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The Challenges to Sustainability in Island Tourism

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INTRODUCTION

Islands are special places with a natural attraction for tourists and a special challenge to sustainability. The thousands of islands on the face of the earth include some of the finest and most sought after destinations, such as the Balearic Islands, the Hawaiian Islands, the Galapagos Islands, the Canary Islands, the French Polynesian Islands, and the Caribbean islands. The mystique associated with islands is dependent on a blend of different lifestyles, indigenous cultures, unique land formations, flora and fauna, and ocean and coastal resources. To keep that mystique alive and thriving, islands must implement sustainable tourism policies in all areas including environmental, economic and socio-cultural. This paper will examine the unique challenges that islands face as they attempt to build sustainability into their tourism development policies. It will also propose policies to assist in attaining and maintaining quality island tourism. Examples from all types of island destinations are included in the paper.

TYPES OF ISLAND TOURISM DESTINATIONS

Islands vary in many ways, and understanding the various types clarifies for the decision-makers the policies that need to be used. One classification is islands' climate which can be cold, temperate or tropical. Even though tropical islands (Caribbean, Hawaii, French Polynesia) tend to have most allure for tourists, cold and temperate islands also have environmental or cultural features and lifestyles that attract tourism – for example the Shetland islands off the coast of Scotland. Baum 1997 describes the general attractiveness of North Atlantic islands, including their remoteness, their small size, the slower pace of life, the chance to go back-in-time, the wilderness environment, the water-focused society and the sense of difference yet familiarity (Baum 1977). Very cold islands such as Iceland and Greenland offer unique landscapes and flora and fauna and are alternate destinations often attracting scientists, photographers and other specialized travelers.

Another island classification is the proximity to the related mainland and also its size. Islands that are more remote and distant face more challenging accessibility and transportation issues due to their isolation. Visitors will tend to stay longer in islands that are remote and larger, whereas those close to the mainland and smaller may experience more excursionist tourism. For example, Cousin Island in the Seychelles, hosts only day visitors that leave the

island at the end of each day (Shah, 2002). The island's choice to host excursionists versus stay-over visitors requires a careful evaluation of the strengths and weaknesses of each type of tourism.

A third classification is whether an island is a single island or part of an archipelago. Multi-destination travel in island chains may be an added attraction for tourists, whereas the peace, or 'sun, sand, sea' experience of a single island vacation may be the choice for others. Cooperative marketing and complementary product development is important for archipelago islands. This will create a diverse touristic experience giving archipelagos an advantage over single islands, particularly if they are small.

A fourth classification is the governance of the island destination. Some islands have autonomous governments and others are part of the mainland government system. Those with autonomy have more control over the direction of sustainable development of the island. They are also more likely to reap the maximum economic benefits from tourism, without any revenue being leaked to the mainland through taxes and other means. Islands under the jurisdiction of the mainland need to ensure adequate representation in the government decision-making.

Fifth, some island destinations have growing resident populations (which may be due in part to tourism) and other with weak economies are experiencing declining populations. In the latter case, there is a special need to ensure economic viability to prevent the out-migration of residents – especially young ones who look for opportunities elsewhere. Some islands, of course, have no human population and are simply nature-reserves, and others are privately owned with their own policies.

The last classification relates to the homogeneity of the population and the socio-cultural sustainability of island destinations. Islands with homogeneous, indigenous populations are particularly vulnerable to tourism development since they have different cultures with different values than the source markets. The close interaction that islands create between hosts and guests must be managed. Islands with more heterogeneous populations may be more resilient to socio-cultural impacts.

It is clear from the categories above that islands differ in many ways from the mainland and from each other. Each island has its uniqueness and that uniqueness needs to be nurtured and strengthened through sustainable tourism

policies. The next section will examine the specific issues and problems that islands face in sustainable tourism development.

SUSTAINABILITY ISSUES FACING ISLAND DESTINATIONS

Many researchers have studied tourism in an island context. Some of these studies relate to specific islands (Malta, Briguglio and Briguglio, 2002, Seychelles, Shah 2002, French Polynesia, Salvat and Pailhe 2002, Boracay Island, Philippines, Trousdale, 1999, Canary Islands, Gil, 2003, Hawaiian Islands, Sheldon et al. 2005) and others address island tourism in a general, conceptual manner (McElroy, 2002, Croes, 2005). All islands must address issues of economic impact, environmental consequences and those relating to the social, cultural and political fabric of the island all of which are affected by the density of tourism on the island. High tourist and resident densities in islands such as Malta are the source of many sustainability problems (Bruguglio and Bruguglio, 2002) and carrying capacity needs to be considered.

Measures of tourism density are important for policy makers to assess possible growth scenarios. One measure of tourism density or saturation, which considers all three areas of impact is the Tourism Penetration Index (TPI). TPI includes three variables: 1) visitor spending per capita of population (economic measure), 2) average daily visitors per 1000 population (social measure), and 3) hotel rooms per square kilometer of land (environmental measure)(McElroy and Albuquerque, 1998). McElroy and Albuquerque used this to cluster Caribbean islands into different clusters depending on whether their TPI is low, intermediate or high value. McElroy notes that for islands with low TPI's the most important challenges are establishing profitability and international recognition, for those with intermediate TPI controlling growth is the most important, and for those islands with the highest TPI the greatest challenge is to sustain vacation quality.

The next sections will address the economic, environmental and socio-cultural challenges faced by islands in their quest to sustainability.

Economic Issues

A challenge to the economic health of an island is the often limited economic resource base. Islands may have few resources or viable industries other than tourism to provide revenue and employment for the local population. The

value of agricultural and mining commodities on the international markets is declining and fishing is less reliable as fish populations are being depleted, and global warming is changing the nature of coastlines and fish movements. Tourism can be an economic catalyst for small island development. In fact, Croes (2004) suggests tourism as a tool for small islands to enlarge their economies and overcome the disadvantages of smallness. The extra market demand produces economies of scale and increases efficiency and decreases costs of production. Tourism also increases competition, encourages new start-up businesses, democratizes market structure, and deters rent-seeking behaviors and corruption. He also argues that this competition can provide greater consumer choice, trade openness and increase the quality of life for residents.

Despite this, the revenue from tourism must remain in the island economy as much as possible. Policies of import substitution to ensure minimum economic leakages, and 'buy local' policies to maximize linkages are essential. Taxation policies, entrepreneurial subsidies, and investment incentives are all useful to strengthen the economy. If development strategies are such that the incoming wealth is leaving the island economy, tourism needs to be re-designed. Islands under the governance of the mainland need to ensure a fair share of tax revenue due. Islands under their own governance will gain most economically.

Seasonality in island tourism is another challenge to the economic sustainability of the island and the well-being of the island people (Nadal et al., 2004). Fluctuations in visitor arrivals must be understood and mitigated through product and market diversification so that employment stabilizes and tourism infrastructures and superstructures are well utilized. Escalating land prices represent another economic concern in islands forcing local residents out of the housing market. This promotes out migration, leading to a possible dissolution of the culture, and second home ownership by foreigners. These trends if unmitigated can generate a serious chain of problems for the island economy.

Environmental Issues

Environmental issues of sustainability on islands are multi-faceted, since islands have diverse land formations, coastal areas, and wildlife species. Tourism often contributes to the environmental degradation (pollution, erosion, etc.) in small, island states which are host to fragile eco-systems rich in biodiversity. The isolation of the island environment created the biodiversity, and by opening to tourism, some of that sheltered biodiversity is endangered.

Islands' prime tourist environmental resource is often the coastal regions (beaches, sand dunes, coral reefs) that are easily damaged, heavily used, and requiring of careful visitor management. The large amount of waste (solid and liquid) created by tourism is a problem since space for its disposal on islands is limited.

Socio-Cultural Issues

Islands face complex socio-cultural issues, particularly those with indigenous populations. Tourism on islands, particularly small ones, brings hosts and guests into closer contact than on mainland destinations, creating a more vulnerable situation for social disruption. Crime, commoditization of culture, and loss of traditional lifestyles, moral standards and family life impact islands more than mainland destinations. Studies of resident sentiment and response to tourism in the islands of Malta and Hawaii (2003, Sheldon et al 2005) show the importance of this component. Community integration is key to successful and sustainable tourism development (Mitchell and Reid, 2001), meaning that all islanders affected by tourism must be involved in the planning process. Stakeholders on islands are not only in closer proximity but also have long histories of conflict making it even more important to involve them in the decision-making process (Sheldon et al).

With these issues in mind, solutions and approaches to minimize the problems are discussed in the next section.

APPROACHES TO OVERCOME THE CHALLENGES TO ISLAND TOURISM

The experience of many island destinations over the years has provided a rich source of policies that can assist with sustainability on all levels. The next section presents examples of some of these policies

Long-term, stakeholder-involved planning

Long term planning, developed with comprehensive community and stakeholder input is becoming an important foundation for tourism on islands (Trousdale, 1999, Sheldon et al, 2005). Plans also need to be values-based plans and reflect the indigenous culture and traditions. Long range planning must consider the balance of supply and demand of tourism, both quantitatively and qualitatively. A study of tourism in the Canary Islands showed that when these two growth patterns were out of balance the industry is not healthy (Gil, 2003).

Once the plans have been put in place, methodologies to measure and monitor impacts of tourism are essential. This requires the assignment of government agencies to the task of ongoing monitoring of effects. The need for stakeholder-driven planning and indicator development is essential. In Hawaii for example, a process that covered almost two years brought together stakeholders to define their vision, goals and indicators for sustainable tourism (Sheldon, Knox and Lowry, 2005). Community involvement to guide tourism planning, development, management, research and evaluation of community-based tourism projects has been implemented in Taquile Island in Peru (Mitchell and Reid, 2001). On this island, decision-making powers, local control and ownership, and type of employment patterns were measure of community involvement in the planning process.

Empowerment of the island community and culture

Empowerment of the island community and culture is a necessary part of planning (Di Castri, 2002). Frameworks to protect and conserve the social and cultural structure are important also (Christou and Sigala, 2002). A building of cultural pride through story-telling and memory of traditions, and a sense of identity are paramount. This may involve the re-enlivenment of festivals, arts, language, folk lore and policies to encouraging local people to engage in entrepreneurial activities. Efforts towards sustainable tourism in French Polynesian islands found the meaningful integration of culture into the tourist experience difficult to accomplish (Salvat and Pailhe, 2002). Achieving a balance of respect for the culture and providing tourists with the opportunity to learn about and appreciate the culture is the core of the challenge

Tourist and resident education are a critical part of island sustainability. To empower the residents education and training programs are needed for meaningful careers in the industry. This may involve distance education since islands do not always have comprehensive tertiary education programs in tourism. Residents also need to learn about the impact tourism is having on their community, through the sharing of statistics and facts. The receptivity and openness to change and innovation is also needed. Education for tourists is also important. They need to learn about the unique cultural and environmental features of the island and appropriate behaviors.

Environmental management

Given the challenges to the island's ecosystems, environmental management is crucial for island sustainability. The paucity of land causes land usage issues, and the trade-off of land for tourism versus agriculture and other

industries, or preservation and conservation needs to be addressed. The environmental resources are a main visitor attraction and tourist interfaces with those resources need to be planned and cared for. Conlin, 2002 in a study of Tasmania tourism, gives nine different types of parks or reserves that can be created (national park, state reserve, nature reserve, game reserve, conservation area, nature recreational area, regional reserve, historic site and private sanctuary). This may include designation of zones that are off-limits to tourists, and those that are only visitable with guides and interpreters. Islands with unique wildlife must also take steps to sustain those populations. Tourism can actually assist as an anti-poaching mechanism and an engine for conservation management when residents realize the economic value of the wildlife as in the Seychelles (Shah, 2002).

Policies to keep the land and ocean unpolluted are also necessary. Waste management and recycling programs are essential, particularly on small islands. Also the use, through incentive programs if necessary, for alternative fuel sources (wind, solar, geo-thermal etc.) will make the destination more sustainable. The shortage of land for landfills may need waste to be sent to the mainland for some islands (Trousdale, 1999). Recycling programs for all types of waste are essential, and the use of alternative energy sources (wind, solar, geothermal) is an important consideration since tourists use much higher per capita user of energy than locals and rarely can islands survive on fossil fuels. Water shortages also are common on islands, limiting the amount of tourism development.

Environmental management includes recovery from natural disasters to which islands are so vulnerable (Meheux and Parker, 2004). Disasters such as tidal waves, volcanic eruptions, cyclones, drought and rise in sea level are all natural hazards that islands face. Funds for conservation and disaster management are needed and can be gained through taxation, visitor fees or other mechanisms (Shah, 2002).

Visitor Management

Visitor impact is so much greater on islands, requiring tools of visitor management to ensure island sustainability. Control of numbers of tourist arrivals is possible through the methods of transportation. Once the tourists arrive on the island they need information and guidance on possible attractions, tours and events. One method of visitor management is the zoning of land for different uses, and the creation of national parks and conservation areas to conserve historic sites, biological and geological diversity, preserve water quality, and to encourage education

(Conlin 2002). The management of visitors on coral reefs is another issue of environmental management faced by many islands such as Hawaii and the French Polynesian islands (Salvat & Pailhe, 2002).

Clear signage, information and interpretive information assist the tourists in finding and understanding the attractions. Guides, rangers, wardens and other staff can guide tourists through delicate environments. The recognition that visitors seek education and knowledge of species and land formations requires good interpretive systems. The private sector such as tour operators need guidelines for places that are off-limits or have restricted access. The Galapagos archipelago with its unique biodiversity had to use visitor management techniques due to the large volume of visitors (including scientists, writers, photographers) wanting to see the nature reserves. They attempted to control tour operators by asking them to adhere to cruise itineraries fixed by the national parks however that has not been totally successful (Grenier 2002). Standards and certification for employee performance particularly in the tour-guiding arena will help with the interpretation and sustainability of the island.

Knowledge and Information Systems

Knowledge and information systems can help islands market their tourism product and also manage their tourist resources. Web-based marketing by the public sector and by private suppliers helps islands locate and target the market segments they want, and reduces the reliance on tour operators. Destination management systems with comprehensive product databases and other information to assist and educate the potential tourist are an important competitive tools in the matching of tourist and island experience.

Because islands are smaller, it may be easier to install location specific technologies and databases and data communication systems. These could include mobile visitor information systems, geographic information systems (GIS) mapping systems, global positioning systems (GPS), and intelligent transportation systems. GIS systems combine data and spatial information to help planners conduct spatial analysis of touristic areas. They have been used for example in the Cayman Islands to assess the impact of tourism on fragile reefs and in China for disaster monitoring using remote sensing data (Hall 1998). Location specific information can be displayed on hand-held devices to assist travelers in their knowledge of the destination and its attractions. They also can keep visitors on appropriate routes through warning messages, and can direct visitors' attention to an item or species of interest. The placement of GPS devices on wildlife may increase visitors' chances of viewing the species. The use of GPS

devices on tourists can help to rescue them from dangerous situations in the ocean, the mountains or other wilderness areas (Sheldon, 2002).

Information technology can support the planning and stakeholder involvement processes on islands. For example, expert systems which simulate the knowledge-base of an expert can be used to facilitate decision making for sustainable tourism. Groupware can be applied to build stakeholder consensus, and the Internet is a valuable resource to gain community input from residents in remote communities.

Accessibility and transportation

Accessibility and transportation to island communities is an important area of policy for islands. Different transportation modes both to the island and on the island are usually necessary, and can be used as a control mechanism for how many tourists visit the island. The security, safety and costs of such transportation are also important considerations (di Castri, 2002). The balance of public and private transport use by tourists is a policy variable. Once tourists use their own transportation (hire car, motorbicycle), the control of their activities on the island is drastically reduced. Some islands prohibit motorized vehicles in certain areas, others suggest the use of electrical vehicles that are quieter and less pollutive.

Air transportation to islands is most common, however it leaves islands vulnerable to stoppage of flights due to strikes, terrorism etc., and vulnerable to high fares if there is little competition on the route. It also requires the use of land for airports. The low-cost carriers that serve many European island destinations today is fuelling growth in second homes since owners can travel very cheaply to their island property. With out this cheap form of transportation, the development of a second home tourism market is in jeopardy.

The ocean is a natural option for transportation – both functional and recreational. Yachts, boats and ferries of different types are useful to transport the visitors from island to island. In the Hawaiian Islands a high-speed ferry between the islands is being added to provide additional capacity to the inter-island flights. Large cruise ships, and their interest in island ports-of-call, make expansion of island tourism a distinct possibility. The large 2,500 berth cruise ships are potential sources of extra visitors, however they bring with them needs and impacts that may not always be in the best interests of the sustainability of the island. Accessibility to the island also includes data, voice

and fax communications and credit card use. These are necessary for a destination to function well (di Castri, 2002).

Marketing and market diversification

Marketing and market diversification is important for islands. Markets may be domestic or international, but the match between island facilities and resources and the tourist is the most important consideration. Domestic markets are likely to create less socio-cultural disturbance and may therefore be preferred. When defining market segments, islands often try to identify niches to generate the highest expenditure for the island, as was done in the Canary Islands (Diaz-Perez et al, 2004). Hawaii's Strategic Plan 2005-2010 has a similar focus on the quality visitor and focuses on expenditures and length of stay in its marketing plans. Product innovation to match those segments and the extension of the lifecycle for island tourism products are important components of island tourism marketing (Christou & Sigala, 2002). The development of niche markets based on the islands resources is an important market strategy. For example in Tasmania, Australia, they focused on agricultural based tourist activities such as farm-stays, agricultural museums, wineries, and other activities based on crops such as lavender and raspberries (Conlin, 2002). Some islands with very popular and delicate attractions may choose to practice de-marketing of sites that are over visited. The type of infrastructure and superstructure that the island invests in will also determine the type of tourists that come. For example, the building of only luxury hotels in French Polynesia attracted only high-income visitors (Salvat and Pailhe, 2002). Many islands are famous for the "sun, sand and sea" image and may want to diversify their product to attract a different type of tourist, for 'sun, sea and sand' can be found in many islands (Aguilo et al, 2005).

SUMMARY

This paper has identified some of the challenges facing islands in sustaining their tourism industry. It has also recommended some policies and approaches to assist in this area. Each island is unique and has unique attributes. The challenge to sustainable management is to keep those unique elements that are part of the mystique that attracts tourists. Shifts toward homogeneity of tourism experiences without giving the visitor an experience of 'sense of place' will not be sustainable in the long run either for the host community or for the tourism markets.

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