THE GREEN HOST EFFECT: AN INTEGRATED APPROACH TO SUSTAINABLE TOURISM AND RESORT DEVELOPMENT

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Abstract: *This paper offers recommendations for responsible tourism and resort development in the tropics, to both minimize the industry's negative environmental and social impacts and increase the overall positive contribution of tourism to conservation and local well-being. It describes a series of management practices and technologies that developers can use to increase the environmental and social sustainability of their developments, as well as a series of planning and policy tools for governments to guide the development of tourism in their countries. Although these tools are principally for the public and private sector, they will also be useful to groups such as non-governmental organizations, development agencies and local communities seeking to become more informed participants in tourism development.*

Keywords: *land-use planning, tourism scale and facility development, conservation, comm.-unity development, industry efforts, regulatory management*

Background

In the last 50 years, international tourism has grown from an occasional pastime of the rich and adventurous to a central source of employment, foreign capital, and cultural exchange for many countries around the world. However, the industry also brings large numbers of people, increased resource demand, land degradation, pollution and waste into some of the world's most biologically and culturally diverse areas, often causing adverse impacts on the environment and local communities. In 1950, there were 25 million international tourist arrivals worldwide (WTO, 1997). Today, that number is nearly 25 times larger, with 613 million international tourist arrivals in 1997 (WTO, 1998).

Tourism in natural areas in the tropics is growing even more rapidly than the industry as a whole (The Ecotourism Society, 1998), with growth focused primarily on coastal areas. In the Caribbean, for example, the majority of tourism facilities are located within 800 meters of the high water mark (Jackson, 1984), and the majority of tourist activity takes place in the area between the back bays and fronting reefs. Two-thirds of identified environment-al impacts in the Caribbean occur in this same area (Potter, 1996: 11).

In the tropics, the natural environments which hold the most appeal to tourists - including beaches, coastal zones, islands, primary forests, savannas and mountainous areas - are also some of the most environmentally significant and fragile. These ecosystems are home to a highly complex and rich diversity of species, many of which are found nowhere else on earth. For example, coral reefs support the highest number of living organisms per area of any ecosystem

in the world (Schoorl and Japp, 1991: x), providing a home for more than one-quarter of all known marine fish species while occupying less than one quarter of one percent of the planet's total marine area (Bryant et al., 1998: 7). The implications for poorly planned and implemented development are thus particularly high.

As tourism has grown, so has awareness about the industry's potential to be either the cause of serious environmental and social damage, or a positive source of support and resources for conservation and community development. Although tourism development has degraded ecosystems around the world, it also represents one of the best opportunities to promote economic development without serious negative impacts. If tourism can be developed responsibly, with careful planning and design, it can provide a relatively non-destructive source of income and development, especially in comparison to other large industries, such as oil, mining, timber, agriculture, or manufacturing.

Moving from ideals of sustainability to responsible practice will require a fundamental shift in the industry as a whole, in coordination with governments, local communities, international development agencies, non-governmental organizations (NGOs) and international tourism organizations. Sustainable tourism development will require an integrated approach, comprised of 1) participatory land-use planning, 2) private sector practices which both mitigate negative impacts and actively support conservation and local benefit, and 3) the implementation of a range of public sector policies to promote responsible development.

Promoting Responsible Tourism Development Through Participatory Land-use Planning

Although many nations are now beginning to implement impact management measures, the majority have done so only after environmental degradation or local discontent have reached serious proportions (Sorensen, 1990: 37-63). While reactive policies can be an effective and necessary step toward reducing impacts, trying to change established patterns of behavior often causes conflicts and can be an expensive process (Manning and Dougherty, 1994: 14-15). Furthermore, reactive control cannot affect siting decisions, which may allow inappropriate and damaging development to proceed in some of the most environmentally and culturally sensitive areas of a country or region. As governments become increasingly aware of the potential pitfalls of tourism and the practices necessary to avoid them, early planning for tourism development has been increasingly recognized as a necessary and preferable option to trying to correct damages after the fact. Early planning can promote long-term sustainability, minimize social costs and conserve valuable natural areas for future generations.

More generally, successful land-use plans will require a shift in the objectives of tourism development away from the traditional "growth at all costs" approach. In many cases, this will mean that tourism development must be limited and shaped by social and environmental criteria. Land-use plans should specify where tourism can be developed and to what degree, ensuring that appropriate types of tourism development are sited in appropriate places (Middleton, 1998: 95). This will allow developers to move beyond simply mitigating impacts wherever they choose to locate, toward siting in appropriate areas and providing support for key conservation areas.

The Importance of Participatory Planning

Traditionally, tourism and other land-use plans have been designed by experts, with local participation limited to brief interviews that provide little substantive contribution to the final design. As a result, local priorities often have not been represented, leading to conflicts and forcing governments to divert limited financial resources toward enforcement or negotiation (Bonilla, 1997: 120).

1Some land-use plans may simply become impossible to implement because of a lack of support from key stakeholder groups, including regional and national government agencies, the private sector, local communities, community and conservation NGOs, and funding agencies (Bonilla, 1997: 6-8). Thus, successful development and implementation of a land-use plan will rely on active stakeholder involvement and consensus-building among all participants.

Involving all stakeholders in participatory or "bottom-up" planning allows people to set priorities for their area, which will increase their stake in and support for the final plan (Middleton, 1998: 82). Equally important, it allows plans to take advantage of the knowledge and skills of each group (Bonilla, 1997: 9). Active participation by local stakeholders can often reveal key information about potential tourist attractions, local interests, potential conflicts and important environmental areas (Ziffer et al., 1994). Below, we present a three-step process for developing a national or regional tourism land-use plan.

Setting Objectives and Assigning Roles

The first step in land-use planning for tourism is to determine concrete objectives of tourism development, and assign roles and responsibilities among people in involved agencies. Objectives should be based on social, environmental, political and economic conditions, problems and opportunities (Rader, 1998). Setting specific objectives can make final decisions more credible to communities, aid agencies and other concerned parties, and provide critical guidance for designing and evaluating policies (Rader, 1998). As with each stage of the planning process, designing objectives that accurately reflect the needs, values and goals of all affected parties should be done in a participatory way, involving all stakeholders. At the same time that objectives are being set, the roles and responsibilities of the various government agencies with jurisdiction over tourism must be resolved. These can include agencies in charge of tourism, environmental regulation, economic planning, pro-

tected areas management, and cultural resources (Bonilla, 1997: 31).

Mapping and Ranking Areas by Priority for Tourism, Conservation and Local Interest

The second major step in developing a tourism land-use plan is the mapping and ranking of areas within the region in terms of their priority for tourism, local communities and conservation. There are many methodologies for priority setting (see, for example, Johnson, 1995). The most appropriate in each situation will depend on existing information, the amount of area to be covered, technical capacity, and budgetary considerations. Criteria for evaluating areas for tourism priority should include the quality of natural environmental and cultural attractions, existing facilities and services, areas that could be improved to support tourism and accessibility (Dowling, 1993: 24-5). Priorities for conservation should also be evaluated based on a range of criteria, including endemism (species that occur only in a particular region and nowhere else on Earth), biodiversity, level of disturbance and historical features. Social and economic priorities can be determined based on information such as local land ownership, land claims, interest in or resistance to tourism, the presence of other industries, infrastructure such as roads, and future development concessions.

Synthesizing Priorities

After priority maps for tourism, conservation, and socioeconomic constraints and opportunities are developed, they can be synthesized into a land-use plan. As with the other steps in the land-use planning process, synthesizing priorities into a land allocation scheme that is acceptable to all stakeholders will require a participatory, consensus-building approach, which may be difficult, but necessary to use. Planners and stakeholders should overlay tourism, environmental and socioeconomic priority maps, and, based on levels of priority and where priority areas are separate or overlapping, they should work to allocate land

areas to various levels of tourism development (Dowling, 1993). Although the details are beyond the scope of this paper, information should also be used to designate areas for a range of conservation importance. Land allocation should focus on finding areas where appropriate levels and types of tourism can be compatible with environmental and social priorities (Dowling, 1993). Many areas should not be used for any type of tourism, because of critical conservation importance, priority for local people or other economic sectors, or a lack of tourism resources.

Private Sector Practices for Mitigating Negative Impacts and Increasing Positive Benefits

In the context of ensuring that different levels of development are located appropriately, the practices of the private sector will obviously be critical. Moving towards responsible tourism development requires a shift in thinking to include environmental and social parameters in all aspects of design, construction and operations. Understanding the long-term implications of resource use and management decisions will help to ensure that tourism development is compatible with long-term sustainability goals and can result in significant economic benefits for the developer.

Two broad changes are necessary to improve the environmental and social performance of the tourism industry to a point where it can be considered sustainable in the long term. First, individual developments need to focus on long-term strategies for mitigating the negative environmental and social impacts of their activities, based on improvements in siting choices and design, efficient use of resources, and the involvement of local communities. Second, the concept of good practices must be expanded beyond impact mitigation to include positive and proactive contributions to the well-being of surrounding communities and local bio-diversity conservation efforts.

Practices promoting these concepts are possible at all stages of development. During infrastructure and facility development, they will include site decisions, land-clearing, construction, and design and landscaping choices. During operations, they range from water and energy use, waste disposal and sewage treatment, to recreation, transportation and interaction with local people.

Conducting Early and Thorough Environmental and Social Impact Assessments

Understanding the potential environmental and social impacts of a project before it is begun will help developers determine how best to mitigate these impacts. Evaluations should be conducted as early as possible to allow the results to be used before much money has been invested. In some cases, the project as it was originally conceived will pose too big a threat to local environments or communities and will need to be reworked or relocated. Early knowledge of such a situation can save considerable time and expense for a developer.

Choosing an Appropriate Site

The impact of a resort development on the natural and cultural environment depends significantly on where and how the resort is sited. In all cases, developers should build only where local people are in favor of development and in areas where the environment can support the proposed development. Developments should not be located in critically important ecosystems, such as national parks, or culturally sensitive sites. Instead, developers should seek to understand ecosystem functioning and choose their site to minimize disruption. Avoiding building on steep slopes or too close to the coast are basic ways to avoid damage.

Minimizing Land-Clearing

Appropriate site choice will also allow developers to minimize land-clearing, another common cause of damage. Traditionally, tourism developers have seen land for their developments as simply a plot that needs to

be fully cleared prior to construction. However, the development site is not only a plot of land but an ecosystem that contains potentially valuable characteristics for developers. It is not necessary - and in most cases it will be less cost effective - to completely clear the land prior to construction. Maho Bay Camps, in St. John, US Virgin Islands, developed its property without clearing any land. Benefits from this approach include a cooler, more pleasant climate for guests, fewer insects, and beautiful surroundings (Selengut, 1998).

Responsible Design and Facilities Choices

In design, an understanding of the natural processes of the ecosystem in which the tourism development is planned will allow developers to avoid the need for costly ecosystem modification, and to take advantage of wind, shade, gravity, water sources and vegetation. During the design phase, architects should consider the local landscape and take advantage of natural climate conditions. For instance, shade and cross-breezes can contribute significantly to cooling. Due to design which uses shade from trees and cross ventilation from wind, the Coconut Beach Resort in Queensland, Australia, does not need any air conditioning in its luxury rooms. Guests appreciate the lack of noise and closeness to nature fostered by the architecture (Commonwealth of Australia 1995, 2: 5).

Some facilities may not be appropriate in many areas. For instance, golf courses can be one of the most serious causes of damage in a resort. An average course uses between 800,000 (Asia Golf Tourism, 1997) and 1.3 (Chatterjee, 1993) million gallons of water per day. This same quantity of water is enough to meet the daily needs of thousands of local residents; for instance, 800,000 gallons per day would meet the needs of approximately 5,000 rural families in Mexico. (Author's calculation from Robbins, 1998). The quantity of pesticides, herbicides and fertilizers necessary to maintain the grass on a golf course averages about 1,500

kilograms per course per year (Chatterjee, 1993), equivalent to seven times the amount used per acre by large-scale agriculture in the United States (Chamberlain, 1998). These chemicals can pollute surrounding areas through infiltration and runoff, especially where sewage infrastructure is inadequate. Chemicals used to maintain golf courses have been associated with pollution of water resources, the death of wildlife, and increased diseases, including cancer, among humans (Chamberlain, 1998).

Efficient and Responsible Resource Use and Disposal

The resource demands of tourism development in a tropical environment are usually many times greater than that of the existing local communities. Increased resource needs can mean additional stress on the environment and greater damage from pollution and waste disposal. All resources, from water to energy, should be utilized in the most efficient way possible, minimizing use and promoting recycling and reuse. When it comes time to dispose of used resources, from solid waste to sewage, developments should use the most effective technologies to minimize their impact on their surroundings.

Minimizing the Negative Impact of Tourist Activity on Local Ecosystems and Cultures

The private sector can also have a significant effect on reducing negative impacts by working with tourists. Depending on the activity, providing guidelines, for instance regarding what souvenirs are harmful to buy, requiring the use of guides, or requiring tourists to receive instruction may all be useful in changing behavior. Developers and operators should also consult with local people directly before developing facilities or tours. When the majority of people who live in or use an area do not want tourism development, developers should respect this choice.

Making a Positive Contribution to Conservation

There are a range of ways in which the private sector can provide critical support to conservation. One way to achieve this goal is through buying and setting aside areas as private reserves. The Lapa Rios resort in Costa Rica maintains a 1,000-acre private reserve, which, in addition to protecting important habitat directly, also provides a buffer to encroachment in the neighboring Corcovado National Park. The reserve also allows the resort to offer its guests a range of activities that depend on access to a beautiful and uncrowded natural area, such as professionally guided rainforest tours, bird watching, hiking, horseback riding, fishing and kayaking (The Ecotravel Center, 1998). Other stewardship activities include donating money and time, providing in-kind support to people involved in conservation, working with local communities on conservation projects, giving access to underutilized resources, and working on education projects involving both tourists and local communities.

Partnering with and Employing Local People

Local people often receive little benefit from development that may cause serious impacts on their way of life. Developers can increase local benefit and the quality of their tourism product by working in partnership with local groups and entrepreneurs, using locally provided services and hiring and training local people. They can also directly support locally beneficial projects. The Punta Cana Beach Resort, in the Dominican Republic, supports a program that teaches fishermen new practices for improving sustainability. The resort also has a cooperative from which local women can sell handicrafts to guests (The Ecotravel Center, 1998).

Public Sector Policy Tools for Mitigating Negative Impacts and Increasing Positive Benefits

Responsible development will also depend centrally on the effective implementation by governments of appropriate policy tools and strategies to ensure that development is compatible with long-term environmental and social goals. Effective policy will depend on the capacity, training and resources of government sectors responsible for regulating tourism, and increasing this capacity should be a priority of any tourism policy strategy. Standards and guidelines should be formalized in specific legislation and then implemented through both traditional and innovative programs, including direct regulation, economic and financial tools that increase incentives for the private sector to improve its practices, and awareness-building among all stakeholders. A strong set of monitoring and enforcement tools will be the final piece of an effective tourism policy strategy. In general, a broad mix of policy tools will be necessary to achieve the stated objectives of responsible development. Most broadly, these can include:

Increasing Governmental Capacity

Implementing strategies to regulate and monitor the tourism industry will require a great deal of political knowledge, ability and will. Thus, before a broad-scale policy approach is designed and implemented, it is important to assess and improve the level of capacity within the public sector agency or agencies that will be managing the strategy. Although the most obvious way to increase public sector capacity is to increase the skills and funding of government offices, capacity-building can also come through the coordination of actions among all relevant actors, at the local, national, and international levels.

Awareness-Building among Stakeholders

Even with the required capacity and abilities, however, the public sector will have

difficulty carrying out significant policy strategies without the endorsement of the local population, the private sector and other stakeholders. Thus, it is equally important to increase awareness of and support for environmental and social policies through education and training. Although appropriate material will vary by situation, campaigns might include information about the roles and responsibilities of each group in preserving a healthy environment, the interaction between people and the environment (McAlpine, 1998), and the reasons for and importance of environmental and social policies (Schoorl and Visser, 1991: I).

Direct Regulations and Controls

There are a range of policy tools designed to place limits on various aspects of development, including location, size and type of business, levels of tourism, and specific activities and impacts. Direct controls over the industry include contracts, regulations, licenses and permits. While these tools are not specific to the tourism industry and, in most cases, were developed for other industries or sectors, they can be effective forms of control for a growing tourism industry. In order to minimize conflicts and disincentives to private sector investment, direct controls should be designed in a collaborative and sensitive way, with relevant stakeholder input (Jamieson ,1997: 128).

Economic and Financial Tools

Economic and financial tools, including traditional strategies such as taxes, subsidies and entrance fees, as well as more innovative approaches such as performance bonds, trust funds and offsets, can be an important and effective supplement to direct regulations. While direct controls allow governments to focus on the specific scale and nature of tourism, control through fiscal tools is based on creating positive or negative incentives via rewards or penalties. Financial mechanisms can also have important advantages over direct regulation in certain cases. Taxes, for instance, in addition to controlling impacts also raise revenue. Positive incentives, on the other hand, can influence de-

velopers to benefit local communities and conservation without the conflicts which might arise from requiring the same behavior. Performance bonds and trust funds can help to ensure that money will be available to mitigate any unexpected environmental or social damages. Fiscal controls may also have the advantage of allowing the private sector to make its own choices of behavior, based on the new set of costs it faces, which may result in a more dynamic and adaptable private sector and fewer illegal activities (Janssen, 1995: 76).

Positive Contributions to Responsible Tourism Development

In addition to the use of direct regulatory controls and financial incentives for guiding the development of the tourism sector, governments can implement a variety of proactive policy strategies designed to offer support for and promote the growth of an environmentally and socially responsible tourism industry in their country. These actions can include becoming more involved in the global marketing of a country's image as a destination, providing infrastructure for development, supporting local employment and ownership, and instituting award and certification programs recognizing good environmental and social practices. In all cases, proactive promotion of a responsible industry will require coordination and consultation with the private sector and other stakeholders to determine where these government policies can have the greatest impact.

Enforcement and Monitoring and Evaluation

Regardless of which policy strategies a government chooses, it is important to include provisions for both enforcement and monitoring and evaluation (M&E) in any broad-scale tourism sector management plan. In many countries, poor enforcement has rendered even the most well-designed policies ineffective through lack of compliance (Jamieson, 1997: 121). In addition, monitoring and evaluation of policy effectiveness will allow the public sector to adapt

its policy strategies to changing information availability, conditions and needs within a country's tourism industry. By using an M&E system to evaluate whether or not policies are promoting the goals of responsible tourism, governments can constantly improve their policies to most effectively promote the goals of tourism development and conservation.

Conclusion

The strategies and tools described in this document will help to increase the sustainability of tourism developments by minimizing their negative impacts on surrounding ecosystems and cultures while increasing their positive contributions to biodiversity conservation and community development. The use of these tools must take place in the context of a fundamental shift in thinking - among developers, governments and other stakeholders - about the traditional models and goals of tourism development. Areas that are developed for tourism without the consideration of environmental and social factors will ultimately prove unsustainable and lose the very resources on which they depend for attracting tourists. Thus, good environment-al and social practices also make good business sense, not only for protecting key tourism attractions, but also for appealing to increasingly environmentally conscious consumers throughout the world and saving money on disposal, mitigation and resource costs.

References

Asia Golf Tourism. (1997). URL: <http://guirukul.ucc.american.edu/ted/ASIAGOLF.HTM>

Bonilla, Juan Carlos. (1997). *Participatory Ecotourism Planning.* Conservation International, Washington, D.C.

Bryant, Dirk, et al. (1998). *Reefs at Risk.* World Resources Institute, Washington DC.

Chamberlain, Sara. (1998). Golf Endangers Hawai'ian Ecology and Culture. *Econet website.* URL: <http://www.econet.apc.org/ei/J*oumal/>

Chatterjee, Pratap. (1993). Clubbing Southeast Asia. *Multinational Monitor 11.* URL: <http://www.essential.org/monitor>

Commonwealth of Australia. (1995). *Best Practice Ecotourism: A Guide to Energy and Waste Minimisation.* Commonwealth Department of Tourism, Canberra. URL: <http://tourism.gov.au/publications/BPE/Start.html>

Dowling, Ross. (1993). An environmentally-based planning model for regional tourism development. *Journal of Sustainable Tourism,* 1: 1.

Jackson, I. (1984). Enhancing the positive impact of tourism on the built and natural environment, V.5 reference guidelines for enhancing the positive socio-cultural and environmental impacts of tourism. Organization of American States, Washington. In: *Tourist Development,* 2nd *edition.* Pearce, Douglas (ed.). 1989. Longman Group UK, Ltd., Hong Kong. p. 229.

Jamieson, Walter. (1997). First Technical Presentation. In: *Tourism2000: Building a Sustainable Future for Asia-Pacific,* final report from Asia Pacific Ministers' Conference on Tourism and Environment. World Tourism Organization, Madrid, pp.120-129.

Janssen, H., M. Kiers, and Nijkamp, P. (1995). Private and public development strategies for sustainable tourism development of island economies. In: *Sustainable Tourism Development,* Harry Coccossis and Peter Nijkamp, (eds.). Avebury, Aldershot, UK. pp.65-84.

Johnson, Nels. (1995). *Biodiversity in the Balance: Approaches to setting Geographic Conservation Priorities.* Corporate Press, Maryland.

Manning, Edward W., and Dougherty, T. David. (1994). Carrying capacity for tourism in sensitive ecosystems. Presentation at the conference: Building a Sustainable World Through Tourism, Montreal, Canada. September.

McAlpine, Peter. (1998). Environmental Educators of the Public: A Role the travel and tourism industry cannot afford to refuse. Fax communication with author, 17 April 1998.

Middleton, Victor T.C. (1998). *Sustainable Tourism: A Marketing Perspective.* Butterworth-Heinemann, Woburn, MA.

Potter, Bruce. (1996). *Tourism and Coastal Resources Degradation in the Wider Caribbean.* Island Resources Foundation, St. Thomas, U.S. Virgin Islands.

Rader, Christopher. (1998). Monitoring and Evaluation, presentation by the Conservation International Monitoring and Evaluation Program.

Robbins, Elaine. (1998). *Golf War Syndrome.* URL: <http://www.utne.com/lens/atc/I5atcgolf.html>

Schoorl, Jaap and Visser, Nico. (1991). *Towards Sustainable Coastal Tourism: Environmental Impacts of Tourism on the Kenya Coast.* Commissioned by the Netherlands Ministry of Agriculture, Nature Management and Fisheries. Nairobi.

Selengut, Stanley. (1998). Presentation at Sustainable Tourism, Entrepreneurship, and Technology, George Washington University. Washington, D.C., I l November.

Sorensen, Jans. (1990). An assessment of Costa Rica's coastal management program. *Coastal Management,* 18: 37-63.

The Ecotourism Society. (1998). Ecotourism Statistical Fact Sheet. URL: <http://www.ecotourism.org/tocfr.html>

The Ecotravel Center website. Washington, DC: Conservation International. URL: <http://www.ecotour.org>

World Tourism Organization. (1997). *Yearbook of Tourism Statistics,* Vol. 1. World Tourism Organization, Madrid.

World Tourism Organization. (1998). *Tourism Highlights 1997.* World Tourism Organization, Madrid.

Ziffer, Karen, Sedaghatkish, Gina and Corbin, George. (1994). *The Field Guide to Ecotourism Venture Development and Planning,* draft. Conservation International, Washington, D.C.