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Experiences in Management and Development



June 19-22, 1996 • Honolulu, Haudit

# 1996 World Congress on Coastal and Marine Tourism

**Experiences in Management and Development** 

Honolulu, Hawaii June 19–22, 1996

# ABSTRACTS

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May 1996

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#### Preface

The 1996 World Congress on Coastal and Marine Tourism (CMT96) was proposed to bring together diverse people to share their various experiences in and ideas for managing and developing coastal and marine tourism. The focus was put on stories (or case studies) about experiences, whether good, bad, or ugly; ideas, concepts, or strategies; management and development tools, like manuals, technology, assessments, and models; and how people and places are affected by or can produce successful, manageable, and marketable tourism.

In the previous Congress in 1990, delegates set out to examine the opportunities and challenges posed by the growth of the coastal and marine sector of international tourism. At that meeting, business and government representatives, community leaders, and scientists agreed that successful, sustainable tourism must be a careful blend of integrated planning and development, with collaboration among communities, resource managers, businesses and industry, education, and not-for-profit organizations. How far have we come since 1990? The 1996 Congress brings together the same diverse interests to discuss, debate, and create solutions and strategies for sustainable tourism development in coastal locales.

This compilation of abstracts for CMT96 presents experiences and ideas related to the concepts of sustainable tourism; developing and managing coastal attractions, ecotourism, and marine protected areas; and alternative development options including facility design and technological solutions.

Abstracts are listed in alphabetical order of the first author with the exception of six authors whose abstracts were received too late to be incorporated into the original production work. These five abstracts are included in the "Addendum."

# Coastal Resort Regeneration— Success or Failure? Key Lessons for the Future

#### Dr. Sheela Agarwal

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The main purpose of this paper is to examine the effectiveness of three similar regeneration programs, drawing heavily upon research carried out along the South Coast of England. Their key strategic approaches are outlined, and the aims and objectives of the projects are detailed. In-depth analysis revealed the impact and outcome to be extremely variable; success was conditioned by a number of factors: (1) the scale at which regeneration was operationalized; (2) the scope and range of the issues that the projects intended to resolve; and (3) the relationship between the public and private sectors. Finally, regeneration was influenced by the diversity of business cultures that exist amongst the resorts' tourism operators.

The findings of this study point to a number of lessons for future resort regeneration. Close cooperation between the public and private sectors is critically important. Projects must be small in scale, and their objectives clearly defined and highly focused. Tourism operators also must be encouraged to put aside individual differences and embrace an overall strategy. Thus, the following recommendations are proposed. The formation of a "Tourism Forum," funded and supported by all public and private sector tourism-related businesses, will provide a more appropriate vehicle for resort regeneration. In addition, the individual processes of professionalism, variability, repositioning, and adaptation---which encompass the overall strategy of product transformation-should continue to be actively instigated and more widely adopted.

# Environmental Carrying Capacity vs Economic Priority: Hard Choice in Decision Making on Tourism Development

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As a consequence of demands of hard currency and foreign exchanges, development of new tourist resorts is now given priority in Bangladesh. This opportunity attracts many investors and entrepreneurs. As a result, some islands and sea coasts with vulnerable ecosystems are being developed into tourist resorts. Most of the expansion has been done with no or very little environmental consideration. In addition, multipurpose coastal uses in the same areas have increased adverse impacts on the system. This complex situation conflicts with the theme of sustainable tourism. This article deals with the concept of priority to determine environmental carrying capacity in vulnerable ecosystems, and to achieve sustainable tourism development while assuring environmental preservation. We suggest that conservation of nature should be the first concern of sustainable tourism development. This strategy will provide long-term preservation of biodiversity for economic growth in countries such as Bangladesh, where great opportunity is underutilized or mismanaged.

# Prospects of Coastal Tourism Development in Bangladesh

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Coastal and marine tourism is now a priority consideration of Bangladesh. The country possesses the longest sandy beach in the world (at Cox's Bazar), along with the world's largest area of contiguous Sunderban mangrove forest. At present, most of the tourism activities aggregate around Cox's Bazar at the southeast coast of the Bay of Bengal of Bangladesh. The semi-diurnal tidal patterns offer clean sea waters at high tide. In recent years, the Bangladesh tourism authority has attracted a good number of visitors by introducing motels, recreation centers, protected beaches, golf courses and warm swimming pool facilities. The area is well connected with the capital city of Dhaka and the port city of Chittagong by airplane and by luxurious, air-conditioned buses. The Sunderban mangrove area offers evergreen vegetation and a wide range of flora and fauna, including the famous royal Bengal tiger, spotted deer, over 200 species of migratory birds, and 334 species of plants. Ecotourism in this mangrove area is yet to be developed. Traditional honey collections, numerous criss-cross rivers, and tidal creeks add to the wild attractions for tourists. This article deals with aspects of development and management practices for Cox's Bazar and future ecotourism in the Sunderban mangrove region, and suggests preventive measures for environmental preservation.

## Tourism: The Key Player in the Ecologically Sustainable Development of the Great Barrier Reef

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Tourism on the Great Barrier Reef is a major and growing industry. Currently, it is estimated as worth more than A\$1 billion annually and attracts about 2 million visitors per year. Reef tourism is mostly nature based and generally non-extractive, involving about 600 tourism operators providing a wide range of activities.

The Great Barrier Reef, declared a World Heritage Area in 1981, has been actively managed since the establishment of the Great Barrier Reef Marine Park Authority 20 years ago. Management strategies are based on multiple-use zoning and ecological principles. While most commercial use is subject to permit and regulation, an ethic of "education rather than regulation" has been espoused. An evolving approach of industry self regulation, accreditation, and codes of practice is being developed between managers and industry.

In 1994, a Cooperative Reef Research Centre increased collaboration between major science institutions, management agencies, and industry groups in a joint venture for ecologically sustainable development of the Great Barrier Reef World Heritage Area.

The Centre undertakes an integrated program of research and development, training, and extension, to expand reef-based industries and provide information for better management and decision making. The \$50 million program is funded jointly by tourist operators, state and commonwealth governments, and research institutions. The presentation outlines various joint community education programs, research, and management strategies that have been successful in protecting, understanding, and "wisely using" this precious ecosystem.

The presentation discusses interaction of the tourism industry and reef managers in dealing with challenges and issues of real and perceived concerns, such as increased population pressures, use conflict and equity, and benefits and regulations.

# Management of a Fragile and Coveted Tropical Isle Ecosystem: Moorea (French Polynesia)

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Situated in the Society Archipelago, the island of Moorea has a surface area of 134 km2, a littoral plain of 23 km2 containing 10,000 inhabitants, a lagoon of 49 km2, and a 70 km coastline. Human activity is concentrated on the north face (1/3 of the coastline) of the island.

In spite of a certain degree of environmental deterioration due to rapid and anarchic development, the natural beauty of the island is uncontestable, and tourism remains the principal motor for the economy. Although a specific zone for tourism has not been designated, hotels are concentrated on the north side and accommodate 90,000 tourists annually. Fishing within the lagoon supports at least 100 families and is an undissociable component of Polynesia lifestyle.

In order to assure the perennity of resources while guaranteeing environmental protection, and to provide for management of potential conflicts between different use activities, a Maritime Space Management Plan, covering a zone extending from the barrier reef to the shoreline, is in preparation. A multidisciplinary group from diverse government services has drafted a preliminary plan after a threeyear preparatory phase, characterized by numerous meetings with representatives of the diverse activity sectors concerned. Composed of proposed activity use maps and regulations, it represents the result of confrontation between scientific, economic, and social constraints and considerations. It will be submitted to the general public for advice before final approval and adoption by the government.

An implementation time frame of three years is intended with the principal anticipated obstacle being acceptance of new constraints by an insular population whose origins, values, and sensitivities are different.

## Using Advertising Effectiveness and Visitor Satisfaction Information for Market Planning

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Nature-based tourism and science tourism are among some of the growth areas of the tourism industry. According to the WTTC (1992) naturebased tourism accounted for 7 percent or \$14 billion of worldwide travel expenditures. This sector of the industry is projected to grow at the rate of 20–25 percent in the near future.

As competition for nature-based tourism increases between states, regions, or destinations as a means of stimulating economic development, information related to the effectiveness of destination advertising will become key to the development of promotional campaigns. Also, information related to visitors' satisfaction with their nature-based vacations is important information for managers to have as they modify or terminate aspects of their nature-based tourist product. The paper uses the findings from two applied nature-based tourism research projects conducted in coastal South Carolina. The first project examined the impact of a newspaper advertisement and brochure on respondents' awareness of, interest in, and intention to visit the South Carolina coast. The second project investigated the visitors' perception of quality and value of three coastal nature-based experiences. This session will provide attendees with the opportunity to learn about (a) media placement, (b) effectiveness measurement, and (c) methods to retain customers.

# Sustainable Community Development Through Coastal and Marine Tourism: Opportunities and Constraints

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Coastal communities typically utilize a diversity of marine and terrestrial resource systems. This diversity provides coastal communities a greater degree of stability than is common among most resourcedependent communities. Tourism development can play a positive role in coastal communities through creation of additional economic niches, generating income and employment opportunities through nonextractive activities. However, such development also can lead to social disintegration and economic

poverty. This paper raises a set of questions that focus on the social and economic impact of coastal and marine tourism on coastal communities. The central concern is: Who benefits from tourism development? In practice, the answer to this distributional question will be determined in large part by the locus of control over investment and participation in the tourism industry, and whether there are conflicts in resource use between the community and the industry. Large-scale, capital-intensive tourism development necessarily draws on financial resources well beyond the capacity of most coastal communities. Dependency on outside sources of capital results not only in repatriation rather than local reinvestment of profits, but also typically in outsiders being recruited for managerial and skilled employee positions. Where significant investment is made, the tourism industry may press for zoning controls or other restrictions which limit the ability of local residents to participate, further reducing local benefits. Coastal and marine tourism may result in direct harm to local interests in the event of conflict over resource use between local residents and the tourism industry (e.g., restrictions on fishing, damage by tourists of coral reefs, etc.). Recognizing these threats to the stability of coastal communities, it should be possible to plan coastal and marine tourism in such a way as to promote sustainable development of both the industry and the communities where the industry is located. The argument advanced in this paper is that policies which maximize local participation in the industry and which respect traditional resource use rights are central to achieving such goals.

# An Evaluation of Coastal Tourism Activities in the Antarctic Peninsula Region

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The Antarctic Peninsula is the world's premier cruise destination, and nearly all Antarctic tourist activities take place in the coastal zones of this icecovered region. The paper outlines the mechanics of Antarctic cruises and discusses the interactions between Antarctic tourists and the Antarctic environment. Approximately 9,000 tourists, the highest number ever, visited Antarctica during the 1995/96 summer season aboard a variety of vessels. Visitors land at some 70 coastal sites (Stonehouse, 1994), encounter a great variety of Antarctic wildlife, and view some of the most spectacular cold climate scenery in the world.

As tourist numbers have increased, the touristwildlife encounter has come under increasing scrutiny. Drawing on the literature as well as on personal observations of Antarctic tourism, the author challenges the notion that Antarctic tourism in its present form is a major threat to Antarctic fauna and flora. Antarctic tourism is at present the best-managed tourism in the world. Nevertheless, tourism operations could be improved by taking a more integrated approach to tourism management.

The paper recommends improved communication among Antarctic tour operators and expedition leaders regarding dates and times of planned visits to Antarctic wildlife sites. Improved coordination of itineraries would help prevent over-visitation of certain sites, and thus reduce the potential for negative environmental impacts. Due to the "expedition" image of Antarctic cruises and the commercial interests of the various operators, the proposed approach will not be easily implemented.

# Using British Columbia's Coastal Tourism Resource Inventory in Land Use and Tourism Planning

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The government of British Columbia has a strong tourism mandate that includes ensuring that tourism interests are reflected in land use and resource planning processes. Tourism marketing for the province is based on the theme of "SUPER NATURAL, BRITISH COLUMBIA," which highlights scenery, wilderness, fish and wildlife, mountains, forests, and coastline.

In response, the tourism ministry developed a mapbased tourism resource inventory methodology that uses geographic information systems (GIS) technology, and applied it to the entire 27,000 kilometers of Canada's Pacific coastline. The inventory shows the relative strength of individual areas to support a variety of tourism activities and developments.

Strategic in design, the coastal inventory has been used for land use planning that includes the identification and ranking of candidate protected areas, special management areas, and priority tourism use and development areas. It also is being used for integrated resource management planning. The GISbased inventory is the first of its kind in Canada. It encompasses existing tourism use as well as capability for future use.

Tourism capability is derived through computer modelling developed in consultation with the tourism industry. Modelling inputs consist of databases depicting values important to tourism. Each model defines the combination of natural and cultural resources, and infrastructure needed to support specific tourism products such as coastal cruising, kayaking, resort development, and sport fishing. When existing use is overlaid with capability, future use and development opportunities emerge.

The inventory has proven valuable for the development and implementation of land use plans. Its use in actualizing tourism development opportunities appears weak. Such inventory shortcomings will be addressed to the extent possible through regular updating. A methodology for more detailed tourism resource inventories which focuses on priority tourism areas is being developed.

### The Cascadia Marine Trail and Other North American Water Trails

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The Washington Water Trails Association is a non-profit, volunteer organization that has initiated a 160-mile-long marine trail the length of Puget Sound, from the Washington's capital, Olympia, to the San Juan Islands bordering Canada. There are prospects of this trail being extended through Canadian waters all the way to Alaska, and of other water trails, both urban and rural, being developed along coastal bays, rivers, and marshes as well as in working waterfront settings such as Seattle, Tacoma, and Bellingham.

Trail campsites are being developed in partnership with the Washington State Parks and Recreation Commission and several county and municipal parks systems, island access is being coordinated with the Washington Department of Transportation Ferry System, and commercial opportunities are being fostered with a variety of private bed & breakfast, restaurant, and outfitter partners. It is possible to use portions of the trail for a day, a weekend, or for several weeks.

An earlier Marine Island Trail, connecting an array of Eastern U.S. coastal islands both public and private, gave many pointers for success to our own efforts in the Pacific Northwest. These experiences are now being shared with other trail proponents and developers in Canada and the U.S., giving rise to a modern water trails movement in North America that is celebrating the history, recreation, stewardship, and adventure of sustained coastal and marine tourism by kayak, canoe, and small sailboat.

# Community, Environment, and Tourism: A Sustainable Partnership

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Ecotourism and community-based tourism are growth niche markets in tourism. This case study presents the involvement of a community and local environment center to establish a community based ecotourism product in the Sydney seaside resort of Manly. It discusses the potential for community-based ecotourism within cities such as Sydney. To examine this, a region already successful in tourism and containing a wealth of natural assets was chosen for review. This area, within sight of Sydney's skyscrapers, includes national parks, other natural bush reserves, beaches, marine and harbour reefs of significant biological interest, and built environment with significant heritage. There is strong community interest in the environment, and a desire to explore the potential of tourism as a means of conservation education and income generation.

The objectives of this initial study were to:

- Investigate and describe the environment, the environmentally minded community, and the small business community involved in tourism
- Investigate potential ways for these three interests to interact for mutual advantage of ecological and economic sustainability, and community involvement in tourism planning and product development
- Establish a year-long pilot study leading to guidelines and educational materials to promote and sustain community-based ecotourism in a cityscape, and provide a model for community involvement in tourism planning

The paper will highlight how the partnership between community and environment is essential in the sustainable tourism equation. It concludes that sustainability requires:

- Valuing all elements that make a tourism product
  - -The natural assets
  - -The community context
  - -The financial potential
- Integrating all elements
- Developing cooperative partnerships

# Panel—The U.S. National Marine Sanctuary Program: A Model for Providing Access and Protection for Marine and Coastal Resources?

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The U.S. National Marine Sanctuary Program was established in 1972. The four major goals of the program are to enhance resource protection, facilitate research, provide interpretation, and provide public and private use of significant marine areas designated as marine sanctuaries. Since 1972, 14 National Marine Sanctuaries have been designated in coastal and offshore waters of the United States. This panel will focus on educating conference participants on the U.S. National Marine Sanctuary Program, and on how this program has achieved the sometimes conflicting goals of providing public access and usage. while ensuring resource protection for marine and coastal resources in the U.S. Workshop participants will include representatives from the Sanctuaries and Reserves Division of the National Oceanographic and Atmospheric Administration in Washington, D.C., and sanctuary management personnel from a number of National Marine Sanctuaries throughout the U.S. Panel participants will provide 15- to 20minute presentations focusing on the National Marine Sanctuary Program, in general, and specific sanctuary programs that have been designed to address public access/use and resource management issues. Presentations also will address the successes of and/or challenges faced by such sanctuary programs. Jodi Cassell, of the UC Sea Grant Extension Program will moderate the panel discussion following the presentations.

# Regulatory Surfeit: A Case Study of Hawaii's Permit Structure for Commercial Ocean Recreation

Athline M. Clark and Craig D. MacDonald State of Hawaii Department of Business, Economic Development and Tourism Ocean Resources Branch PO Box 2359 Honołulu, Hawaii 96804 USA Phone: (808) 587-2680 Fax: (808) 587-2777 Email: ceanorb@pixi.com

In Hawaii, permits are part of a broader regulatory framework that includes state statutes, state administrative rules, county ordinances, and the issuance of citations for violations of regulations. The current permit structure that relates to ocean access is multi-jurisdictional. The associated complexity makes it difficult for commercial operators, who are required to obtain these permits, to comprehend and comply. This situation has resulted in confusion in the market place, and has caused the public, the commercial ocean recreation businesses, and the regulatory agencies considerable concern.

This paper examines Hawaii's regulatory structure from the perspective of operating permit requirements for commercial ocean recreation access to the resource. The objectives of the analysis are to (1)discuss the permit system as it currently exists, (2)identify characteristics that need to be changed to foster the orderly development of the ocean recreation industry in a manner that is economically viable, environmentally sound, and socially responsible; and (3) propose a regulatory regime that simplifies existing complexity and eliminates confusion while providing for a more efficient permit process.

This analysis is based on a series of five facilitated workshops with the 18 state and county regulatory agencies involved, to review permit procedures and discuss methods to improve the regulatory process. This work was initiated after several years of receiving an increasing number of requests from commercial ocean recreation businesses for clarification on the types of permits required to operate legally in the state of Hawaii, and the sequence in which these permits needed to be obtained.

# Recreation Site Attributes—A Framework for Identification and Assessment for Coastal Tourism Management

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Knowledge of the number, location, and condition of sites for tourism and recreation purposes can assist managers and planners in identifying alternatives and evaluating the consequences of other resource aids in developing strategies to prevent or mitigate undesirable impacts, while taking advantage of positive changes to provide a range of desirable public benefits.

A generic problem confronting planners and managers in many areas is that many of these potential sites are widely dispersed over large areas, making field inventories expensive. More problematic, however, is the lack of a framework that identifies the key attributes and conditions of sites that make them valuable for tourism and recreation use.

This paper reports on a case study in which such a framework and an in-office inventory protocol was developed utilizing existing secondary data sources, and which was field-tested in coastal southeast Alaska. The paper describes the methodology from which the framework was derived, presents results from the perspectives of accuracy and validity, and discusses the implications and applications of the approach, including possible extension to GIS systems.

# The Concept and Practice of Integrated Resource Management: Opportunities and Barriers for Coastal and Marine Tourism

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A key word found in recent literature about natural resource management is *integration*. Although the word appears to have broad acceptance and appeal, it often is used with multiple meanings and expectations, some of which may be in conflict. This problem is particularly significant with respect to human values and uses.

The discussion of integration is timely because of the ongoing debate about the role of humans and diverse societal values in ecosystem management. Basically the debate centers around the question: are humans "a part of" or "apart from" ecosystems? This question is as relevant for marine settings as it is for upland forests.

Regardless of one's perspective, a basic concern facing policy makers, managers, researchers, and citizens is how we can improve our ability to understand, identify, measure, evaluate, and incorporate into decision making society's diverse perspectives on the values and uses of natural resources. Numerous critics of past management frameworks and tools suggest that ecosystem management will be successful only insofar as these values are fully integrated at multiple scales, and in perpetuity.

This presentation explores the concept and meanings of integration with particular emphasis on fostering better understanding of the social, cultural, and economic considerations. It summarizes the literature and presents different perspectives on what integration is and is not, and it examines some apparent barriers and offers an approach for improving our capacity for effective integration, both in the short and long run.

Integration is not just an issue of natural resource management in the U.S. Although different words have been used, the concept has been in the literature for many years. And the situation we face in our country is not unique; in fact, it is not even unusual. Many countries and cultures are struggling with the same basic issues and questions—some with greater, others with lesser success than we. We have much to learn from one another.

# Tourism Employment and the Urbanization of Coastal Bali

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Tourism employment is a major motivator for migration. Since many tourist resorts are located in coastal zones, migration to these resorts results in urbanization of the coastal zone. This paper presents the results of interviews conducted in two coastal resort villages in Bali, Indonesia. Tourism workers in four employment categories were surveyed: (1) hotel front desk employees; (2) guides; (3) souvenir kiosk operators; and (4) beach and street vendors. Although migration has largely been seen as a rural-to-urban phenomenon, the research demonstrated that migrants to Bali's coastal resorts originated from both rural and urban centres. Furthermore, early migrants to the coastal resorts were not drawn by the "urban" nature of the resorts, but rather, by tourism employment opportunities. However, continued migration to these resorts has contributed to the urbanization of the coastal zone. The resulting urbanization is of the "desa kota" form, described by McGee (1991) as a mixture of rural and urban land use.

Migrants to Bali were predominantly single males from Java who worked in the informal sector as vendors. A small proportion of migrants were married and had migrated together with family members. These migrants were found to be permanent, having never returned to their home villages. As well as non-Balinese migrants, a significant proportion of the sample were Balinese but had migrated from rural areas to the coastal zone to take up tourism employment. Both Balinese and non-Balinese migrants were found to have contributed to increased urbanization in the coastal zone. Attitudes in these coastal resort communities were of tolerance toward new migrants.

The research led to a number of policy implications for migration to and urbanization of the coastal zone tourism resorts. It is important for governments and tourism planners to: (1) encourage and support migrants working in the economically viable informal tourism sector, (2) direct migrants to employment opportunities left vacant by the local community, (3) provide free or low-cost training courses in Balinese culture and customs for migrants, and (4) direct migrants toward employment opportunities in other tourism areas to minimize urban growth of coastal areas.

# Managing Marine Tourism Resources and Experiences: Whale Sharks in Ningaloo Marine Park, Western Australia

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The whale shark, the largest fish in the ocean, is a docile animal with which snorkellers and divers can interact in close proximity when the opportunity arises. Since 1993, Ningaloo Marine Park, on the coast of Western Australia, has become world famous as the only known, readily accessible place where whale sharks congregate in significant numbers. This congregation occurs for only about eight weeks from March to May each year. Concomitantly, a tourism industry based on the "whale shark experience," has developed. The management of this industry is evolving, as tourism.

operators and park managers gain experience in managing tourists, the park, and the animal. This paper outlines the development of the industry and addresses aspects of the management of the industry, the whale sharks, and the experiences of those who dive with the sharks. It also briefly describes the place of whale sharks in marine tourism in the Ningaloo Marine Park area. Because Ningaloo Marine Park is in an isolated location, because of the seasonality of the industry, and because the industry is confined to a marine protected area managed by a government agency, the opportunity exists to place management on a sustainable basis. The paper also addresses issues such as separation distances between divers and sharks, congestion amongst divers, and the potential of management strategies based on a combination of regulation and economic instruments. Also considered is the extension of lessons learned in the management of the industry to other areas.

## Surfing the Virtual Coast: CMT Communication and Collaboration Toward the 21st Century

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By the year 2010, the coastal population of the United States is expected to dramatically increase in size. The nation's coastal population is expected to swell by nearly 27 percent from 1980 levels, with more than 151 million additional people moving into coastal counties.

The recreational activity of new residents, throngs of tourists, and increasing numbers of enterprises serving them is increasing the pressures on fragile coastal resources. While increased enforcement of regulations can reduce some of the anticipated environmental degradation, expanded information and education is critical to advancing appropriate human behaviors. The challenge is delivering appropriate information in a timely fashion to encourage people taking personal responsibility for decreasing their environmental impact. This enormous educational task is made difficult by sweeping reductions of public funding for outreach with coastal residents, tourists, and recreation enterprises.

New electronic tools are already being employed to address the coastal and marine tourism (CMT) educational challenge at hand. The imaginative use of emerging information technology is a strategic response for addressing the growing demand for educational outreach with a shrinking set of human and financial resources.

Our paper will present three examples of techniques being used to boost CMT communication and collaboration. These include (1) forming a "virtual CMT community," (2) distributing CMT educational resources via Internet/WWW, and (3) applying Low Power AM Radio technology to CMT education. Session participants will gain an understanding of the strengths and pitfalls of each strategy presented.

# Those Ignoring the Rudder Shall Answer to the Rocks: A Case Study of Columbia River Boating Access

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Purchasers of the smallest pleasure craft to the grandest vessels propelled the U.S. boating business to \$17.2 billion in 1995 overall sales. This is a 22 percent sales increase over the prior year, and the third consecutive year of recreational boating retail sales growth. This retail sales explosion of recreational vessels is mirrored by increased boating activity in waterways around the country. For instance, between 1982 and 1992, the total number of boats in use in Oregon increased by 67 percent. Hence, planning is needed for appropriate recreational boating access to ease overcrowded moorage sites and enhance waterway safety, while avoiding the degradation of sensitive aquatic habitat.

To address these challenges along Oregon's portion of the Columbia River, a jointly sponsored university and agency study of recreational boating needs and appropriate access sites was conducted. Research methods included: formal surveys and informal onsite discussions with recreational boaters; appraisal of physical, historical, and cultural attributes of potential sites; and regulatory agency interviews. During the four-year study, over 465 river miles were examined with 93 potential boating access sites identified, of which 58 percent were deemed worthy of further consideration. This project encouraged Washington State's Interagency Committee on Outdoor Recreation (IAC) to fund Washington Sea Grant in surveying boating access needs within their river jurisdiction.

As a result of the studies, the Oregon State Marine Board (OSMB) has invested over \$800,000 to date on new boat launch ramps and transient moorage for cruising boaters. The OSMB is planning additional investments for recreational boating access along the Columbia River consistent with bi-state priorities of stakeholders. These bi-state priorities were identified by key stakeholders during a consensus development workshop co-sponsored by Sea Grant programs in Oregon and Washington, and recreational boating agencies from both states. Since recreational boating activity is expanding in many parts of the world, the lessons of this experience will be valuable to those seeking to balance recreation-based economic development with coastal resources protection. Recommendations for initiating similar projects will be provided to enable others to appropriately guide the growth of recreational boating.

# Shore-Based Recreational Livery (Rental) Business Development: Business, Safety, and Regulatory Components

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The shore-based recreational rental business has been undergoing a major evolution over the past decade. The advent of relatively inexpensive personal watercraft, with their broad appeal to casual boating experiences, has increased the level and scope of rental companies at beach-front locations throughout the world. This, in turn, can lead to increasing concerns on the part of public safety officials and those responsible for tourism policy.

Elements of the livery operation including marketing, safety, and policy management can be identified as important to development of policy consistent with the tourism and other economic and environmental tenets of a community. The experiences of hundreds of communities that routinely deal with liveries throughout the U.S. serve as examples of both the benefits and the challenges of this non-consumptive recreational attraction. A review of how these communities have adapted to the changes will help illustrate what opportunities and pitfalls exist.

The individual livery operation itself is a model of entrepreneurial opportunity. It is a form of business that allows an individual of modest means to enter a service-related business, while at the same time providing tourists with a quality experience that showcases the uniqueness of the local marine environment. The market access needed to stimulate formation of this type of business is consistent with many other aspects of waterside and marine tourism of both the consumptive and non-consumptive nature.

# Whale and Dolphin Watching in Australia

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The migratory path of the humpback and southern right whales from Antarctica to their breeding grounds in the warmer northern waters envelops the southern, eastern, and western coastlines of Australia, attracting over 600,000 whale/dolphin watchers per annum. Issues arising from the need for conservation of the resource, legislation/licensing, education/ interpretation, and a comprehensive code of practice are accelerated by the industry's rapid growth and commercial impact.

The whale/dolphin-watching industry in Australia is considered at a crucial point of development, when serious thought must be given to constructive cooperation between all stakeholders and to proactive planning.

This paper offers a national perspective of Australia's whale-based tourism industry—its state of development, its problems, and proposed solutions.

### A GIS-Based Approach to Integrated Marine Tourism Planning

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The Indonesian archipelago is made up of some 17,500 islands. These islands have a coastline of some 81,000 km, and form the basis of an extensive Exclusive Economic Zone (5.8 million km<sup>2</sup>). In view of the extent and diversity of coastal ecosystems and resources, current National Development Planning places considerable emphasis on marine resource management.

This emphasis is being articulated by a range of sectoral initiatives and in a comprehensive, regionally focused Marine and Coastal Planning Project, MREP. The MREP project will produce a range of strategic, resource use, zoning, and management plans for 10 of Indonesia's 27 provinces. These plans will establish an integrated planning framework for marine tourism and other resource uses.

This paper describes the development of the GIS databases developed in support of MREP plans. It focuses especially on the decision criteria used to define appropriate forms of marine tourism in each province and on policy mechanisms for integration of tourism with other resource uses. The paper concludes with a review of the limitations of GIS technology for marine tourism planning.

## Economic Impacts of Cruise Tourism in Australia

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Recognizing the potential of cruise shipping, the Australian government set aside funding in its 1993– 94 budget to examine what government and industry must do to help develop Australia as a more attractive and competitive cruising destination. The resulting report, A National Cruise Shipping Strategy, examines the nation's current position in the world cruise market, the existing opportunities to increase market share, and the impediments to growth.

Using a framework of analysis developed by the authors, this paper provides some tentative estimates of the economic impact of cruise tourism in Australia. The direct expenditure impact of cruising includes passenger expenditures during the cruise and on tours, meals, and shopping in Australia as well as some pre- and post-cruise air travel and accommodation. Operator expenditures on ship stores, food and beverages, water, fuel, and maintenance also can be substantial. Governments and port authorities also receive revenue through the range of federal, state, and territory taxes and port charges applying to the passage of vessels in Australian waters. Two examples are provided to illustrate the potential benefits to Australia from growth in cruise tourism. The first example involves a purely coastal cruise with two visits to stopover ports and one to a home port. The second example involves an 11-day cruise in international waters, departing from Sydney with stopovers in Vila and Suva.

One finding of the paper is that cruise tourists are "higher-yield" tourists, spending, on average, much higher amounts per day than other categories of international tourists. Another is that home-porting cruise ships in Australia, with a marketing emphasis on fly-cruise packages for inbound tourists, has the greatest potential for generating large expenditure inflows to the nation. The economic impacts will, however, be reduced to the extent that foreign visitors simply switch from a land-based Australian holiday to cruise tourism, and where Australian tesidents take a cruise rather than a domestic holiday.

While the empirical issues rely on Australian data, the theoretical issues discussed in the paper are of generic importance. Researchers and policy makers can employ the framework developed by the authors to develop greater understanding of the economic impact of cruise tourism.

## Ecotourism: How Can Sea Grant Extension Help Set Goals and Realize Opportunities?

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Many Sea Grant Extension programs across the United States have begun working with community leaders, resource agency officials, and tourism industry representatives to develop ecotourism as a means of economic sustainability within communities. Sea Grant is ideally suited for this role since it can serve as a catalyst for emerging economic development opportunities by using outreach and educational tools to help groups achieve their desired goals.

The workshop will assemble five Sea Grant Extension professionals to discuss their efforts in the area of ecotourism. Initially, the concept of ecotourism will be introduced along with its defining characteristics. Each panel member will then discuss their involvement in various aspects of ecotourism within their states. The first two speakers (from Hawaii and Delaware), who have each been involved in ecotourism activity in their states for about two years, will talk in general terms of their efforts to stimulate ecotourism activity to date. The next speaker, from South Carolina, will discuss how he sees his state's progress after nearly four years of involvement. The final two speakers will present case studies on ecotourism activity in their states: (1) a discussion of a conceptual master plan that is serving as a guide for the development of sustainable naturebased tourism in a Florida county, and (2) a presentation on how Sea Grant's efforts have been instrumental in establishing Underwater Preserves in Michigan to protect and preserve historic shipwrecks.

The presentations focus on success stories, because of Sea Grant's involvement, and on stumbling blocks due to economic, institutional, cultural, or other constraints. In addition, a consensus will be reached by the panel on what approaches have been the most successful and why. Finally, the panel will present, with workshop participants' input, recommendations and guidelines that may be helpful to those beginning or expanding ecotourism ventures in the future.

## Ecostar—A Program for Identifying Ecotourism Activities that Support Sustainable Development in Coastal Regions

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Ecostar is a proposed program that would recognize organizations, corporations, or activities that adhere to a standard of development or operation which causes minimal adverse environmental impact.

Increases in tourism have brought many coastal regions to a threshold at which the experiential satisfaction of the tourist and the economic satisfaction of the investors begin to decline due to degradation of the environment. Ecotourism combines ecology and tourism in an educational experience together with preservation of the visited environment. To achieve successful ecotourism and establish sustainable development within coastal regions, it is necessary that ecotourism planning become the leading tool for promoting environmental protection. The Ecostar program can identify the successes in this area. Criteria for Ecostar must be based on national and international standards for physical, chemical, and biological indicators of an ecosystem's air, land, and water condition. Qualitative and quantitative parameters will include: biological oxygen demand (BOD), chemical oxygen demand (COD), CO2, pH,

coliforms, organic matter, heavy metals, transparency, acid rain, hydrography, and biodiversity. To earn Ecostar endorsement, the activity should have no or little adverse impact on the environment. The evaluation of this impact involves scientific assessment of each area affected by the tourism activity. Hotels and other tourism-related infrastructures will benefit economically and ecologically by supporting long-term resource management solutions. Competition within tourism now will be based on the quality of the environment and preservation of ecosystems, as well as on "stars" for human creature comforts.

With the implementation of Ecostar, ecotourism can become a legitimate force for preserving biological diversity and socio-cultural heritage, and for promoting sustainable development on which coastal tourism depends.

# Ecotourism in Pohnpei

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The author spent five months on her home island of Pohnpei working with The Nature Conservancy, Pohnpei Office of Tourism and Parks, and Pohnpei Division of Forestry to develop a database of existing and potential ecotourism sites of Pohnpei. The researcher evaluated ecotourism sites in communities via survey questionnaires, interviewed site owners or operators, and researched legends and history behind each site. Information collected was compiled into a database, and then compiled, with drawings rendered from pictures taken by the author, into a Pohnpei ecotourism guidebook. This informational and educational guidebook offers information on site locations, accessibility, and contact names, as well as cultural guidelines and environmental insights for visitors.

This project revealed some interesting findings which highlight ecotourism's potential in Pohnpei and some of the problems that need to be addressed when developing such sites. These include the lack of familiarity of local operators with the concepts of ecotourism, the lack of skilled tour guides and interpreters, and environmental degradation problems such as litter. The author describes some of the approaches needed to address these issues.

#### Sea Canoe: Sea Kayaking in South Thailand

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SeaCanoe is an internationally acclaimed, locally owned "Ecodevelopment" laboratory proving that (A) local people can manage a sustainable "ecotourism" project and (B) profitability with selfimposed volume controls, professional standards, and enlightened management is possible in ASEAN.

With a dramatic new expedition genre, "Tidal Sea Caving," SeaCanoe attained its self-imposed volume limits in only two years. SeaCanoe then began turning away overflow bookings. Despite the complexity and dangers involved, opportunistic copycats immediately began operating. These "ecopirates" openly admitted they were over-impacting sites with no knowledge of conservation, natural history, or sea kayaking ("I know what I'm doing is wrong," claim several eco-pirates, "but there is no law to stop me"). Businessmen rather than conservationists, their only interest is cutting costs and maximizing profits.

Cave volume currently exceeds 500 percent of suggested limits—with no safety or conservation concerns. Government guidelines remain nonexistent.

Eco-pirates raise serious issues, especially in Asia's climate of piracy and unsubstantiated marketing claims. Can international standards of sustainability survive low-cost, high-volume, high-profit copycats? Will eco-pirates ultimately destroy the planet's few remaining pristine habitats?

There are solutions, but they require government cooperation. Unfortunately, ecotourism consultants frequenting the region remain generally unhelpful, yet somehow ASEAN must learn to implement master planning prior to ecodevelopment.

Prospective operators and bureaucrats must jointly develop business structures, professional standards, nature interpretation, volume limits, and marketing and permitting criteria that protect local villages, adjacent habitats, and original entrepreneurs before beginning operations. Work permit and business formation programs encouraging responsible ecodevelopment should encourage joint ventures between village owners and sincere ecodevelopers.

#### Tourism in Pulau Seribu Marine Park, Indonesia

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Tourism in the region of Pulau Seribu, Indonesia has doubled in the past seven years. As a result of this increase and of haphazard development, impacts on the region and the marine park found there are being felt. Based on observations made during field research in the summer of 1995, two methods by which greater sustainability of tourism development/activities can be most easily achieved are education and modification of tourism "type." Education of tourists can include approaches such as interpretation trails, marine ecology information sessions, and park signage. Modification of tourism "type" could involve changing the type of tourist sought as a visitor to Pulau Seribu, utilizing "greening" evaluations of tourism businesses in the region, and enforcing current laws and guidelines designed to protect the marine environment.

# Hawaii's Coral Reef Initiative: An Initial Assessment

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A group of volunteers is mobilizing an initial assessment of the status of coral reefs in Hawaii. This effort is the result of a series of scientific, nongovernmental, and government meetings stimulated by the Coral Reef Initiative (CRI) announced by the U.S. at the UN Conference on the Sustainable Development of Small Island Developing States in April 1994.

The U.S. Coral Reef Initiative got off to a rocky start with strong objections from state and territorial government to another federal initiative designed to manage resources under state and territorial jurisdiction. Following the SIDS Conference, officials from American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and Hawaii organized their own planning effort for an American Flag Pacific Islands CRI that culminated in a planning workshop in December 1994.

In late 1994, planning groups consisting of government officials, coral reef scientists, and nongovernmental organizations have been formed in each jurisdiction. In November of 1994, coral reef scientists held workshops at the East-West Center in Honolulu, and non-governmental organizations held their own CRI workshop.

During 1995, a group of volunteers agreed to develop an initial assessment of the state of coral reef ecosystems in Hawaii with travel support from the Hawaii Coastal Zone Management Program. The methodology now being used involves focus groups of scientists, ocean recreation business owners. recreational divers, fishermen, Native Hawaiian community groups, and the general public. Based initially on the Hawaii Environmental Risk Ranking project method, individuals are being asked to identify coral reef ecosystem "sites" and rank them in terms of their cultural, recreational, economic, and biological importance. Scientists are being asked to identify areas that are being stressed, and, if known, the causes of that stress. Community people are being asked to identify what they believe are threats to the coral reef ecosystems. A database is being developed which will be made available to the general public. The results of the assessment will be used to plan other Coral Reef Initiative activities.

# Cultural Perspectives of Dolphins by Ecotourists in a "Swim with Wild Dolphins" Program

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The current trend toward environmental awareness is accompanied by people seeking ways to change their relationship with nature. However, most individuals perceive and interpret their relationship with animals in light of their culture. This study explored the relationships among beliefs, knowledge, demographic characteristics, and personal values of ecotourists using a questionnaire distributed on shore after boat excursions. Principal component analysis revealed attributions of spirituality, altruism, interspecies sociability, and the presence of societal structure in dolphins. Females, residents of Asia, New Zealand, and Australia, and non-Christians were most likely to make positive spiritual attributions, while middle-aged people were more likely to agree with altruistic attributions than were younger or older

people. Personal religiousness and adherence to cultural norms were positively correlated with attributions of dolphin spirituality. As the importance of honoring elders and loyalty to friends increased, the more likely the respondents were to believe that dolphins seek and enjoy human interaction (interspecies sociability). Most respondents ascribed human qualities to the dolphins. They also perceived dolphins as being dependent on one another and as having a tightly knit social structure. The ecotourists who formed this sample were unacquainted with scientific knowledge related to dolphins, as well as the philosophical, educational, economic, or ecological values of wildlife. The results indicate that social scientific analysis of wildlife recreational programs is sensible, and can be used to establish more precise management of and educational programs for ecotourism.

## A Study of Physiological Effects Caused by Coastal Ultrasonic Wave Influences to Human Brain Waves

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Currently in Japan, for the purpose of health care, relaxation, and recreation in the coastal area, research aimed at use of the natural ocean environment is being conducted. Such remedies, based on ocean and coastal natural environments and popular in Mediterranean regions, include Talassa-Therapie, Aquatonic, and Alonma-Therepie.

This paper reviews the ultrasonic properties of coastal wave processes and the degree to which they make people in coastal areas relax. This finding may add tourism and recreation value to such areas. Specifically, the paper describes the characteristics of ultrasonic noise in waves and evaluates their potential influence on human physiology.

At present, even in the medical area, interaction problems and physiological mechanisms between ultrasonic and brain waves are not clarified. However, their specific effects have been observed through many experiments. High frequency (ultrasonic) waves are not normally recognized as sound by most humans; however, it is known that these waves reach the brain through the skin and airborne vibrations. and these stimuli are believed to have some influence on brain function and information processing. Recent studies in the field of music—for instance, from analyses of Gamelan music in Bali-have reported that ultrasonic waves influence the brain by vitalizing the alpha wave. To determine the extent of these influences from coastal processes, studies were carried out using both artificially produced ultrasonic noise and actual coastal wave noise.

The major findings of the research to date are that:

- Eight out of 12 study participants showed alpha wave vitalization after 20 to 40 seconds of ultrasonic exposure.
- 2) Specific sound pressure and frequency changes were observed to vitalize the alpha brain waves.
- Natural ultrasonic noise has a demonstrably higher stimulus effect than artificially produced ultrasonic noise.

It is expected that application of these results to coastal regions may add a new dimension to ecotourism. The implications of these findings for the measurement of coastal processes and for understanding human interaction with coastal environments are discussed and further research needs outlined.

# The Economic Value of U.S. Beaches

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The paper discusses the value of beaches to the U.S. national economy. Few realize that travel and tourism already is America's largest industry, employer, creator of new jobs, and earner of foreign exchange. Although computers, information highways, and other high-tech industries grab the news, travel and tourism have been providing the economic growth, jobs, and foreign exchange that make the U.S. increasingly competitive in a world economy.

Beaches are key to U.S. tourism, since they are the leading tourist destination, with historical sites and parks being second most popular, and other destination choices minor by comparison. Coastal states receive about 85 percent of U.S. tourist-related revenues, largely because of the tremendous popularity of beaches. For example, a single beach, Miami Beach, has more annual tourist visits than Yellowstone, the Grand Canyon, and Yosemite National Parks combined.

Many countries recognize travel and tourism's importance to economic growth and international competitiveness. Examples are given of countries spending far more than the U.S. on beaches, including a massive program in Spain to restore existing beaches and develop completely new ones.

The return on investment of beach restoration is discussed with Miami Beach as an example. Tourist beach visits at Miami Beach almost tripled over five years following beach restoration. Annual spending just by foreign tourists at Miami Beach is 700 times the restoration's capitalized cost. Federal taxes from these foreign tourists at Miami Beach are more than the U.S. spends nationally on shore protection and restoration.

## Paddling Palau: Developing Kayaking as a Tourism Activity in the Republic Of Palau

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Kayaking experts increasingly agree that the best warm water tour kayaking in the world is in the Republic of Palau. Visitors paddle in clear blue lagoons for a chance to view sea turtles and sunken sea planes, explore secluded sea caves, or land on palm-shaded beaches and admire Palau's phenomenal scenery. For the more adventurous, river kayaking offers opportunities to view stunning waterfalls, or, in the quiet mangrove channels, spot an endangered crocodile. Nowhere else can a visitor find such a diverse array of easily accessible kayaking options as Palau.

Kayak companies are discovering and actively promoting a new spectrum of previously known, overlooked, or rarely used coastal and snorkeling sites with high visitor appeal. Previously, visitation to these areas had been regulated by access problems, tour guide awareness of the site, and the ability to locate the areas. Increased visitation to particular sites carries with it concerns about minimizing visitor impacts and enhancing visitor safety. Although present kayak companies are careful about site usage and are self-regulating, as key site information becomes common knowledge, overuse by other tour companies will become a problem.

As Palau moves to diversify its tourism base away from diving and into a variety of other low-impact sustainable activities including kayaking, general tourism guidelines and regulations as well as specific tour guide education requirements need to be developed and adopted. Recommendations concerning the carrying capacity of certain visitor sites, as well as decisions concerning the quality of a visitor's experience while at these sites, need to be addressed before these beautiful and often fragile areas suffer detrimental impacts.

### Using Interpretation to Manage Visitor Behaviors in Fragile Coastal Areas

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Visitor use of fragile coastal areas often causes problems such as erosion of sand dunes and destruction of wildlife habitat. Managing visitor behavior patterns in these areas is crucial to preserving them. Interpretation (i.e., educating visitors about resources and attractions in an entertaining way) is an important mechanism for managing visitor behaviors. By implementing a carefully planned interpretive program that includes the development of interpretive signs, publications, and exhibits, and hiring of interpretive staff, the impacts of visitor use can be reduced. The planning process involves inventorying coastal resources, identifying objectives and goals, and implementing and evaluating the plan. A case study of the interpretive program developed for the Eastern Lake Ontario Dune and Wetland Area, a 17-mile stretch of sand dunes and wetlands along Lake Ontario's eastern shore in New York state, will be discussed. Interpretive signs, publications, and staff are used in this program to decrease visitor impacts in the area. This program coordinates the activities of the two state agencies and one not-for-profit group that own property in the area, making it possible to create interpretive signs and publications that meet visitor and resident needs, are suitable to the coastal environment, are consistent throughout the area, and are economical to produce. Program evaluation currently is underway and includes measuring the revegetation of beachgrass on dunes eroded by visitor

use, and observing visitor use patterns. Positive feedback has been received from private property owners, and from state and local agencies.

# Coastal Tourism and the Federal Budget

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Travel and tourism is the United States' largest industry, employer, creator of new jobs, and earner of foreign exchange. Coastal states receive about 85 percent of the tourist-related revenue. Coastal and marine tourism, therefore, is a significant contributor to the creation of jobs. All levels of government contribute to the provision of this important economic activity. However, political support for recreation and tourism often is difficult to develop. As such, the coastal and marine tourism industry faces a decline in federal funding support. The possible effects of this decrease in the federal budget on coastal and marine tourism will be discussed.

### The Economics of Managing Florida's Coral Reefs

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Cotal reefs are biologically diverse, highly productive ecosystems providing the habitat for one-

fourth of all of the world's marine species. At 220 miles in length, the reef line in Florida Bay is one of the world's largest and also is among the world's most economically developed, generating \$1 billion in annual fishing and tourism revenues. The uniqueness and beauty of Florida Bay's reefs attract visitors and researchers from around the world. In recent years, expanding agricultural acreage and booming urban growth has resulted in declining coral coverage and reduced species diversity in Florida Bay's coral reefs. A survey of Florida Bay's reefs measured lost coral coverage of up to 44 percent and diminished species diversity of 13 to 29 percent over a six-year period from 1984 to 1991. Suspected culprits of the losses are algal blooms from nutrient loading (i.e., fertilizer runoff and sewage flows) and tising salinity from upstream freshwater diversions. Because of Florida's dependence on coastal tourism and fishing as primary sources of state income, protection of the reef ecosystem is vital to the future of the state's economy.

In addressing Florida Bay's problems, traditional economic theory would dictate taxing pollution and water use at rates that would reduce pollution loads and restore fresh water flows to optimize returns to all activities in the area. In reality, institutional, political, and physical barriers make implementation of a tax policy either impossible or highly impractical. This study develops a conceptual framework for evaluating "second-best" policies, alternative policies in light of the barriers preventing traditional approaches. Efficiency improvements through water conservation and waste reduction suggest themselves as low-cost means of improving environmental quality through more efficient use of inputs. Results from this study provide insight on managerial alternatives that can help guide future policy.

# Chinese Marine and Coastal Conservation

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Chinese coastal philosophy seeks to preserve the most scenic coasts and islands, while recognizing the multiple uses to which coastal zones and ocean environments are subjected. To date, China has established a total of 68 national and local marine and coastal nature reserves. This represents less than three percent of Chinese coastline and islands to be declared natural conservation sites—an extremely low percentage compared with developed countries such as England and Wales, where 33 percent of the coast has been defined as Heritage Coasts.

It is essential that China protect and manage its coastal regions. Laws and regulations must be enacted to protect the coastal and marine environment and to rescue coastal and marine ecosystems and species. This paper proposes suggestions to the Chinese government for protecting China's finest coastal and marine areas.

# Perception of Ecotourism by Pacific Islanders

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Ecotourism has become a generic term for all ecologically responsible tourism. However, it seems as though there are as many definitions for ecotourism as there are researchers and practitioners in the field. For the purist, "ecotourism" means a form of tourism that leaves the environment relatively undisturbed, whereas to others it may appear as though "ecotourism" is merely a trendy way to self more mass tourism. Furthermore, there may be cross-cultural differences in the way ecotourism is viewed. It is clear that in order for the objectives of environmental protection, cultural preservation, economic sustainability, and educational value to be accomplished in ecotourism, there must be a consensus on what ecotourism is.

This study attempts to determine how Pacific islanders perceive ecotourism with respect to its definition; what are their island's tourism assets, benefits of ecotourism, and obstacles to ecotourism; and what is needed in order to implement ecotourism. To this end, two surveys were conducted. The first involved 24 participants who attended the Pacific 2000 Conference on responsible economic growth, co-sponsored by the U.S. Economic Development Agency and the Commonwealth of the Northern Mariana Islands, held in Saipan in May 1993. The second involved 23 participants of the Executive Development Institute for tourism held at the University of Hawaii School of Travel Industry Management in June 1993.

The results indicated that responses depended on the stage of tourism development and familiarity with the ecotourism concept. Although there was unanimous support for ecotourism development on all islands, with the main impetus being environmental protection, the less-developed economies were relatively more concerned about cultural preservation than economic sustainability. Other findings include the importance of economic and cultural benefits, the need to overcome politics, and the critical role of education in implementing ecotourism.

# The Oceans Blue Foundation: A Vancouver Response to Sustainable Tourism

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On June 14, 1992, Canada joined 172 other governments at the Earth Summit in Rio de Janeiro, Brazil to achieve something remarkable. At the United Nations Conference on Environment and Development (UNCED), people put aside economics, religious, cultural, and political differences to unanimously adopt Agenda 21.

Since then, the Greater Vancouver Regional District (GVRD) has approved a 25-year "Livable Region Strategic Plan." In November 1995, the GVRD and the Greater Vancouver Convention and Visitors Bureau (Tourism Vancouver) organized a forum in which city, port, and regional planners, and tourism industry professionals discussed a tourism development strategy for Greater Vancouver. Working together, GVRD and Tourism Vancouver intend to adopt sustainable development principles that appear in the World Travel and Tourism Council, World Travel Organization, and the Earth Council document, "Agenda 21 for the Travel and Tourism Industry."

One action being taken is the ongoing development of Oceans Blue Foundation. Oceans Blue is a Vancouver-based, non-profit foundation committed to establishing sustainable tourism and community development in the world's port cities. Underpinned by a philosophy of putting "Local Loyalty and Local Responsibility" first, the foundation aspires to be a leader in the efforts to make global tourism a sustainable industry.

Oceans Blue will provide leadership in four areas based on the developing Vancouver model including community programs, strategic planning, measurable standards, and responsible education. Specific initiatives within these four areas include actions and practices for tourism businesses.

Oceans Blue will develop a series of practical actions that individuals, communities, and companies can take toward achieving sustainability by using tourism as both the focus and catalyst for positive change.

# Coastal Marine Policy in Hawaii—1986–1996 Crisis-Failure-Opportunity

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During the past decade, coastal tourism in Hawaii tripled in size and allowed individuals to put commercial claims on ocean space that traditionally had been open to all. As a result of these free-market pressures, coastal communities have been driven by tremendous demographic and economic change. Examples include Hanauma Bay, where long-time residents of Honolulu were displaced from a popular local beach park by commercial tour groups. Their complaints led to action by the city government to protect the environment there from unrestricted tourism.

In response to problems such as this, individual coastal communities began to call on government to provide direction. Government officials found themselves balancing the conflicting demands of economic development, resource allocation, and resource protection. For guidance, the counties, the state government and federal agencies spent millions on studies such as the Main Hawaii Marine Resource Investigation, the Governor's Taskforce on Ocean Tourism, the Mamala Bay Study, the State Ocean Management Plan, and the "Sea Grant Studies in Marine Economics" Series.

These studies generated much useful information and many worthy recommendations. Unfortunately, there was little political will to implement them. Consequently, the studies were set aside and government policies toward ocean resource management came to be defined by controversial single issues in isolated areas or multiple conflicts within single areas. The result is that most problems have festered. In the few areas where there has been resolution of problems, such as at Hanauma Bay or Molokini on Maui, the answers have come from the user community.

This paper provides an overview of the historical background during this 10-year period. It presents ideas on how responses to these problems might be structured in the future.

# Searching for Sustainability: A Difficult Course, an Uncertain Outcome

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There is no question that there is growing concern within the global tourism industry about its sustainability. Increasingly, scientists, managers, legislators, citizens, and tourism planners examine, debate, and confront the concept of sustainability. Our discussions of sustainable tourism are stumbling, primarily because sustainability represents a wicked problem where technology may play only a small role in resolution. Sustainable tourism also is a value judgment, and has not, in the tourism literature, been rigorously critiqued. The search for sustainability encompasses questions of temporal and spatial scale, what should be sustained, and implementation. Often, sustainability in the tourism context is addressed by calling for establishing carrying capacities and limits on tourist numbers. Such requests overlook the vast amount of research and planning experience showing that limits do not work effectively. Platitudes typify much of the sustainability thetoric in tourism, and concepts are rarely examined critically. Sustainability is intrinsically an integrative concept, but discussion

about it is hampered because biologists, economists, community development specialists, and tourism planners have not engaged in the interactive processes needed to identify and develop effective strategies. Achieving sustainability can occur only within the context of understanding global trends, and often is hampered by large-scale demographic and economic changes, which are beyond local planners' control. A successful search for sustainability will involve learning and adaptive management, public participation, understanding tradeoffs among generations, appropriate humanenvironment management frameworks, and the application of new ethical principles.

## Coastal Decline in Antigua-Barbuda

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Like other Caribbean microstates, Antigua-Barbuda has heavily promoted tourism to modernize its colonial sugar economy. Three decades of freemarket growth, however, suggest the island's tourism path is nonsustainable. Unbridled development of large-scale infrastructure and foreign-financed hotelmarina resorts along delicate coastlines has caused loss of wetlands, endemic species, and pre-columbian settlement sites, and has spawned illegal sand mining, beach erosion, and sewage pollution. These coastal stresses have continued despite protective legislation, which has been either ignored or unenforced, and the conservation efforts of local citizens and non-government organizations (NGOs). Four such case studies of irreversible environmental damage are reviewed. Results indicate a sharp public policy reversal is warranted to sustain coastal assets for future commercial (tourists) and recreational (residents) value.

This shift toward a lower-density tourism path is urgently needed for three reasons: (1) the current context of heavy external debt and limited resources available for restoring past damage, (2) the government's pervasive control of coastal resource use and its minimal success in economic diversification, and (3) the gradual maturation of Antigua toward becoming a high-density mass tourism destination where crowding, asset loss, and declining visitor satisfaction are more the rule than the exception. Directions for change involve comprehensive participatory planning, NGO support, and widespread environmental education.

# Marine Tourism in New Zealand: Environmental Issues and Options

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Tourism is the fastest growing sector of the New Zealand economy, accounting for more than NZ\$3.84 billion in foreign exchange. New Zealand's tourism is based predominantly on scenic attractions, wildlife, and natural resources. The country has a diverse and relatively pristine marine environment, and it is likely that coastal and marine tourism will become increasingly important. However, the marine species and habitats targeted by tourism need to be identified and environmental implications assessed if this growth is to be managed sustainably.

This study investigated the current status of marine tourism in New Zealand, with particular regard to environmental issues and options. The term "marine tourism" was used to include all commercial operations visiting natural areas for the purpose of diving, recreational fishing, tour boating and cruises, and the viewing of seabirds and marine mammals. A mail-out questionnaire sent to all (~400) commercial operators was used to profile the industry. The major types of operation were identified as were the key areas, species, and habitats targeted by each.

New Zealand's marine tourism industry still is in its infancy; most operations are small, locally controlled businesses, and have evolved within the past five years. Operations are concentrated in several main geographic areas, although the types of activities and key attractions vary between these. Wildlife viewing is the most common activity, with more than 65 percent of operators noting seabirds or marine mammals as their key attraction. Operations located in the South Island tend in particular to focus on the wildlife viewing of specific species. By comparison, most North Island operations offer a more general experience, typically a cruise incorporating fishing, diving, and snorkelling.

# Coastal Resource Valuation and the National Estuary Program

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The National Estuary Program (NEP) was established by Congress in 1987 as part of the Clean Water Act. The primary objective of the Program is to bring together local governmental units to identify estuary-related problems and to recommend corrective action plans. While baseline hydrological and biological studies have played prominent roles in the planning process for most NEP's, few have included economic studies of value producing activities associated with the estuary or the effects of action plans on economic values derived from the estuary. This paper presents a review of these economic studies and summarizes the results of an extensive resource valuation study conducted for the Indian River Lagoon National Estuary Program. The study addressed both direct and passive use values using travel cost-demand models, fishery productivity models, property value analysis, and the contingent

valuation method. The total annual economic value for the natural assets of the lagoon were estimated to be more than \$730 million in 1995. Results from the economic analysis have played an important role in the selection of action plans to correct water quality and habitat degradation problems in the lagoon. In addition, the identification of economic benefits attributable to estuary management has been a major feature of the campaign to convince the public of the need to implement the recommended action plans. The concluding section of the paper provides some discussion on the advantages and disadvantages of including resource valuation studies in estuary management planning and future NEP site evaluations.

# User Group Perceptions of Marine Reserves in the Florida Keys National Marine Sanctuary

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The merits of marine reserves to manage fishery stocks and sustain marine biodiversity have been extensively debated in the scientific literature, yet there have been few studies on the perceptions of user groups to marine reserve proposals. This study examines commercial and recreational user groups' perceptions of marine reserves for the Florida Keys National Marine Sanctuary. The Florida Keys contain the only living coral reef tract in the continental U.S., and receives more than 2.5 million tourists annually. The U.S. Congress designated the Keys as a national marine sanctuary in 1990, and a final management plan that includes marine reserves is expected in late 1996. Personal and mail interviews were used in this study to identify user groups' perceptions of the planning process for these reserves and expected outcomes. Results indicate that perceptions vary considerably across the user groups, with commercial fishing groups expressing strong opposition while recreational diving interests generally support the plans. Various factors, including participation in the planning process, perceived fairness of the process, and expected compliance with regulations to enforce a reserve zone, influenced these perceptions. This paper discusses the implications of these findings for establishing and managing marine reserves in the Florida Keys and other coastal areas.

# Participatory Rapid Rural Assessment in Zanzibar: Development and Protection Options on Small Islets

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#### Background

On this Indian Ocean island off the African coast, the experience from small islets leased to private investors resulted in the exclusion of local fishermen from traditional seasonal fishing camps, unreasonable compensation, and habitat destruction. This caused considerable hardship and resentment in coastal communities which cited these cases as the key reason for opposing further hotel construction. A land allocation moratorium was imposed pending collection of additional biophysical and sociocultural information for input-to-development decision making.

#### Organization and Management of Field Study

Training was organized to provide knowledge and techniques of participatory rapid rural assessment

(PRRA) in assessing the available resources and public opinion. A total of 20 staff (three women) representing four ministries participated: Commission for Tourism, Department of Environment, Integrated Land Use Planning unit, Investment Promotion Agency, Fisheries Department, and Forestry Department. The practical toolkit included semistructured interviews (boatmen, women, leaders, farmers); seasonal calendars; mapping: transects; wealth ranking; and public meetings.

Three interdisciplinary teams implemented 3–6 day studies on 12 islets with investor interest or high tourism potential; reports were formally presented to the government. As part of institution-strengthening initiatives, the nine-month process was jointly funded by a bilateral donor (FINNIDA) and the World Bank at a cost of \$8,000 U.S.

#### **Field Work Outcomes**

(1) Islet inhabitants and users, generally poor, are faced with limited economic alternatives. Agricultural and fishing resources are at capacity. Tourism could benefit environmental conservation by diversification of villagers' income source and enhanced monitoring of the resource base. (2) Many villages, despite remoteness, have direct experience with tourists-mostly day visits by scuba or deep-sea fishing parties. Even at very low levels, sociocultural impacts (e.g., dress code, cultural violations) are evident, leading to negative perceptions and skepticism. (3) The main constraint on village-level development was seen to be a complete lack of information and little local awareness of their tourism options: community-investor contracts, employment, or the right of regular consultation. (4) Villagers mention water supply, schools, and health care as the anticipated contribution of tourism before their own involvement in tourism. (5) Villagers are willing to make site tradeoffs-giving up one beach if access rights to other beaches are guaranteed. (6) Day use or small lodging properties are acceptable in some locations. Villagers would expect to organize boat trips, run a small restaurant, or sell handicrafts, although this expertise, equipment, or capital does not exist presently.

# Hotel Environmentalism: A Lucrative Proposition

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It is time for the lodging and hospitality industry to heed the call of today's consumers who seek environmental responsibility from their goods and services. With cooperative effort and foresight, a comprehensive hotel environmental program can be easily implemented, resulting in remarkable cost savings and increased revenues.

To create a successful, profitable environmental program, a property must focus on the following:

- Solid Waste Management—Solid waste reduction, reuse, and recycling strategies must be developed, and waste disposal service selected, in order to reduce waste hauling costs. Eco-sensitive purchasing guidelines need to be established.
- Energy Efficiency—All energy-consuming equipment and facility-related components of the property need to be evaluated. Operational guidelines need to be developed to ensure maximum efficiency and conservation.
- Water Conservation—Consumption patterns and rates, related equipment, and conservation and preservation efforts must be analyzed.
- Legislative Review—All governmental environmental regulations must be reviewed to ensure that the property satisfies legislative compliance.
- Employee Education—An internal marketing campaign must be developed to increase employee motivation and understanding of, and guest awareness of, the hotel's environmental initiatives.
- Community Involvement: The fostering of cooperative relationships with local government, charities, businesses, and conservation and citizens groups will enable the hotel to more easily attain its goals.

A hotel must consider these categories in the context of its own particular circumstances in order to maximize operating cost reduction and marketing revenue. Each hotel will have a unique set of variables.

At the Hyatt Regency Scottsdale, for example, a comprehensive environmental program was implemented in August 1995, In just a few months, hotel operations and employee mindset had changed: over 8.5 tons of leftover food was donated to Waste Not in 1995; broken china from restaurants was donated to a local college art department to make mosaic tiles, and the hotel began participating in clean air and composting programs. The hotel realized substantial cost savings through its environmental endeavors.

HVS Eco Services has been established to help hoteliers develop property-specific, lucrative environmental programs. The consultation consists of a property inspection to evaluate the hotel's environmental performance in the above-outlined areas. Furthermore, hotels that are able to demonstrate a heightened level of environmental sensitivity are awarded the ECOTEL Certification, a 5-Globe award by which lodging facilities can measure their environmental performance and on which environmentally conscious travelers can base their lodging decisions.

# Understanding Patterns of Travel in the Great Barrier Reef Region: Implications for Management of Coastal and Marine Tourism

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A critical component of managing coastal and marine tourism is understanding the patterns of tourism use of these areas. The Great Barrier Reef (GBR), visited by more than 1.3 million commercial tourists in 1994, is one of Australia's major tourism

drawcards. Despite this significance, there is virtually no data available on patterns of use of this area by tourists. A search of the tourism and environmental management literature indicates that such information about tourists generally is scarce. In response to this gap in the research data, one of the core questions guiding a major research project focused on tourism and the Great Barrier Reef is that of understanding where and how tourists access the GBR. This paper will report on a survey of over 1,600 tourists to the GBR region, which included questions designed to elicit information on numbers of trips to the GBR, points of departure, and types of operations used. The survey also measured various sociodemographic and psychographic details of the tourists. The resulting data provides two levels of information on coastal and marine tourist behaviour in the GBR region. The first level is an overall pattern of where and how visitors access the reef. This overall pattern will be described, highlighting the implications for such management issues as use conflict and identifying sites of potential adverse impacts. The second level will examine the relationships between travel patterns and visitor characteristics. The two major questions to be addressed in the paper are concerned with the identification of patterns of marine tourist behaviour and explanations of this behaviour. The answers to these questions are of significance in developing models to explain and predict coastal and marine toutism patterns.

## Workshop—Enhancing Marine Interpretation Through Better Understanding

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Interpretation is a major tool in the development and management of sustainable coastal and marine tourism. A major component of the Co-operative Research Centre for Ecologically Sustainable Development of the Great Barrier Reef (CRC-Reef Research) is the study of tourism in the Great Barrier Reef region. Within this research is a specific project concerned with evaluating and developing quality reef interpretation for tourists. This research project involves cooperation between academic researchers, protected area managers from several government agencies, and commercial tour operators and their staff. The project bases its research on several assumptions derived from the literature on interpretation and communication. The assumption that guides this workshop is that effective interpretation must be based on a reliable and detailed understanding of the intended audience. This workshop will consist of a series of practical and interactive exercises centered on the development of interpretive activities for different types of marine tourism situations. The workshop will provide participants with an overview of the research project, and then review data on Great Barrier Reef visitors which includes reef experience, motivations, types of access preferred, and activity patterns. A series of specific interpretive problems or questions then will be presented, and participants will engage in various exercises designed to use the available visitor information to provide interpretive solutions or answers. Additionally, it is a goal of the workshop that the participants will be able to contribute from their own experiences with marine interpretation to develop international answers to the Great Barrier Reef questions.

## The Effectiveness of an Education Program in Managing Marine Tourism

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Education has long been touted as an answer to managing tourists' impacts on natural ecosystems. However, very little empirical research has tested this assumption. Research in the education pyschology field shows that the link between knowledge acquisition, attitude formulation, and behavior is weak. Furthermore, changing human behavior through education is a difficult and complex task. It is therefore apparent that creating education programs which effectively manage tourists' behavior and which result in longer-term attitude and behavior change is particularly difficult.

A number of cognitive psychology techniques such as the use of "cognitive dissonance" and the "affective" domain are applicable to marine tourism. By incorporating these into an education program specifically designed to prompt environmentally responsible behavior, the ambitious objectives of education programs for tourists may be attainable. This paper reports on the testing of this model at Tangalooma, Australia. At this resort, tourists regularly feed a group of wild dolphins.

The testing of the model revealed that an increase in acceptance of and compliance with management regulations resulted. Furthermore, it was shown that tourists' enjoyment was enhanced and their knowledge increased, and a number of longer-term behavior changes resulted. This finding is important, for it is one of only a few case studies that quantify the benefits of education programs in a marine tourism situation. The implications of these findings are clear: A carefully structured educational program can be an effective mechanism for managing coastal and marine tourism.

#### Teaching Responsible Coastal and Marine Tourism—A Strategy for the Future

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Banquet speaker...Abstract not available at time of printing

### Sustainable Ecotourism and Island Communities: A Geographic Perspective

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The growth of international tourism has made it the dominant service industry in the world, and ecotourism now is a common prescription for funding sustainable community development in the Pacific. Developing and marketing island nations as tourist destinations, though, may transfigure the inhabitants' social history and landscape. Through their activities, residents, visitors, and the industry create recreational landscapes that mediate the formation of local identities and cultural patterns of behavior for those living in a place defined through tradition and tourism. Consequently, the relationship bears closer examination in tourism planning.

To encourage a proactive approach, this paper presents a geographic perspective of ecotourism development on the Micronesian island of Kosrae. In particular, it uses cognitive maps to demonstrate that tourism functions as both agent and a process of change in the social identity, structure, and meaning of Kosraeans as they evolve from a patriarchal, subsistence economy to a global market. Through differences in place images, it becomes clear that the physical space of Kosrae is defined by both experience and gender, and the "destination" of tourists is an inhabited landscape whose social communities exhibit the influx of new ideas, experiences, and changing patterns of gendered behavior associated with tourism.

By emphasizing variances in the perceptions and assumptions of Kosraeans, tourists, and the tourism industry, the critical role that tourism plays in shaping the human landscape of the travel destination, with its mosaic of gender and ethnicity, is more fully explored with recommendations for culturally sustainable, community tourism in Micronesia.

#### Using Social Science Research in the Management of Coastal Wilderness Settings

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Although there is a significant literature dealing with visitor management in terrestrial wilderness areas, there is relatively little research to inform us on the management of coastal wilderness areas. Coastal wilderness areas are particularly attractive to visitors, in part because so few of the desirable coastal regions in the world are protected in a wilderness condition. These settings usually are highly diverse in flora and fauna, yet are extremely fragile and difficult to sustain for tourism or other purposes. As a result, the cost to manage such areas often is high, compared to other types of wilderness settings. Hence, coastal areas are particularly challenging to manage in a wilderness condition. This paper describes how survey research can be used to deal with crowding, the control of visitor impacts, and the establishment of user fees. Within the framework of these management issues, the paper extends the wilderness literature in such important areas as carrying capacity, quotas, reservation systems, and willingness to pay (contingent valuation).

This paper is illustrated with visitor surveys and management actions introduced in the West Coast Trail wilderness area of Pacific Rim National Park, located on the west coast of Canada. Visitor research was used to establish a quota of 52 people per day, a telephone reservation system, and a user fee of \$65.00 per person. Surveys indicated that visitors supported these measures, and felt that crowding and resource impairment had been reduced to acceptable levels.

#### Promoting Sustainable Tourism: An Examination of Compliance Behavior of Ecotour Operations with Ecotourism Principles

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The purpose of this study is to explain the compliance behavior of ecotour operators with ecotourism guidelines. Based on past research, a conceptual framework for compliance was built and tested for its explanatory power. The items in the Ecotourism Guidelines for Nature Tour Operators published by The Ecotourism Society TES (1993) were used to develop measures of ecotour operator compliance.

Data for the study were gathered using a structured, self-administered survey instrument. The survey instrument was mailed to a sample of 326 ecotour operators in the U.S. and Ecuador during the winter of 1995. Data were analyzed using forward multiple regression.

The findings of this study support the conceptual framework that compliance with rules, regulations, or guidelines depends on several socio-psychological, and socio-economic factors as well as the characteristics of the ecotour operator/business. Specifically, the type of the social and economic sanctions (e.g., bad publicity), perceived threat of the sanctions (personal or social), familiarity with the ecotourism principles, gender of the respondents, perceived moral obligation, and revenue obtained from ecotourism were found to be significantly related to compliance with the guidelines. Generally, ecotour operators are found to be compliant with most of the items in the guidelines.

In the light of these findings, the key strategy for increasing compliance seems to lie in the education of tour operators with respect to ecotourism principles and developing appropriate guidelines for different destinations. However, the power of socio-economic sanctions cannot be neglected in promoting higher compliance. There is a need for an industry organization to assume the role of coordinating, and monitoring as well as disciplining the ecotourism industry if the goals of sustainable ecotourism are to be achieved.

#### Case Study: Creating and Implementing a Recreation Program Plan at Glacier Bay National Park, Alaska

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Glacier Bay National Park, Alaska is the largest marine park in the United States' National Park system. The marine waters in this region are environmentally significant because they offer critical habitat for endangered marine mammals and important fisheries. Glacier Bay also is the ancestral home of the Hoonah Tlingit people, who have occupied the region for 11,000 years.

Currently, the park is receiving approximately 300,000 tourists per year, and has experienced approximately 10 percent growth per year for the past 20 years. The Park Service is trying to balance explosive tourism growth with environmental management. The state is attempting to exploit Glacier Bay to offset the decline in energy revenues. The Hoonah Indian Association is seeking to reestablish their traditional management role and cultural presence in the park. The local community is caught in the ambivalent position of seeking tourism jobs while simultaneously preserving their rural Alaska lifestyle. Finally, environmental groups are concerned about Alaska's pro-development philosophy.

We created a recreation program based on 11 years of guide experience and participatory techniques that is (1) co-authored by key environmental groups, (2) founded upon written agreements with the Hoonah Tlingit to safeguard their cultural and economic roles, and (3) based on a Memorandum of Understanding between Hoonah and the Park Service that enables the Tlingit to co-manage the park's resources. Our tourism program will be located in a resort facility that is demonstrating to the state of Alaska that economic benefits can be achieved with sound environmental practices.

#### Combining Tools and Processes to Facilitate Coastal Environmental Decisions that Reflect Well-Informed Societal Preferences

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There are no structured methodologies for making coastal environmental decisions, and the public participation that is required by U.S. law occurs in an ad hoc manner. Subsequently, most decisions made for coastal common property resources do not reflect societal preferences, and the outcomes do not provide efficient allocations. There is a need to combine economics and decision theory first to determine, then to achieve the necessary conditions for making "good" coastal environmental decisions and improve the outcomes.

To determine how to make "good" decisions, the factors that typically complicate coastal decisions are first identified. Then "good" environmental decisions are defined; conditions similar to those used for a well-functioning market system are adopted, i.e., (1) the stakeholders must be well-informed, (2) the stakeholders' preferences must be included, and (3) flexible and adaptable decisions must be achieved. This research then identifies families of analytical tools that can help overcome the complicating factors.

Instead of using one tool or process, this research focuses on using a number of tools within a commonly recommended process to overcome or reduce the severity of the complicating factors. A case study is used to show how multiple objective utility functions, mental maps, simulation models and uncertainty analysis tools can be used in sequence to assist the generally recommended steps of good decision-making. This study provides evidence that these four families of tools should be used in combination to make "good" environmental decisions. These tools enable the decision makers to achieve the necessary conditions for good decisions in the coastal environment, because they (1) elicit and transfer knowledge about qualitative and quantitative factors, (2) elicit and combine stakeholders' preferences, and (3) enable adaptable decisions.

The case study demonstrates that no one tool can help achieve every step of decision making, overcome all the complicating factors, or obtain all the necessary conditions. Combining tools in a structured method offers the best results. The necessary conditions can be more easily achieved so that the chosen alternative will more closely reflect wellinformed societal preferences.

#### Recreation Coastal Management in Victoria, Australia—Reviews Leading to Actions?

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The Australian Resource Commission's Coastal Zone Inquiry (1993) and the Victorian Coastal Recreation Study (1993) provided strong recommendations for making improvements in how coastal areas are managed. Now that it has been more than two years since these studies were completed, there is a need to reflect on what was recommended and to analyze how these recommendations have been implemented.

The Australian state of Victoria will be used as a case study to understand how coastal and recreation management issues are developing. The Victorian Coastal Management Act 1995 set a framework for a new system of coastal management for Victoria's 2000km coastline. The establishment of the Victorian Coastal and Bay Management Council, and the eventual establishment of three Regional Coastal Boards, is an Australian first that intends to restore commonsense and coordination to the management of Victoria's coastline.

The rhetoric and intentions of the new management approach sound encouraging. This investigation will briefly review what led to the changes in management, explain how these management changes are being implemented, and explore the impact of these management changes on Victoria's coastal activities. The impact of the changes will be analyzed through looking for tangible outcomes based on input from a variety of stakeholders in Victorian coastal services.

#### Coastal Tourism Planning Using Multiple Objective Techniques: The Guimaras, Philippines Experience

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There is widespread recognition that tourism must move toward sustainability by embracing a more balanced planning approach. This is especially true for many small islands in the Pacific where tourism is being aggressively promoted, often with limited attention given to the overarching socio-cultural, economic, biophysical, and institutional parameters. In a revealing Filipino case study, multiple objective decision analysis (MODA) proved to be an effective contributor to sustainable tourism planning.

On the small island-province of Guimaras, MODA focused the preliminary planning efforts of the Philippine Cooperative Farm Tourism Project: The Guimaras Pilot Project. The iterative and participatory use of MODA was well received, and successfully integrated local knowledge and values into the planning process. This objectives-based approach also was successful at positioning the Farm Tourism Pilot Project within existing provincial, regional, and national plans.

At the core of the MODA process on Guimaras was a planning workshop. Here, presentations reviewed important contextual issues (e.g., market conditions). This was followed by a qualitative and quantitative examination of project objectives. The insights gained were used to create and clarify a range of alternatives that culminated in a grassroots vision of "farm tourism."

MODA systematically promoted an open process that established both a framework and a forum for multi-sectoral integration. The resulting group decisions overcame entrenched positions while nurturing a sense of commitment that is critical for effective project implementation. The success of this method on the rural island of Guimaras suggests that it is widely applicable, and thus capable of contributing to sustainable tourism initiatives in many planning contexts.

#### Vanuatu—Managing Coastal Tourism: A Case Study

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The Republic of Vanuatu, a relatively remote and undeveloped island nation in the South Pacific, faces new issues as it experiences growth in tourism. Traditional tourism to Vanuatu's capital city is well established. The potential exists, however, for the development of nature-based tourism.

This case study examines Lonnoc Beach Resort, a coastal bungalow enterprise and Vanuatu's largest and most successful ni-Vanuatu (people native to Vanuatu) owned and operated tourist attraction. Lonnoc offers fine sand beaches, outstanding coral diving, and tours to nearby attractions. Lonnoc resort managers recognize the special attributes of their site and are committed to protecting the environment while growing the business.

Lonnoc's experience indicates that many issues need to be addressed if indigenous people are to

actively participate in, and benefit from, tourism. Steps taken to improve Lonnoc's management include: environmental education workshops for staff (tailored to protect the marine environment), tour guide and safe boating training, and strategic business planning. Problems common to local operators include larger issues such as understanding the foreign tourist and separating family obligations from the business, along with practical concerns such as lack of a telephone or reliable transportation. Practitioners however, also need to be aware of land and sea tenure systems; government economic, environment, and tourism policies; and custom and cultural attitudes and practices as they relate to the management of a nature based tourism business. Private ownership of an offshore reef for example, may allow protection of a resource from a land use that conflicts with tourism such as mining.

Santo is famous with divers for the President Coolidge, the world's largest and most accessible wreck dive. The island also is the site of Vanuatu's first National Park.

An examination of Lonnoc Beach Resort illustrates common difficulties faced by local operators and the unique potential and solutions of a Melanesian coastal tourist business as an example of sustainable development.

#### Marine Ecotourism: Problems and Potential—A Case Study from Madagascar

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This paper examines the problems of and potential for ecotourism in under-exploited coastal areas.

Anthropological field research I completed in 1993 in S.W. Madagascar shows the risks of ad hoc tourism both for environmental conservation and for local communities. This is a coastal area with a variety of ecosystems including coral reefs, dunes, beaches, and a hinterland with unique fauna and flora. The traditionally seminomadic Vezo fishermen have no concept of customary marine tenure. Increasing inland demand for fish, coupled with marketing opportunities and new fishing technologies, have already led to substantial infiltration of the coastal area by non-Vezo, including trading monopolies and entrepreneurs buying coastal land for tourist hotels.

The issues are how to conserve the coastal areas and reefs (a) as environments and (b) as a sustainable resource for indigenous fisheries and ecotourism.

The problems considered are how to develop management systems to minimize conflict between competing resource users, such as tourist agencies, tourists, local fisheries, entrepreneurs, and others. Solutions are put forward for discussion on this and on how to channel tourism profits through local community management structures with built-in research and conservation for sustainable use.

The Madagascar situation is discussed in the context of experience from other areas, including Sri Lanka, the Kenyan coast, Belize, and Panama. Its relevance, however, lies as much in its parallels with Torres Strait and some South Pacific Islands.

#### Managing for Ecologically Sustainable Tourism Use of the Great Barrier Reef World Heritage Area

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The Great Barrier Reef World Heritage Area is an increasingly popular national and international tourist destination, with visitors attracted to its natural setting and values. Since the declaration of the Great Barrier Reef Marine Park in 1975 when tourism was a relatively minor use, tourism use has increased from an estimated 150,000 visitor days per annum in the early 1980s to 1.5 million visitor days in 1994–95. Tourism now is the main commercial use of the Marine Park, with an estimated annual economic value to the region of over \$A1 billion.

For the past 20 years, the Great Barrier Reef Marine Park Authority (GBRMPA) has managed tourism use in the Marine Park through the use of zoning plans, environmental impact assessment, and permitting of individual operations and education programs. Rapid increases in the level and intensity of tourism use over the past three years, particularly in the offshore Cairns and Whitsunday Island areas, have challenged the existing approach and have resulted in recognition of the need to manage the cumulative environmental and socioeconomic impacts of intensive tourism use.

The GBRMPA is adopting a strategic reef-wide approach to the management of tourism use in order to deal with issues such as anchor damage to coral, displacement of existing users, protection of indigenous cultural and heritage values, and the maintenance of a diverse range of tourism values and settings, while continuing to focus on its primary goal, the protection of the natural values of the Great Barrier Reef.

This paper presents an outline of the issues currently facing the GBRMPA in managing tourism use, and proposes an approach to ensure that tourism use of the Great Barrier Reef remains sustainable.

#### Ecotourism and Marine Reserves in Negros Oriental (Philippines): A Sustainable Source of Income for Fishing Communities?

#### Helge Peter Vogt

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The coral reef marine reserve of Apo Island, Philippines is widely regarded as an impressive success of community-based reef conservation. The reserve attracts increasing numbers of tourists as well as environmental groups, thus generating additional income and promoting reef protection. An attempt is being made to evaluate the economic benefits of the protected area for fishermen, resort owners and dive tour operators.

The question has been raised as to whether this model can be applied to the other reserves in Negros Oriental, producing similar economic benefits. Therefore, some typical sites are described in terms of attractivity and accessibility to ecotourism. The potential for ecotourism varies greatly between the other 15 protected inshore and offshore reefs, with some sites showing considerable potential for ecotourism development. An initial step has been made by marking reserves to help tourists locate the reefs as well as to promote a high-profile campaign for reef conservation.

The cost-benefit analysis of Apo Island marine reserve allows some conclusions to be drawn as to what extent other fishing communities may benefit from tourism. Special emphasis has been placed on comparison of advantages and disadvantages for fishermen, as opposed to resort owners and dive tour operators.

#### Joint Management of Marine Parks

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Living within 20 kilometers of the Australian coastline are 121,000 Aboriginal and Torres Strait Islander people —nearly half the indigenous population. Coastal land, marine, and estuarine resources continue to be of great cultural and economic importance to Aboriginal and Torres Strait Islander people. Aboriginal people currently have no role in fisheries management and Aboriginal participation in Australian marine park management, so far has been limited to one Aboriginal member of the Great Barrier Reef Marine Park Consultative Committee.

The concerns and conflicts expressed by representatives of indigenous peoples relate to the lack of opportunities for involvement in decision making relating to marine parks. The above concerns embrace a wide range of issues relating to the management of the resources of the coastal zone, and arise from perceptions of inadequate levels of participation by Aboriginal and Islander people in the management of what they regard as their traditional domains both on land and in the sea. Participation is seen to be inadequate in three respects: recognition of traditional ownership, joint management arrangements, and consultation procedure. Aboriginal communities often are expected to take a Euro-Australian approach to organizing representation and operation within a Euro-Australian bureaucratic framework. If this approach is alien to the Aboriginal communities. then it logically must place them at a disadvantage in the process of negotiating Aboriginal rights and interests.

Aboriginal communities therefore must have opportunities to present a position on joint management issues in a manner and setting that is culturally appropriate. Community studies operating from within Aboriginal communities can provide the mechanism and techniques for achieving this by effectively translating issues for understanding across cultural barriers, and thus produce both more effective management and better understanding.

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#### Old Michi Village Community Project: Islander Ecotourism and Community Conservation

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Ecotourism has become a key component in the growing tourism industry of the South Pacific, but with the customs and traditions of this region it requires careful consideration before it can be effectively developed. A number of NGOs, such as World Wide Fund for Nature, are seeking to develop community-based approaches that effectively enable the community to determine the outcomes. The belief that ecotourism can be the economic saviour for countries such as the Solomon Islands has seen rapid growth of ecotourism in circumstances where often there is a lack of understanding of the sociopolitical structures of the country, particularly at the local level. Development problems facing ecotourism are largely similar to those experienced in agriculture and most forms of urban and rural land use. In the Solomon Islands, development planning of any kind is not a traditional activity.

In order to understand the present issues facing the development of ecotourism in the Solomon Islands, a review is provided here of a local project in Marovr, Western Province, Solomon Islands. The Old Michi Village Community Project (Rapita Lodge) is a community-based project that provides insights into the sociopolitical realities of ecotourism at the community level. Tourism development is a prime consumer of a community's valuable land resources, as are the products associated with it. Such changes often involve a transfer of power relationships, particularly where this is exercised locally through control over land and its use. The reactions to this within these communities can vary greatly, but the impacts on them and their often delicately balanced sociocultural relationships present problems for all those involved in the process of ecotourism development. This chapter presents a case study of the process, community control, and reactions, while providing suggestions for obtaining successful outcomes consistent with best practice in ecotourism management.

# Tourism Growth and the Makah Nation

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The Makah Nation is located on the most northwest tip of Washington's Olympic Peninsula. In recent years, the number of visitors to Neah Bay and Ozette has steadily increased. The Tribe recognizes the need for change to accommodate this increase. Surveys have been taken to develop community awareness and opinion. The surveys reveal that the community is supportive of increases in tourism where it links to tribal artisans and business development. The surveys also indicate that there is an urgent need for more food services, lodging, and campground development.

The Tribe organized the Makah Visitors Bureau, which represents the tribal and business communities. The Visitors Bureau is responsible for disseminating tourism information and informing the community on tourism plans and developments, as well as encouraging beautification of neighborhoods and enhancing highways, trails, and beaches. Through this organization, the tribe is networking with nearby chambers of commerce by attending meetings and seminars and by sharing brochures and information on the history and culture of the Makah Tribe. The Tribe also hired Dean Runyan Associates of Portland, Oregon to complete a tourism study of Neah Bay and the Ozette archaeological site. The purpose of the study was to answer questions such as: How many and what type of tourists visit the area? Are these type of visitors economically beneficial? Do we need to change focus to attract other types of tourists or should we discourage tourism growth? The Tribe is responding by sharing the results with the community, surveying their opinions, developing trails, improving on- and off-reservation signage, and planning tourist facilities.

A main factor leading to the increase in tourist visits is the discovery in the 1970s of the Ozette archaeological site of an ancient Makah whaling village, perfectly preserved in a mud slide. This was followed in 1980 by the construction of a world-class museum to house the thousands of artifacts recovered in the archaeological site. In 1991, *National Geographic* magazine featured a story on the "Ancient Makah Whaling Society." In 1994, public television released a video called *Gift from the Past*, a documentary of modern Makah society and its relationship to the Ozette archaeological discovery.

Another factor contributing to increased outside interest is that Neah Bay and Ozette are located adjacent to the Olympic National Park and the Cape Flattery Wildlife Refuge. Also, the designation in 1995 of the Olympic Coast Marine Sanctuary, a NOAA program that originates in Neah Bay, sparked new interest in the coastal waters and reefs. We also are members of the North Olympic Visitors & Convention Bureau of Port Angeles, Washington, which is very supportive in terms of advertising to the ecotourist. Foreign and U.S. tourists are increasingly interested in and curious about the culture and traditions of Native American Tribes.

The Tribe has planned for increased growth by constructing infrastructure. Entrepreneurial training is being offered to tribal members. This will assist members in preparing for secondary businesses that will develop from increased growth. Growth management plans include constructing a year-round safe harbor marina with 200+ boat slips, to be completed in 1997. Regulatory guidelines for land and development are being documented. The Makah Tribal Council has appointed a Land Use Development Team responsible for identifying land for business, industrial, and home site development. The Tribe has developed an environmental program and is in the process of adopting environmental policy and regulations. A Transportation Planner has been hired to assist in planning for intermodal transportation and land use development.

The Makah Nation has considerable potential for marine and ecotourism development. According to the response of surveys, the general opinion is that tourism growth should be gradual and should have limited impact on the communities. Most importantly, tourism growth rates should not infringe upon tribal sovereignty.

#### Marine Parks Malaysia: Tourism Impacts and Conservation Awareness

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One of the management goals of Malaysia's marine parks is to encourage tourism and recreational uses that are compatible with the primary goal of conserving natural resources. The recent rapid, unexpected growth of tourism poses new challenges for park management. This may require a reassessment of the present top-down, activityfocused management approaches, overlapping jurisdiction of land and water resources and external threats to ensure effective impact management.

This study was aimed at gaining some preliminary understanding into the tourism phenomenon, using Payar Island Marine Park as a case example. This small case study was a quick analysis of a seldomstudied situation. Respondents were asked to identify tourism/recreational activities in this park, impacts of tourism and external threats, and types of management and interpretive activities they felt were required for tourists' enjoyment of the park as well as for conservation of resources. Eight marine park managers, with direct involvement in the planning and management of this park responded to a

questionnaire and provided additional, environmentrelated information about the park through personal communication. In addition, face-to-face interviews were conducted with 12 tour operators based in Langkawi Island. Descriptive statistics are given to provide preliminary insights into the two groups' perceptions of tourism and conservation. Both managers and tour operators agreed that it is important for marine parks to be protected in perpetuity. Marine parks also should be promoted as areas for enjoyment, learning, and appreciation. However, tour operators felt that information required for instilling awareness about the park is inadequate. Implications of these findings and other perceptions on management and conservation for planning, management, and interpretation are presented.

#### Sea Kayaks as Vehicles for Sustainable Development of Coastal and Marine Tourism

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Because it is inexpensive, safe, easy to learn, and environmentally friendly, the modern sea kayak has emerged as an ideal watercraft for exploring coastal regions and for observing wildlife in quiet and solitude. Sea kayaking is the fastest growing segment of the marine sport industry, and there is a rapidly expanding international market for kayak touring to exotic destinations worldwide. This simple technology has the potential to open up coastal environments the way SCUBA opened up the underwater world.

Four types of kayaking are described: recreational, ecotourism, wilderness, and adventure. Kayak experiences and participants are defined by various mixes of these four basic types.

Two models are used to illustrate the role of sea kayaking in the sustainable development of coastal and marine tourism. The first is an assessment of the mature sea kayaking industry in Belize, Central America. The second model is Micronesia, where the industry is in an early stage of development. In both cases, information is presented regarding the economic, social, educational, and environmental aspects of sea kayaking in developing countries.

## Addendum

### Nature-Based Tourism Development in South Carolina

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Tourism is South Carolina's second largest industry, with a \$13 billion-per-year impact on the state's economy. Clustered near Hilton Head, Charleston, and Myrtle Beach, traditional golf, tennis, and beachrelated activities form the largest parts of the South Carolina tourist economy. However, abundant and relatively undisturbed natural resources in close proximity to developed areas make South Carolina an ideal setting for domestic nature travel. With the continuing support of the National Coastal Resources Research Institute (NCRI), staff and faculty of South Carolina Sea Grant and Clemson University have worked to establish the value of nature-based tourism as a tool for sustainable rural economic development, conserving natural resources, and preserving the unique character of small coastal communities. Their efforts and the work of many volunteers have led to the establishment of the South Carolina Nature-Based Tourism Association, an educational organization of community leaders, natural resource managers, and tourism businesses. The association's

accomplishments include the publication of voluntary guidelines for nature-based tourism planning and management, a bi-monthly newsletter, three annual state-wide nature-based tourism educational conferences, and a series of in-service trainings for practicing natural resource interpreters. In 1996, the association will begin a project to create a state-wide directory of South Carolina nature-based tourism businesses and resources. The directory will provide the basis for a pilot industry marketing effort, a subsequent analysis of visitor satisfaction, and a preliminary attempt to assess the economic impact of nature travelers.

#### The Economic and Marketing Benefits of Solar Power Applications for Ecotourism

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Often called "solar electricity," photovoltaic is the direct conversion of sunlight to electricity. It is an attractive alternative to conventional sources of electricity for many reasons: it is silent, nonpolluting, and renewable; it requires no special training to operate; it is modular and versatile; having no moving parts, it is extremely reliable and virtually maintenance free; and it can be installed almost anywhere. Photovoltaic are especially well-suited to ecotourism applications, providing reliable. environmentally friendly electricity for all aspects of an ecoresort, from powering of construction equipment and facility lighting to cooking, hot water (including swimming pools), water purification, and irrigation. In addition, conservation of energy resources is a powerful marketing tool. A number of resort facilities currently are profiting from solar power; several case studies of tourist facilities profiting from successful applications of solar hot water systems, solar ice makers, refrigeration, and power for lighting will be presented.

#### Atlantis Adventures Development of Undersea Tourism Attractions

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In the 1980s when Atlantis Submarines pioneered the first passenger submersible operation, underwater tourism was limited primarily to snorkeling and scuba diving. Passenger submarines opened the undersea world to the average person and created a vast new market. Over the past decade, underwater tourism has been a rapidly growing market segment of world tourism. Increasing interest in the undersea world, steady growth of world living standards, and the amount of leisure time have created a more sophisticated market that is searching for new experiences. Meeting the needs of this market, as well as the challenges of a successful start up and sustaining an operation, takes innovation, planning, analysis, and development of an appropriate marketing portfolio.

Marine tourism products, or activities, are varied, and careful analysis must be made to ensure the right product or mix of products for an existing market. As an example, Atlantis considers site selection as a crucial component to success. Three major categories are considered in evaluating potential operating sites: 1) operational considerations; 2) market trends and potential; and 3) political, economic, and business environment. Each product or activity is evaluated independently, and once a site is selected and infrastructure established, other activities can easily be added later as the market allows.

Submarine tours are the core business of Atlantis; however, like many other operators, we recognized the need to diversify in order to meet the demands of today's market. For example, last year we launched Atlantis Adventures, which embodies a collection of products that meet different market needs. The products that Atlantis has introduced require less capital investment and fewer guests to ensure their success. Marketing synergism, economy of scale, and increased retail potential are achieved when a site has more than one product to offer.

#### A Holistic Approach to Sustainable Community-Based Tourism

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Luncheon Speaker ....

Abstract not available at time of printing

#### From Trash to Treasure

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Abstract not available at time of printing

#### The Important Place of Marinas in Nautical Tourism and the Challenges to Finding Places for Them

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This paper gives an overview of marinas in the United States—their existing numbers, size, location, and economic significance; the necessary role of government in recreational boating facilities development; the marine manufacturing and tourist industries' vested interests in boat access to recreational waters; and regulatory and multiple waterway use conflict problems surrounding boating facilities development. Because of the CMT 1996 locale, the focus is on marinas in the Pacific States.

Recreational boating facilities developers today are embattled by environmental issues, scarcity of desirable waterfront property, and spirited, oftentimes acrimonious competition by other water users. The paper weighs the importance of marinas to national, state, and local economies and the future of the boating industry and nautical tourism against considerations of environmental impact and safety. Long-term policy recommendations are made for meeting the challenges to recreational boating facilities development.

Special attention is given to increasing government recognition that marinas are an asset to their community, and the various ways governments have found to nurture, protect, and even partner in boating facilities development.

The author bases his observations on a lifelong career in the recreational boating industry and the several hats he wears as the director of the boating facilities department of the national trade association for the recreational marine manufacturing industry, the secretariat to a state government's organization for boating access, and the secretary to the boating facilities committee of an international council of marine industry associations.

#### The Palau Conservation Society: Environmental NGO Working in Partnership with Local Communities, Agencies, and Academia

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After years of exploration, discussion, and work by a group of environmentally concerned and active citizens, Palau Conservation Society (PCS) was incorporated in 1994. The mission of PCS is to work with the local community to preserve the nation's unique environment, and to perpetuate its conservation ethic for the economic and social benefit of present and future generations of all Palauans and for the enjoyment and education of all who visit our island. This new non-governmental organization is committed to protecting Palau's environment through public awareness, research, and the promotion of sustainable development policies. The accomplishments of PCS can be traced to its non-confrontational approach and to its strong partnerships with local communities, government agencies, and the international scientific community.

While not directly involved with tourism, PCS is helping to build a solid environmental approach in development efforts that will lend itself to more responsible tourism in Palau. An example is the grouper aggregation project. Through this research and education project, PCS is helping the local community define sustainable economic development options for their area. PCS is educating the community about the special ecological importance of their waters as a spawning area for groupers and other popular fish. Consequently, a fishing-oriented type of tourism would not be appropriate, but perhaps an educational or "wildlife-viewing" type of tourism might be more suitable. This presentation will cover some of the methods used, the role of this NGO in the development process, and decisions made.