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The Paradox of Ecotourism in Costa Rica: Can Economic Development and Environmental Preservation Co-Exist?

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Abstract

One of the most devastating threats to the planet today is the degradation of the environment. Such problems are compounded by a second reality facing most societies: the questions concerning the best strategies to increase wealth and to alleviate poverty. Biologists, economists, elected officials, conservationists, business leaders, and academics all seek innovative responses to such challenges. For some societies, ecotourism has emerged as a novel option, with the potential both to preserve local wildlife and virgin rainforests and provide a critical source of economic development. Costa Rica is a country with tremendous natural resources similar to many countries in Central America; however, those resources of Costa Rica and throughout the world are threatened not only by deforestation by private industry but by the very tourists who desire to take pleasure in them and the governments which fail to regulate them. Ecotourism has emerged as a vital economic strategy for Costa Rica, yet the environment on which Costa Rica sustains itself may be eroding from the added pressures placed on it because of increased traffic. Many options are available to counter such degradation to ensure long-term sustainability, yet officials must be financially and physically willing to initiate new programs and implement regulations on those programs already in place. Using our observations and interviews which incorporate a series of comparative case studies in order to provide a backdrop, this study looks at challenges and opportunities regarding ecotourism in Costa Rica. Ultimately, Costa Rica's model for ecotourism may be used on an international scale in seeking ways to address the interdependent nature of two vital issues: the need simultaneously to reduce environmental degradation and increase the creation of new wealth in developing societies.

The world's rainforests – which account for 20% of the globe's oxygen supply and once covered 14% of the earth's land surface – now cover a mere 6%, and some experts estimate that the last remaining rainforests could be consumed in less than fifty years (Raintree, 1996). According to the World Bank's recent report on poverty, there are approximately 2.1 billion people in the world whose daily income is less than \$2 (World Bank, 2006). As our ecological system is threatened both by the interdependent global issues of deforestation and economic development, many of the globe's inhabitants can be reduced to such grim statistics. Nonetheless, such realities are not without creative means for addressing such challenges. For many countries, ecotourism has emerged over the past few decades as both a strategy and a major industry for many of the environmentally diverse and economically challenged areas of the globe. In Costa Rica for example, ecotourism has also become the top foreign revenue producer (Font & Tribe, 2000)(1).

As one of the rapidly developing nations in the region, Costa Rica provides an example of how ecotourism is not only a novel method for promoting prestige and simultaneously generate revenue, but it is also a means for conservation and preservation of the very environment that is so crucial to sustain life across the planet. As tourism has emerged and grown, Costa Rica has had to deal with problems relating to the sustainability of the environment and the market. After reviewing the literature on ecotourism, examining case studies specific to ecotourism in Costa Rica, and interviewing individuals directly involved in the tourism sector in Costa Rica, our research leads us to conclude that the Costa Rican approach to ecotourism has the potential for being a model that other developing nations may follow. While we will highlight imperfections in the Costa Rican case, this case does provide a useful model for sustainable growth and economic self-sufficiency centered upon the edge that ecotourism provides.

The Worldwide Appeal of Ecotourism

The notion of the use of tourism in sustaining the environment is relatively new and a bit foreign to the typical tourist sectors. Today the demand for tourism has shifted towards more environmentally focused excursions labeled ecotourism. Ecotourism has evolved as the fastest growing sector of the global tourism industry (Buchsbaum,

2004)(2). Ecotourism has been most closely linked to the environmental movements of the 1970s and 1980s. Overdevelopment, environmental pollution, and cultural insensitivity created great dissatisfaction among certain travelers who were primarily interested in exploring the natural, unmodified beauty of an area (Buchsbaum, 2004). As the idea of ecotourism grew, more and more people beyond the initial nature-seekers became drawn to the excitement of exploring the wilderness. Adventure travel grew to become a hotly marketable concept, and the thought of conservation drew continued interest and traffic.

Travelers also have interests in environmental protection. According to the *Travel Industry Association of America*, 83% of travelers desired to support "green" travel companies and were even willing to spend slightly more money on travel services that appeared to be designed for environmental conservation (Buchsbaum, 2004). Moreover, the desire for conservation was prompted by the threat of deforestation in some of the most diverse ecosystems on the globe.

Tropical rainforests cover a mere 2% of the entire earth's surface and compose just 6% of all the landmass, yet these areas are home to over 50% of the earth's entire reserve of biological species (Evans, 2000). The damaging greenhouse gasses that pollute our air come primarily from the developed, industrialized world, yet the rainforests – chiefly found in developing world – are what store those damaging gasses and purify the air (Evans, 2000). Estimates indicate that only about one fifth of the world's old-growth rainforest remain in large, continuous natural ecosystems, resulting in roughly 80% of the world's rainforests either being destroyed or divided (Evans, 2000). This rate of deforestation can drive 50,000 species each year to extinction. Any loss of a species will ultimately affect the needs and livelihood of future generations as well as have global repercussions in the role of climate regulators (Evans, 2000). According to many observers, including the U.S. Central Intelligence Agency, an everchanging climate is now considered one of the greatest threats to any life on this planet (Kaplan, 1994).

Many of the tropical rainforests, especially in Costa Rica, have been and continue to be cut down to provide land for agriculture. Because deforestation is known to be such a large problem, many alternatives have been explored to slow deforestation rates across the globe. As the tourism industry has grown, it has generated a significant amount of revenue for Costa Rica. For this reason, many consider ecotourism to potentially be the "quick fix" to deforestation (Harris, 2002)(3).

Although ecotourism offers a potential solution for resolving the global deforestation problems, the actual definition of what constitutes ecotourism can vary greatly. Indeed, depending how ecotourism is viewed, it may or may not make any positive contributions to conserving the environment. D.A. Fennell (2002)(4) describes ecotourism as

an intrinsic, participatory, learning-based experience which is focused principally on the natural history of a region...the aim is to develop sustainably (conservation and human well-being) through ethically based behavior programmes and models of tourism development which do not intentionally stress living and non-living elements of the environment in which it occurs (pp. 15).

Other definitions of ecotourism may not be as detailed as to outline the sustainability of an area thus leaving room for interpretation. Evans (2000) defines ecotourism as

the act of traveling to relatively undisturbed and 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 manifestations (both past and present) found in these areas (pp. 134).

Overall, the majority of ecotourism definitions contain similar components: it is self-sustainable, natural resource based, non-disruptive to the surrounding habitat/animals, low-impact, incorporates natural and indigenous history, visited in the spirit of appreciation, beneficial to the local and national economy, and fosters respect for other cultures and environments. However, the degree to which each of these components is stressed can vary greatly among different definitions or different organizations.

Ideally, ecotourism conserves and preserves the areas in which it is located as well as contributes to the economic growth of the local communities. The revenue that ecotourism generates has the potential to be used to help meet the needs of local people and may be reinvested into the community in order to improve it (Buchsbaum, 2004).

Debates have also been made regarding sustainable development and its place in the economic realm of tourism. Sustainable development is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Buchsbaum, 2004). The principles of sustainable development, though not directly linked to ecotourism, can be coupled with it to create an industry that is economically and environmentally beneficial both presently as well as indefinitely.

Combining the idea of sustainable development with tourism generates a model of sustainable tourism that not only

looks for short-term benefits but seeks to benefit in the long-term by taking care of the present resources. Sustainable tourism is perhaps best understood as "tourism developed and maintained in a manner and at such a scale that it remains economically viable over an indefinite period and does not undermine the physical and human environment" (Ham & Weiler, 2002). There are ten principles that Buchsbaum (2004) outlines as factors to take into account when considering sustainable tourism: 1) use resources sustainably, 2) reduce over-consumption and waste, 3) maintain biodiversity, 4) integrate tourism into the planning and development of an area, 5) support the local economy, 6) involve the local community, 7) consult stakeholders as well as the public, 8) train the staff, 9) market tourism responsibly, 10) undertake research programs. Ecotourism in its purest form is founded on the same philosophy as sustainable development and sustainable tourism. The consideration of sustainability is essentially the means of attaining the ultimate goal of pure ecotourism (Buchsbaum, 2004). In order for this brand of ecotourism to occur, sustainable tourism must be closely integrated with all other activities that occur in the host region (Hunter, 2001).

The Paradox of Ecotourism: the Case of Costa Rica

Costa Rica not only has the tropical resources that are attractive to tourists, but it is also the most politically and socially stable country in the area (Weaver, 1998)(5). Costa Rica has exceptional national parks, a pleasant climate, friendly people, and no national army, all of which make this an attractive destination for tourists. Similarly, Costa Rica maintains the highest standard of living, the largest middle class, the best public healthcare, the best public education through university level, and the highest literacy rate in all of Latin America. Furthermore, the country has relatively solid infrastructure with paved roads, telephone lines, and electricity running throughout the country (Buchsbaum, 2004). Costa Rica also has a national tourism board, El Instituto Costarricense de Turismo (ICT), that was established in 1955 to aid travelers in their planning and visiting of Costa Rica (Hernandez, June 2005).

Although Costa Rica is an ideal location for tourism, deforestation remains an ever-growing concern for the area. Deforestation is spurred by economic problems such as high levels of inflation and foreign debt. Costa Ricans seek ways to alleviate some of the economic woes through cattle ranching, timber, and plantation agriculture (Weaver, 1998), each of which have a massive impact on the state of the rainforests. Prior to European settlements, approximately 99.8% of Costa Rica's landmass was covered in tropical rainforests. In 1950 only 53% of the landmass remained as rainforest, and by 1987 that number decreased even further to a mere 29% of the landmass (Weaver, 1998). The single greatest threat to the biodiversity of Costa Rica is the expansion of both large and small scale agricultural ventures into the frontier, which involves the massive removal and modification of the natural habitat in the area (Weaver, 1998).

In an effort to protect Costa Rica's biodiversity, the government of Costa Rica began, as early as the 1960s, to setup a network of protected areas, which later led to intensive lobbying for the tropical rainforests in the 1970s (Weaver, 1998). The first of Costa Rica's national parks was established in the early 1970s, and by 1992 the system increased to seventy national park entities that covers one million hectares—the equivalent of 21% of Costa Rica's national territory (Weaver, 1998). Although this network of parks protected designated areas, the areas outside of the network were unregulated, leading to continued depletion of such areas at a threatening rate (Minca & Linda, 2000). For this reason, ecotourism has become important to the protection of natural resources in Costa Rica. In the early 1990s, tourism surpassed both bananas and coffee as the leading source of foreign exchange (Weaver, 1998), thus having a huge impact on the economy of the country. Indeed, the long-term receipts derived from parks often outweigh revenue possibilities from short-term revenue alternatives such as logging and subsistence agriculture. Not only does tourism bring in more long-term revenue, but tourists are more interested in the exotic, "jungle adventure" experience. But if deforestation continues, it will become increasingly difficult to continue to profit from ecotourism.

While ecotourism has the potential to do so much for a country's economy and the global environment, ecotourism in theory and ecotourism in practice are two completely different ideas. Indeed, ecotourism in Costa Rica shows the

paradox of ecotourism and sustainable development. On one side of the spectrum there is pure ecotourism founded on guiding principles of ecotourism with practices and policies geared towards sustainability. On the other side, there is watered-down ecotourism that lacks the true substance that makes ecotourism sustainable. Economic ambitions usually overshadow potential social and environmental benefits of ecotourism (Buchsbaum, 2004, pp. 55).

As ecotourism has grown globally, Costa Rica has emerged as an ideal location to observe its implementation. Costa Rica is an amazingly diverse country due to its location on the isthmus of Central America. This is the only region of the world that is both interoceanic and intercontinental. Costa Rica's location opens the doors to a broad range of natural resources including beaches, mangroves, mountains, caves, waterfalls, volcanoes, and tropical rainforests. This country is known as one of the most biologically diverse areas of the world, comprising

approximately 5% of the entire Earth's biodiversity in a country the size of West Virginia (Buchsbaum, 2004).

While the majority of the people we interviewed in Costa Rica placed conservation above economics and stated that the entire country was in agreement with preservation before profit, very little visible action has been taken to back up such statements. Although the Costa Rican government implemented a few programs and regulations, Olman Hernandez (June 2005) of the Costa Rican Institute of Tourism (ICT) stated that the only way truly to protect the area is to have more government-mandated programs and laws, but the government is receiving little to no pressure on the issue and therefore sees no urgency. Although non-governmental organizations and environmental activist groups are present in the country, Hernandez stated that the voice of such groups is weak and goes unnoticed. People's intentions may be good, but good intentions are not effective unless they are acted upon.

Approaching the 1980s Costa Rica maintained a strong economic reliance on the coffee export. However, as the international price of coffee fell and oil prices rose, the bottom fell out of the Costa Rican coffers, thereby ensuring the Costa Rican economic crisis of the 1980s. In an effort to recover from this crisis, the International Monetary Fund (IMF) and the World Bank (WB) entered Costa Rica with the neo-liberal development strategy of structural adjustment programs focused on large-scale industry and foreign investment. At this same time, tourism began exploding on an international scale with a market in Costa Rica through its diverse landscapes and pristine beaches. With the structural adjustment programs in place, the IMF pushed for foreign investment in industry and tourism. Yet, foreign investors -- in pursuit of profit -- sought and continue to seek large, resort-style tourism ventures, often with regard to the environment which sustains it.

Costa Rica's 1980s economic crisis and its neo-liberal development and economic recovery program are crucial to the paradox of ecotourism. Smaller, more sustainable tourism models may indeed be better for local communities and for the natural environment, but the Costa Rican government was not and is not pursuing a development approach that favors these alternative models. Indeed, the economic strategy that the government has been pursuing – a strategy dictated by the World Bank and International Monetary Funds under the dictates of structural adjustment policies – is one that pivots on luring foreign investment through tax breaks and financial incentives. Foreign investors are primarily interested in the profits that resort-style tourism has to offer, not in the smaller, more sustainable profits that ecotourism has to offer.

While it is understood that smaller scale, eco-friendly tourism ventures can work, the quest for profit runs high due to the history of neo-liberalism. However, massive resorts have the potential to make Costa Rica fall into the same problems and dependence on foreign aid that the region faced in the 1980s. If the Costa Rican government continues to promote large-scale tourism industries with little regards and regulations on the environment, the very region and landscape attracting tourists will be destroyed returning Costa Rica to a similar crisis as in the 1980s.

Therefore, we are not only faced with one paradox, but we are faced with two. First, ecotourism is only able to maintain and sustain the environment and the economy of the region when implemented effectively and with keen regard to the carrying capacity of the region. The promotion of ecotourism may very well destroy the entity it wishes to contain. Second, ecotourism cannot possibly be promoted unless it is supported and regulated by the government. However, the Costa Rican government continues to rely on the neo-liberalism model of development promoting large-scale industry which detracts from the small-scale that ecotourism thrives.

Impacts of (Eco)Tourism

In order to be successful economically and environmentally, the activities that go along with ecotourism must be closely linked with the local needs of the community to prevent both conflict of interest and great inequalities among the tourism sector and the community at large (Buchsbaum, 2004). Often what hurts a community or alienates it from the tourism industry are the foreign investors and foreign companies that move into an area. Such investors seek the profit of a venture and frequently neglect the communities in which they are based. This sense of alienation from the land has a negative impact on the community in their sense of national identity and pride. In her interview, Laura Masis of *Viajes Laura* (June 2005) confirmed such sentiments. She observed that while most Costa Ricans have a great appreciation for foreign tourists and the money they bring into the area, there is a concern among Costa Ricans that ultimately all of Costa Rica will be foreign-owned, given how much of the land is currently being purchased by foreign investors. Each of the other individuals interviewed expressed a similar apprehension and feared that the Costa Rican identity might eventually be lost to foreigners.

Not only do local people fear separation from their land, but they also commonly have fears of cultural separation or change. It is not debated that cultures change over generations; however, with the influx of tourism in an area, foreign influence becomes a much greater concern. International tourism is a key factor in cultural change. Tourism brings different cultures into direct contact with each other, making them aware of different ways of life, culture, and beliefs—all of which contribute to sociocultural sustainability (Griffin, 2002). Indeed, throughout Costa Rica there is evidence of influence from the United States. Popular U.S.-based food chains such as McDonalds, KFC, and

Burger King are spotted throughout every major city. English slang and obscenities are used in place of similar Spanish words, and much of the clothing styles that the teens wear are styled after designers or pop stars from the United States. Those interviewed expressed distaste for the changing cultures, especially among the youth, because of the potential loss of Costa Rican customs and traditions. While this may not be the sentiment across the entire Costa Rican population, the authors found that those whom they spoke with came to a similar consensus on this thought.

If locals are not benefiting economically from ecotourism or are feeling alienated from their land and culture, they will have no reason specifically to protect the land, which can be used for other needs. In many cases, subsistence needs of the local community are met through rainforest resources such as firewood, fuel, construction materials, food, fodder, and agricultural land space. All of these are essential in rural populations to maintain the livelihood of the community. The local people must see a need and a benefit to encourage them to maintain and sustain the local environment (Evans, 2000). In order to change the view that the locals have about conservation and ecotourism, they must be actively involved with it.

While unbridled tourism has a negative impact on the environment through land clearing for resorts, vacation homes, and other industries to attract tourists, ecotourism may be similarly detrimental if not properly undertaken. That is, if sustainable ecotourism is nothing more than a theory, serious repercussions can be expected when it is not put into practice. Along with the threat to the local community, poor-planning for ecotourism can lead to the further devastation of the environment. However, when the initial national parks and conservation areas were developed, the idea of ecotourism had not yet fully emerged. Failure to prepare for large groups of people touring through these protected areas has put excessive pressure on such areas and threatens their biodiversity (Weaver, 1998). The attempts to counter the environmental threats brought on by increased numbers of tourists have generally been done on an ad-hoc basis.

For example, the famous Manuel Antonio National Park in Costa Rica receives more than one thousand tourists per day in the high season. Due to so much traffic, the resident monkeys of the area are now accustomed to the visitors and have become garbage feeders thus disrupting their natural habits. This park is also experiencing trail erosion and has problems with visitors trespassing onto private land. These problems continue to be present despite user quotas and visitor education programs that have been implemented (Weaver, 1998). Even when counter actions are taken to try to prevent the disruption of habitat, the case of Manuel Antonio National Park shows that initial poor-planning can continue to have lasting and sometimes irreversible consequences.

The government of Costa Rica has refrained from largely promoting any type of pure ecotourism that strives to maintain or improve the quality of the environment while still generating a profit from tourists. The Costa Rican government's primary emphasis has, until more recently, been strongly focused on large-scale tourism and foreign investment (Weaver, 2004). Environment aside, large-scale tourism is much more of an economic benefit to the region, although not necessarily to the locals. A focus on smaller, locally owned ecotourism projects can lead to community development, preserved natural resources, and long-term profit. Lack of preparation and government backing will potentially have serious backlashes on Costa Rica. As one observer notes:

Humans, like other beings, use and modify their environments to suit their needs, unlike other beings which change together and at the same pace [or die]; humans have introduced change at new scales of time and space, which have transformed the environment beyond the capacity of [micro] evolution to keep pace (Fennell, 2002, pp. 42).

The Need for a Remedy: Recognizing Carrying Capacity

The best way to protect the environment by means of ecotourism is to gauge the carrying capacity of the area, which is to calculate the amount of traffic a particular area can withstand without compromising its ability to sustain life indefinitely (Seitz, 2001). Although carrying capacity appears to be a relatively simple concept, gauging an actual number an area can withstand is quite difficult. Primarily, carrying capacity should address biophysical, sociocultural, psychological, and managerial dimensions; however, each dimension has its own equation, and no one dimension is independent of another (McArthur, 2000). As different types of tour groups pass through the same area, their individual impact on the surroundings varies greatly. Also, there is currently a lack of research in taking baseline measurements prior to development and tracking the changes over time (Buchsbaum, 2004).

Several specific issues confront carrying capacity (Fennell, 2002). 1) There is an upper limit to the appropriate amount of use of a specific facility or natural resource. 2) People readily accept some limits like those that they can visually gauge but find it difficult to accept some limits like those of common resources. 3) There is not a "magic number" or guaranteed equation of carrying capacity. 4) Environmental tolerance of different user groups varies. 5) Sound management and planning is required. Carrying capacity is such a broad concept that it is frequently overlooked when the profit margin is at stake.

Often, when problems arise in regards to overuse of an area, such problems have been generally unanticipated. To prevent overuse or to repair damage of overuse, the problem area or park may be closed down for a period of time to allow itself to recover (Hernandez, June 2005), yet closure of a park may lead to lost revenue. A serious challenge that arises is that many years and significant funding may be required to recover from the damage done as a result of one season of tourists groups passing through the area. Some damage may never be reversed, and a continued flow of revenue can drive a company to continue to exploit the area in the short term long after such damage has occurred. The paradox, of course, can be found in Costa Rica's own "Tragedy of the Commons" (Hardin, 1968): in the long run the very things that promote the increased revenue are ultimately destroyed. In other words, while it may be considered rational and in the best short term interest of the tourism sector, the unregulated and overuse of such areas will clearly destroy them in the end.

Ecotourism will not be beneficial if it is not profitable, and it can only profit long-term if proper planning is carried out. Many preparations and precautions can be taken ultimately to provide a sustainable means of tourism. Outlined are a number of key elements and specific plans to maintain the integrity of the land, improve community involvement, and benefit the nation as a whole economically. Primarily, ecotourism should minimize any negative effects by emphasizing low-impact construction, controlled visitor numbers, and care in interacting with local flora and fauna (Buchsbaum, 2004). Although sustainable tourism must have its own economic engine, an economic focus solely will drive conservation into the ground. Short-term profits will almost certainly need to be sacrificed for long-term success and profit.

Education is also a vital aspect to ecotourism planning. Educating the local public as well as the visitors to the area creates advocates for the safety of the area, and these advocates are more mentally equipped to care for the environment they are visiting. Education comes primarily from knowledgeable guides. As guides educate their guests, they have the ability to provide a means for *interpretation* among the guests. That is to say, interpretation is an educational activity that is aimed at revealing meanings and relationships to people about the places they visit and the things they see and do (Ham & Weiler, 2002). Interpretation is a combination of physical, intellectual, and emotional experiences that creates satisfied customers due to the connection that it creates between people and the places they go to experience wildlife. Interpretation can act as an on-site behavior regulator. As people understand why a resource is precious, these visitors are less likely to disrupt the resource. Ultimately, tour operators should desire to influence how their guests act toward the natural habitat. The most effective way to influence how a person feels and acts toward the natural habitat is to influence what they believe about it. When interpretation is designed in such as way as to encourage visitors to protect and respect the environment they are visiting, they are much more likely to take care of it by minimizing waste, not feeding the resident wildlife, and taking no more than pictures away from the experience.

Other conventional approaches to managing visitors deal primarily with numbers. Access to certain areas must be regulated in regards to the time of year, the time of day, as well as the number of groups per day. The type of group and size of each group should also be regulated. Visits can also be controlled through entry fees and site barriers. More sophisticated approaches consider the understanding of visitor management issues and opportunities through market research, visitor monitoring, and visitor research. Behaviors of tourists may be influenced through marketing and education programs. The encouragement of local involvement may also bring a more realistic and more interpretive touch to the visit as well (McArthur, 2000).

The idea of *travel ecology* (Potts, 1998) may be another alternative to ecotourism that could aid in the sustainability of the environment and the economy surrounding the area. Travel ecology differs from ecotourism and sustainable tourism because of the emphasis it places on enhancing the community as part of the travel experience. Research is restructured and programs are planned beyond simple sustainability. They become more geared towards investigating how relations between communities, ecology, and travel can be used to sustain and enhance human communities. The idea of travel ecology looks at discovering an activity, receiving mutual acceptance of it by the inventors and the community, equipping the local community to participate, utilizing the history of the area, envisioning the potentiality, and continually enhancing on the program.

There are a number of other ecotourism models that have been developed over the years to prevent and counter many of the problems currently occurring. However, it is difficult to encourage many of the smaller companies to cooperate with such models due to the economic strain it may place on them. Nonetheless, these resources are available to those who are interested in conservation with the time and money to invest into it. The extent in which they are used is the discretion of the individual company and the government as a whole; however, the long-term benefit of proper planning is substantial in economic and physical terms.

By traveling to Costa Rica, we were able to to interview and observe first hand how various ecotours are planned and executed. Such observations are necessary when attempting to determine whether or not ecotourism in Costa

Rica may be used as a model of economic advancement for others in the developing world. The following interviews and observations from people directly connected to such endeavors in Costa Rica prove most instructive and provide a snapshot of three types of ecotours available: (1) the Los Inocentes lodge in the Guanacaste region, (2) the Adventurales Naturaleza company which conducts whitewater trips, and (3) a guided snorkeling tour in Playa Hermosa.

The privately owned *Los Inocentes* lodge maintained a generally positive outlook of Costa Rica's ecotourism sector (Los Inocentes Lodge, June 2005). *Los Inocentes* has been in operation for the past fifty years as a ranch where tourists can experience backcountry Costa Rica. With trail rides through the rainforest, tourists are able to experience wildlife in its natural habitat. However, the strips of rainforest are separated in large part by land cleared for grazing. Yet, interviews with the management of *Los Inocentes* reveals that they did not believe that Costa Rica was faced with problems of deforestation. *Los Inocentes* does, however, strive to conserve and preserve the wildlife, not merely because of government regulations, but also for the sake of tourists and to maintain the beauty of Costa Rica. In fact, *Los Inocentes* has also been a key part of regrowth research, posing the question as to whether or not environmentally sensitive areas can be redeveloped by human intervention.

Because Los Inocentes is privately owned, the area it encompasses – including the lodge, grazing land for cattle and horses, and numerous riding and hiking trails within the surrounding rainforests—is also privately maintained without governmental monitoring or protection. The horse trails through the tracks of rainforest were well used. Specifically, when trail riding through the area after rainfall, the amount of wear a single horse can do to a trail dramatically increases. Again, Los Inocentes' focus was to please the client; however, because the land was privately owned, Los Inocentes is able to monitor the wear of the trails and maintain them by regulating the number of people and frequency of the tours through the rainforest. Finally, Los Inocentes did not advocate feeding of the wildlife, hoping to keep the animals as untainted by direct human interaction as possible.

Dr. Alan Journet of Southeast Missouri State University has been doing research at *Los Inocentes* since 1990 (Journet, June 2005). He and his team are attempting to promote the regeneration of tropical moist forest in order to develop a simple protocol that can be implemented in areas of deforestation. Dr. Journet believes that presently global climate change "represents the greatest threat to life on the planet (including that of humans)," and deforestation represents one of the most profound contributors to climate change. The hope of Dr. Journet's team is that local animal species will spread the seeds from the newly planted trees, thus continuing the regrowth process. Dr. Journet also notes some distinct positives and negatives of ecotourism. Although ecotourism increases awareness and education of natural systems and provides income and encourages maintenance and conservation among the local people, it also can promote destruction of forests and natural habitats in hotel construction and add pressure to local systems through increased pollution and traffic. Overall, Dr. Journet is not overly optimistic about the future of global natural habitats. As he sees it, the majority of the world takes the "Titanic approach," meaning "if you are on the Titanic, and thus doomed anyway, you might as well travel first class" (Journet, June 2005).

Adventuras Naturaleza is a company that leads whitewater trips along numerous Costa Rican Rivers. A veteran guide for Adventuras Naturaleza discussed the many regulations imposed by the government about how companies treat the environment (Ramirez, June 2005). The guide Pepé Ramirez held a generally positive attitude about the tourism sector in Costa Rica and about his job. His attitude made it appear as if there were virtually no pressing concerns regarding the environment. The laws from the government regarding environmental treatment, according to AdventurasNatualeza, seemed to be effective, although the Ramirez foresaw there being much more politics in the future as the threat to the environment continues to grow in unison with the growth of tourism. Adventuras Naturaleza stressed the importance of being a company with low-impact on the environment and made every effort to maintain the environment by not cutting down trees and keeping environmental interaction and disruption to a minimum.

Adventuras Naturaleza provides a service to its clients by escorting them down rivers with the attempt to create the most enjoyable experience possible. Clients frequently request to explore the river bank for wildlife. Although this may disrupt the wildlife of the area, as most any human interaction does, the desire to please the client often overpowers the concern Adventuras Naturaleza has for the environment.

The final interview centers upon a guided snorkeling tour near the well developed beach Playa Hermosa in the Guanacaste region of Costa Rica. Rosa Solano, a snorkeling guide, discussed the tradeoff of economic benefits in exchange for environmental consequences (Solano, June 2005). The Playa Hermosa area was very wealthy in regards to the amount of foreign investment put into development of oceanfront property. The money that foreigners bring into a beach resort area has a great impact on the local community. The hotels provide jobs and the continuous development provides construction labor. However, all of the development in the area comes at a cost to the environment. Tropical land is cleared for development, and subsequent human pollution is eminent.

Although there are government regulations for the protection of marine life, boats and people are still capable of destruction. Solano discussed how anchors damage reefs, and people have the potential to agitate marine life and/or seize coral or shells as souvenirs. In larger business ventures such as mass-tourism, the potential becomes much greater for habitat destruction, and tourists are typically less educated about their impact on the environment.

The snorkeling tour encouraged its participants simply to observe and not touch or take any of the marine life. However, snorkel guides will occasionally trap a marine animal of interest to show the group and later release it. Poorly-dropped anchors pose a great threat to coral and the many creatures which reside among the coral. Motors and exhaust from boats are also potentially damaging to the marine life.

Although each vignette presented above varies in the degree of sustainability, each may be used as models for how to or how not to develop sustainable ecotours. Costa Rica provides a number of excellent examples to enable planning for future environmental developments.

Conclusion

There is little doubt that Costa Rica has been successful in marketing its comparative advantage in ecotourism around the world. Public opinion polls and economic research both indicate an emerging market for ecotourism and natural adventure travel (Buchsbaum , 2004). Ideally, ecotourist activities attract people, bringing revenue into a locale which provides a means for the area to develop while sustaining the environment. While Costa Rica has successfully developed a product that attracts people and their financial resources, it still lacks sustainability.

Nonetheless, ecotourism as a model for conservation is an innovative and growing concept throughout the developing world. For example, in an analogous article published in the *Singapore Journal of Tropical Geography*, Hvenegaard and Dearden conclude how increased measures of conservation in Thailand have been linked positively to the promotion of ecotourism. They note that the connection of ecotourism to conservation occurs through an "interdependent system" which places "biodiversity conservation in the context of other major tourism components, including tourists, ecotourism infrastructure, protected areas and local people." Similarly, a study was done specifically about such efforts in Costa Rica and Belize (Farrell and Marion, 2001). Farrell and Marion focus on determining the impacts that visitors have on protected areas in Central America and conclude that visitor impact must be kept to an absolute minimum in order to maintain the pristine quality of the natural resources. The study specifically targets the lack of management in judging carrying capacity. The Thailand study and the Central American study both express the great potential of ecotourism in environmental conservation – if ecotourism is managed and cared for properly. Ecotourism is not limited to a particular region, and it is increasingly becoming a topic of interest to broader and diverse audience, including both conservationists and business investors.

Tourism continues to generate high revenues in Costa Rica. Record high profits and visitors make it is easy to ignore or simply not notice a problem such as environmental degradation. Without the necessary precautions and successful management, however, the environment may break under the unnatural pressures placed upon it, causing local economic problems in Costa Rica and threatening the sort of greater environmental and health problems which are gradually surfacing in other areas across the globe.

A threat to the environment is a threat to the entire planet. For every tree that gets cut down and every species that becomes extinct, we lose a vital element of life that can never be fully recovered. Ecotourism, though still in its infancy, has potential to counter much of the environmental threats to the rainforests of the developing world. Continued studies and projects must be implemented to further analyze carrying capacity and reforestation, yet when an industry such as ecotourism can place a monetary and tangible value on the natural, it becomes easier to solicit support for the continued and long-term study of its preservation. Once the necessity of thinking long-term is etched on every mind, a cycle will erupt of continuous planning that allows for the indefinite sustainability of the world in which we, individually, only compose a small fraction of a fraction of a percent.

Endnotes

- 1 X. Font and J. Tribe, the editors of this book and faculty of Leisure and Tourism at Buckinghamshire Chilterns University College in High Wycombe, United Kingdom, gathered case studies in environmental management. This paper specifically focuses on the studies of chapters 7, 8, and 16. In these chapters environmental issues facing national parks, environmental management, and carrying capacity in Costa Rica are addressed. Return
- 2 Buchsbaum, a Master student at Virginia Polytechnic Institutes and State University, researched articles concerning global and regional ecotourism. The aim of this work is to shed light on the potential of ecotourism in Costa Rica as well as the risks associated with the influx of tourists into the area. Buchsbaum stresses the care needed in the practice of ecotourism and recommends unspecified reform of Costa Rica's current ecotourism

practices. Return

- 3 The editors of this book gathered articles by professionals interested in the factors influencing tourism and the ability to sustain tourism economically and environmentally. This paper focuses specifically on chapters 1-4, which deal with debates on finding a sustainable form of tourism, seeking ways to educate tourists on the environment, and turning theories into practices in terms of sustaining the environment as well as the tourism sectors. Return
- 4 D.A. Fennel of the Department of Recreation and Leisure Studies at Brock University in Ontario, Canada discusses the foundational aspects of ecotourism, explores many of the current issues facing ecotourism program planning, and provides information regarding potential remedies and procedures to follow in implementing the most effective form of ecotourism. Fennell observes the most destructive aspects of tourism and concludes that the environment's carrying capacity must be held above economic benefit to sustain the land and the ecotourism sector. Return
- 5 D.B Weaver of the School of Tourism and Hotel Managements at Griffith University in Queensland, Australia shows the growth of ecotourism specifically in the developing world. Weaver outlines the development of ecotourism in various areas, including Costa Rica, and discusses problems as well as attempted solutions to issues connected with the influx of tourism. Return

References

Interviews

Hernandez, O. (Speaker). (2005, June). Interview with K. Daniel. Ministry of Tourism. San José, Costa Rica.

Journet, A. (2005, June). Interviewed with K. Daniel. (Email correspondence). Los Inocentes research. Southeast Missouri State University: Department of Biology.

Laura Masis. (Speaker). (2005, June). Interview with K. Daniel. Viajes Laura. Moravia, Costa Rica.

Los Inocentes Lodge. (2005, June). Interviewed with K. Daniel. (fax correspondence). Los Inocentes Lodge: Guanacaste Region, Costa Rica.

Ramirez, P. (Speaker). (2005, June). Interview with K. Daniel. Adventuras Naturaleza. Sarapiqui River.

Solano, R. (Speaker). (2005, June). Interview with K. Daniel. Playa Hermosa, Costa Rica.

Texts

Buchsbaum, B.D. (2004). *Ecotourism and sustainable development in Costa Rica*. Blacksburg: Virginia Polytechnic Institute and State University.

Ch. 4: Potts, T.D. & Harrill, R. (1998). Travel ecology and developing naturally: making theory—practice connections. In R. Harris, T. Griffin, & P. Williams (Ed.), *Sustainable tourism* (pp. 45-57). Great Britain: MPG Books Ltd, Bodmin.

Evans, S. (2000). Ecotourism in tropical rainforests: An environmental management option for threatened resources? In Font, X. & Tribe, J. (Ed.), *Forest tourism and recreation* (pp. 127-142). New York: CABI Publishing.

Farrell, T.A., & Marion, J.L. (2001). Identifying and assessing ecotourism visitor impacts at eight protected areas in Costa Rica and Belize. *Environmental Conservation*, 28, 215-225. Cambridge University Press.

Fennell, D.A. (2002). *Ecotourism in programme planning*. New York: CABI Publishing.

Font, X. & Tribe, J. (Eds.). (2000). Forest tourism and recreation: Case studies in environmental management. New York: CABI Publishing.

Griffin, T. (2002). An optimistic perspective on tourism's sustainability. In R. Harris, T. Griffin, & P. Williams (Ed.), Sustainable tourism (pp. 24-32). Great Britain: MPG Books Ltd, Bodmin.

Ham, S. H. & Weiler, B. (2002). Interpretation as the centerpiece of sustainable wildlife tourism. In R. Harris, T. Griffin, & P. Williams (Ed.), *Sustainable tourism* (pp. 35-44). Great Britain: MPG Books Ltd, Bodmin.

Hardin, G. (December 13, 1968). "Tragedy of the commons" Science, 162 pp. 1243-8.

Harris, R., Griffin, T., & Williams, P. (Eds.). (2002). Sustainable tourism: A global prospective. Great Britain: MPG Books Ltd, Bodmin.

Hunter, C. (2001). Aspects of the sustainable tourism debate from a natural resources perspective. In R. Harris, T. Griffin, & P. Williams (Ed.), *Sustainable tourism* (pp. 3-23). Great Britain: MPG Books Ltd, Bodmin.

Hvenegaard, G.T., & Dearden, P. (1998, December). Linking ecotourism and biodiversity conservation: A case study of Doi Inthanon National Park, Thailand. *Singapore Journal of Tropical Geography*, 19(2), 193-211.

Kaplan, R.D. (1994, February). The coming anarchy. Atlantic Monthly (pp. 43-76).

McArthur, S. (2000). Beyond carrying capacity: Introducing a model to monitor and manage visitor activity in forests. In Font, X. & Tribe, J. (Ed.), *Forest tourism and recreation* (pp. 259-278). New York: CABI Publishing.

Minca, C. & Linda, M. (2000). Ecotourism on the edge: The case of Corcovado National Park, Costa Rica. In Font, X. & Tribe, J. (Ed.), *Forest tourism and recreation* (pp. 103-126). New York: CABI Publishing.

Raintree Nutrition, Inc. (1996). Retrieved November 28, 2005, from http://www.rain-tree.com/

Regan, J. (2003, August 5). Natural resource nudged to the brink: Forest land in Haiti fading fast. *The Miami Herald*.

Seitz, J.L. (2002). Global issues: An introduction. Massachusetts: Blackwell Publishers Inc.

Weaver, D.B. (1998). Ecotourism in the less developed world. New York: CAB INTERNATIONAL.

World Bank, (2006, September). World development report 2006: Equity and development. Washington D.C.: The World Bank and Oxford University Press.