COASTAL TOURISM DEVELOPMENT:
GUIDING PRINCIPLES FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

The paper is based on the preparation by the author and two colleagues[1] of a report on principles of sustainable development in Australia's coastal zone, with a specific focus on the tourism industry. That report, prepared with funding under Australia's Coastal Action Program, and following public comment and revision, has recently been published by the Australian Government under the title Coastal Tourism: A Manual for Sustainable Development (Commonwealth Coastal Action Program, 1997)

The coast is an important part of the tourism industry's attraction and resource base in Australia and many other countries. It is concluded that sustainable development and use of the coastal zone is crucial to the long-term profitability of the tourism industry and the quality of life of local citizens. The stages of the development process – from feasibility to operation and management – are each considered of importance to sustainable tourism developments. A number of guiding principles for such developments are spelled out in the paper, and issues such as self-regulation and the reasons that developers should consider sustainability in their activities are addressed. Additionally, reference is made to case-studies of sustainable tourism developments that have occurred in Australia in recent years, and the lessons from those developments described.

The key recommendation arising is that a valuable contribution to protecting coastal assets – assets upon which the tourism industry and the community depend – will arise from the formulation of environmental, social and economic criteria that developers can consider in planning, constructing and operating tourism ventures in the coastal zone.

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I. INTRODUCTION

Australia's coastal zone occupies about 17 percent of the land area of the nation, and supports about 86 percent of its population, including nearly half of the indigenous population (Resource Assessment Commission, 1993). The full range of land uses occurs in the zone, including industry, commerce, agriculture, forestry, fisheries and aquaculture, infrastructure development, and hunting, fishing and gathering by indigenous Australians. Additionally, building construction and recreation and tourism rely substantially on coastal zone resources. The Resource Assessment Commission (1993) noted that, counting dwelling construction in the metropolitan areas, about 90 percent of all building activity in Australia in recent years occurred in the coastal zone.

In recent years around 30 percent of hotel and resort approvals occurred in the non-metropolitan coastal zone. This sector contains 38 percent of all hotels and motels, along with nearly half the caravan parks and three-quarters of the 'holiday establishments' found in Australia (Resource Assessment Commission, 1993). While less than a third of hotel and resort approvals occurred in the non-metropolitan area, the Resource Assessment Commission emphasised that many of these are large-scale 'one-off' developments "taking advantage of appealing views, waterfront locations, access to areas of high amenity, and large areas of land with facilities such as golf courses" (p. 21). Furthermore, such developments might have very substantial social, economic and environmental impacts in smaller communities—places where they represent a significant proportion of local investment.

II. COASTAL AND MARINE TOURISM

World-wide, international tourist arrivals now exceed 560 million per annum (McCool, 1996). Bull (1995) noted that the World Tourism Organization and the World Travel and Tourism Council estimated that international tourism expenditures/receipts were worth US$330 billion in 1993, and will increase to more than US$550 billion (at 1993 prices) by 2005. Additionally, it is estimated that around 127 million people are employed in international tourism, and that more people are dependent on travel and tourism than any other economic sector (McCool, 1996). Domestic tourism in most countries is also important (e.g., domestic tourism comprises around 70 percent of the total market in Australia) and, when added to the importance of international tourism activity, serves to emphasise just how significant tourism has become. Finally, in the context of this conference, Hamdi (1995) and other authors have commented on the growth and potential of tourism in South-East Asia. Governments and the tourism industry in most countries seek a greater share of the tourism market because of the measurable gains in employment and economic output that result. Such gains, however, do not take account of distributional problems associated with higher tourist numbers, or the costs of environmental degradation that might arise (Industries Assistance Commission, 1989).

Butler (1991) hypothesised that tourism destinations move through a cycle of development from exploration to eventual stagnation, decline and, possibly, rejuvenation. Butler argued that symbiosis between the environ-

ment and tourism is essential if an objective of sustainable tourism is to be achieved--something about which he was pessimistic. Concern about the impacts of tourism in the coastal zone have arisen only in recent years, with Miller (1993) explaining that interest in both the benefits and costs arising from coastal and marine tourism is a relatively recent phenomenon. Miller concluded, however, that because of growing interest in the environment and increasing travel, "the positive and negative effects of tourism on [coastal and] marine environments are too potent to ignore" (p. 183). Kenchington (1993) also noted that tourism and recreation are key factors in relation to conservation and sustainable development in the coastal zone.

The fact that the natural environment forms the basis of many tourism destinations and of marketable recreational products has become clear to policy makers and the tourism industry in recent years (Buckley, 1994). Nowhere is this more important than in the coastal zone where, at least in Australia, the policy framework is now couched in terms of ecologically sustainable development (ESD). The aim of ESD is to achieve development that meets the needs of the present generation and improves the quality of life without diminishing the ability of future generations to meet their needs, while maintaining the ecological processes upon which life depends (McKercher, 1993).

The tourism industry has also recognised that long-term viability and profitability are closely related to the integrity of the resource base – the natural and cultural environments that provide tourism opportunities – and has it self developed codes and guidelines

for improved environmental planning and management (Genot, 1995; Hawkins, 1995). There have been attempts to increase cooperation between the Australian tourism industry, government (at national, state and local levels) and non-government organisations, with emphasis placed upon the adoption of voluntary management procedures such as the use of environmental guidelines and codes of practice, in preference to increasingly stringent legislative requirements (Jenner and Smith, 1992). The Australian Tourism Industry Association (ATIA, now Tourism Council Australia, TCA) produced a *Code of Environmental Practice* and a set of *Environmental Guidelines for Tourist Developments* in 1990, but these documents do not adequately address the issues relevant to the diversity of ecosystems found in the coastal zone of Australia and the pressures associated with the concentration of the population in coastal areas. The documents also do not address the important issue of the relationships and communication between important stakeholders in coastal tourism development (discussed further below).

III. BEST-PRACTICE ENVIRONMENTAL MANAGEMENT AND COASTAL TOURISM DEVELOPMENT

Best-practice is a term that is increasingly being applied to business activities as a means of achieving quality management, and tends to be viewed as "...the way in which leading edge companies are able to manage and organise their operations – to

deliver world class standards of performance ..." (Department of Industrial Relations 1992, p. 3).

Best-practice tourism development also requires consideration of the impact of tourism development activities on the natural and cultural environments of the coastal zone of Australia. There are a range of different types or classes of tourism development and it is, therefore, important to recognise that different types of development will represent and promote various aspects of good environmental planning and management practice.

"The goal is not to have all tourism establishments adopting the same approach to environmental management, so much as to encouraging all operators to do better environmentally" (Pigram, 1995, p14).

For example, larger scale developments are more likely to have documented procedures and guidelines in place, and are also more likely to be involved in monitoring operations. However, small-scale developments can increase environmental performance by improving the efficiency of waste, water and energy management systems, and for these developments these sorts of changes may be more beneficial than producing comprehensive environmental guidelines and monitoring programmes.

Consideration of impacts relating to both the construction and operation of specific tourism developments and the impact of related tourism activities upon the coastal environment, is essential to exemplify best-practice criteria. In defining best-practice criteria, individual operators and developers need to define and adopt a code of ethics in terms of environmental planning and management and to incorporate those ethics into all aspects of business development. These ethics should consider the following principles which are associated with best-practice environmental management (Pigram, 1995; Anderson, 1994):

- demonstration of a strong commitment to environmental excellence, often requiring a significantly different management style;

- devolution of environmental responsibility to all levels of the organization through a flexible management structure;

- development of a proactive strategy, plan or set of guidelines, recognising the connections between environmental excellence and competitive-ness;

- incorporation of environmental indicators and audit processes within the overall organisation; and,

- provision of staff support, training and involvement in the processes of change and accountability required to achieve environmental excellence

The implementation of these principles in the development of best-practice coastal tourism development requires consideration of the following environmental management issues:

- tourism infrastructure design and construction techniques;
- building management;
- staff training;
- waste management and recycling approaches;
- energy efficiency and resource management;
- visitor information and education facilities;
- managing visitors and their access to the coast, including off site

impacts;
- visitor transport systems;
- involving the community (in planning processes and coastal care);
- ecosystem protection and rehabilitation;
- regional planning and cumulative impacts;
- partnerships with indigenous communities; and
- multiple use of the coastal zone.

There are many sources of information concerning these management issues. However, the expertise, expense and long term commitment required to adapt and improve environmental performance indicates that a necessary challenge is to convince disparate elements of the tourism industry to move beyond the minimum of passive regulatory compliance (Anderson, 1994; Pigram, 1995). It is also important to note that training of staff and raising the awareness of visitors are key pre-requisites to ensure improved environmental performance, and industry groups and networks should play a role in disseminating information about improved environmental planning, management and performance.

IV. ASSISTING SUSTAINABLE TOURISM DEVELOPMENT

Economic, social and physical factors are each important in the quest for tourism that is sustainable. Technical, political and legal factors are also important (Lieper, 1995), while matters such as the education of tourists about the environment, the management of tourism operations to minimise or reduce environmental impacts, and potential contributions by tourism to conservation need to be considered (Buckley, 1994). Central to the search for sustainable coastal tourism, however, is the stake-holder groups involved. These include tourists themselves, tourism developers and facility operators, legislators, resource managers (e.g. national parks services), the community, and owners of land and other resources, particularly traditional owners. Each of these groups has a vested interest in maintaining the resources upon which tourism depends.

In late 1995, with funding from the Commonwealth Coastal Program managed by Environment Australia, the author and his colleagues were asked to produce a document in which guidance and advice on how to make coastal tourism developments sustainable were provided. The task was to translate the principles summarised above for "best-practice" developments into a manual that could easily be understood and used by developers and approval authorities. Subsequently, two documents were prepared – *Coastal Tourism: Guiding Principles for Sustainable Development*, and *Environmental Guidelines for Tourism Management and Planning in the Coastal Zone of Australia: Background Paper*. These papers were then distributed, on request, to more than 1,100 individuals and organisations with an interest in coastal tourism development. From the feedback received, revisions were made to the two original documents and the final report, *Coastal Tourism: A Manual for Sustainable Development*, produced (Commonwealth Coastal Action Program, 1997). The manual is based on the concept of ecologically sustainable development. The charac-

teristics of ecologically sustainable tourism are shown in Box 1. Reference to the box shows that sustainable tourism is not just a matter of taking care of environmental needs, but that it also takes account of the economic and social needs of local communities, as well as the cultural and educational aspects of tourism development.

The particular stakeholders targeted by the Manual are tourism developers and operators, along with officers in local government and other authorities who have responsibility for

the development approval process in each of the states of Australia. It is, in this sense, 'industry-oriented'. The manual does not provide a set of legislative or enforceable requirements, but rather voluntary guidelines for developers, operators and planners to adopt in development activities whether large or small. Neither does the manual replace the advice of professional planners, engineers, architects, and so on, although it does provide guidance on selecting and communicating with those professional groups.

Box 1: Characteristics of ecologically sustainable tourism

The challenge for tourism developers and operators is to develop the tourism industry in a way that conserves its natural resources and built heritage base, while minimising negative environmental, ecological social and cultural impacts. Ecologically sustainable tourism:

- does not use non-renewable resources faster than renewable substitutes can be found for them.

- does not use renewable resources faster than they can be replenished.

- minimises energy consumption in facility operation.

- does not release pollutants faster than the environment can safely assimilate them.

- does not impact on biodiversity and ecological systems and processes.

- maintains a full range of recreational, educational and cultural opportunities for both present and future generations.

- benefits local communities and the regional both socially and economically

- does not affect the capacity of other sectors of the economy to achieve ecological sustainability.

Source: Commonwealth Coastal Action Program (1997).

V. STAGES OF THE DEVELOPMENT PROCESS

The approach taken to preparation of the Manual was to consider the

various stages of the development process and to provide advice on the environmental, social and economic issues that might be addressed in each stage. Flowcharts and checklists, along with examples and references are also

provided.

Stage 1: Feasibility

Clearly, planning for sustainability is best begun prior to any actual on-site physical activity occurring — environmental protection is likely to be cheaper than environmental rehabilitation. This is the pre-application stage where issues are identified, consultation with planning authorities and communities begins, and factors that will affect the design, siting, construction and management of the proposed development begin to be understood.

At this point there are five questions that might be addressed by developers, planning authorities and other stakeholders. Each of these is addressed below.

1. Is this a good site for the proposed development?

The environment and ecology of a site, along with the needs and requirements of the approval authorities and local communities are important considerations in assessing a potential tourism development site. Some sites are unsuitable because they are too fragile (e.g. sand dunes), while development at other sites may interfere with or damage ecological processes (e.g. wetlands, mangroves and estuaries). Considerations such as aspect, soil types, water courses and drainage patterns, distance from cultural sites, setbacks from beaches, presence of threatened or endangered plant and animal species or breeding sites, and potential dangers to visitors such as surf rips might all be considered.

> **Box 2: Seven Spirit Bay**
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> The site for Seven Spirit Bay, a facility in the Northern Territory which accommodates up to 48 people, was chosen because it required minimal clearing, provides protection from cyclonic storm surges and allows the developers to capitalise on the natural drainage patterns of the area which filter run-off through the forest before discharging it into the Bay. The soils were also suitable for construction traffic, and will not easily erode.
>
> <u>Source</u>: Commonwealth Coastal Action Program (1997)

2. Will the proposed development be environmentally acceptable?

This is a question of the environmental impact that the development might have in the local area, whether it is on biological features or whether it interferes with other users of resources such as land and water in the area. Pollution and waste management effects need to be considered at this stage.

3. Will the proposed development be socially acceptable?

Community consultation is an important part of the feasibility stage of a proposed development. Local communities are likely to be affected in a range of ways by tourism developments and, consequently, some community 'ownership' or acceptance of the project is important. The formulation of a community contract or agreement is one possible strategy developers might adopt.

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4. *Will the proposed development be economically viable?*

This is a question of market research, the appraisal of different options to implementing the development, and discussing the investment with financial advisers.

5. *Will the proposed development be feasible?*

Having addressed the previous four questions, the proposal will, most likely, be revised and a decision as to its overall environmental, social and economic feasibility can be made.

Stage 2: Planning and Design

This stage will include the necessary designs for buildings, infrastructure, landscaping and access; a draft environmental management system; and further financial and logistical assessments of the project's viability and sustainability. Developing an environmental management system (EMS) is particularly important at this stage as such a plan will guide the design and construction stages of the development. The potential for incorporating technology that reduces energy use, such as natural lighting and solar heating, along with approaches to waste management and reduction of pollution are important in the EMS. Furthermore, such a system should include approaches to the education of visitors and to the education and training of staff of the facility.

Box 3: Couran Cove Resort, Queensland (due to open at the end of 1997)

Developers of this resort acknowledge that the resort and increased numbers of people will alter the local environment. They intend to minimise this by incorporating an education, research and interpretive centre into the resort facilities; by training staff according to their environmental management plan; and by restricting access to particularly sensitive areas of the site.

Source: Commonwealth Coastal Action Program (1997)

A responsible design for a development is based on the needs of a site's environment and its local community; so designs need to be both environmentally and socially responsible. Such designs will take account of the landscape by restricting building heights, avoiding visually prominent areas such as un-developed headlands, using renewable energy where possible, retaining buffer zones between buildings and beaches or fauna habitats, using materials that do not leach harmful substances into the environment, and fitting in with the visual character and architectural style of the local area. Liquid and solid waste disposal will be critical considerations in ensuring a responsible development.

Finally, during this stage attention will be paid to the formulation of a sound business plan for the construction and operation of the facility.

Stage 3: Assessment and Approval

In most countries there will be an approval process through which development proposals must pass. In Australia this can be a long process involving local planning authorities, several state government departments and, in some areas national government agencies (e.g. the Great Barrier Reef Marine Park Authority). "Many developers have been frustrated by the multiplicity of agencies involved in planning and managing Australia's coastal zone. Details of the process vary from state to state, and the overlapping roles and responsibilities of all three spheres of government make coastal development a complex and confusing business..." (Commonwealth Coastal Action Program, 1997, p. 49). While there is a general issue here concerning the planning and approvals process and the difficulties of overlapping (and often unclear) jurisdictions, from a developer's point of view early and ongoing consultation with communities and authorities is crucial to developing a sustainable venture. Furthermore, the cost of gaining approval, including the costs of environmental impact assessment, where required, must be factored in by tourism developers.

Stage 4: Construction

The goal in this stage is to develop the tourism facility with minimal environmental impact; that is, the aim is to develop an environmentally friendly construction process and to ensure that contractors comply with that process. Issues such as soil erosion and compaction, the use of settling ponds for pollutants, recycling, and agreements about heritage or archaeological sites will all be important. Additionally, the establishment of on-site guidelines for contractors, briefing and training sessions for contractors and their employees, and perhaps a performance bond or deposit from contractors will also contribute to a 'friendly' construction process. Such approaches must also be supported by an appropriate monitoring plan during the construction phase.

Box 4:

a. Eco-Beach Resort, Western Australia

During construction contractors were confined to specific vehicular tracks and boardwalks to minimise damage to vegetation and landforms. Recycled materials were also used in construction wherever possible.

b. Kingfisher Bay Resort and Village, Fraser Island, Queensland

Developers required contractors to remove all building waste as it was generated and to use all vegetative waste as mulch for landscaping. They also minimised the environmental impact of the construction process by regulating tree clearance and other forms of site disturbance, imposing fines of up to $1,000 for contractors who contravened their guidelines.

Source: Commonwealth Coastal Action Program (1997)

Stage 5: Operation and Management

The final stage of the process for developing sustainable coastal tourism operations will, of course,

continue for the lifetime of the venture. A goal in this stage is to continually adapt and improve the operation as conditions require. In addition to the implementation of the environmental management system, there again needs to be a focus on the stake-holders who, in this case, include the staff, visitors, and the local community.

The design and implementation of the EMS should be ongoing and interactive. The views of local groups in the area, such as Coastcare and other environmental groups, and surf life saving clubs, or whichever are the appropriate groups in various countries, should be considered in the EMS.

Staff training in the objectives, policies and procedures of the EMS, along with training to understand the development's environmental features, and general training about the dynamic nature of the coast might all be compo-nents of a program to ensure that staff are committed to sustainable activities. The development of staff awareness about local issues and the local commu-nity (including the indigenous commu-nity) will also aid appropriate manage-ment.

Box 5: Staff at Quicksilver Connect-ions

Quicksilver Connections run trips to the Great Barrier Reef. Staff undergo a short coral reef naturalist's course, devised by the Reef Bio-research biologists to provide know-ledge in practical skills such as snor-kelling and boat handling, as well as how to protect the reef.

Source: Commonwealth Coastal Action Program (1997)

The activities and behaviour of visitors is important in achieving ecolo-gically sustainable development of tourism operations. Ensuring that visitors behave appropriately is best achieved through on-site advice and education; e.g., encouraging use of preferred cleaning products, limiting length of showers to save water, refrain from feeding wildlife, lighting fires, and so on. If visitors are made aware of how their activities affect the environment, and if they are encouraged to take responsibility for reducing their impacts, then they might be more inclined to behave appropriately.

Box 6: The Anchorage Marina, New South Wales

Guests are provided with a two-page set of instructions including safety, hazards, navigational issues, and environmental criteria for vessel repairs, waste disposal, noise and amenity, and water quality. Marina staff inspect vessels to ensure, for example, that automatic bilge pumps are switch-ed off. They also place coloured dye tablets in vessel toilet bowls to identify visitor's non-compliance.

Source: Commonwealth Coastal Action Program (1997)

Involving the local community in the EMS might also contribute to the success of a tourism venture. The employment of local indigenous people or others with considerable local know-ledge to conduct guided walks or give talks, or the sponsorship of local volunteer groups to undertake coastal management projects (e.g., Dunecare) are amongst the strategies that might be developed to involve the community.

Finally, during the operational phase there is a need to implement a monitoring system for the whole development. Monitoring should be ongoing in order to assess progress against the targets established in the EMS and to identify appropriate responses when problems arise. An audit of the EMS might also be useful to evaluate its success.

VI. CONCLUSION

The discussion of ecologically sustainable development has tended to adopt an environmental focus. However, it is clear that sustainability also has economic and social dimensions that must be considered in any development. Neglecting any one of these three interdependent areas might threaten the sustainability of a venture.

Furthermore, at least in Australia, there has been a tendency to develop regulations in response to concerns about the non-sustainability of developments in the tourism or any other sectors. The merit of promoting the adoption of voluntary guidelines for sustainable coastal tourism ventures should, however, be recognised. Consumers are now more sophisticated and increasingly oppose environmentally degrading developments in natural areas. There is also recognition that, in the longer-term, sustainable practices produce economic benefits (e.g. through energy savings, avoidance of rehabilitation, etc.). And, of course, development proposals that do not pay sufficient attention to at least some principles of sustainability may not be approved or, at best, may have to be reformulated and run the gamut of the approvals process a number of times.

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