental impacts of tourism started to come to light in places like the French Riviera and Acapulco in Mexico (Bosselman, 1978). In these places, it was claimed that tourism had potentially altered traditional culture, degraded landscapes, encouraged prostitution, increased criminal behavior and destroyed the local environment.

By the 1980s, researchers and policymakers agreed that tourism in the way it was developed had tremendous negative impacts, and preventive and reactive measures to prevent or mitigate these impacts ought to be in place (OECD, 1980). Also, in the middle of 1980s and 1990s, with the spread of the idea of sustainable development, efforts to reconceptualize new forms of tourism with low or no impact on the environment emerged, including ecotourism, nature tourism and soft tourism.[5] All definitions share the idea that tourism could contribute to the preservation of the environment if it is planned and implemented in an environmentally and socially friendly manner.[6] Tourism, thus, has been reborn as a possible tool to spur economic development while at the same time benefiting the environment and local social conditions (Ceballos-Lascurain, 1988; Reynolds & Braithwaite, 2001; Whelan, 1991; WTO & UNEP, 1992). However, many authors have expressed skepticism about the achievable benefits of ecotourism and suggested that ecotourism is just another fad (Wilkinson, 1992; Pleumarom, 1994; Munt & Higinio, 1997; Machlis & Bacci, 1992). Thus, even though there are several decades of research and debates about tourism, widely accepted procedures to analyze the impacts of tourism do not yet exist (Mathieson & Wall, 1996; Mieczkowski, 1995; Pearce & Butler, 1993; Butler & Pearce, 1994).

The social and environmental impacts of tourist activities depend on two sets of factors (Briassoulis & Van der Straaten, 1992). On the one hand, these impacts are the result of the kind and intensity of activities such as the numbers and characteristics of tourists, the distribution of the impacts spatially and temporally and the kind of tourist activity involved. On the other hand, these impacts depend on the characteristics of the impacted environment and society. The local environment and society has a limited capacity to absorb and recover from impacts of tourism, the so-called *carrying capacity*[7]. In tourism, the carrying capacity can be defined as the maximum level of recreation use that can take place in a certain place without having significant impacts on the immediate ecosystem. If these impacts exceed the carrying capacity, their effects on the environment and local society can become irreversible and cause serious environmental, social and cultural problems. Thus, the estimation of the carrying capacity of a certain environment is fundamental to determining

[5] Other terms include nature-based tourism, nature-oriented tourism, wilderness tourism, adventure tourism, green tourism, alternative tourism, sustainable tourism, appropriate tourism and low-impact tourism (Ceballos-Lascurain, 1996).

[6] For details about the characteristics and how to design alternative tourism see Ceballos-Lascurain, 1996.

[7] The concept of carrying capacity comes from population models in ecology (Coccossis & Parpairis, 1992). Ecologists have tried to determine mathematically the maximum population of certain species based on the limitation of certain resources, such as water or food.

Table 2
The positive and negative aspects of tourism

Aspect (below)	Positive	Negative
Environment/ecology	Tourism fostering environmental conservation Ecotourism	Increasing sewage, solid waste, noise, habitat destruction, air pollution, changes in landscape
Economy	Employment to locals Increase in tax revenues New investments	Breakdown of traditional industries Poor pay/low skill jobs Increase in local prices low status for locals lack of local control over the local economy
Education	Learning from travelers (cultural education) Learning from traveling (cultural tourism) Increase awareness for local heritage Tourism studies/training	Limited insight into local conditions Ignorance of multi-faceted nature of tourism Lack of schools for increasing local population due to immigration
Culture	Respect for local culture and customs Interaction between different culture/mutual learning	"Borrowing culture for a day" Tourist arrogance Social tension Drugs, alcoholism, prostitution Xenophobia
Gender	Wider horizons for young educated women More opportunities for local women	Sex tourism Child prostitution Local women relegated to the "jobs at the bottom"
Health	Rest and recuperation Family interaction	Poor sanitation Poor food Lack of basic hygiene Import/export of diseases Drugs and alcohol problems
Agriculture/fishing	Increase in the demand for local products	Decrease in farming/fishing Increase in land values and taxes
Property rights	Increase in local ownership Increase in the value of property owned by locals	Loss of local ownership Land speculation Conflicts over property rights
Future expectations	Sustainable tourism Ethics for tourists	Tourism overcrowding Pollution Unpleasant travel "Move to next destination to be created"

Adapted from Lovel and Feuerstein, 1992.

the limit for tourism development in a region (Becker, 1995b; Mihali, 2000).

However, assessing the impacts of tourism development and the carrying capacity of a place is a complex task because tourism is not a single well-defined activity, but rather a set of several activities, such as transportation, building construction, lodging and recreation (Briassoulis, 1995). Moreover, any assessment of the ultimate impacts of tourism implies not only the direct impacts of all its related activities, but also the interaction among all these activities.

The impacts of tourism on society can be divided into positive and negative (see Table 2 for a summary of the negative and positive impacts of tourism). However, the distribution of these impacts is not even among all the stakeholders (Lovel & Feuerstein, 1992). Some stakeholders make significant gains while others gain much less or even lose (Pearce, Moscardo, & Ross, 1996). Also, there are different views about the impacts of tourism. For example, some locals can see tourists as an opportunity for learning about different cultures, while others think tourists as an annoyance to their daily lives.

4. The government role in environmental protection

In tourism, there are two main justifications for government intervention through environmental planning and management: externalities and "the tragedy of

Table 3
Some negative impacts of tourism on the environment

		Activities related to tourism	Possible environmental consequences
Natural elements	Water	Release of sewage/garbage onto beaches, rivers, lagoons, lakes and subterranean aquifers Release of oil/garbage from recreational and transportation vehicles Land reclamation	Health hazard to local people and tourists Destruction of aquatic life (animals and plants) Losses of aesthetic values Reduction of activities such as fishing and bathing
	Air	Increased air and noise pollution by transportation means Increased air and noise pollution by construction works	Health hazard to local people and tourists Loss of recreational values Negative impact on plant and animal life
	Wildlife	Use of local trees for resort construction and firewood Increase in accidental/criminal fire in parks and forests Collection of wildlife for collection and souvenir industry Development of highway and trails through natural areas Chase away animals to view and photograph	Decline in plant and animal species/ numbers Increased soil erosion Changes in species composition Destruction of wildlife habitats Disturbance in migration patterns
Ecosystems	Coastlines and oceanic islands	Construction of hotels, roads, campsites, parking lots, golf courses, harbors and other facilities use of sand from dunes and beaches for construction Land reclamation Alteration of coastal land (sea walls, reefs, etc.)	Elimination of aquatic and terrestrial wildlife habitats Interference with breeding habits Erosion of beaches and dunes Loss of aesthetic values on the landscape Alteration of drainage system and water run-off
Human made environment	Human settlements	Follow up infrastructure: hotels, bars, restaurants, souvenir shops, houses for local population, roads Immigration	Displacement of people Traffic congestion and overloaded infrastructure Loss of amenity of residents Unpleasant architecture
	Historic and religious monuments	Excessive use for tourist purposes Thefts and destruction of historical pieces	Trampling and littering Alteration of original use and function in detriment of locals Desecration

Adapted from O'Grandy (1990).

the commons"[8] (Roy & Tisdell, 1998). First, tourism development can impose a series of externalities for other activities and society. Although it is very hard to separate the environmental impact of tourism-related activities from the impacts of other activities, the tourism industry as a whole certainly has a set of negative and positive environmental externalities for the rest of society (Price, 1996; Coccossis & Nijkamp, 1995). In terms of negative externalities, tourism competes for environmental resources (water, land, etc.) with other human uses, such as agriculture, industry and urban sprawl (see Table 3). For example, resorts in Bali (Indonesia) and Goa (India) consumed a significant part of the local water and electricity causing shortages of these resources for the local population (Goodwill, 1995). In similar fashion, the use of natural resources, by other economic activities, on which tourism quality depends can also cause a deterioration of those resources and, consequently, affect tourism activity. In Italy, hundreds of historical monuments that are tourist attractions were damaged seriously by sulfur dioxide

[8] Hardin (1968) used the term tragedy of the commons to describe the overgrazing of the common pastures in England during the eighteen century. Villagers could bring their cows to graze on the common pasture as much as they wanted at no cost. As the number or herders grew and they kept increasing the number cows grazing, the grass became scarce. In the end, overgrazing destroyed the common pastures and all cows died.

from nearby industries, costing several thousands of dollars to the Italian government to restore them (Jenner & Smith, 1992). In the Brazilian state of Ceará, the construction of a huge port in a zone with scenic beaches can compromise the growing regional development of the tourism industry (Vasconcelos & Silva, 1996).

On the other hand, tourism activities can also bring positive externalities to society. For example, the infrastructure for tourism can be used for other purposes as well. Airports can also be used by locals who want to travel. Roads can be used for transportation of local passengers, and agricultural or manufactured products. In the State of Bahia, Brazil, the paving of the touristic road connecting the small town of Itacare to the larger town of Ilheus allowed the creation of new bus lines. Before the construction, Itacare had only few bus routes, which were interrupted after heavy rains, that limited the transportation options of the local population. The new road increased access by the local population to Ilheus for shopping, recreation and medical emergencies.[9] The creation of environmentally protected areas (APAs) for tourism purposes can be used by locals for entertainment, work (fishermen who benefit from preservation of fishing habitats) and supply of environmental amenities (protection of water reservoirs). For example, the New York's Adirondack State Park, besides protecting the natural environment, provides a forested watershed for the state's water supply (Nash, 1978).

Second, uncontrolled competition within the tourism industry over environmental resources (water, land, environmental amenities, etc.) can generate a "tragedy of the commons", which can harm the whole industry. The increase of tourism activities can generate a growing demand for certain touristic products. An increasing demand for a scenic unexplored beach can generate a growing construction of hotels and houses at the sea side that can degenerate the primary environmental quality of the beach (the beaches ceases to be unexplored and scenic). In turn, this can also cause a series of environmental problems (e.g., deforestation, air and water pollution, degeneration of the landscape), which can negatively affect the quality of tourism or even the whole tourism industry in a region. For example, Benidorm, a popular Spanish tourism resort, experienced a sharp decline in tourist numbers in the end of the 1980s because visitors perceived it as crowded and not "green" (Goodwill, 1995). Thus, an uncontrolled growth of tourism in one region can potentially undermine its tourism by damaging its environmental or cultural resources, if proper intervention is not in place. Therefore, government interventions should try to ensure minimum levels of negative externalities and maximum levels of positive externalities to society, as well as help organize the different actors in the tourism sector to avoid unintended longer-term negative impacts. Governments play these roles through environmental planning, regulation, and provision of infrastructure and financing.

5. Case studies

This research examines how and why local governments responded to actual and potential investments in tourism development in terms of environmental strategies. Three case studies were selected in the Brazilian Northeast. In these three cases, the development process in the tourism sector was examined with reference to changing environmental policy and management at local level. These three cases were chosen because tourism was an important economic development activity and because they represent places where governments had adopted several environmental measures to prevent or mitigate the potential negative impacts of tourism.

The first case, Porto Seguro in Bahia State, illustrates a successful example of tourism development in terms of increasing the numbers of tourists. This case presents a situation in which tourism has grown initially without a specific strategy for environmental protection. The environmental agenda in Porto Seguro then significantly changed as large public investments came into the region.

In the second case, the municipality of Icapuí in Ceará has implemented a series of environmental measures to plan tourism while emphasizing community participation in the decision process. Government officials plan to avoid the fate of some neighbor municipalities where, in their own views, tourism has brought tremendous negative environmental consequences.

Finally, the third case, Fernando de Noronha in Pernambuco State, is an island that was transformed from a military base to a Marine Park and has embraced tourism as its main economic activity.

The case studies involve examples of strategies of environmental policy for controlling the impacts of tourism development at state, municipal and federal levels. The cases are used to understand how and why governments responded to the development of tourism in the three case studies.

5.1. Porto Seguro region, Bahia

Porto Seguro ("safe harbor" in Portuguese) was the region the Portuguese reached in Brazil when they first came from Europe in 1500.[10] Initially, one of the first

[9] Information collected from interviews with municipal officials in Itacare in 1999.

[10] Porto Seguro region is also called Região do Descobrimento (or region of discovery).

Portuguese settlements, the region passed through a process of economic development based on several agricultural products, especially sugar cane, coffee and cacao. However, it had never attained economic importance in the later stages of Brazilian colonization and was forgotten until recently.

In the last three decades, Porto Seguro has been "rediscovered" through its pleasing environmental assets. With splendid beaches, sea and warm weather year round, Porto Seguro has become one of the main tourist destinations in Brazil. In 1995, it was the fifth overall in the country and second in the Northeast in number of hotel beds (Bahia State Government, 1997); and some analysts suggested that Porto Seguro would surpass Salvador in number of hotel beds shortly in the future (Table 4, Mello e Silva, 1996). The growth in tourist demand has been so intense that the capacity of Porto Seguro's airport had to be further increased, only 3 years after it had been expanded in 1993.

The expansion of tourism in Porto Seguro has not been only in the city, but also in many of the small towns on the coast of Porto Seguro or in neighboring municipalities, which now rival Porto Seguro as tourist destinations.[11] Each small town has its particular "charm" and attracts different kinds of tourists. The growth of Porto Seguro City has attracted different kind of tourists than those of the first years of the "rediscovery". Now, the original groups prefer the small towns because Porto Seguro has become too crowded and expensive. As a veteran tourist to the region commented as to why he changed from Porto Seguro to a small village as tourism destination: "here is like Porto Seguro in the 'good' and early times, before big tourism came".

At least in terms of how to rapidly increase the supply of tourists, Porto Seguro has become a successful example of tourism development in Brazil. Interestingly, this growth has been achieved with little planning. Basically, tourists have kept coming and infrastructure is supplied according to the needs, once bottlenecks appeared as in the recent case of airport expansion. In the environmental dimension, very little government planning seemed to take place. Most of the main environmental measures were taken sporadically (for example, the creation of Monte Pascoal National Park by the federal government) or through protests of environmental groups. Recently, because of the celebrations of Brazil's 500th anniversary in 2000, Porto Seguro received large sums of investment for tourism development from federal and state governments. In the process of planning of these investments, several environmental measures were taken. For example, part of these investments was channeled to environmental projects such as sanitation, water treatment plants and urbanization projects. Also, because of the pressure of local environmentalists, many changes were made in the initial infrastructure projects to attend the environmental concerns of these groups. Finally, different environmental strategies have been created, such as the creation of a municipal environmental agency, the creation of a municipal marine park through the initiative of local and external actors and the creation of a regional tourism council to discuss and plan environmentally sustainable tourism.

[11] Towns like Arraial D'Ajuda, Cabrália, Caraívas and Trancoso.

Table 4
Number of hotel beds in Salvador and Porto Seguro in Bahia (1995)

Locality	1989	1995	Change 1995/1989 (%)
Salvador	8165	10,285	26.0
Porto Seguro	2897	9184	217.0

Source: Mello e Silva (1996), based on Quatro Rodas (1989, 1995).

5.2. *Icapuí, Ceará*

The municipality of Icapuí is one of the last frontiers for tourism development in the state of Ceará. Located in the Northeastern corner of the state, Icapuí has an attractive environment for the development of tourism. It has pristine white sand beaches, warm climate and seawater year round and an idyllic landscape formed by dunes, cliffs, coconut trees and mangrove. The municipality is well known for its social achievements. Its education and health systems run efficiently.[12] Also, the level of community involvement seems high, with several active local associations (UNIFOR, 1997). In the last decade, some of Icapuí's neighbor municipalities, Aracati, Beberibe and Cascavel, have experienced a rapid and disorderly process of tourism development, including both lodging and second home tourism. The result of this unplanned process is many environmental and social problems, such as conflicts between developers and locals (e.g., Balbino in Cascavel and Canoa Quebrada in Aracati), reclamation of mangrove and dunes, and lack of garbage collection. Observing the negative consequences of tourism in its neighbors, the municipality of Icapuí, instead, has preferred less speed in attracting and allowing tourism investments. Local officials are aware of the difficult task that is tourism planning, but as the mayor commented: "we do not know exactly what kind of tourism the people of Icapuí want, but we know what we do not want at all (the kind of tourism in the neighbor municipalities)".

State government has invested heavily in tourism infrastructure along the coast of Ceará State. These investments caused local government in Icapuí to plan

[12] In Icapuí, in 1992, the illiteracy rate was 23%, very low when compared to 40% for the state, and the child mortality is also one of the lowest in the state (UNIFOR, 1997).

carefully the development of tourism in the municipality using various planning techniques it had developed over the years. Several actions have been implemented to discipline tourism development. First, a tourism council formed by representatives of the various communities was created to decide about tourism projects and plans at municipal level. One university in Fortaleza, the capital, has made an inventory for the municipality regarding tourism assets (for example, attraction, actual demand for tourism, types of ecosystems and infrastructure available). In order to avoid land speculation and conflicts once developers start coming, local government has started a process of legalizing land titles in local fishing communities. Finally, a zoning system is under discussion in the municipal council and the municipality wants to create an APA in most of the coastal areas.

The results of these efforts to plan tourism have shown apparently good results. Tourism is said to have grown in the last years, without evident negative impacts on the environment, and local populations seem to have received most of the economic benefits, since tourists use local houses and locally run small establishments as lodging and restaurant (UNIFOR, 1997).

5.3. Fernando de Noronha, Pernambuco

Fernando de Noronha is an archipelago comprising 21 islands and is located 545 km off the coast of the state of Pernambuco in the middle of the Atlantic Ocean. After being a territory and a military area under the control of the Brazilian Air Force until 1988, the federal government made it part of the state of Pernambuco and created in part of the islands a Marine National Park under the jurisdiction of IBAMA, the federal environmental agency (IBAMA, n.d.). During the process of transformation from a military base to a tourism spot, several changes in the local environmental agenda have taken place. Owing to the threat of disorganized tourism development, state and federal governments under pressure from environmental groups have introduced several measures.

Despite Fernando de Noronha's tourist attractiveness with its unique sea and landscape, tourism was very limited during the military occupation for reasons of security and lack of infrastructure. After becoming part of Pernambuco, the development of tourism in a Caribbean style with luxury hotels seemed to be the natural path for the islands' economic development. However, together with its natural beauty that attracts tourists, Fernando de Noronha has a significant marine and coastal biodiversity. The unrestrained development of tourism could risk these biological riches. Thus, after recommendations and pressure from some national and international organizations, the federal government decided to restrict the development of tourism before allowing investment by dividing the islands into two zones. One zone is a national park, where access is limited, development not allowed and all land belongs to the Federal Government. The other zone is an Environmentally Protected Area (APA) a kind of protected area, where a special zoning system was created and development is very restricted. Besides the limits for building development, there is another limit for the number of tourists: controlling access to the islands. Government imposes limits to the number of flights. As a result, few flights connect Fernando de Noronha to the continent, and few boats have the capability to reach the islands. On the top of that, such limits have meant that the tours are expensive, and so the high price limits demand.

The development of tourism is also restricted by the small tourism business associations. They pressured the federal and state government to transform the island as a protected area and to control the establishment of new tourism businesses to avoid competition. It is almost impossible for someone from outside to start a new tourism business in the island.

6. Understanding government strategies to respond to environmental aspects of tourism

In the three case studies, governments responded to investments, or potential investments, in tourism development by introducing different environmental strategies controlled by different jurisdictions with diverse interactions with civil society and external actors. From the case studies four strategies are:

(i) *Building institutional capacity*: Governments create governmental environmental organizations, train and educate government officials in environmental issues, and enforce environmental regulations.

(ii) *Investments in environmental projects*: Governments invest in environmental infrastructure and institutional projects such as sanitation and water supply, environmental education to groups outside the government, and environmental restoration such as reforestation and pollution clean-ups.

(iii) *Control of development and tourist flow*: Government can impose and enforce development rights, restrict public financing to certain environmentally sensitive areas and control the flow of tourists in protected areas.

(iv) *Creation of protected areas*: Governments are responsible for creating protected areas, for enforcing environmental zoning, and for providing incentives for private actions towards environmental protection.

Table 5 summarizes these policies as evidenced by each of the locations examined. Each of the four strategies will now be commented upon.

Table 5
Summary of the environmental strategies in the three case studies

Case study	Environmental action			
	Building of institutional capacity	Establishment of protected areas	Investments in environmental projects	Control of private actions (investments and flow of tourists)
Porto Seguro—BA	Creation of a municipal env. agency Creation of the env. division in the regional tourism development council	Creation of a marine park Creation of a environmentally protected area Establishment of private reserves	Investments in sanitation in urban area Investment in water supply to urban area	Changed initial road project to protect forested areas and historical sites
Fernando de Noronha—PE	Creation of the local secretariat for tourism and environmental affairs	Establishment of a marine national park Establishment of a state environmentally protected area	Investments in solid waste management	Land mostly owned by the state Control number of tourists in the islands
Icapuí—CE	Creation of the municipal tourism and environmental agency Community environmental training	Created a municipal environmentally protected area, instead of resort construction	Investments in urban design projects in urban coast Investments in sanitation	Community council decides over permits for new tourism investments

6.1. Building institutional capacity

Some governments try to create or strengthen institutional capacity to respond to actual or potential environmental impacts of tourism. This is one of the main recommendations of tourism planning guidelines in any advisory document (OECD, 1980; UNEP, 1982; CIDA, 1987; WTO & UNEP, 1992; Ceballos-Lascurain, 1996). Building institutional capacity could take several forms. Governments can create independent environmental agencies, such as ministries or secretariats, or create regulations to confront the environmental issues that a particular government faces. Also, after building institutional capacity involves hiring new people with an environmental background or offering environmental training for actual officials.

External actors and governments have often supported these policies. External actors, such as international donors and federal agencies, suggest the creation of environmental agencies at the local and regional level as a form of formal commitment to environmental protection (CIDA, 1987; WTO & IISD, 1993; EMBRATUR, 1995b). Also, they can help these agencies with training and technical support. Governments endorse the creation of environmental agencies or divisions, first because they can keep environmental local matters under their control and second, because this is a form of visible environmental attitude which please outsiders and locals. In Porto Seguro, Bahia, local government created a secretariat for the environment to face the increasing environmental demands due to tourism activities in the last two decades and to receive tourism projects financed by the state government and the Interamerican Development Bank (IDB). Likewise, environmental divisions within sectoral agencies, such as secretariats of tourism or agriculture, have been instituted to cope with specific environmental issues in those sectors. In Bahia, Brazil, this has been a common approach in the last decade. Several sector secretariats, including the secretariat of culture and tourism, have created departments of environmental affairs to plan and implement their environmental policies and project.

6.2. Investments in environmental projects

Environmental projects are forms of mitigating current or potential environmental problems in tourism areas. They include sanitation and water supply infrastructure, urbanization and public environmental education. Environmental projects in tourism come as a response to critical environmental problems that can affect tourism activities in a certain area, such as water pollution, uncontrolled urbanization or lack of garbage collection. Some development-oriented conservationists have argued that tourism development can improve environmental quality because under certain conditions developers can invest heavily in water and sanitation projects to mitigate current and future environmental problems (Towle, 1973).

Many tourism areas that boomed without effective environmental planning have subsequently suffered from severe environmental problems, and ultimately a

decline in the number of tourists. Even those that went through careful planning did not ensure a harmonious interaction between tourism development and the environment conservation (Bosselman, 1978). However, when the process of decline was detected or environmental movements within and outside the tourism industry became effective pressure groups, governments in these areas invested in and implemented measures for improving environmental quality, such as introducing sewage systems, renovation projects and environmental education. Some of these areas were successful in improving environmental quality, and recovered the previously normal flow of tourists, such as Mallorca in Spain (Llinás, 1996). Others faced deep decline and were victims of themselves, such as Acapulco in Mexico (Bosselman, 1978). In addition to mitigating environmental impacts, environmental projects can be part of environmental safeguards to get tourism development projects approved or justified. In many big tourism projects, developers include an environmental component that can involve mitigation procedures of their impact, such as a sewage treatment plant, or procedures related to surrounding communities or environment, such as projects of environmental education for the neighboring communities (OECD, 1980; León & González, 1995).

Many environmental projects can be made possible due to the existence of investments in the tourism sector. When investments are planned in a certain economic sector, policymakers can allocate part of these investments to environmental measures (Puppim de Oliveira, 2002). A number of research articles and campaigns among policymakers and developers have contributed to the growing attention given to environmental issues (e.g., Ahmad, 1982; OECD, 1980), and policymakers and developers seem to be more sensitive to environmental claims. Investments can come, for example, as environmental projects linked to that economic sector or as financial support to governmental institutions in order to implement and enforce environmental guidelines. At the planning process, there is often a wider budget flexibility to attend to the various demands from different groups. New projects, therefore, are "windows of opportunities" to introduce environmental projects at the initial planning stage. For example, the regional government of the Spanish island of Mallorca implemented public works to improve environmental amenities, such as tree planting and construction of beachfront public esplanade, to defuse opposition to a controversial marina project in their jurisdictions (Morgan, 1991). In Porto Seguro, Bahia, plans of investments in tourism by the state and municipal governments included several environmental projects, such as sanitation and water supply infrastructure. It was the first time the significant environmental projects were implemented in the municipality. These environmental projects would not be possible, politically or financially, without all the investments in tourism infrastructure.[13] Furthermore, during the planning process in the discussions with local groups, other environmental projects were included in the plans due to the flexibility in the budget allocation.

6.3. Control of development and tourist flow

Another way by which governments attempt to manage environmental impacts of tourism is to control development and tourism flow in certain tourist areas. Controlling development consists of limiting development and demanding a rigorous screening process for project approval, including several environmental guidelines to be followed. There are several tools for implementing development control, such as introducing land use planning, issuing development permits, limiting the number of lodging units and types to be constructed, and asking environmental impact assessment (EIA) and public hearings for certain projects. For example, some governments, such as Malta, have firmly applied restraints to new tourism infrastructure development in order to cope with natural resource scarcity like water (Goodwill, 1995).

Governments can also control the flow of tourists and length of stay in tourist areas. Limiting tourists' access or charging entrance or permanence fees have been the main mechanisms to implement these policies. For example, many national parks in the United States limit the number of visitors in the high seasons by issuing a limited number of entrance tickets. This is due to the extremely high number of tourists willing to visit some of the parks. For example, the Greater Yellowstone National Park has received over 10 million tourists annually in some years (Glick, 1991).

However, some authors are skeptical about the feasibility of policies involving controlling development and tourism inflow in developing countries (Butler, 1991; May, 1991). They argue that these kind of policies face strong opposition from local population and businesses in response to potential losses of revenues generated by tourism, as happened in some mountains regions in Asia (May, 1991). In Mallorca, Spain, local tourism industry opposed a government project to renovate a certain area with the construction of a marina which would require the demolition of various mass-market shops and hotels (Morgan, 1991). Especially in developing countries, the need to attract foreign investments and generate jobs and income makes those policies extremely difficult to be accepted and implemented. For example, Albanian local and central governments opposed any initiative to restrain tourism development on the coast because of their need for

[13] Information from an interview with municipal officials.

foreign investments, even though environmentalists pressured for and proposed more environmental control (Goodwill, 1995).

Two cases in Brazil have shown evidence that this kind of policies is feasible under certain circumstances, such as when government controls are easily implemented and local interests support these policies. In both cases, local groups who benefit from tourism feared competition from outsiders and strongly supported controlling development. In Fernando de Noronha, state government owns all the land and allows only low impact projects to be build, with the support of environmentalists and local groups. Also, because of the difficult access, government has controlled the flow of tourist by limiting the number of flights and boats to the islands, and controls the stay by applying a daily charge for tourist stays. In Icapuí, Ceará State, municipal government created a tourism council formed by local communities to evaluate and approve tourism projects. Projects should be authorized by a large number of communities. As most of the tourism businesses were local, it was difficult for large projects or development controlled by outsiders to be approved. Until recently, this council had approved only small local tourism projects controlled by locals.

6.4. Creating APAs

To cope with the environmental impacts of tourism, many governments all over the world have created APAs. These APAs have constituted an attempt to discipline tourism development in areas where tourism has exposed fragile environments to stress or where recent vectors of development, such as an opening of a new road, expose remote and fragile zones to quick development. The rationale behind this approach is that; first, the creation of the APA fulfills some of the environmental impact mitigation guidelines to approve or legitimate a certain tourism project; second, this is a marketing response to the need for a good environment as part of attracting tourists; and third, entrance or user fees to certain APAs can be used to raise revenue to pay for maintenance and enforcement expenses (WTO & UNEP, 1992; Ceballos-Lascurain, 1996). In some countries, like Kenya, tourism in protected areas has become one of the main sources of foreign exchange (Olindo, 1991). However, protected areas can also be a source of conflicts or their guidelines are not enforced. For example, local population has not supported the establishment of Nelson's Dockyard National Park in Antigua because of the fear of government's control over private land (CIDA, 1987). Also, in many developing countries, protected areas "exist only on paper". Barzetti (1993) found that large part of the protected areas in Latin America did not have any implementation mechanism after being officially declared as protected sites.

Governments can also create protected areas to curb potential environmental degradation by big projects and to control ecosystem stress. In Icapuí and Fernando de Noronha in Northeastern Brazil, local governments created a protected area to impede the construction of a large resort under pressure from environmentalists and local groups who fear being harmed by this project. In the state of Bahia, a new concept of APAs became the main environmental tool to control development in areas that received investments in tourism infrastructure in the last decade. Also, APA could be used as a marketing mechanism to attract a growing number of potential ecotourists. To attract these ecotourists, governments and industry invested in advertising their region as environmentally preserved areas and tried to promote their achievements in the environmental area (Bahia State Government, 1997).

7. Final considerations

The adoption and effectiveness of the four strategies described above depend on how the environmental policy-making process took place in each case. How the policy-making process is promoted depends on several factors such as the actors involved in the process, the kind of alliances these actors form, the initial design of the policy-process and the social–environmental–economic conditions of the case.

In the three case studies, several groups of actors were identified in the policy-making process:

1. local governments,
2. state governments,
3. small tourism business,
4. large tourism business,
5. community groups and local NGOs,
6. other external actors,
7. developers.

The different actors in the process act according to their interest, values, power and knowledge. Some actors are essential in the adoption of certain kinds of environmental strategies. Local and state governments are the main advocates in the creation of APAs and the building of institutional capacity. First, these two strategies generate political credit for governments because they are visible and are under their control. Second, governments have a variety of funding sources for the adoption and implementation of these strategies, especially from state and federal government, and international donors (Vajpeyi, 1995).

Large tourism business and developers seem to be more supportive of environmental projects. These two groups worry that other kinds of policies, such as

environmental regulations and development control, can hurt them by restricting their development or charging them environmental fees. Environmental projects are generally financed or implemented by governments, and businesses are less likely to be affected financially. For developers, environmental projects many times signify opportunities for business.

The way the policy-process is designed can influence policy outcomes. The design of the policy process can create or strengthen alliances between different actors and change the structure of power and interests in the process. For example, in Porto Seguro, because the state government created a tourism council formed by several governmental and non-governmental actors to coordinate infrastructure projects, local actors in this council were able to change several projects to address their environmental and social concerns.

Local conditions also shape policy outcomes. In some cases, the social–economic–environmental structure of certain location was or is important for determining policy-making and implementation. In the two cases where the local tourism business is dominated by small lodges, Icapuí and Fernando de Noronha, control of development is one of the main tools to discipline development. These businesses dominate local policy-making. Because they fear the competition of bigger hotels can destroy their business, they support very stringent environmental regulations for tourism project approval.

The three case studies identify the kind of actions governments have adopted to cope with the environmental impacts of tourism development. These actions depend on how the policy-making process develops and the effectiveness with which stakeholders are able to influence tourism and environmental policies; as effectiveness determined in part by government's willingness to empower local communities and develop environmental friendly practices.

References

Ahmad, Y. J. (1982). *Environmental guidelines for coastal tourism*. Nairobi, Kenya: United Nations Environmental Programme (UNEP).

Almeida, M. G. (1996). Turismo e os Novos Territorios no Litoral Cearense. In: A. B. R. Adyr (Ed.), *Turismo e Geografia: Reflexões Teóricas e Enfoques Regionais*. São Paulo: Editora Hucitec.

Bahia State Government. (1997). *Bahia tourism development program: Investment opportunities*. Brochure, Salvador: Department of Culture and Tourism.

Bahiatursa, Official Tourism Agency. (1997). *Turismo Receptivo de Porto Seguro/Julho1997*. Salvador, Brazil: Bahiatursa.

Banco do Nordeste. (1996). *Oportunidades de Investimento: Turismo, Nordeste do Brasil*. Fortaleza, Brazil: Banco do Nordeste.

Banco do Nordeste. (1997). Prodetur Confirma a Presença do Nordeste na Expansão do Mercado. *Notícias Especial*, September.

Barzetti, V. (1993). *Parques y ProgresoAreas Protegidas y Desarollo Económico en América Latina y el Caribe.*. Gland, Switzerland: IUCN & IDB.

Baviskar, A. (1995). *In the belly of the river: Tribal conflicts over development in the Narmada Valley*. Delhi, India: Oxford University Press.

Becker, B. K. (1995a). *Study and evaluation of the federal policy for tourism and its impact on coastal regions. Coastal Management Series*, Vol. 3. Brasilia: Ministry of the Environment, Hydric Resources and the Legal Amazon.

Becker, C. (1995b). Tourism and the environment. In: A. Montanari, & A. Williams (Eds.), *European tourism: Regions spaces and restructuring*. Chichester, UK: Wiley.

Bentley, A. F. (1949, first published 1908) *The process of government: A study of social pressures*. Bloomingdale Ind.: The Principia Press Inc.

Boo, E. (1990). *Ecotourism: The potentials and pitfalls*. Baltimore, MD: World Wildlife Fund.

Bosselman, F. P. (1978). *In the wake of tourism*. Washington, DC: The Conservation Foundation.

Briassoulis, H. (1995). The environmental internalities of tourism: Theoretical analysis and policy implications. In: H. Coccossis, & P. Nijkamp (Eds.), *Sustainable tourism development*. Brookfield, USA: Avebury Ashgate Publishing Limited.

Briassoulis, H., & Van der Straaten, J. (Eds.). (1992) *Tourism and the environment: Regional, economic and policy issues*. Dordretch, The Netherlands: Kluwer Academic Publishers.

Bryden, J. M. (1973). *Tourism and development: A case study of the commonwealth Caribbean*. London: Cambridge University Press.

Butler, R. (1991). Tourism, environment, and sustainable development. *Environmental Conservation*, *18*(3), 201–209.

Butler, R., & Pearce, D. (Eds.). (1994). *Change in tourism people, places, process*. London: Routledge.

Ceballos-Lascurain, H. (1996). *Tourism, ecotourism and protected areas*. Gland, Switzerland: The World Conservation Union (IUCN).

Ceballos-Lascurain, H. (1988). The future of ecotourism. *Mexico Journal*, *17*, 13–14.

CIDA—Canadian International Development Agency. (1987). *Environmentally sound tourism development in the Caribbean*. Calgary, Canada: The University of Calgary Press.

Coccossis, H., & Nijkamp, P. (Eds.). (1995). *Sustainable tourism development*. Brookfield, USA: Avebury Ashgate Publishing Limited.

Coccossis, H., & Parpairis, A. (1992). Tourism and the environment: Some observations on the concept of carrying capacity. In: H. Briassoulis, & J. Van der Straaten (Eds.), *Tourism and the environment: Regional, economic and policy issues*. Dordretch, The Netherlands: Kluwer Academic Publishers.

EMBRATUR—Brazilian Institute of Tourism, Ministry of Industry, Commerce and Tourism. (1981). *Anuário Estatístico (Annual statistics handbook)*. Brasilia: EMBRATUR.

EMBRATUR—Brazilian Institute of Tourism, Ministry of Industry, Commerce and Tourism. (1991). *Anuário Estatístico (Annual statistics handbook)*. Brasilia: EMBRATUR.

EMBRATUR—Brazilian Institute of Tourism, Ministry of Industry, Commerce and Tourism. (1995a). *Anuário Estatístico (Annual statistics handbook)*. Brasilia: EMBRATUR.

EMBRATUR—Brazilian Institute of Tourism, Ministry of Industry, Commerce and Tourism. (1995b). *Política Nacional de Turismo*. Brasília: EMBRATUR.

EMBRATUR—Brazilian Institute of Tourism, Ministry of Industry, Commerce and Tourism. (2000). *Demanda Turística internacional*. Brasília: EMBRATUR.

EMBRATUR—Brazilian Institute of Tourism, Ministry of Industry, Commerce and Tourism. (2001). Home-page: www.embratur.gov.br (visited in September 2001).

Filion, F. L., et al. (1994). The Economics of global ecotourism. In M. Munasinghe, & J. McNeely (Eds.), *Protected area economics*

and policy: Linking conservation and sustainable development. Washington, DC: The World Bank.

Fisher, W. F. (Ed.). (1995). *Toward sustainable development? Struggling over India's Narmada River*. Armonk: M.E. Sharpe.

Glick, D. (1991). Tourism in the Yellowstone: Maximizing the good, minimizing the bad, eliminating the ugly. In T. Whelan (Ed.), *Nature tourism: Managing for the environment*. Washington, DC: Island Press.

Goodwill, H. (1995). Tourism and the environment. *Biologist*, *42*, 3.

Graburn, N. H. (Ed.). (1976). *Ethnic and tourist arts: Cultural expressions from the fourth world*. Berkeley, CA: University of California Press.

Hall, P. (1970). A horizon of hotels. *New Society*, *15*, 389–3445.

Hardin, G. (1968). The tragedy of the commons. *Science*, *162*, 1243–1248.

Hunter, C., & Green, H. (Eds.). (1995) *Tourism and the environment: A sustainable relationship?* London: Routledge.

IBAMA (n.d.) *Parque Nacional Marinho de Fernando de Noronha*. Brochure: IBAMA.

Ioannides, D. (1995). Strengthening the ties between tourism and economic geography: A theoretical agenda. *The Professional Geographer*, *47*(1), 49–60.

Jenner, P., & Smith, C. (1992). *Tourism industry and the environment*. Special Report No. 2453. The Economist Intelligence Unit, London, UK.

León, C., & González, M. (1995). Managing the Environment in tourism regions: The case of the Canary Islands. *European Environment*, *5*, 171–177.

Llinás, M. S. (1996). El espacio turístico y su consumo en la Isla de Mallorca. In: A. A. B. Rodrigues (Ed.), *Turismo e Geografia: Reflexões Teóricas e Enfoques Regionais*. São Paulo: Editora Hucitec.

Loureiro, M. R., & Pacheco, R. S. (1995). Formação e consolidação do campo ambiental no Brasil: Consensos e disputas (1972–92). *Revista de Administração Pública (RAP)*, *29*(4), 137–153.

Lovel, H., & Feuerstein, M. (1992). After the carnival: Tourism and community development. *Community Development Journal*, *27*(4), 335–352.

Machlis, G. E., & Bacci, M. E. (1992). *Is ecotourism ideologically biased, elitist, short-sighted, anti-democratic and unsustainable*? Paper presented at the IV World Congress on National Parks and Protected Areas, Caracas, Venezuela.

Mahar, D. J. (1989). *Government policies and deforestation in Brazil's Amazon Region*. Washington, DC: The World Bank.

Mathieson, A., & Wall, G. (1996). *Tourism: Economic, physical and social impacts*. Essex, UK: Longman Group Limited (first edition published in 1982).

May, V. (1991). Tourism, the Environment, and development: Values, sustainability and stewardship. *Tourism Management*, *12*(2), 112–118.

Mello e Silva, S. B. (1996). Geografia, turismo e crescimento: O exemplo do estado da Bahia. In: A. A. B. Rodrigues (Ed.), *Turismo e Geografia: Reflexões Teóricas e Enfoques Regionais*. São Paulo: Editora Hucitec.

Melo, J. A. M., & Souza, M. A. (1996). *Importância e Desempenho da Atividade Turística na Região Nordeste do Brasil*. Report ETENE-BNB.

Mieczkowski, Z. (1995). *Environmental issues of tourism and recreation*. Lanham, MD: University Press of America.

Mihali, T. (2000). Environmental management of a tourist destination. A factor of tourism competitiveness. *Tourism Management*, *21*(1), 65–78.

Ministry of Economy, Treasury and Planning; Bank of the Northeast (BNB) and Interamerican Development Bank (IDB). (1992). *PRODETUR-NE: Segmento de Infra-estrutura e Apoio*. Letter to Cofiex, February.

Morgan, M. (1991). Dressing up to survive: Marketing Majorca anew. *Tourism Management*, March.

Moran, E. F. (Ed.). (1983). *The dilemma of Amazonian development*. Boulder, CO: Westview Press.

Morse, B. (1992). *Sardar Sarovar: Report of the independent review*. Ottawa, Canada: Resources Futures International.

Munt, I., & Higinio, E. (1997). Belize: Ecotourism gone awry. In: L. France (Ed.), *The Earthscan reader in sustainable tourism*. London: Earthscan Publications.

Nash, R. (1978). *Nature in world development: Patterns in the preservation of scenic and outdoor recreation resources*. The Rockfeller Foundation Working Papers, March.

OECD. (1980). *The impact of tourism on the environment*. Paris: OECD.

O'Grandy, A. (1990). *The challenge of tourism—learning resources for study and action*. Bangkok, Thailand: Ecumenical Coalition for Third World Tourism.

Olindo, P. (1991). The old man of nature tourism: Kenya. In: T. Whelan (Ed.), *Nature tourism: Managing for the environment*. Washington, DC: Island Press.

Paiva, M. G. M. V. (1989). Possibilidades e Riscos do Crescimento do Turismo no Nordeste. *Revista de Administração Pública*, *23*(1), 64–70.

Pearce, D. G., & Butler, R. W. (1993). *Tourism research*. London: Routledge.

Pearce, P. L., Moscardo, G., & Ross, G. F. (1996). *Tourism community relationships*. Oxford: Pergamon.

Peters, M. (1969). *International tourism*. London: Hutchinson.

Pizam, A. (1978). Tourism's impacts: The social costs to the destination as perceived by its residents. *Journal of Travel Research*, *16*(4), 8–12.

Pleumarom, A. (1994). The political economy of tourism. *The Ecologist*, *24*(4), 142–148.

Pollard, J., & Rodriguez, R. D. (1993). Tourism and Torremolinos: Recession or reaction to the environment. *Tourism Management*, *14*(4), 151–163.

Price, M. F. (Ed.). (1996). *People and tourism in fragile environments*. Chinchester, UK: Wiley.

Puppim de Oliveira, J. A. (2002). Implementing environmental policies in developing countries through decentralization: the case of protected areas in Bahia Brazil. *World Development 30*(10), October, Forthcoming.

Quatro Rodas. (1989). *Guia Brasil 1989—Quatro Rodas*. São Paulo: Editora Abril.

Quatro Rodas. (1995). *Guia Brasil 1995—Quatro Rodas*. São Paulo: Editora Abril.

Reynolds, P. C., & Braithwaite (2001). Towards a conceptual framework for wildlife tourism. *Tourism Management*, *22*(1), 31–42.

Rodrigues, A. A. B. (1996). Percalços do planejamento turístico: O Prodetur-NE. In: A. A. B. Rodrigues (Ed.), *Turismo e Geografia: Reflexões Teóricas e Enfoques Regionais*. São Paulo: Editora Hucitec.

Roy, K., & Tisdell, C. (1998). Tourism's importance in economic development and the State vs market in tourism development. In: K. Roy, & C. Tisdell (Eds.), *Tourism and development: Economic, social, political and environmental issues*. New York: Nova Science Publishers, Inc.

Smith, V. (Ed.). (1977). *Hosts and guest: An anthropology of tourism*. Philadelphia: University of Pennsylvania Press.

Soares, F. A., & Rocha, F. J. S. (1994). Nordeste brasileiro: Dinâmica econômica dos estados da Bahia, Pernambuco e Ceará. *Revista Econômica do Nordeste*, *25*(2), 261–278.

SUDENE and BNB (1988). *Relatório de Pesquisa sobre o Desenvolvimento da Indústria Incentivada no Nordeste*. Report published by Sudene and BNB.

Towle, E. L. (1973). Tourism: A way to clean up the environment. *Proceedings of the Pacific Area association: Tourism builds a better environment*, February.

Turner, L., & Ash, J. (1975). *The Golden Hordes: International tourism and pleasure periphery*. London: Constable.

UNIFOR. (1997). *Inventário de Oferta Turística do Município de Icapuí*. Report, Universidade de Fortaleza.

UNEP—United Nations Environment Programme. (1982). *Environmental guidelines for coastal tourism*. Nairobi: UNEP.

Vajpeyi, D. K. (1995). External factors influencing environmental policy making: Role of multilateral development aid agencies. In O. P. Dwivedi, & D. Vajpeyi (Eds.), *Environmental policies in the third world: A comparative analysis*. Westport, CT: Greenwood Press.

Vasconcelos, F.P., & Silva, C.S.B.P. (1996). Análise de impacto ambiental em zona litorânea: Ocupação desordenada do solo e erosão costeira na praia do Pecém. In: A. I. G. Lemos (Eds.), Turismo: Impactos Socioambientais. São Paulo: Editora Hucitec.

Viola, E. (1992). *O movimento ambientalista no Brasil (1971–1991): da denúncia e conscientização pública para a institucionalização e o desenvolvimento sustentável. Ciências Sociais Hoje*. São Paulo, Brazil: Rio Fundo Editora/ANPOCS.

Whelan, T. (1991). *Nature tourism: Managing for the environment*. Washington, DC: Island Press.

Wilkinson, P. (1992). Tourism—curse of the nineties? Belize—an experiment to integrate tourism and the environment. *Community Development Journal*, *27*(4), 386–395.

World Bank. (1972). *Tourism-sector working paper*. Washington, DC: The World Bank.

WTO—World Tourism Organization. (1999). *International financial statistics—yearbook*. Madrid, Spain: WTO.

WTO &IISD—World Tourism Organization (WTO) and International Institute for Sustainable Development (IISD). (1993). *Indicators for the sustainable management of tourism*. Winnipeg, Canada: IISD.

WTO &UNEP—World Tourism Organization (WTO) and United Nations Environment Program (UNEP). (1992). *Guidelines: Development of national parks and protected areas for tourism*. Madrid: WTO and UNEP.

Young, G. (1973). *Tourism: Blessing or blight?*. Harmondsworth: Penguin.