Guidelines for Tourism in Parks and Protected Areas of East Asia

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World Commission on Protected Areas

The World Commission on Protected Areas (WCPA), one of six commissions of IUCN – The World Conservation Union, is a world-wide network of some 1,300 protected area experts. Its members work in a volunteer capacity to raise the standard of protected area planning and management.

The WCPA has a number of task forces, each of which tackles policy and program issues of importance to park and protected area planning and management. The objectives of the Task Force on Tourism and Protected Areas are to:
• Provide guidance to the WCPA, and others, on the relationships between tourism and protected areas
• Identify the size and characteristics of protected area tourism
• Develop case studies to investigate best practice models for tourism management
• Develop guidelines for the management of tourism in protected areas
• Communicate tourism management theory and practice to planners, managers and others
• Provide opportunities for parks and tourism people to work together on shared issues within protected area tourism.

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Table of Contents

Editorial Note

A primary goal of writing this document, *Guidelines for Tourism in Parks and Protected Areas in East Asia*, is to produce a collection of material that is useful to planners and managers of parks and protected areas in East Asia.

When referring to the East Asia region, countries and jurisdictions included in the region are:
- People's Republic of China (China)
- Hong Kong, China (Hong Kong)
- Taiwan, Province of China (Taiwan)
- Democratic People's Republic of Korea (North Korea)
- Republic of Korea (South Korea)
- Japan
- Mongolia
- Macau

For convenience, the short English names (given in brackets) are used throughout the document. Any use of the short English name implies this designation given above.

Throughout the writing process, many attempts were made to contact potential contributors in the various East Asia jurisdictions in order to have access to current park management situations and accurate tourism information. Despite these efforts, specific information was sometimes difficult to retrieve. The authors have made the best possible attempts with the resources available to include detailed up-to-date information on each jurisdiction, however some gaps still exist. The guidelines are designed so that the lessons and information can be applied to a broad range of situations, regardless of whether or not specific information has been referenced within the text. Every effort has been made to utilise appropriate jurisdictional references, however, the information presented in this document is not an expression of any opinion concerning the legal status of any country or jurisdiction, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

It is hoped that the comprehensive information on sustainable tourism concepts and projects collected within this document are useful and informative for all who are trying to implement sustainable tourism practices within their own environments.

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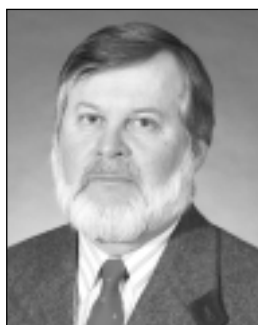
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Foreword

This document has been created primarily for planners and managers of parks and protected areas. It deals with issues associated with park tourism (defined as the planning and management of park visitation). It has been designed to help park managers think about the influx of tourism to natural protected areas, and to urge park managers to consciously plan for management of the interactions of tourists and the natural and cultural environment. Effective planning enables various interest groups to maximise the potential positive impacts of tourism while minimising the various potential negative ones.

Readers with a variety of backgrounds may also find this document to be useful. Local communities, private tourism operators and land-use planners will be able to use various sections of this document to assist their practices in being more sustainable. The broader the audience, the greater the potential for developing a common understanding of issues and challenges shared by the various stakeholders directly and indirectly involved in the planning and management of parks and protected areas. National governments, international organisations and the general tourism sector may also consider the concepts presented. In a world of globalisation, many disciplines and sectors must work together towards mutually beneficial goals, such as conserving significant natural and cultural features of the world.

General tourism and protected area concepts are introduced in Section 1. Tourism and protected areas in East Asia are reviewed in Section 2. In Section 3 general guidelines for sustainable tourism are outlined in a 15-item checklist. Parks and protected area managers can refer to this checklist to guide their efforts in sustainable tourism planning and management. Issues related to high-altitude and marine environments are outlined in Section 4. Conclusions relating to broader actions necessary for structural support behind successful guideline implementation are identified in Section 5. A summary of suggestions made throughout the document is found in Appendix H.

The intent of this document is to provide general suggestions that each jurisdiction and park can use when developing their own approaches to policy development, funding, implementation and management.

General objectives of the document are to:
- Introduce park tourism concepts
- Describe tourism in East Asia
- Identify tourism goals linked to protected areas
- Outline issues related to tourism to protected areas in East Asia
- Provide suggestions for implementing sustainable tourism practices in parks and protected areas of East Asia
- Encourage readers to think about how to create positive overlap between resource protection and tourism, to the benefit of all parties involved
- Build a common understanding of tourism terminology, existing issues and actions that can address these challenges.

This document is an important and welcome contribution to the field of protected area tourism in East Asia. It is a valuable resource for park managers and other decision-makers involved in park planning, adding to current practices and theory used by park managers. The authors have placed an emphasis on human dimensions involved in protected area management, and encouraged advance planning for human/nature interactions and potential outcomes from the tourist experience. The document contains a comprehensive collection of information on best practices, visitor management, education, stakeholder involvement and other topics related to protected area management. Examples of excellent projects occurring both within the East Asia region and beyond provide concrete illustrations of the concepts discussed.

These guidelines are a vital source of knowledge for how to develop and manage tourism to protected areas in a sustainable manner. It is hoped that professionals involved in protected area tourism will gain valuable insight and guidance from the ideas presented within these guidelines. If each of us can make the effort to adopt and continue to apply these concepts to protected area management throughout the East Asia region, it will only help to strengthen the levels of protection and appreciation given to our magnificent collection of natural and cultural protected areas.

Mr. Kunio Kikuchi
Regional Vice-Chair of the East Asia Region
World Commission on Protected Areas
World Conservation Union

Contributors

1.0

Introduction

1.1 CURRENT SITUATIONS AND TRENDS IN TOURISM AND PROTECTED AREAS

1.1.1 The Industry of Tourism

Tourism is the world's largest and fastest growing sector of the global economy. The World Tourism Organization (WTO) is the tourism industry's most comprehensive collector of tourism data. In 1999 WTO reported an estimated 657 million international tourist arrivals, which generated US$455 billion world-wide (WTO, 2000a). In other words, the equivalent of roughly 10% of the world's population was transported internationally in 1999. Compared to 1950, when 25 million tourists generated US$8 billion, there have been significant increases in both the volume of international travel and receipts generated. From the period of 1950 to 1999, tourism arrivals had an average annual growth rate of 7%. International tourism receipts (at current prices and excluding international transport costs) had an average annual growth rate of 12% over the same period (WTO, 2000a).

The tourism industry has been expanding and diversifying at a tremendous pace. Over the past three decades, international arrivals have grown steeply from 183 million in 1970, to 450 million in 1991, with figures expected to reach over 670 million by the year 2000. It has been predicted that there will be approximately 937 million international tourist arrivals in 2010 (WTO, 1994). Domestic tourism is increasing as well, although numbers are difficult to report, since collection methods vary. Domestic tourism is not included in these international arrival figures. The value of domestic tourism is several times larger than international tourism (Eagles, McLean & Stabler, 2000 in press).

Tourism is the world's largest industry, generating a larger gross dollar output than any other single industry (e.g., it is bigger than the automotive, electronic and agricultural industries). In 1998 the international tourism and international fare receipts (the receipts related to passenger transport of residents of other countries) together accounted for roughly 8% of the world's total export earning on goods and services (WTO, 2000a). Total international tourism receipts, including the international fare component, amounted to an estimated US$532 billion in 1998, putting it ahead of

all other categories of international trade (WTO, 2000a). The ever-increasing importance of the economics of tourism has captured the attention of policy makers in many countries in the world. Tourism is now an integral part of the global economy. For many people travel is easy, fast and relatively cheap.

Travel and tourism is the world's largest employer. According to the World Travel and Tourism Council (WTTC), tourism supports 200 million jobs world-wide, which represents 8% of total employment or 1 in every 12.4 jobs (WTTC, 2000). Tourism generates 11% of the world gross domestic product (GDP), 8% of total employment, and 5.5 million new jobs per year until 2010 (WTTC, 2000). By 2010 the WTTC forecast predicts that travel and tourism will grow to account for 11.6% (or US$6.591 billion) of the global GDP and support 250 million jobs (9% of total employment or one in every 11 jobs).

Not only is the overall travel market increasing, but vacation travel to national parks and other types of protected areas is also increasing. Recognition of the importance of tourism within the field of sustainable development, along with increased world-wide interest in environmental issues, have helped contribute to the need for the creation of sustainable tourism principles.

However, it is important to note that this vast increase in travel is dependent upon inexpensive energy. If the costs of energy, and most importantly of oil and gas, increase significantly, the volume of travel will be reduced accordingly.

1.1.2 The Industry of Protected Areas

The establishment of special protected areas by society has been a cultural phenomenon for centuries. Such sites have many names, but typically they involve the creation by government authorities of special designations for historic or ecological protection, and of special management institutions governing site use by people. In many cases, travel to the sites by people have created the initial impetus for site designation and protection.

Travel to experience protected areas has been an integral part of park operations for a very long time. As visitor numbers grow so do the management challenges. Two

As noted in the introduction, Taiwan refers to Taiwan, Province of China.

changes in recent years are an increased recognition of the importance of ecological protection, and the need for specialised management of the impacts caused by visitors. There are many driving forces behind tourism flows and volumes in parks. These include factors such as increasing wealth, changing attitudes toward the environment, technological evolution, economic restructuring, and civil unrest. These influence visitation to parks.

Parks and protected areas offer ecological, educational, recreational, scientific, economic and cultural benefits to domestic and international visitors, surrounding communities and society in general. Because people benefit from these areas, some people will want to be involved in decisions related to their establishment and management. They will want to be able to express their opinions about how the area should be managed. Many will want conditions that help individuals to experience the benefits of the protected area. Individuals and organisations who have a direct interest in or are affected by park and tourism management policies are called stakeholders. For effective management and sustainable tourism to occur, protected area managers must involve stakeholders in the management process at the earliest stages possible. See Appendix A for a complete list of stakeholders.

Management of tourism in parks and protected areas is influenced primarily by three major stakeholder groups with interests in the areas: a) tourism operators and park managers, b) visitors and other users, and c) society. Each group views tourism from its own unique perspective. An effective and comprehensive management plan for a park must incorporate an understanding and appreciation of the perceptions of each of these groups. Failure to recognise and address all of the driving forces of tourism will result in short-sighted management that only considers a portion of potential stakeholders.

Tourism Operators and Park Managers
All successful tourism has professional management. In parks and protected areas there are two distinct managerial groups: park managers and private sector tourism operators. These people provide the resource base, the facilities, and the programs that create the opportunity for tourism. They have specific objectives in mind when they do their job.

Park managers and tourism operators have different, and often competing, objectives. Park managers are driven by legislative mandates and their main goal is to protect socially-defined values. Private tourism operators are driven by the market and their main goal is to make a profit.

These two managerial groups view tourism as a means to:
• promote conservation
• generate revenue
• learn from others
• create employment and income
• develop long-term sustainable economic activity
• manage resource extraction
• foster research.

Visitors and Other Users
Park tourism is ultimately dependent on visitors for its viability. These individuals choose to spend their time and money on places of interest to them. Through their experiences, visitors and other users receive physiological, psychological, social, economic and environmental benefits. These stakeholders view tourism as a means to:
• promote conservation and preservation
• gain health benefits
• enhance personal experiences, including cognitive objectives (e.g., learn about history), affective concepts (e.g., gain peace of mind), and psychomotor desires (e.g., get exercise)
• participate in a social experience
• achieve family bonding
• spend quality time with friends
• provide the opportunity for courtship rituals
• engage in a spiritual experience
• meet people with similar interests
• achieve group team building
• achieve time and cost efficiency
• feel personal accomplishment.

There are important users of park resources that are not recreational visitors. These may include local people who have access for religious purposes, resource extraction, or for passage through the protected area. The interests of these users may conflict with the interests of the recreational users, and these conflicts must be dealt with in the park management plan.

If parks are properly designed and managed, it is possible for tourism to be consistent with protected area objectives.
(Butler, 1992)

Society

Society at large has objectives for park tourism. These objectives are often embodied in government policy. This driving force views tourism as a means to:
- achieve redistribution of income and wealth
- gain foreign currency
- assist community development
- promote the conservation of natural and cultural heritage
- sustain and commemorate cultural identity
- provide education opportunities to members of society
- promote health benefits
- expand global understanding and awareness.

1.1.3 Understanding Park Tourism

At the same time that human use and development negatively impact some protected areas, the demand for travel to scenic areas of natural beauty increases. The tourism industry is intimately connected to the protection of natural and cultural areas. Often, a high quality natural or cultural environment is the main attraction that draws the visitors to the area. It is important that all stakeholders work at developing an understanding of each other's goals, and at building partnerships aimed at attaining those goals. One overall goal should be protection of the high quality natural or cultural environment that attracts tourists and enriches the quality of life of the local people.

Some managers of protected areas may not embrace tourism, since for many, their past experience has focused on avoiding or repairing the damage caused by visitor impact on protected landscapes (e.g., controlling visitors or restoring damaged areas). More overlap between resource management and tourism management is desirable, so that protected area managers have the opportunity to work more closely with the tourism sector, learn about it, understand it, and actively seek to influence tourism occurring in their protected area.

Similarly, federal or regional tourism planning is often not closely linked to protected areas. Few people employed in the tourism industry possess conservation knowledge or experience. Few tourism or economic specialists are employed in protected areas. Members of the EUROPARC

> **"Management is a crucial element for the long-term survival of the environmental and cultural resources upon which ecotourism depends and is frequently the weak link in the connection between tourism and the environment."**
>
> (Valentine, 1993, p. 108-109)

Federation (previously known as the Federation of Nature and National Parks of Europe or FNNPE) wisely observe that such "polarised positions are unhelpful to both sides. Conservation should take top priority in protected areas, but this does not always mean that tourism cannot bring benefits. The future must lie in a much closer working relationship between the tourism sector and conservationists" (FNNPE, 1993, p. 4).

There is a two-way interaction between sustainable nature tourism and the environment upon which it depends. Ideally, the goals of nature enjoyment and contribution to conservation are both attainable. Links between tourism and the environment are outlined in Figure 1. It is crucial that tourism occurring in natural protected areas be subject to an adequate and appropriate management regime.

1.1.4 Current Efforts and Trends

Commonly accepted theory, frameworks and methods change over time. Consumer demands and preferences change too. For example, in the past, one aspect of park management in North America was strict prevention of forest fires within park boundaries. Now controlled forest burns are allowed because scientists and managers have realised that the absence of fire creates an unnatural system. Many parks and protected areas used to be managed from a natural resource perspective that placed primary focus on the resources themselves without considering the human, social, cultural and historical environments in which the natural resources were located. Now, integrated ecosystem management takes into consideration multiple factors and concerns, including the interaction between humans and the natural environment.

Current trends within the protected area tourism industry include:
- linking development and conservation
- increasing travel to protected areas
- increasing consumer demand for environmentally friendly business
- moving towards self-regulation in the tourism industry
- acknowledging the important financial aspects of tourism to protected areas
- acknowledging the importance of socio-cultural aspects of the sustainable tourism.

Linking Development and Conservation

At the United Nations' Earth Summit in Rio de Janeiro in 1992, the vital link between conservation and development was discussed and accepted on a global scale for the first time. "Conservation organisations now recognise that conservation objectives cannot be met in isolation without also tackling problems associated with development. Neither can anyone concerned with development – in both the developed and developing worlds – ignore conservation" (FNNPE, 1993, p. 5). Sustainable tourism combines conservation principles with tourism development. Tourism development can be a threat to protected areas, especially when development occurs rapidly, uncontrolled, and without proper planning. Sustainable tourism aims to reduce this threat and hopes to turn tourism into an opportunity for parks to gain support of conservation objectives.

FIGURE 1: Links Between Tourism and the Environment

There are four main links between tourism and the environment:

1. Components of the natural environment are the basis for a marketable tourism attraction or product

2. Management of tourism operations should minimise or reduce their negative environmental impacts

3. Direct and indirect economic contributions should be made by funds generated through tourism to conservation of the environment being visited

4. Attitudes of tourists towards the environment are impacted by the environmental and cultural interactions provided by tourism operators and park staff.

There are environmental aspects to every major component of tourism business (e.g., products and markets, management, money and people). These environmental aspects are heightened when the locations in which tourism is occurring are protected areas (Buckley, 1994).

Many private tourism companies are aware of the importance of maintaining a high quality environment, and are developing environmental policies to reduce impacts on the environment. An increasing number of organisations and professionals now make a connection between tourism's economic contribution and the importance of redirecting some of that benefit directly to conservation. It is important that tourism development is linked to conservation so that both can be sustained (FNNPE, 1993).

Increasing Travel to Protected Areas

The international nature tourism market is already large, and market size continues to increase as outlined in Figure 2. The market for tourism that is based on the natural environment, wildlife, culture and outdoor pursuits is growing in popularity. National parks and their local communities are feeling pressures associated with the growing numbers of visitors, an increasing variety of outdoor activities and continuing demands to develop tourism facilities. Are we in danger of loving our protected areas to death? Concern exists that beautiful and remote areas are spoiled as they turn into fashionable holiday destinations. As tourism to parks and protected areas continues to grow (as do pressures associated with it), effective planning and management of tourism becomes absolutely critical in order to ensure the ecological and cultural sustainability of these areas.

Increasing Consumer Demand for Environmentally Friendly Business

The quantity of *green* products and services available to consumers has increased steadily over the past 20 years. Products that once belonged to a highly specialised, alternative market, supported by only a small section of society, are now easily and commonly obtained. A product with an environmentally friendly label is perceived as more appealing than an otherwise identical product without such a label.

The increase in consumer demand stems from numerous developments over the past 20 years. Today issues and concerns about the deterioration of the natural environment are more complex and plentiful than in the past, and these issues affect human populations on a more global scale. Technological advances have granted humans the power to modify their surroundings at a previously unprecedented rate, often resulting in alterations to the natural environment which are negative and destructive. The potential for humans to alter rapidly the landscape, and produce long-lasting impacts in the process, has grown. So too has public awareness and understanding of these global environmental issues and concerns. Consumers are more educated about these issues than in the past, and they are more willing to take action to act responsibly. The pressure to adopt an environmentally friendly attitude, expressed through selection of environmentally friendly products, has increased. Producing *green* products creates an opportunity for

individuals to act in an environmentally friendly way with relatively little effort, thus experiencing peace of mind.

Moving Towards Self-regulation in the Tourism Industry

Driven by consumer demand, and in an attempt to establish a competitive edge, many companies are promoting their practices and products as environmentally friendly. However, an environmentally friendly label affixed to a product or service does not automatically ensure that the various aspects involved in its production and delivery are in fact environmentally friendly.

In the tourism industry, businesses that make efforts to maximise the positive impacts to the host communities and environment and minimise the negative ones want to distinguish themselves from other businesses that also claim to be environmentally friendly but who actually are not. An accreditation system offers a method of assessing whether or not individual products, tours, services and destinations meet a predetermined base level of environmentally friendly criteria. Rather than enforcing protection of the natural environment solely through laws and fines, this additional method of conservation is gaining momentum. Members of the tourism industry are developing criteria and voluntarily pledging to adhere to those criteria in the best interests of both the company's success and in the long term, sustainable use and conservation of the resource.

"The new traveller is described as better educated, more culturally aware, more environmentally and culturally sensitive, and more curious and analytical."

(Doswell, 1997, p. 30)

The Madikwe Game Reserve, Northwest Province, South Africa, is one of the largest ecological restorations ever attempted. Ecotourism revenues financed the introduction of over 10,000 large mammals into derelict farmland.

Madikwe Game Reserve and Northwest Parks & Tourism Board of South Africa

Acknowledging the Important Financial Aspects of Tourism to Protected Areas

After the assignment of protected status to areas of natural ecological and cultural significance, the challenge of obtaining sufficient funds for the ongoing maintenance, scientific study, operation and protection of these areas arises. Potential sources of funding include government budgets, grants from non-profit organisations, private industry contributions, and business activities operated by the park.

Often park agency funds and resources are insufficient for effective management. Tourism development provides protected areas and the surrounding communities with an opportunity to generate cash flow to the area. For tourism development in parks and protected areas to be sustainable, some percentage of the money generated through visitation to the protected areas must be directly reinvested in the ongoing workings of conservation.

Acknowledging the Importance of Socio-cultural Aspects of Tourism

All tourism has cultural and social impacts. Impacts occur to both the traveller and the host. For example, the traveller gains new insight into local culture, sees his or her own culture in a different perspective, and takes home new ideas. However, the traveller is usually only in the trip destination for a short period and therefore will generally experience only a small social or cultural impact from the travel experience.

The host is someone who lives in or near the travel destination. Hosts experience a continuous flow of travellers, often for much of the year. In some situations the host earns less money and is less formally educated than the traveller. This potentially

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FIGURE 2: The Size of the International Nature Tourism Market

The nature-based tourism industry is large and growing, as indicated by the following statistics:

- Ceballos-Lascuráin (1996) reported a WTO estimate that nature-based tourism generates 7% of all international travel expenditure
- The World Resources Institute (1990) estimated that nature travel is increasing at an annual rate between 10% and 30%
- Lew's (1997) survey of tourism operators in the Asia-Pacific region found annual growth rates of 10% to 25% in recent years (Lindberg & Johnson, 1997)
- In 1997 WTO estimated that all nature-related forms of tourism, including ecotourism, accounted for approximately 20% of total international travel (WTO, 1998).

Conclusion: The size of today's world-wide nature tourism market can be estimated from 7% to 20% of the international travel market. Extrapolating from the WTO forecast of 937 million international arrivals in 2010, an extremely rough estimate of the international nature tourism arrivals for 2010 would be between 65 million to 187 million. To this one must add the substantial number of domestic visitors to natural areas.

puts him into a position of inferior power. Social impacts on the host include: commodification of culture, increased levels of service and knowledge-based employment, demands for foreign language instruction, higher land prices, desire to emulate the tourist's social and cultural traditions, foreign investment and land ownership, introduction of new technologies, increased competition for local resources, such as water, fuel wood and land, and immigration of others to the area (Borrini-Feyerabend, 1997). Such impacts can be negative, neutral or positive, depending on one's point of view. It is important that the host decide the value of these impacts.

All stakeholders that are involved in planning and managing park tourism must carefully consider social and cultural impacts of tourism.

1.2 KEY CONCEPTS AND DEFINITIONS

An understanding of park tourism is assisted by knowledge of the key concepts in the field. Section 1.2 contains definitions and a discussion of several key concepts.

Sustainable Development

Human demands in the ever-growing world population are surpassing the planet's capacity to support us. For this reason, it is crucial that businesses, industries and governments attempt wholeheartedly to adopt sustainable development practices.

"Sustainable development was first discussed in the 1960s with the advent of the green movement and the term came into common parlance with the publication of the report by the World Commission on Environment and Development (1987) entitled *Our Common Future* (commonly known as the Bruntland report). It was given further recognition with the United Nations' sponsored conference on the environment held in Rio de Janeiro in 1992. The meaning, based on the Bruntland report, is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987, p. 43). Sustainable tourism (development) thus simply limits the meaning to those particular elements associated with tourism" (McMinn, 1997, p136).

> **"The world-wide upsurge of awareness of environmental issues … is leading to growing pressure on tourism developers from both residents of the locations of proposed projects and tourists themselves. They wish to ensure that development for tourism is in a form, on a scale and to standards which are sustainable, i.e., which create minimum disruption of the local ecology and which avoid overcrowding, pollution and other negative environmental impacts."**
>
> **(WTO, 1994, p. 10)**

Sustainable Tourism

In the context of tourism development, sustainable tourism refers to "all forms of tourism development, management and activity, which maintain the environmental, social and economic integrity and well being of natural, built and cultural resources in perpetuity" (FNNPE, 1993, p. 5).

Tourism can be defined as "the activities of persons travelling to and staying in one place outside their usual environment for not more than one consecutive year for leisure, business and other purposes" (Doswell, 1997, p.6). It can be seen as an interaction between supply and demand, where a product (i.e. what the tourist experiences) is developed to meet a need (i.e. what the tourist needs and seeks).

Sustainable tourism combines conservation principles with tourism development. Sustainable tourism development is about making tourism more compatible with the needs and resources of a destination area. It offers a broader approach to tourism practices and a built-in ability to control the rate and scale of tourism growth – if stakeholder responsibility is successfully exercised (Twining-Ward, 1999). Principles of sustainable tourism development are outlined in Figure 3. Objectives, advantages and disadvantages of sustainable tourism are discussed in Section 2.6 and Section 2.7.

FIGURE 3: Principles of Sustainable Tourism Development

Principles of sustainable tourism development indicate that sustainable tourism will:

1. Uphold reasonable ethical standards of operation and minimise adverse social impacts

2. Enhance social equity

3. Operate in an environmentally and culturally sensitive manner, aimed at promoting conservation of the site and area

4. Seek to minimise the use of non-renewable resources

5. Recognise the capacities of its environment, utilise that environment sensitively, and monitor it effectively, and

6. Directly and indirectly change the attitudes of individuals and other businesses toward planning and management of its environment.

(Bottrill, 1992, p. 35)

Mainstream Tourism versus Special Interest Tourism

It is both important and relatively easy to distinguish between two general categories of tourism. They are mainstream tourism and special interest tourism (Doswell, 1997).

Mainstream tourism captures the largest market segment of tourism. It consists of people looking for rest, novel experiences and recreation, and often occurs at beaches and in cities. These travellers desire comfortable hotels and the presence of other tourist accommodations, such as a resort complex that offers shopping, recreation, restaurants, entertainment and other facilities and services. This tourism often occurs in high volumes, which is why it is often referred to as mass tourism. Visitors are segmented into different mainstream tourism markets based on characteristics such as nationality, social class, spending power, age and stage of life.

Special interest tourism consists of people who possess a common special interest that influences their travel choices*. These visitors are segmented by specific interests or motivations rather than by other characteristics such as age or social class. The type of travel experience that they seek is strongly related to their special interest. Nature tourism, in all its specialised forms, is an example of special interest tourism. All of the nature-based terms listed in Figure 4 are contained within the general category of special interest tourism.

* For example, bird watchers of all ages will choose travel destinations that offer opportunities to view bird species unique to the area.

"Tourism is like fire. It can cook your food or burn your house down."
– R. Fox

Nature-based Tourism

Nature-based tourism can be viewed as the king of special interest tourism. It is a general class of special interest tourism whose common factor is a link to nature. A relatively simple definition is that "nature-based tourism is primarily concerned with the direct enjoyment of some relatively undisturbed phenomenon of nature" (Valentine, 1992, p. 108).

The degree to which a visitor's experience depends upon nature can vary. There are activities:
a) which are dependent on nature (e.g., people seeking to observe animals in the wild require a natural environment to enjoy their experience)
b) which are enhanced by nature (e.g., people prefer to camp in a forest but the activity might be possible with equal satisfaction for some users without a purely natural setting)
c) for which the natural setting is incidental (e.g., if a person's interest is a cooling swim then the setting may be relatively unimportant, assuming unpolluted water) (Valentine, 1992, p. 110).

Nature-based tourism is not automatically ecologically sustainable. In general, for such tourism to be ecologically sustainable, it must be appropriate for the specific location and should produce no permanent degradation of the natural environment. Nature tourism is a sufficiently broad term that it can be applied to a broad range of different landscapes and tourism destinations. It should be stated that although the term *nature-based tourism* places focus on the natural aspects, it is recognised that the natural environment contains cultural components, and therefore, although not always stated, cultural aspects are included in discussions about nature tourism.

As illustrated in Figure 4, many terms exist that describe different types of nature-based tourism. These terms attempt to differentiate nature travel by more specific factors. There are many subtle and sometimes ambiguous differences between all of these terms, which make identifying specific and comprehensive definitions for all of these nature-based tourism terms difficult and time consuming. This document is aimed at addressing issues and concerns related to achieving sustainable nature tourism. It is therefore not necessary to distinguish between all the variations in

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FIGURE 4: Collection of Nature-based Tourism Terms

Nature tourism	Rural tourism
Wilderness tourism	Alternative tourism
Nature-oriented tourism	Anthropological tourism
Environmental tourism	Travel with Mother Nature
Low-impact tourism	Jungle tourism
Adventure travel	Ecotravel
Cultural tourism	Science tourism
Green tourism	Biotourism ethical travel
Soft adventure tourism	Appropriate tourism
Ethnic tourism	Ecotripping
Sustainable tourism	Ecoventures
Socially responsible tourism	Wilderness tourism
Nature vacations	Soft tourism
Non-consumptive wildlife recreation	Ecotourism

(Adapted from Butler, 1992)

smaller sub-markets of the general nature tourism category for the purposes of this document. It is useful, however, to understand generally how the nature tourism market can be further segmented into smaller sub-markets, thus examples of how visitors can be segmented are outlined briefly in Nature Tourism Market Segmentation.

Nature Tourism Market Segmentation
Nature plays a primary role in attracting tourists to specific destinations, so in this sense most tourism may be described as nature-based (Valentine, 1992). Nature-based tourism can be further segmented into more specific markets through a variety of methods. Examples of how visitors can be segmented include activity, motive, destination or volume.

Within the Canadian Park System visitors are segmented by activity in the visitor activity management program (Parks Canada, 1986). The theory is that visitors participating in each kind of recreation activity have a special set of needs. For example, campers and day visitors who have come for a picnic could be identified as two types of visitors to a protected area. These groups differ in obvious ways: their choices of setting, their activities, the equipment used in those activities, and their motivations. An advantage to this method is that activities are easily defined, since there is no ambiguity in determining that skiing is a separate activity from sightseeing. Regardless of the specific

Visitor Center of Algonquin Provincial Park, Ontario, Canada. Some older parks have visitor centres with permanent visitor displays to teach the visitors about the natural, cultural and historical features of the park. An informed visitor is much more likely to understand and follow park conservation regulations.

method used by management to identify different segments of visitors, the definitions must be operational, so that concrete actions are incorporated into the effective management of these visitors.

Another method of visitor segmentation focuses on the destination. Nature-based tourism can occur as mass tourism to destinations compatible with high volumes of people, such as beach resorts, touring, and cruise vacationing. Nature-based tourism can also occur as special interest tourism with destinations such as nature observation in a forest, fishing in a stream, or canoeing in a lake. A group of nature tourism visitors may all have a more specific common interest, such as enjoying hiking in mountains. These visitors will choose locations where this is available, making it possible to market to them a collection of destinations that meet those criteria.

Motivation is another method of further segmenting nature tourism. By adding a motivation component, it is possible to see that the types of visitors who choose special interest tourism are more likely to possess motivations that will support the goals of *sustainable* nature tourism (recall that not all nature tourism is sustainable). Beach tourists may be motivated by relaxation and entertainment. This does not imply any interest in learning about the special natural features of the area, nor any responsibility to ensure that their vacation maximises positive impacts to the environment and surrounding communities while minimising the negative ones (one of the goals of sustainable nature-based tourism). Nature-based tourists are usually motivated by education and personal enrichment (Bottrill, 1992). The motivations of the latter are closely correlated with objectives of a more specific form of special interest nature-based tourism, called ecotourism. Eagles (1995) provided a motive-based segmentation of nature-based tourism.

Ecotourism
Australia's National Ecotourism Strategy defines ecotourism as "Nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable" (Commonwealth Department of Tourism, 1994 as cited in Goodwin, 1996). For tourism to be ecologically sustainable, there must be an appropriate

return to the local community and a contribution to the long-term conservation of the resource (Goodwin, 1996).

A distinction exists between nature-based tourism and ecotourism. Nature-based tourism is a broader term, concerned in general with the enjoyment of nature (which may or may not contribute directly to nature conservation). A specific type of nature-based tourism is ecotourism. For a specific nature-based tourism experience to qualify as an ecotourism experience, more specific criteria must be present (than those defined by nature tourism), such as an identifiable contribution to conservation (recall that not all nature tourism automatically contributes positively to conservation efforts). Because the term has different meanings, it is difficult to state exactly all the criteria.

Adding to the confusion is the opportunistic and sometimes inaccurate use of the term in marketing. The terminology is sometimes liberally applied to a range of businesses, products and services (even though a large difference can exist in the sustainable efforts made by these companies) because marketers and advertisers know it appeals to the consumer's desire to support environmentally friendly products. Most ecotourism definitions address some combination of motivation, philosophy, conduct and economic benefit to conservation. Butler (1992) identifies ecotourism as: a) an activity, b) a philosophy, and c) a model of how to approach the environment. Examples of eight characteristics that an activity should fit in order to be considered ecotourism are listed in Appendix D.

Numerous terms listed in Figure 4 may possess links to ecotourism. Some concepts are common to all the terms (e.g., all of them are an alternative to mass consumptive tourism) but the terms are not synonymous. Just because an activity is linked to nature does not mean that it is ecotourism. "For example, adventure may be part of the experience of some ecotourism destinations, but adventure travel is not, in itself, the same as ecotourism" (Butler, 1992, p. 5). The main thing that adventure travellers seek is opportunity for a high-risk physical activity, with varying degrees of risk and excitement obtained through exploring exotic, remote or wilderness areas (Butler, 1992). In contrast, ecotourists seek to fulfil aesthetic

> **Sustainable nature-based tourism, such as ecotourism, is more exclusively purposeful and focused on the enhancement and maintenance of natural systems through tourism.**
> **(Butler, 1992)**

and educational goals, rather than specific recreation and physical activity goals.

Tourism Terminology
When examining tourism's contribution to the social, cultural and economic development of a country or region, it is important for governments, industries, academia and the public to have access to good statistics (Hornback & Eagles, 1999). Collection of good statistics is achieved through the use of standard tourism definitions. Learning the subtle variations in tourism terminology builds a solid common foundation for understanding and approaching tourism. Implementation of standard tourism definitions facilitates comparisons of tourism measurements amongst provinces, countries and other jurisdictions. It is important that the different parties involved use the same terminology when referring to statistics such as number of tourists, or number of visitor nights. The World Commission on Protected Area definitions of terms commonly used in tourism to parks and protected areas are found to Appendix B (e.g., visitor, visit, visitation, entrant, visitor nights, entry nights, entry hours, visitor day, etc.). Please refer to Appendix C for standardised international tourism terminology (e.g., tourism, domestic tourism, inbound tourism, outbound tourism, international tourism, international visitor, domestic visitor, tourism expenditure, etc.).

Protected Areas
The World Conservation Union (IUCN) defines a protected area as an "area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means." This definition outlines the general purposes of all protected areas. In practice, the precise purposes for which protected areas are managed can differ greatly among sites. The following are the main purposes of management:
- Scientific research
- Wilderness protection
- Preservation of species and genetic diversity
- Maintenance of environmental services
- Protection of specific natural and cultural features
- Tourism and recreation
- Education

- Sustainable use of resources from natural ecosystems
- Maintenance of cultural and traditional attributes.

Numerous terms have been applied to indicate protected status of an area. Some variance in terminology occurs amongst different jurisdictions when identifying protected areas. Universal protected area classifications used by the IUCN World Conservation Union (Figure 5) are outlined in Section 2.2.2.

All parks need a prominent entrance, such as this one to Taroka National Park in Taiwan, so that all visitors understand they are entering a special place.

1.3 GOALS OF TOURISM IN PROTECTED AREAS

In promoting tourism to protected areas, a plan for how best to manage tourism to these areas must be developed. Through proper planning the desired goals of tourism are identified. Effective tourism management will enable protected areas and surrounding communities to attain positive impacts and reduce negative impacts of tourism. The goals of sustainable tourism in protected areas are:

1. To provide people with the ability to learn, experience and appreciate the natural and cultural heritage of the site
2. To ensure that the natural and cultural heritage of the site is managed appropriately and effectively over the long term
3. To manage tourism in parks for minimum negative social, cultural, economic and ecological impact
4. To manage tourism in parks for maximum positive social, cultural, economic and ecological impact.

2.0

Protected Areas and Tourism in East Asia

2.1 SETTING THE REGIONAL CONTEXT

There is a range of different natural areas in East Asia, from many cold alpine plateaus in the mountains, to tropical climates and coral reefs in the south. Some natural areas, such as many coastlines and plains, are located amongst or near large human populations, while other areas, such as vast inland forests, steep mountains and tundra are remote and far from urban populations. A common element shared by many jurisdictions is the presence of extreme environments, such as jagged mountain peaks and busy ocean coastlines. Numerous environments and habitats are contained within the East Asia region. Many areas retain unique cultural traditions that date back thousands of years.

Special natural and cultural sites in East Asia have a long history rich in traditions, religious ceremonies and customs that captivate local people and international visitors alike. The East Asia jurisdictions (referring to countries, autonomous districts and other political entities) share a long and complex history, with each jurisdiction possessing a unique history, government and size.

In terms of area and population, China has the largest of both in East Asia. It is twice the size of Europe (excluding Russia's land area). China covers an area of over 9.5 million km². Its landscape includes divisions of forests, grasslands, deserts, plains, hilly lands and highlands and many mountains. China is the most populated nation in the world. At 1.24 billion people, it accounts for approximately 20% of the world's population. Roughly 80% of the population live in rural areas. Its enormous land and natural resources help it to be a rapidly growing industrial nation and urbanisation is widespread. Modernisation, urbanisation and communication have been attached to nearly every tourism destination around China, which is sometimes a problem with the tourism industry. Sustainable development is a key issue in such a process.

In contrast, the island of Taiwan covers only 36,000 km² with over 1,140 km of shoreline and a population of approximately 22.5 million. Rugged mountains can be found in the eastern two-thirds of the island, with flat to gently rolling plains in the west. Hong Kong is even smaller, covering 1,092 km², with nearly 7 million inhabitants. Despite its size and population density, approximately 40% of the natural landscape is protected. Scenic peaks and valleys lie close to the busy harbour and city areas. Japan covers an area of 377,835 km² and consists of four main islands of volcanic origin. These four islands comprise 90% of the total area. The majority of the population inhabits only 3% of the country. More specifically, over 80% of the 126 million inhabitants live in highly urbanised areas along the coastal plains. The interior is mostly rugged and mountainous. In South Korea, 46 million people live in an area that covers 98,480 km². There are upwards of 3,000 islands of various sizes off the southern coast.

Covering 1.564 million km², Mongolia encompasses an area larger than Britain, France, Germany, and Italy combined. Unlike the other East Asia jurisdictions, it is entirely landlocked. With 2.3 million inhabitants, its population density (1.5 persons per km²) is the lowest in Asia. North Korea covers 120,540 km² and has a population of approximately 21 million people. Macau covers a small area of only 21 km² and has a population of 374,700 people.

In East Asia, the size of the jurisdictions, the landscapes and the populations vary immensely. Found within the rich and diverse geographical and cultural environments of the region are numerous unique tourism opportunities, including visits to parks and protected areas. Due to the large variety that exists within the East Asia jurisdictions, all protected area management plans must take into account many items distinct to the specific area in which each park is found. For example, the history of the area, the legal structure, the existing level of human impact on the natural environment, the proximity to human populations, and the distribution of human populations must all be taken into consideration when designing a management plan for a specific park or protected area.

As noted in the introduction, Taiwan refers to Taiwan, Province of China.

2.2 PROTECTED AREAS IN EAST ASIA

2.2.1 Protected Area Information by Jurisdiction

The act of conserving nature and natural resources dates back to ancient times in many of the East Asia jurisdictions. Concepts of nature and nature protection are linked to ancient religious philosophies and practices of Confucianism, Taoism and Buddhism. Thousands of years ago, some of these cultures were aware of relationships between conservation and utilisation of natural resources and human survival (Ji, Guangmei, Huadong & Jialin, 1990). In China, the value of forests has been recorded for at least 2,500 years. Temple gardens, restricted hunting areas, and landscape forests created in the past have all contributed to species' protection.

Even though the concept of nature protection has existed for centuries, the creation of modern day legislation and systems of legally protected areas has occurred within the last century. The small and densely populated country of Japan was the first to attempt to establish a modern day park system through official government legislation. In 1873, Japan established *ko-en* (literally meaning *public parks*) which assigned government protection to places traditionally visited in spring at cherry-blossom time or in autumn to enjoy the autumn colours (Sutherland & Britton, 1983). A national parks law was passed in 1931, and twelve national parks were designated between 1934 and 1936. Conceptually, the process of establishing national parks in Japan paralleled Britain's. Since land was largely privately owned, in order to establish national parks, the government created them where it recognised the need to preserve nature rather than limiting itself to areas of land owned by the state. Approximately 24% of the whole national park area (primarily in the western part of Japan and in the coastal areas) is privately owned (The Environment Agency, 1995).

The first nature reserves in China were declared in 1956. Since then, the area of protected land and the number of reserves have grown steadily, except during the Cultural Revolution from 1966 to 1976 when conservation practices were abandoned and protected areas were not protected. National nature reserves have significant international influence

scientifically, and/or special value for scientific research, and local nature reserves are those other than the national ones which are representative and significant for scientific research. They can be managed by the local governments, autonomous regions or municipalities directly under the central government. A nature reserve consists of three parts: the core area, buffer zone and experimental zone. This is one example of park zoning used by the various jurisdictions in East Asia.

All of the park systems in East Asia use some form of zoning system that identifies varying levels of appropriate use and protection in different areas of the park or protected area. The protection and use of each area varies along a continuum, with strict protection and no human use at one extreme, and high human use and some infrastructure development at the other extreme. Between these two end points are varying degrees of use and development versus protection and conservation.

Threats of urbanisation as well as endorsement by the IUCN in the 1960s helped to establish Hong Kong's network of country parks over a three-year period in the mid-1970s. A total of 23 country parks (designated for the purposes of nature conservation, countryside recreation and education) and 15 special areas (areas with special interest and importance by reason of their flora, fauna, geological, cultural or archaeological features) have been established. Eleven of the special areas are located inside country parks. Country parks and special areas cover a total area of over 400 km². The smallest one is less than two km². They are designated under the Country Parks Ordinance and managed by the Agriculture,
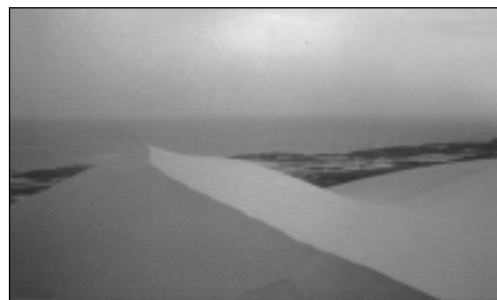
Bao Kexiao

Sustainable tourism planning and development in Changli Golden Beach Nature Reserve, China and effective visitor management techniques significantly contribute to reducing threats associated with improper human use to protected areas. This is especially important in sensitive environments such as this sand based one.

Fisheries and Conservation Department of the Hong Kong government on the advice of the Country and Marine Parks Board. All the country parks have toilets, path-side maps and the larger ones also have visitor centres. Few countries have 10% of their land protected in parks and tourists often find them hard to reach. Yet in tiny Hong Kong, 40% of the land lies in its country parks and visitors can reach them easily (Stokes, 1999).

Starting in the 1930s, three attempts were made to establish Taiwan's national park system. War in the Pacific in the 1930s and a lack of solid legislative support in the 1960s prevented the success of the first two attempts. In the early 1970s, support by a world-wide national park movement and the growing political influence of Taiwan's scholars and environmentalists helped to make the third attempt successful (World Conservation Monitoring Centre, 1992). By the time the national park concept gained support, establishment of a national park system was a challenge since the island was already highly industrialised and densely populated. Large tracts of undeveloped land, traditionally used to form park systems in other countries, were not available. Fortunately, the remoteness of various mountain regions had left them in fairly pristine condition, and some mountain areas were designated as parks. Not wanting to limit the system to remote mountain areas, other national parks were also designated in areas already experiencing considerable, and sometimes incompatible land uses (Simpson, 1993).

In Mongolia, two nature reserves were established in 1957, and another six protected areas (e.g., national conservation parks, natural monuments and strict protected areas) were established in 1965. Until recently however, Mongolia's unique combination of diverse landscapes, unspoiled habitat and rare wild plant and animal species were unknown to most of the world (United Nations Development Program [UNDP], 1998). The Mongolian Law on Protected Areas was enacted in 1994, and during the 1990s there was a large increase in the numbers of designated areas in Mongolia. As major changes occur, the government is attempting to strengthen centuries-old traditional practices of nature conservation with modern approaches and resource management. In the midst of great socioeconomic and political changes, the government established the Ministry of Nature and Environment, passed a series of environmental laws, and greatly extended the protected area system (UNDP, 1998). Pressures for non-sustainable exploitation of the natural resources are increasing. Mongolia faces the challenge of developing the infrastructure and economy while at the same time protecting the natural environment.

South Korea has a long history of nature conservation, dating back over 1400 years (World Conservation Monitoring Centre, 1992). The first official national park in South Korea was established in 1967, and South Korea now has 20 national parks. The concept of national parks is a common occurrence in the realm of parks and protected areas. However, numerous other types of protected areas exist. In South Korea for example, protected area categories have expanded to include natural parks (divided into 20 national parks, 20 provincial parks and 29 county parks), nature forests, nature reserves, marine parks, ecosystem conservation areas, wildlife sanctuaries and wetland protected areas. Various types of protected areas have different mechanisms for establishment, different purposes and varying levels of regulations, legislation and protection.

Protected area legislation and laws vary from jurisdiction to jurisdiction in East Asia. Creating legislation that enables each jurisdiction to declare and protect natural areas of significance is a critical first important step in the development of a park system. Even though the specific details of legislation differ, the intent behind the legislation is common to all jurisdictions – legally to identify and protect a system of naturally and culturally significant areas. The on-the-ground creation of actual parks is the second step.

It is equally important that an organisation charged with managing these areas be established and that it receive adequate political, social and financial support. Jurisdictions in East Asia vary in the classification and titles of administrative systems as well as in the types of management organisations that look after parks and protected areas. Some are highly centralised and utilise a top-down approach. Others extend greater authority to regional management units. One challenge is to have cohesion and effective communication across the entire system of administrative agencies and ministries as

CASE STUDY 1: Roles of Government Agencies and Non-Government Organisations in Protected Area Management

The National Parks Association of Japan and the Environment Agency (Japan) – An Example of Nature Conservation Organisations Focusing Joint Efforts on National Parks Management

Different agencies and organisations are responsible for different tasks associated with the establishment and management of protected areas. Government agencies involved in park management play an important role in conserving natural aspects of protected areas. Many staff people have backgrounds in natural science recourse management (versus human interactions, social sciences) and are a source of specialised knowledge. Ideally, these agencies provide a unifying structure through which things relating to protected area management can flow. They provide a structure through which national policies, system zoning and information sharing can occur. They are the figurehead in charge of facilitating protected area management efforts, both by themselves and in partnership with other organisations.

In Japan, the overall government organisation concerned with management of natural areas is the Nature Conservation Bureau. It consists of five divisions: planning and coordination, natural parks planning, national parks, recreational facilities and wildlife protection. Within this bureau, the Environment Agency carries out management of the national park system. This agency is required to create park management plans for each national and quasi-national park, but only manages the national parks (prefectural governments are responsible for management of quasi-national parks and designation and management of prefectural parks). It also establishes and manages nature conservation areas and wildlife protection areas.

Traditional government agencies should work with other organisations and take advantage of opportunities to branch out and adopt more integrative management approaches, policies and techniques. Partnerships enable a good mix of government agency specialisation while also accessing others' areas of expertise not present in the agency.

The Environment Agency works in close co-operation with prefectural or regional governments, relevant municipal authorities, Conservation organizations, landowners and private sector businesses. A range of conservation organisations exist, such as the Marine Parks Center of Japan, the Japan Environment Association, the Wild Bird Society of Japan and the National Parks Association of Japan (NPAJ). Activities of these conservation organisations can be very complementary to the protected area system that is in place within the government. In 1983, a network was developed through which regional and national trusts and conservation organisations could participate in

information exchange, communication and co-operation (NPAJ, 1997). In 1992, this network was reorganised as a corporate legal entity, serving to survey, research, protect, preserve and conserve both natural and historic places and to establish procedures on the preservation, administration and opening of properties acquired nation-wide by assisting in the constituent Trust group movements (NPAJ, 1997). The National Parks Association of Japan, (NPAJ) is one specific organisation associated with the network that has made valuable contributions to Japan's system of protected areas.

Starting in 1929, the National Parks Association of Japan was established to support the government in pursuing the goals of national parks. The NPAJ sought to conserve the wildlife and the scenery of the parks, provide for public enjoyment of the parks, and to ensure that the sites remain unimpaired for the enjoyment of future generations.

The NPAJ was pivotal in getting the National Park Law established in 1931, and the first eight national parks designated in 1934. Today, the Association is engaged in five areas of business as stipulated in the Articles of Association:
1. Comprehensive study, research, and reference collections concerning national parks and protected areas
2. Co-operation and assistance at the level of central and local governments, concerning policy formation and management of national parks and protected areas
3. Enlightenment and dissemination of information for the promotion of national parks and protected areas by such activities as lectures, training, exhibitions and publications
4. Entrusted business regarding national parks and protected areas, and
5. Other activities necessary for achieving the objectives of the Association.

Funding for the NPAJ comes from annual membership fees and entrusted businesses. Additional support comes from public agencies, corporations and individual citizens.

In general, NGOs can play very important roles in parks. Since park agencies are typically government agencies, there is often a limited role for interested citizens. NGOs provide an opportunity for individual citizens to become involved in park issues. Park visitors who are very supportive of national parks can join an NGO and direct their efforts to support its operations. NGOs typically lobby for objectives that are more societal in scope, rather than individual interests. Therefore, NGOs can be seen as representing important sectors of society, so their comments can help park planners and managers look toward broad policy development. NGOs can support park agencies in conflict situations with other interest groups, like competing public and

private interests. In many countries, the NGO community has played a critical role in long term policy development, such as better legislation, solid financial arrangement and efficient planning policy.

The National Parks Association of Japan is an example of a government-oriented NGO that has worked alongside the government agency responsible for the management of national parks. The Environment Agency listens to input from organisations such as the NPAJ or the Nature Conservation Council, and makes decisions regarding development of the park

system. The NPAJ has provided very important advice to society, so much so that the entire future of national parks has been influenced positively. Private NGOs such as Nature Conservation Society of Japan (NACS-J) and grass-roots organisations also played an important role to reform policy of protected areas in Japan.

For Further Information: National Parks Association of Japan, Toranomon Denki Bldg., 8-1, Toranomon 2 chome, Minato-ku, Tokyo 105-000. Telephone: +81-3-3502-0488. Fax: +81-3-3502-1377.

well as within any particular agency between the headquarters and staff working at the ground level of a specific site. Even though government agencies that oversee protected area systems are not the same, some features are common to the various jurisdictions. For example, even though the term *national parks* is not always used, most of the jurisdictions have this type of protected area administered by a federal agency.

Often government park agencies are created and made responsible for managing park systems. Other agencies, such as non-profit organizations can also make valuable contributions to the management of park systems. In Case Study 1, some contributions provided by a complementary non-government organisation (NGO) involved in management of Japan's protected area system are highlighted, along with the role of the government agency responsible for national park management.

In each jurisdiction varying degrees of funds and resources have been allotted to the formation and continuation of these systems of protected areas. One common reality is that without access to sufficient human and financial resources, it is not possible to manage the established protected area systems effectively. Almost all of the jurisdictions have protected area systems that are under-funded.

As an example to illustrate that budget allocation for protected area management receives very low priority in government programs in East Asia, a summary of the total amount of Japan nature conservation budgets from 1992 indicates that ¥148,882 million was allocated in the initial budget. However, most of this was spent on creation of artificial nature including park project expenses mainly allocated for

reforesting urban areas and improving port and harbour facilities. These types of projects are important, however, budgets for managing and improving facilities in national parks amount to just above ¥3,600 million, or no more than ¥30 per capita. When compared with other countries, this is small. Comparative budget information for other jurisdiction is generally not available, and more such comparisons are required.

Tourism can be an effective vehicle in obtaining funds for the management of protected areas and for the well-being of communities surrounding these areas. Through tourism, the public can be educated about the importance of supporting the protection of these areas. Overall, tourism can be a key element in generating support for the protection of unique natural areas.

2.2.2 Internationally Recognised Conservation Designations

Assigning protected area status to a location indicates to everyone that the area has ecological, cultural or historical significance. As mentioned in Section 2.2.1, the terminology of modern day protected areas varies amongst jurisdictions. Classifications include national parks, nature reserves and county parks. Many types of protected areas parallel (or match identically with) the six categories of protected areas identified by the World Conservation Union (IUCN). Figure 5 lists the six categories.

Protected areas, such as national parks, natural monuments or managed resource protection areas are legally protected through government legislation that officially designates these areas as

protected. Other types of designations can also recognise an area's special natural or cultural significance. For example, countries can nominate areas to be accepted as internationally valuable through different conventions. Types of natural and cultural areas recognised at the international level include World Heritage Sites, Biosphere Reserves and Ramsar Wetlands, all three of which are outlined. The numbers of these types of sites found in various jurisdictions are summarised in Figure 6.

These types of international conventions and conservation designations facilitate holistic, global, interdisciplinary efforts to conserve areas of natural and cultural significance (IUCN CNPPA, 1996). These conventions also make it possible for conservation efforts to extend across political boundaries often associated with other protected area designations (since many protected areas are created through federal legislation). It is possible for a site

to be granted both legal status of a protected area, and international recognition of its valuable significance. One example of this is Mount Sorak in South Korea, which was designated as a national park in 1970 and as a biosphere reserve 12 years later. Throughout this document, the phrase *parks and protected areas* is used in the broad sense, to refer to legally protected areas as well as to other conservation designations discussed in Section 2.2.2.

In recent years, one of the motivations for nations to nominate areas for internationally recognised designations of protected areas, such as the World Heritage Listing, has been a perceived link between this designation and the attraction of international tourists to the site (Valentine, 1992). Once international recognition is granted, visitor numbers will increase. It is important to have a well-designed system of visitor management in place, along with methods of collecting some revenue from visitors to the world-renowned areas. It is possible to achieve a symbiosis between conservation and tourism. It is both desirable and feasible that some portion of funds generated by tourism to natural areas be reinvested in protection and management of those areas.

World Heritage Sites
A world heritage site is a natural or cultural site recognised by the international community (in the shape of the World Heritage Convention founded by the General Conference of UNESCO in 1972) as possessing universal value, and coming under a collective responsibility. A country nominates a site to the Convention, and a decision on whether to include it in the world heritage list is made by a 21-member international committee (UNESCO, 1999).

After a site is approved for inscription into the World Heritage List of Sites, the real work of preserving and conservation begins. There are 630 properties which the World Heritage Committee has inscribed on the World Heritage List (480 cultural, 128 natural and 22 mixed properties in 118 State Parties) current as of December 1999 (UNESCO, 1999).

Biosphere Reserves
The Man and the Biosphere (MAB) Programme is an interdisciplinary research effort directed towards providing information for the solution of natural resources and environmental issues. It is

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FIGURE 5: World Conservation Union (IUCN) Protected Area Categories

CATEGORY Ia: *Strict Nature Reserve* – Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

CATEGORY Ib: *Wilderness Area* – Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

CATEGORY II: *National Park* – Natural area of land and/or sea, designated to a) protect the ecological integrity of one or more ecosystems for present and future generations, b) exclude exploitation or occupation inimical (harmful) to the purposes of designation of the area, and c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

CATEGORY III: *Natural Monument* – Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

CATEGORY IV: *Habitat/Species Management Area* – Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

CATEGORY V: *Protected Landscape/Seascape* – Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

CATEGORY VI: *Managed Resource Protection Area* – Area containing predominantly unmodified natural systems, managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

(IUCN, 1994)

FIGURE 6: Summary of Internationally Recognised Protected Areas*

Jurisdiction	Number of World Heritage Sites	Number of Biosphere Reserves	Number of Ramsar Wetlands
China	23 sites first one declared in 1987	16	31 July 1992 7 sites, surface area 588,380 hectares
Japan	10 sites first one declared in 1993	4	17 October 1980 11 sites, surface area 83,725 hectares
South Korea	5 sites first one declared in 1995	1	28 July 1997 2 sites, surface area 960 hectares
North Korea	Information unavailable	1	Information unavailable
Mongolia	Information unavailable	3	8 April 1998 6 sites, surface area 630,580 hectares

(UNESCO, 2000a; UNESCO, 2000c)

* Not all jurisdictions discussed throughout this document are able to have internationally recognised status assigned for areas of significant natural and cultural features to their jurisdiction.

"an interdisciplinary programme of research and training intended to develop the basis, within the natural and the social sciences, for the rational use and conservation of the resources of the biosphere, and for the improvement of the global relationship between people and the environment" (UNESCO, 2000b). As an intergovernmental program, MAB presents an opportunity for international co-operation and a focus for the coordination of related programs aimed at improving the management of natural resources and the environment. There are 368 Biosphere reserves in 91 countries as of January 2000 (UNESCO, 2000d).

There are three zones of management in Biosphere Reserves: the core zone, the buffer zone and the outer transition area. The three zones are usually implemented in many different ways to accommodate local geographic conditions and constraints. This flexibility allows for creativity and adaptability, and is one of the greatest strengths of the concept (UNESCO, 2000b).

National MAB Committees are responsible for preparing Biosphere Reserve nominations and for involving the appropriate government agencies, relevant institutions and local authorities in preparing the nomination. Each nomination is examined by a UNESCO Advisory Committee for Biosphere Reserves, for recommendation to the International Coordinating Council of the MAB Programme. This Council takes a decision on nominations for designation, and the Director-General of UNESCO notifies the State concerned of the decision. Once designated, the appropriate authorities are encouraged to publicise their Biosphere Reserves, for example with a commemorative plaque and distributing information material indicating this special status.

EABRN (East Asian Biosphere Reserve Network) is an example of a regional network. EABRN consists of China, North Korea, Japan, Mongolia, South Korea and the Russian Federation. This network, initiated in 1994, has three subjects as priority for co-operation: ecotourism, conservation policy and transboundary conservation. It also serves as a mechanism to facilitate an exchange of information, training opportunities and site-to-site co-operation. On a national level, in 1993 China set up the first network of its kind (China biosphere reserve network) which consisted of 16 world biosphere reserves and 67 natural reserves located in China. Six meetings have been held so far, the last one in 1999 in the Jiuzhaigou Biosphere Reserve (also a World Heritage Site) in China.

Ramsar Wetlands
The Convention on Wetlands, signed in Ramsar, Iran in 1971, is an intergovernmental treaty which provides the framework for national action and international co-operation for the conservation and wise use of wetlands and their resources. As of March 2000, there were 119 Contracting Parties to the Convention, with 1023 wetland sites, totalling 74.9 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance (The Ramsar Convention Bureau, 2000b).

Ramsar is the only global environmental treaty dealing with one specific type of ecosystem. The Convention's mission is "the conservation and wise use of wetlands by national action and international co-operation as a means to achieving sustainable development throughout the world" (The Ramsar Convention Bureau, 2000a).

The Ramsar Convention on Wetlands supports the concept of *wise use* to ensure that wetlands are conserved. *Wise use* is defined as "sustainable utilization for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem" – sustainable utilization is understood as "human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations." *Wise use* may also require strict protection.

(The Ramsar Convention Bureau, 2000c)

The Ramsar Convention takes a broad approach in determining the wetlands that come under its protection. In general, wetlands are areas where water is the primary factor controlling the environment and the associated plant and animal life. They occur where the water table is at or near the surface of the land, or where the land is covered by shallow water. They are defined as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". They may also incorporate zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands. The coverage of the Convention extends to a wide variety of habitat types, including rivers and lakes, coastal lagoons, mangroves, peatlands, and even coral reefs. In addition, there are human-made wetlands such as fish and shrimp ponds, farm ponds, irrigated agricultural land, reservoirs, gravel pits, sewage farms, and canals (The Ramsar Convention Bureau, 2000c).

Over the years, the Convention has published a series of nine Ramsar Handbooks that present the guidelines adopted by the Conference of the Contracting Parties (the main decision-making body of the Convention, composed of delegates from all the Member States). Topics addressed include: wise use of wetlands, national wetland policies, laws and institutions, wetlands and river basin management, community participation, education and public awareness, development of the Ramsar List,

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For further information …

Access to the internet provides an almost unlimited number of global information sharing opportunities. For example, the following web sites provide access to global conservation designations and their information resources:

- To examine World Heritage Sites in further detail, go to World Wide Web Site http://www.unesco.org/mab/
- To learn more about EABRN (East Asian Biosphere Reserve Network), go to World Wide Web Site http://www.unesco.org/mab/eabrn/eabrn.htm
- To access the nine Ramsar Handbooks through the internet, go to World Wide Web Site http://ramsar.org/index_about_ramsar.htm#info

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management planning, and international co-operation.

2.3   TOURISM IN EAST ASIA

2.3.1 General Tourism Trends

Tourism is increasing throughout the world. Popularity of visits to natural areas is also increasing. As the amount of natural space continues to decline due to increasing pressures such as agriculture and urbanisation, these natural areas become more novel and special. Protected area managers need to be aware of tourism trends and their implications (FNNPE, 1993).

Vacations are becoming shorter, speciality tourism markets such as ecotourism are emerging, and people are expecting good value for their money regardless of their spending category. Holidays that offer a variety of opportunities to learn about and experience local cultures, special themes, and countryside access are all increasing in demand. Societies are becoming more conscious of their activities and their choices – many individuals, businesses and governments want to support efforts to stop using the planet's resources in unsustainable ways. Many travellers want to avoid congested, overdeveloped areas that have lost their authenticity or that have environmental problems. These types of trends will have implications on visitor patterns and services. Products can be specifically developed for various markets once the visitor's needs and interests are identified. More environmentally friendly forms of tourism are gaining strength (FNNPE, 1993).

Rapid changes sometimes affect tourism patterns. Social unrest, publicised acts of violence and damaging weather events reduce people's desire to travel to the affected sites. Protected area managers should pay attention to influential changes such as these.

Tourism can have large impacts on and importance to an area's well-being. Sustainable development is supported by various national and international organisations. For example, the Asia Pacific Tourism Awards is a program that supports environmentally friendly tourism projects, including some projects that occur in protected areas. Types of projects that could be supported by conservation organisations

and programs include protection of specifically interesting or fragile natural areas, promotion of rural or cultural tourism and tourism and the environment.

Part of sustainable development is learning to integrate environmental protection into policies for all industries, including tourism. All tourism opportunities and destinations need to adopt concern for the planet, even those which are not viewed traditionally as small ecotourist destinations. Tourism development should be compatible with the environment. An environmentally sensitive approach to tourism is possible through actions such as including components that relate to the environment in tourism legislation. Much of the motivation to travel is the attractiveness of nature, landscape and cultural features, so these must be protected and used only in a sensitive and appropriate fashion.

FIGURE 7: Growth in Inbound Tourism in East Asia

Receiving Country or Jurisdiction	1980 Tourist Arrivals (in millions of people)	1985 Tourist Arrivals (in millions of people)	1992 Tourist Arrivals (in millions of people)	Percentage Average Annual Change From 1980 to 1992
China	3.5	7.1	14.2	+ 12.4
Hong Kong	1.7	3.4	6.6	+ 11.7
Taiwan	1.4	1.5	1.9	+ 2.8
Macau	1.7	1.7	3.2	+ 5.7
Japan	0.8	2.1	2.3	+ 8.8
South Korea	1.0	1.4	3.5	+ 11.1
North Korea	No information available	No information available	No information available	No information available
Mongolia	No information available	No information available	No information available	No information available

(WTO, 1994, p. 33)

Asian world tourism has grown from 21 million travellers in 1980 to over 58 million travellers in 1997 (Fish & Waggle, 1997). In 1996 East Asia and the Pacific generated 94 million arrivals world-wide (one million more than North America). Approximately three-quarters of trips occurred within the region (WTO, 1997). The spectacular growth in Asia-Pacific travel is primarily due to the rising national prosperity, lower airfares, and increasingly liberal travel policies among these nations (Fish & Waggle, 1997). Also, a number of the newly

industrialised economies that are less apprehensive about their foreign exchange balances have relaxed international travel restrictions such as exchange rate controls, surcharges, and spending limitations (Fish & Waggle, 1997). Much of the travel is multi-country and between the main cities of the region, and almost half the tourists take sponsored tours (Fish & Waggle, 1997). The growing middle class and retirees in Asia are using part of their increasing incomes and personal discretionary disposable free time to engage in overseas travel. They represent at least 73% of the increase in travel (Fish & Waggle, 1997).

Stimulated by economic recovery in Asia, world tourism grew by 3.2% in 1999, half a percentage point faster than in 1998 (WTOb, 2000). According to WTO Secretary-General Francesco Frangialli, after two years of decreasing tourist arrivals, East Asia and the Pacific bounced back strongly in 1999, reaching a growth rate of 7.5% and a new record total of nearly 94 million international tourists (WTO, 2000b). This is nearly five million more tourists than the previous record set in 1996. Growth was widespread, with especially good results in Singapore (+ 11%) Japan (+ 9.6%), South Korea (+ 9.6%), Malaysia (+ 8%), China (+ 7.9%), Hong Kong SAR (+ 9%), and Thailand (+ 5.6%) (WTO, 2000b).

According to WTO (1998), all East Asia countries and jurisdictions except North Korea and Mongolia, ranked in world's top 40 tourism earners in terms of international tourism receipts (#8 China, #10 Hong Kong, #21 South Korea, #23 Japan, #29 Taiwan, #31 Macau). Inbound tourism to East Asia countries has certainly grown over the past two decades, with 10.3 million tourist arrivals in 1980, up to 31.9 million tourist arrivals in 1992 (WTO, 1994).

Figure 7 illustrates the increasing popularity of tourism destinations in principal tourist receiving jurisdictions in East Asia. In 1992, within the jurisdictions of East Asia, China led the way in both arrivals and average annual increase in arrivals (14.2 million arrivals in 1992, + 12.4% average annual change from 1980 to 1992). Hong Kong followed with the second highest (6.6 million arrivals, + 11.7% average annual change from 1980 to 1992), and South Korea with the third highest (3.5 million arrivals, + 11.1% average annual change from 1980 to 1992).

In contrast to the well-developed inbound tourism market in most jurisdictions, the Asian outbound market is either at its introductory or growth stage, and rapid expansion is certain for many years to come, principally in the form of intra-regional travel (WTO, 1995).

2.3.2 Tourism Information by Jurisdiction

China

Many Chinese communities in the jurisdictions of East Asia have ethnic ties with China. No travel or direct personal contact between these communities and their homeland was permitted for several decades. Only since tourism in China opened up in late 1970s has such travel been possible. The growth in ethnic Chinese tourism to China has been rapid, to over 10 million arrivals in 1992, plus 21 million excursionists from Hong Kong, Macau and Taiwan. With the incorporation of Hong Kong into China in 1997, and easier travel in and out of China, opportunities for ethnic tourism between China and countries with substantial Chinese communities remain high (WTO, 1994).

A large majority of international tourists to China have ancestral ties. Tourism occurs mainly in the humid, highly-populated, eastern region of the country, where the majority of the large cities and historical attractions lie. Tourism in the western two-thirds of China is limited. There, the climate is more arid and the landscape is less suited for occupation. Infrastructure is therefore less developed, and the capabilities of supporting tourism are lower. It is also less appealing to the millions of international visitors of Chinese ancestry since their ancestors are primarily located in the east (western China is home to most of China's minorities).

In 1997 nation-wide statistics were tallied from 11,938 tourism enterprises. The major markets for China were Japan, Russia, South Korea and the United States (National Tourism Administration of the People's Republic of China, 1997). Chinese visitor counts are divided into numerous categories including compatriots, foreigners and overseas Chinese. Most measurements and analysis are done on the foreign component. Information about the purpose of travel and more detailed profiles on

foreign visitors would be useful to collect (The Economist Intelligence Unit, 1995a). One estimate indicates that roughly 60% of visitor arrivals are for leisure, and 40% are for business.

China has been the most popular tourism destination in East Asia and the Pacific region from 1985 to 1999, with roughly 27 million arrivals in 1999. In 1999, China had the fifth highest number of arrivals world-wide, after France, Spain, United States, and Italy (WTO, 2000b). International tourist arrivals grew from 1980, when 5.7 million tourists generated US$617 million, to roughly 63 million tourists in 1998, who generated $US12.6 billion (National Tourism Administration of the People's Republic of China, 1999). China is capable of playing an important role in the international travel industry. The strong growth of the gross domestic product (GDP), the increase in private consumption witnessed by China over the last years, and the loosening of travel restrictions on travel to and from China, all contribute to China's ability to exert a dominant influence in the region's travel and tourism scene. Based on WTO predictions, China is expected to be the top tourism destination in the world by the year 2020 (WTO, 1999).

China's goal for the year 1995 was to double tourist receipts over that of 1991, and to redouble by 2000. From US$2.5 billion in 1991, the targets were for US$5 billion in 1995 and US$10 billion in 2000. Performance in 1992 showed good progress towards this target with receipts up 38.9% over 1991 to US$3.95 billion and arrivals up 28% to 6.33 million. The state approved plans to build 11 national holiday resorts, with incentives to attract foreign investors. This is part of the policy to transfer China's tourism from traditional sightseeing to the combination of sightseeing and holiday resort tourism (WTO, 1994).

Japan

From 1987 to 1992, continuous growth in tourism arrivals occurred, and visitor numbers reached an all time high of 3.53 million in 1991 (an increase of 50%). The main stimulus of growth was the Asian market (up 74.6%), notably South Korea (24.4%), Taiwan (18.6%), the United States (15.4%) and Hong Kong (4.4%). The three key markets are Taiwan (26.9%), South Korea (24%), and Hong Kong. Together they accounted for 72.5% of Asian arrivals

and 47.4% of Japan's total inbound market in 1991 (Travel & Tourism Intelligence, 1997).

Visitor arrivals to Japan increased steadily in the first three years of the 1990s, but by 1995, arrival numbers were lower than they had been since 1990. Major reasons for the decline in numbers were an earthquake in Kobe and the strong yen, which had a dampening effect on leisure arrivals. Only business travel remained strong. In 1996, with the weakened yen, interest in leisure travel was slightly revived, with some figures indicating an increase in total arrivals of approximately 15%. Despite this, the industry continued to suffer, with low margins and a changing, less lucrative market. The average length of stay in Japan had fallen, from 14.9 days in 1988 to 9.4 days in 1995 (Travel & Tourism Intelligence, 1997). Tourism officials introduced a new strategy designed to revive interest in the country and have targeted a doubling of visitors to 7 million by 2005 (Travel & Tourism Intelligence, 1997).

In terms of outbound tourism, in 1987 the Ten Million Program was launched, with the intention of doubling the number of Japanese travelling abroad to 10 million by 1991, a target which was reached a year early in 1990. After this success, the government of Japan formulated a new, wide-ranging action program called Two-Way Tourism 21.

Intra-regional Asian tourism and ecotourism were recognised as the two major trends of the 1990s, and efforts have been made to foster and assist the successful expansion of these two market developments. With the sharp influx of Asian visitors (especially from Korea) there is a shortage of qualified guides and interpreters. The Japan National Tourist Organization (JNTO) has identified three areas to concentrate on for the future in order to promote inbound tourism.
It plans to:
• expand its activities in the Asian market
• encourage efforts to attract visitors to Japan's regional area, and
• step up the promotion of Japan as a convention and exhibition destination (The Economist Intelligence Unit, 1992).

Hong Kong
Tourist arrivals in Hong Kong have grown from under 2.3 million in 1980, to over 9 million in 1994 (The Economist Intelligence Unit, 1995b). Hong Kong's role as a centre for regional trade, transport, tourism and

services has been growing significantly in 1990s. This had a positive impact on the travel industry, which is the third largest earner of foreign exchange for Hong Kong. Tourism contributed HK$64 billion in 1994. The Hong Kong Tourist Association (HKTA) established a broad goal of receiving 10 million visitors, with receipts of HK$130-140 billion in the year 2000. Hong Kong remains a major entry for foreign visitors to China, although it is no longer the major entry point (The Economist Intelligence Unit, 1995b).

Japan was Hong Kong's largest market source from 1971 until 1990, when Taiwan overtook Japan as the major market. Hong Kong has benefited from the sudden surge of outbound traffic from Taiwan. The surge is a result of rapid economic growth and the easing of travel restrictions. Hong Kong has benefited in two ways, both as a destination that appeals to travellers from Taiwan, and also as the major entry point for travellers from Taiwan into China. Barred from travelling to China since 1949, it was not until October 1987 that Taiwan citizens were first allowed to travel to China via a third country such as Hong Kong (The Economist Intelligence Unit, 1995b).

In 1994 China became Hong Kong's largest market. Even though Japan is no longer the primary market, it is still very important financially, because Japanese travellers stay a little longer than Taiwanese travellers (2.9 days compared with 2.2) and spend substantially more. Japan also has the largest leisure percentage among Hong Kong's major markets (74% of Japanese arrivals).

The Hong Kong Tourist Association, a quasi-official organisation promoting tourism to the international clientele, has recently tried to encourage more visitors to take advantage of the country park system.

Taiwan
Taiwan is both a pleasure destination and a business destination in the Asia Pacific, and rapid growth of the industry is not foreseen (Republic of China Tourism Bureau, 1996).

Visitor arrivals to Taiwan have grown from 14,068 in 1957, to 2,298,706 in 1998 (Republic of China Ministry of Transportation and Communications, 1998). Visitor expenditures in Taiwan have grown from US$527 million in 1977, to US$3.4 billion in 1997, an increase of 85% (Fish &

Waggle, 1997). Average daily expenditures per visitor have grown from US$72.43 in 1977, to US$193.56 in 1997, an increase of 63%. These numbers are impressive when examined alone, but in comparison to growth in other jurisdictions (e.g., Hong Kong figures rose 160% between 1987 and 1994), the figure is low (Fish & Waggle, 1997). In 1994 Taiwan had roughly the same number of visitor arrivals as India (over 2 million), and less than main regional destinations such as Australia, China, Hong Kong, Indonesia, Japan, South Korea, Singapore, and Thailand. Taiwan's largest tourism market is Asia-Pacific travellers, who account for over 70% of Taiwan's market (The Economist Intelligence Unit, 1995d).

Taiwan's inbound tourism market has been heavily dependent on just six countries, which accounted for 81% of the region's visitors from 1977 to 1994. Japan supplied the greatest number of visitors to Taiwan (45%), followed by Hong Kong (13%) and United States (12%). Also contributing were South Korea (4%), Malaysia (4%), and Singapore (3%) (Fish & Waggle, 1997). While these six jurisdictions have played a dominant role in Taiwan's tourism trade, Taiwan's attractiveness has expanded over time. In 1977 only 15% of visitors to Taiwan came from outside of these six countries, but by 1994 other countries accounted for 25%. Most of this gain by other countries resulted from Japan's decreasing importance to Taiwanese tourism. The number of Japanese tourists increased from 563,000 in 1977, to 824,000 in 1994, but based on percentage, the total visitors actually decreased by 12%, from 51% of the market in 1977 to 39% in 1994 (Fish & Waggle, 1997).

Growth in Taiwan's inbound market has been slow for most of the past decades. From 1997 to 1999 inbound arrivals have remained steady at roughly 2.4 million. According to Fish and Waggle (1997) reasons for the low growth include:
- strengthening of Taiwan's currency in the late 1980s
- a shortage of new or strong international tourist/leisure attractions
- tourist attractions not being readily accessible
- difficulties in obtaining appropriate travel documents, and
- a lack of direct air links between Taiwan and major tourist-generating countries.

The sharp appreciation of Taiwan's currency (the New Taiwan dollar) against most of the world's major currencies in the late 1980s made the destination more expensive for visitors. In recent years, the currency has become more stable, making this issue less significant.

South Korea
South Korea is situated between Asia's most sought after outbound markets, Japan and China. In addition, it is located only a few hours north of Taiwan's huge outbound market, and it is easily accessible from both Southeast Asia and North America. For the Southeast Asians, South Korea provides four distinct seasons, a novelty for residents of the tropics. As an airline hub, South Korea is comparatively cheaper than Japan and more technologically advanced than China (The Economist Intelligence Unit, 1995c).

In 1962 only 15,184 foreign tourists visited South Korea. Since then, tourist numbers have grown strongly, reaching 100,000 in 1968, 1 million in 1978, and 2 million in 1988. In 1998, there were over 4 million (4,250,216) visitors. South Korea's strong growth in tourism arrivals in the 1970s and 1980s can be attributed to three stimulants. First, the president created a series of five-year economic development plans that produced South Korea's "economic miracle" and brought increased numbers of foreign business travellers. Second, South Korea's normalisation of relations with Japan, its former colonial ruler from 1910 to 1945, helped the economy grow, and also attracted leisure travellers. Third, inbound tourism to South Korea consistently achieved double-digit growth during the second half of the 1980s due to the Asian Games in 1986 and the Seoul Olympics in 1988 (The Economist Intelligence Unit, 1995c).

Tourists account for 72.1% of all arrivals to South Korea. In 1998 arrivals from Asia totalled 3.03 million, followed by 470,000 from the Americas, 380,000 from Europe, and 40,000 from Australia and New Zealand. Japan is the primary inbound market, followed by visitors from the United States, Hong Kong and the Philippines (Republic of Korea Ministry of Culture and Tourism, 1998).

In 1998 tourists from Japan amounted to 1.95 million (46% of the inbound market). A vast majority (96%) visited South Korea

for sightseeing. Since the 1970s, Japan has been South Korea's major inbound market. Japan once totalled as much as 70% of the total market, but from 1985 to 1995 it accounted for approximately 45%, with a temporary peak of 50% just after the Olympics. The decrease may be partially explained by the fact that a visit to South Korea became considerably more expensive in early 1990s due to increased costs of both labour and commodities. The tourism industry has made great effort to attract travellers from Japan. For example, the need for a Japanese visa was waived during Visit Korea Year 1994. This later became permanent (The Economist Intelligence Unit, 1995c).

The United States is the second-ranked inbound market for South Korea. In 1998 visitors from the United States totalled 406,000. The majority (72.1%) came as tourists. The average length of stay was 9.7 days, a relatively long period of visit (Republic of Korea Ministry of Culture and Tourism, 1998). The United States has maintained strong links with South Korea since its participation in the Korean War from 1950 to 1953. There are still over 30,000 United States' military personnel stationed in South Korea, and at least that many more civilian workers and dependants.

The long-term Korean Promotion Plan, established in 1992 by the Tourism Policy Council, had a target of 7 million arrivals by the year 2000. Though previous marketing efforts have been concentrated on Japan, new efforts have also been made to diversify the market. The Government's National Comprehensive Tourism Development Plan divides Korea into 24 tourist development areas and aims to spread tourism throughout the country. In 1994, total inbound tourism expenditures were US$3.8 million, and average expenditures per visitor totalled US$1.06 (The Economist Intelligence Unit, 1995c). According to the Ministry of Culture and Sports (1994), there were 106,774 employees in South Korea's tourism industry. Jobs by sector include: accommodation (50,965 jobs), travel agencies (36,012 jobs), attractions (8,992 jobs), professional convention organisers (286 jobs) and miscellaneous (10,519 jobs).

The Korean National Tourism Corporation (the national tourist office) is responsible for international tourism marketing, resort development, education and training, convention promotion, tourism research and development, and domestic tourism promotion. It provides licensing for tour guides (by language) and recorded 6,210 tour guides in 1995 (The Economist Intelligence Unit, 1995c).

Mongolia
Landlocked between Russia and China, Mongolia became an independent republic in 1990 after 69 years of Russian influence. Since then, it has made a rapid transition from a centralised system to a market economy.

For over 30 years, tourists have come to the Gobi Gurvansaikhan area ,however, great changes in tourism have happened over the past decade. Recently Mongolia started to open its borders to foreign visitors. Until 1997 individual tourists to Mongolia needed formal letters of invitation from a Mongolian or a foreign resident to obtain visas (Eberherr, 2000b). Since 1998 when liberal visa regulations became effective, there has been a noticeable increase in the number of individual tourists travelling to Mongolia. Mongolia's international tourist market has grown due to this policy. The Mongolian Embassy records list 200,000 visitors in 1995, of which 20,000 were tourists who generated an annual revenue of $6 to 7 million (Eberherr, 2000b). Improvements in visitor reporting are in progress, but some discrepancy in visitor numbers reported may still exist. Most recently, the Mongolian Tourism Centre reported 158,743 visitors in 1999, of which 34,049 were tourists who generated an annual revenue of $28.8 million.

Based on Mongolia's relatively undisturbed landscape and culture, the potential for growth in Mongolia's nature-based tourism industry is large. Almost all leisure tourists visit Mongolia as part of an organised package tour. Some tourists choose to make independent travel arrangements. However, most tourists still need the services of tourism operators since travel in the countryside in Mongolia is extremely difficult without a rented car, an experienced driver or guide and an interpreter (Eberherr, 2000b).

According to the Mongolian visitor arrival statistics of 1997, Japan is the single and most important tourism market in Mongolia (30% of the market). The majority of Mongolian package tours being offered in

Japan feature an eight to nine-day itinerary. Mongolia is regarded as a special interest tour (SIT) destination for pursuits such as hunting and fossil digging, which appeal to a small and very limited market base (Eberherr, 2000b). Western Europe is the second largest tourism market (with a combined share of 39% of the market). For most European tourists, Mongolia is a once-in-a-lifetime destination in Asia.

The tourist season in Mongolia lasts only five months of the year (May to September), with over 50% of leisure tourist arrivals concentrated in the months of July and August (Eberherr, 2000b). One estimate identifies the number of tourism agencies at over three hundred in 1998 (Eberherr, 2000b). Among those 300 agencies, 100 companies are tourism entrepreneurs, of which 50 are general tourism operators and another 50 are travel agents. Until recently almost all of the tourism agencies have been based in Ulaanbaatar, and many of them manage campsites in the provinces (Eberherr, 2000b).

Tourism in West Mongolia is in an early stage of development. Recently, international operators have started bringing a small number of tours to Mongolia, in co-operation with national tourism operators. Tourists interested in the nature and culture of Mongolia primarily come from industrialised countries such as Japan, Europe, Australia, North America and South Korea, and have high travelling budgets relative to the cost of living in Mongolia. Tourism numbers to national

Well designed camping facilities, such as these in Taroko National Park, Taiwan, provide valuable services to the park visitors, as well as protect the environment through environmentally sensitive design.

parks are very small compared to other park systems in other East Asia jurisdictions. One estimate suggests there is less than 1,000 people per year who visit national parks in West Mongolia (Eberherr, 2000a). It must be acknowledged that the reported tourist numbers in parks may not accurately capture all tourists – some do not register, either because they are not aware of the need to register, do not know where to go to register, or try to avoid paying the entrance fees at registration (Eberherr, 2000a).

Although tourism in Mongolia is currently small scale, it will continue to play an increasingly important role in the region. Effective planning is critical in order to address the possible problems brought by increasing number of tourists. Mongolia government policy has been responsible for rapidly establishing a number of protected areas in the past few years. Under the prerequisite of environmental preservation, tourism is regarded as a promising opportunity for Mongolia, with the ability to contribute to additional incomes by creating new jobs for the locals. Challenges to sustainable tourism development include poor accessibility to remote areas, lack of roads, uncontrolled flow of local people to areas of tourism development, insufficient tourism infrastructure and facilities in and around national parks and protected areas, and the inability for park budgets and staff to keep pace with the fast-expanding tourism industry (Eberherr, 2000a).

2.4   TOURISM AND PROTECTED AREAS

2.4.1 Infrastructure and Activities

The category of protected area designation determines the type of activities and facilities that are permitted. For example, greater restrictions are placed upon activities and facilities in a nature reserve compared to a national park because of the higher conservation priorities. It is necessary for some infrastructure to exist within close proximity to the park, since travellers require items such as road access, accommodation and restaurants to comfortably visit the area.

Accommodations

Usually accommodations are restricted or forbidden in nature reserves, (Category I), national parks (Category II), and national

monuments (Category III). In some cases where parks were established after the area was settled, local communities live within the park. Category V parks, protected landscapes, often contain villages and settled landscapes with abundant levels of tourist accommodations. It is important to gain the support of the local communities and of local accommodation providers if the conservation goals of the protected area are to be achieved. Two ways of gaining support from local communities include involving them in the management of the protected area, and ensuring that the local people benefit directly from tourism activities associated with the protected area.

Accommodations are typically found in the buffer, or peripheral zones, of national parks and protected areas. Such developments are best located outside the park because of the strong emphasis on protection and conservation within the park. In many regions of East Asia local people reside inside and along borders of protected areas. Potentially, some local people can offer small-scale accommodations to travellers and gain income. This is an example of how tourism spending directly benefits the local people, and circulates within the local economy. In this way, leakage of tourism spending to outside parties is reduced. Large-scale accommodation developments are usually better situated away from these zones since their looming presence may be inappropriate in this context.

Outdoor Activities
Many activities that occur in protected areas depend on the terrain. For example, hiking, climbing and skiing are activities tourists may participate in while visiting mountainous areas, whereas they may wish to swim, scuba dive and go for walks along the beach in marine areas. Motorised vehicles associated with recreational activities, such as jet skis and power boating place additional stress on sensitive environments of protected areas. Such vehicles need to be carefully controlled and in some cases prohibited.

Facilities
Protected areas offer rich opportunities for environmental education. What better place to teach someone the importance and benefits of the protected area and its species than in an outdoor classroom? Interpretive trails, visitor centres, and picnic areas are often located inside protected

Managers, policy makers and planners involved in conservation and local level development should be at least somewhat familiar with the human (or social) sciences. They are then in a better position to understand the cultural and social processes of the people with whom they interact.

(Furze, De Lacy & Birckhead, 1996)

areas, in zones where low-level development is appropriate. More elaborate tourism facilities such as museums, swimming pools, craft workshops, and local industries are often located in buffer or peripheral zones outside the core zones of protection protected areas.

Transport
Some public transport is available to certain protected areas, however, when travelling to protected areas located in rural areas, many visitors arrive by car. As visitation grows, issues such as congestion, pollution and quality and quantity of parking facilities must be addressed. Transit by bus or train can be used to concentrate use and reduce the impact of roads, cars and parking lots.

2.4.2 Systematic Collection of Data Related to Tourism

Data and information are critical for effective management decision-making. In many jurisdictions systematic data collection relating to the natural sciences has been established as a priority for creating and managing protected areas. It is widely accepted that conducting studies or inventories on the flora and fauna of a given area is a desirable practice. This data can be useful to park managers. For example, knowledge learned through studies about endangered species in the area can be applied when determining zoning and levels of acceptable use. The natural science fields provide only a portion of the overall data related to tourism that should be collected. Data collection in the social science fields is also an essential component for effective planning and management of human interactions with protected areas.

Social science deals with the human and social dimensions of issues. Within a social science framework, the ways in which society operates, how it works, and how its working impacts on various individuals and groups of people can be considered (Furze, De Lacy & Birckhead, 1996). It incorporates fields of study such as sociology, psychology, history, anthropology, cultural studies, politics, economics, communication studies, leisure studies and geography. It deals with people and their relationships (with each other and with nature). Unlike natural sciences, there are few natural laws that govern the ways people behave or do not behave. Social sciences must deal with human diversity.

FIGURE 8: Levels of Program Development for Measurement of Visitor Use

Level	Staff	Time	Funding
Initial	1 person (other duties assigned)	As time permits	None
Basic	1 person (other duties assigned)	10% allocated	Nominal
Intermediate	2 people (other duties assigned)	25% allocated	Same as small operating department
Developed	1 person (dedicated to program)	100%	Same as any operating department
Advanced	2 people (dedicated to program)	100%	Enhanced

(Hornback & Eagles, 1999, p. 27)

In terms of tourism in parks and protected areas, social science research can help park managers examine and consider the impacts of tourism on the local communities and better understand tourists' characteristics, travel motives, expectations and perceptions. Potential research questions related to the dynamics between tourism and local people include:

• What factors must be present for sustainable tourism initiatives to succeed?
• How do local people perceive the protected area?
• Why don't local people obey regulations outlined by the government or park management agency?

In order to develop a thorough understanding of tourists, protected area managers should know what their levels of tourism are, what the levels are in peak season, shoulder season and off-season, and what motivations and expectations their visitors possess. Information on tourism within individual protected areas varies widely but, in most cases, vast improvements still need to be made towards the collection of social scientific data and information as it relates to tourism.

According to Hornback and Eagles (1999), many parks do not count visitation effectively. Possible reasons include low levels of staffing, too many entrances for proper coverage, or other competing management priorities. Proper and effective reporting of visitation provides government, the public and other industries with an accurate impression of the levels of park system use. In turn, this can lead to a higher level of policy emphasis in government and an ability to capture

more funding. Even with minimal availability of staff and funding, all protected areas should monitor use levels with reasonable accuracy and reliability.

Different methods exist to record levels of tourism, such as measuring the number of visits, visitor hours, entries to the protected area, visitor nights, visitor night hours and entry night hours. For example, one easy way to collect substantial amounts of basic visitor data (in all parks that collect fees for visits) is through information entered into computer terminals at the point of sale when visitors register and buy a permit. Information can be collected at a variety of different levels, ranging from a very simple basic level to a complex specialised program.

Hornback and Eagles (1999) describe five progressive levels of a public-use measurement program. Staff, time and funding requirements for the five different levels are outlined in Figure 8. The more highly developed levels result in greater accuracy of measuring levels of public use and a corresponding increase in resources required to run the measurement program. The level that is selected for each protected area should provide a balance between effort and applicability of data to park management needs. The most complex program is not necessarily the most appropriate one for every park to strive for, since an overly complicated program may become problematic and impractical to implement and maintain. To meet the goal of long-term accuracy, a balance must be found between precision and practicality.

The first necessity is that *some* method of data collection on park visitation be implemented. Once a system is in place, then improvements can be made on the quality of data that is collected.

Without knowledge of visitors, decisions relating to visitor management are imprecise. Ideally, consistent definitions and methods of measurement should be employed within a protected area system. Lack of consistency makes direct comparisons impossible and trends difficult to identify. Efforts must be made to collect accurate and comparable statistics on tourism related to natural protected areas at the regional, national, and international levels.

For further information ...

Hornback and Eagles (1999) published the first global guidelines that focus specifically on public-use measurement and reporting. The book is entitled *Guidelines for Public Use Measurement and Reporting in Parks and Protected Areas.* Topics covered include counting instruments, types of visitor studies, methods of data collection and the importance of systematic collection of visitor measurement.

2.4.3 Policies and Laws Related to Sustainable Tourism in Protected Areas

Governments are involved in park and tourism planning at local, regional, and national levels. Governments need to consider concepts and tools used in sustainable development. Sustainable tourism development is one portion of the larger realm of overall sustainable development. Conservation can be achieved through sustainable tourism development, as can economic development. For the concepts of conservation and economic development to be mutually supportive, tourism policy must be adequately linked with national development policy and national environmental policy. Without proper planning and integration, individual projects tend to operate in isolation, failing to influence either conservation or development. Isolated projects also often fail to generate the policy support necessary to bring their potential to fruition.

Policies and legislation that enable governments or other organisations to assign protected status to a natural area are critical for the area's protection. All jurisdictions in East Asia have some form of policies and legislation to address the establishment of protected areas.

Once the protected status of an area has been established, it is important to consider various sources of impacts that may threaten the unique species and landscapes that are being protected. Tourism is a large and powerful source of potential impacts. General tourism policies exist for many of the East Asia jurisdictions, however, there is an absence of policies, laws and legislation specifically related to tourism development in and around protected areas of East Asia.

As the necessary overlap between the protected area industry and the tourism industry becomes increasingly apparent, a desirable outcome will be the creation of

It is important to consider the full range of potential benefits and potential costs when making decisions related to developing tourism in an area.

specific policies relating to tourism within and near protected areas. Policy creation requires planning and forethought. Without planning and forethought (and no policy), tourism development is left to continue at its own, often rapid and uncontrolled, pace. Unguided and unregulated development frequently results in negative impacts outweighing positive ones, and overall damage to the area and surrounding communities.

It is possible that staff at an individual protected area site may attempt to work towards sustainable tourism development without guidance from an existing written policy by the management agency, however this is the rare example rather than the common case. Individual park managers should receive guidance from park management agencies about how to work towards sustainable tourism development within and near protected areas. Other sources of guidance include international development agencies, environmental organisations, and the information contained within this document.

Developing policies and laws related to sustainable tourism solidifies and acknowledges a desire to maintain a high level of commitment to achieving sustainable tourism development. Policies that recognise tourism as a valuable element of protected area management provide guidance to managers of these areas. Refer to Appendix E for a rare example of a park management organisation's specific tourism policies. Often park agency tourism policies are very general and do not have a specific section assigned to them within policy manuals.

2.5 THE DOWNFALLS OF NON-SUSTAINABLE TOURISM

Poor planning and management of tourism development in and around protected areas can have devastating, long-lasting and sometimes irreversible effects. Non-sustainable tourism is negative for conservation goals, for local communities and for society in general. Disadvantages associated with non-sustainable tourism are listed in Figure 9.

It is important that the negative aspects of tourism development be acknowledged. This is especially important in areas that currently have low levels of visitation and

where tourism development is being considered as a method of stimulating the region's economy. It may be tempting and certainly easier to see only the appealing aspects of tourism development and how well it fills the current needs not being met through other industries. It is easy to believe that the benefits will outweigh the costs (i.e., and the initiative will be sustainable), especially in situations where strong hope exists for the increase in well-being that these benefits would bring. However, it is important to consider the full range of potential benefits and potential costs when making decisions. It is also important to fully realise the amount of planning, co-operation, and work that is involved within the process necessary to achieve a sustainable tourism development situation.

FIGURE 9: Disadvantages of Non-Sustainable Tourism Development

For conservation and protected areas
- Environmental damage (such as erosion, disruption of wildlife, destruction of protected species)
- Excessive visitor pressure
- Pollution (such as noise, litter and exhaust fumes)
- Consumption of available management resources, diverting attention away from other management priorities

For local people
- Disturbance and damage to ways of life and social structure
- Higher costs, especially for housing and land
- Weakening or loss of traditional cultures

For society
- Pressures on resources

(Adapted from FNNPE, 1993)

Massive negative impacts on the grasslands of the Serengeti ecosystem in the Masai Mara Game Reserve, Kenya were caused by a lack of proper road construction and weak tourist vehicle regulation.

A more realistic attitude relating to the development of tourism in these types of areas may be to acknowledge that tourism development will bring some negative impacts (there is no way to avoid all of them). The acceptance of that as reality will hopefully inspire all parties involved to act responsibly and plan together for how to minimise the negatives while creating a management structure that facilitates the opportunity for many advantages to occur.

2.6 THE ADVANTAGES OF SUSTAINABLE TOURISM

General objectives of sustainable tourism are to create an industry where tourism: a) satisfies both residents and tourists, b) safeguards the natural and cultural resource base, and c) is economically viable. Precise goals can be defined in the context of each unique destination by investigating the needs and goals of the government and local community and the key elements of the environment and culture of the area (Twining-Ward, 1999).

Willliams and Budke (1999) outline three general steps related to the creation and support of sustainable tourism:

1. Establish principles of sustainability
First, in order for sustainable tourism to occur, sustainable principles must be established, accepted and adopted across a broad level. Necessary legislation must exist to assign recognised protective status to areas of natural and cultural significance. Formation of organisational policies and proper short-term and long-term planning that incorporate the principles of sustainability will help to guide the management and development of these areas. Also, codes of conduct can help to transfer the broad principles of sustainable development into concrete guidelines for action. Many codes of conduct have been aimed at managing traveller behaviour through emphasising respect for other cultures and encouraging the sensitive use of natural resources. Several tourism organisations have produced their own codes of conduct that focus on the needs of their specific stakeholder groups.

2. Implement sustainable tourism programs
Second, planning for sustainable tourism programs can arise from the adoption of

these sustainable principles. A broad range of environmental management practices and environmentally focused initiatives must occur to ensure system-wide protection. Various stakeholders (e.g., tourism operators, non-government organisations, local communities, travel and transportation industry, accommodations, restaurants, etc.) can be involved in efforts to become more sustainable in their products and practices.

FIGURE 10: Advantages of Sustainable Tourism Development

For conservation and protected areas
- Greater public's and local peoples' awareness of protected areas and the environment
- Political support which can help to attract funding and support the designation of new protected areas
- Conservation of natural and cultural features through restoration projects and direct practical help
- Additional finance from the tourism sector and from businesses

For the tourism sector
- Government support for businesses and employment
- Development of new, high quality, environmentally-sound products, based on nature and culture with a long-term future
- Reduction in development costs through partnerships with protected areas
- Improvement of company image
- Attraction of customers looking for environmentally-sound holidays
- Increased tourist awareness of the need to protect the environment and cultural and social values

For local people and society
- Improved income and living standards
- Revitalisation of local culture and traditional crafts and customs
- Support for rural infrastructure and facilities
- Improved economy
- Avoids or stabilises emigration of local population
- Makes local populations aware of the need to protect the environment and cultural and social values
- Improved physical and psychological health
- Promotion of harmony between people from different areas, facilitating the exchange of ideas, customs and ways of life

(Adapted from FNNPE, 1993)

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3. Monitor sustainable tourism practices
Finally, once sustainable processes and practices are in place, monitoring must occur to assess the effectiveness of operational practices in meeting sustainable goals. Some tourism companies and park organisations have started the process of developing and implementing monitoring systems. Environmental auditing and sustainable auditing provide methods of tracking the level of effectiveness of operations in meeting specific goals. Depending on the size and mandate of the organisations, the assessment process varies in the level of formality, structure and content.

Sustainable tourism offers numerous potential advantages to all parties involved in protective efforts (McIntyre, 1997). Protected areas, the tourism sector, local communities and society in general all benefit from sustainable tourism planning and management. Advantages are summarised in Figure 10. One key aspect of sustainable tourism is proper and effective planning *in advance* that addresses potential impacts and implications of tourism on the environment and communities in question. It is important to plan and anticipate, rather than act hastily and without recognition of the various potential outcomes and implications. Potential positive results that can be achieved with proper sustainable tourism planning are discussed in Case Study 2 in the context of the development of Chumbe Island Coral Park and Environmental Education Centre.

As an example of benefits, consider the options that exist if roofed accommodations are identified as a desirable element in the planning process of sustainable tourism development of a rural area with small visitor numbers. One option is to develop or increase the number of small, locally-owned accommodations. Another is to allow a large company from outside the area to build and manage a tourism structure, such as a hotel. The parties involved in decision-making must determine what their short, medium and long-term visions are for the area. How do they want the area to look ten years from now? Which development options best match the desired vision?

After considering the various options in the context of the desired outcomes, options that likely do not result in the desired vision can be eliminated. For example, if the vision is to retain the rural character, improve infrastructure and increase opportunities for local income to be earned, then the first option to develop small locally-owned accommodations has the potential to meet all the necessary criteria for development, while maximising positive impacts and minimising negative ones.

In this example, smaller accommodations produce benefits for the protected area. They limit the numbers of visitors and the potential negative environmental impacts of visitors and construction. As well, a large construction product may not blend well with the natural environment. This low-level development option also benefits the

CASE STUDY 2: Private Initiatives Towards Conservation

Chumbe Island Coral Park and Environmental Education Centre (Tanzania) – An Example of Private Initiative and Money Developing a Sustainable Tourism Industry that Contributes to Conservation

Chumbe Island is a private marine park in the Indian Ocean off the coast of Zanzibar, Tanzania. The park is centred on an uninhabited island covered by a very significant coral rag forest and surrounded by a coral reef of exceptional biodiversity and beauty. The aim of this operation is to create a model of sustainable area management where ecotourism supports conservation and education.

The Chumbe Island Coral Park & Environmental Education Centre is a private nature reserve developed by a company created for that purpose in 1992, the Chumbe Island Coral Park Ltd. (CHICOP). Chumbe Island is a rare example of a pristine coral island ecosystem in an otherwise heavily over-fished and over-exploited area. Based on the initiative of CHICOP, the island was gazetted in 1994 as a protected area by the Government of Zanzibar. The reserve includes a reef sanctuary, which has become the first gazetted marine park in Tanzania, and a forest sanctuary. The management of these has been entrusted to a private company, CHICOP.

The project to establish the marine reserve and to create the tourism facilities was funded by several sources. About two thirds of the US$1 million cost was privately financed by a private individual who initiated the project. The remainder came from various international governmental, non-governmental and private donors. The idea of developing an ecotourism site that could contribute to conservation and community development was attractive to many people. As a result more than 30 volunteers, from several countries, provided professional support to the project.

The management of the site by CHICOP is assisted by an Advisory Committee with representatives from neighbouring fishing villages, the Institute of Marine Sciences (IMS) of the University Dar es Salaam and Government officials of the Departments of Environment, Fisheries and Forestry respectively. The Advisory Committee meets one or more times per year.

The tourism facilities include seven bungalows that offer accommodation on the island for up to 14 guests at any one time. In addition, day trips are offered to 12 more visitors per day. Groups of school children, totalling up to 1,600 per year, are brought on day excursions for environmental education purposes.

Chumbe Island Coral Park

The Chumbe Island development reveals considerable long-term vision in the selection of objectives and in planning. The project took a decade, from the early 1990s to the present, to develop. Key factors contributing to the success of the project involved:

1. The involvement of local people in all aspects of the development

2. The local residents acting as park wardens proved to be effective in minimising destructive activities to the reef ecosystem

3. The careful design of the tourism facilities resulted in minimal negative environmental impact during construction and during operation

4. The restoration of the native forest and the recovery of the breeding bird populations were considerably enhanced by the complete removal of a plague of introduced rats

5. The protection of the globally significant coral reef was assisted considerably by the tourism project

6. The gazetting of the marine reserve, the first in the country, by the national government was stimulated by the project

7. The creation of national law to allow for the private management of conservation areas was stimulated by the project, and

8. Chumbe Island now visibly represents part of the Zanzibari and Tanzanian cultural heritage.

The Chumbe Island Coral Park won the 1999 British Airways Tourism for Tomorrow Award as the best example of sustainable tourism in the world.

Web sites: http://krypton.org.chemie. uni-frankfurt.de/~mirko/CHUMBE/GIFFILES/ progressreport.htm
http://www.chumbeisland.com/ and
http://www.xtra-micro.com/work/chumbe/ Start.htm

For further information: Eleanor Carter, Chumbe Island Coral Park & Environmental Education Centre, PO Box 3203, Zanzibar, Tanzania. Telephone and fax: 00256-64-31040.

tourism sector by appealing to environmentally-minded tourists who want to select environmentally-friendly businesses that support local people. Moreover, growth of the tourism industry is less likely to occur at a rapid and unplanned pace if infrastructure is designed to support a gradual growth in numbers. Local people benefit because local ownership means that profits remain in the area. As a result, leakage of profit to outside sources is reduced. Products and services associated with the management of those accommodations will likely be purchased locally, spreading the benefits of tourism more evenly amongst the community. As well, an opportunity exists for visitors to share in the local culture, which may not be as evident in a hotel development.

FIGURE 11: Disadvantages of Sustainable Tourism Development

Even tourism development that is based on sustainable development principles and designed to be environmentally and culturally friendly will usually be accompanied by negative impacts. Sustainable tourism development has the potential to:
- Increase consumption of resources and, in cases that are poorly planned and managed (and are not sustainable), exhaust the resources
- Increase waste and litter production
- Upset natural ecosystems, and introduce exotic species of plants and animals
- Lead to population movement towards areas of tourist concentration
- Lead to a loss of traditional values and a uniformity of cultures
- Increase prices and the local population potentially loses ownership of land, houses, trade and services
- Encourage purchase of souvenirs that are sometimes rare natural elements
- Take up space and destroy the countryside by creating new infrastructures and buildings.

(Persaud & Douglas, 1996, p. 59)

2.7 ACHIEVING ADVANTAGES AND MINIMISING DISADVANTAGES OF SUSTAINABLE TOURISM

It is necessary to acknowledge that with the development of tourism – even tourism which is environmentally friendly and classified as sustainable – not all of the resulting impacts and changes to the environment and surrounding communities will be positive and/or desired. Sustainable tourism planning aims to minimise the resulting costs and maximise the resulting benefits. Examination of potential issues and concerns arising from tourism development during the planning process helps create a desirable situation in which

balance is achieved. Examples of concerns relating to sustainable tourism development are outlined in Figure 11.

The potential negative impacts listed in Figure 11 are not as destructive and irreversible as the onslaught of negative impacts that result from non-sustainable tourism development listed in Figure 9. Sustainable tourism development implies sensitivity of all parties involved in planning and development – a sensitivity to the environment, to surrounding communities, and to potential issues that arise from unavoidable changes associated with development. Being sensitive to the potential negative impacts enables planners, managers, developers, tourism operators, government agencies and communities to formulate plans for action that address these anticipated impacts. Sensitivity to the potential positive and negative changes associated with development is an overall challenge faced by organisations, individuals, agencies and businesses anywhere who are working on sustainable planning and development. More tangibly, some specific challenges associated with sustainable tourism development are outlined in Case Study 3 in the context of West Mongolia's young tourism industry.

Anticipating plausible negative results in advance of their outcome provides an opportunity to plan for ways to minimise the negative impacts. Anticipation and planning enables some impacts to be minimised to an extent where they are mostly avoided. For example, if maintenance of traditional values is an important goal that has been determined by the local community, then tourism policies and development should be designed to support achievement of that goal. Interpretation can be designed to include information about the valued aspects of the unique culture of the local people living in and near the protected area. Tourists learn to appreciate the special nature of the traditional values held by the local people, and the local people apply an increased sense of pride and importance to their values that are admired by tourists.

Other impacts may not be avoidable. For example, population movement towards areas of tourist concentration is sometimes an unavoidable result of tourism development. This movement is sometimes unanticipated by planners, developers and government, and it is only after the

CASE STUDY 3: Issues and Potential Constraints Related to Tourism Development

Parks and Ecotourism in West Mongolia (Mongolia) – An Example of the Opportunities and Constraints for Ecotourism

Introduction

West Mongolia contains a rich landscape with high ecological diversity and a vibrant culture. This area is composed of three provinces, Bayan-Ulgii, Khovd and Uvs, and covers 191,000 km². The western Altai Mountain Range and the eastern Basin of the Great Lakes contain rich biological resources. West Mongolia has many resources that are of considerable interest to ecotourism. This case study will illustrate that many challenges must be addressed during the process of building a vibrant tourism industry that will help to protect and develop the area in positive ways. A number of challenges will be outlined, and comments will be made on possible solutions.

At present, only a small number of tourists come to West Mongolia. In 1998 only 400 people visited Tavan Bogd National Park, while numbers of visitors for other areas were much smaller, such as 10 visitors reported at Uvs Lake, and 100 visitors at Khar Us Nuur. Given the potential importance of park tourism to economic development in the region, it is necessary to understand the constraints that limit ecotourism. Since Mongolia is such an interesting ecologically and culturally rich area, it is likely that nature-based tourism will develop over time.

Potential Constraints

1. Short tourist season

Visitation to the area occurs primarily during the months of July and August. Although, these are the warmest months, they also are the months with the highest levels of precipitation. May, June, September and October would be better months for visitation, and need to be developed further.

2. Accessibility

The remote location is another potential constraint. The road distance from the capital city, Ulaanbaatar, to the western provinces is 1425 km, of which only 430 km is paved. It takes a jeep three or four days of hard travel to make the trip one way. An alternative is the Mongolian airline, MIAT, which was experiencing financial, scheduling and safety problems in the mid-1990s. Since that time, financial and safety conditions have improved, and flight schedules now change only when bad weather occurs. Two more private air companies have been created which serve tourists by helicopter and plane.

Access and uneasy travel provide a very difficult challenge for tour operators, who must operate a regular and predictable schedule. As tourism volume grows, more funds will flow into the travel industry and conditions will improve. However, for the near

future the tourism market must be aimed at people who are willing to have flexibility in their travel plans.

3. Agency resources

The newly-established park system is under development. The new park administrations are sparsely staffed and have little experience in tourism. One big problem is the very small number of rangers and small budget compared to the immense size of the parks. Now that the basic park system is in place, it is important that funds be found to increase the number of park rangers and the level of expertise in tourism management.

4. Tourism infrastructure

Due to the low numbers, there is a very small tourism infrastructure. Campsites, hotels, *ger* sites (tent structures), information signs, maps, designated routes, and information centers are almost non-existent. Important services such as qualified guides, foreign language interpreters and car rental services are not present. These gaps are very challenging for tourists. The earliest stages of tourism occur under such conditions. As tourism develops, it stimulates an increased supply of services and programs. This area would be a good place of emphasis by foreign aid projects.

5. A support network and partnerships

The local tour operators are just starting in business. They tend not to have international business contacts or experience. The few operators that do exist find that they must be very self reliant, and as such make little contact with the park managers or the local communities. These first, hardy tour operators will forge the way for many that will follow later as the conditions improve.

Conclusions

Many people have heard that tourism will bring benefits. These hopes are often too inflated, and are not balanced by a good understanding of the requirements and the costs of ecotourism. It is important to establish realistic expectations.

This situation in West Mongolia shows tourism constraints that are common challenges in many locations throughout the world. Once constraints are recognised, then planning can begin to address them. Fortunately, some efforts have been made by the World Wildlife Fund (WWF) and the United National Development Program (UNDP) to identify constraints faced by the tourism industry in Mongolia, and these organisations are undertaking valuable work to address these, and other, park management and ecotourism issues.

Tourism volume and impacts will grow in Mongolia. In the 1990s, efforts were directed towards establishing a protected area system in Mongolia. Creating legislation to protect areas of

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"Gradual, sustainable development is better than blind progress that leads to destruction."

– P. Ochirbat (former) President of Mongolia cited in UNDP, 1998, p. 1

natural and cultural significance was a successful beginning to the sustainable tourism development process. Efforts must now be directed to careful planning during these next stages in order to ensure that the changes and the impacts associated with tourism are in the most positive of directions. Mongolia has tremendous ecotourism potential, due to the rich natural and cultural resources associated with it. The planning to fulfil this potential must address these challenges and focus on building a sustainable tourism program that is culturally, environmentally and fiscally responsible.

Adapted from: Eberherr (2000a).

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Union of Mongolian Environmental NGOs (UMENGO) or WWF in Mongolia, NGO Strengthen Project. Telephone: 976-1-315306 Fax: 976-1-311659. Email: tsdavaa@usa.net

Society for National Parks of Mongolia. Telephone: 976-1-326592. Fax: 976-1-326611. Email: ulemj@nettaxi.com. Web site: http://www.geocities.com/snpm2000/home.html

Environmental Protection Agency of Mongolia Telephone: 967-1-326617. Fax: 976-1-328620. Email: epa_bpa@magincnet.mn

problem becomes apparent that it is addressed. Anticipating direct negative impacts or results of tourism development is only the first step. Often, it is also necessary to examine the underlying causes of the impact. Why have local populations shifted to areas of high tourism concentration? Answers to this question help determine solutions that minimise the problems associated with the original negative impact (i.e., population migration). Sometimes by focusing on the less visible, less direct, underlying causes, negative impacts can become more treatable.

In the example of population migration, an explanation for the migration could be a higher perceived quality of life attainable through involvement with tourism compared to a lower quality of life through continued practice of traditional jobs. The result is an influx of rural people to tourism centres.

If the underlying aim of the migrating people is to earn better money in order to increase their standard of living, then once local governments and organisations realise this as the underlying cause of migration, steps can be taken to develop policies or programs that address this concern. For example, one potential solution is to provide financial incentives to farmers to subsidise production. Another option is to encourage hotels and restaurants to purchase produce from local farmers, thus increasing demand for their products. Often a combination of solutions can be implemented together. The desired result is a more even distribution of wealth and benefits associated with the increased tourism to the area. Plans that accomplish this will enable tourism migration to occur

in a more organised and less detrimental manner.

Determining the underlying causes of the problem and developing a mixture of potential solutions that address the negative impact is more realistic and useful than simply announcing that population migration is a negative impact and trying to prevent it from occurring.

An interdisciplinary team with representatives from government planning, private developers, park managers and local communities should examine the potential advantages and disadvantages of sustainable tourism development in their area (British Columbia Round Table on the Environment and the Economy, 1992). Costs and benefits need to be weighed against each other, and a conclusion made as to whether the benefits outweigh the costs. If they do not, then a different plan must be proposed (e.g., development may still be desirable for the area but at a lower level than currently being considered, or perhaps it is decided that development would be too harmful to promote).

When considering sustainable development, this cost-benefit ratio must be examined both directly in terms of tourism, and holistically, taking into consideration the range of activities and industries present in the area as a whole. Sustainability within sectors such as agriculture, manufacturing and tourism (especially in locations where the economy is heavily dependent on these industries) is vital to achieving overall sustainable development.

2.8 SUGGESTIONS

All park systems require a tourism policy. A few general policies that are applicable across a broad range of situations are as follows:

1. Strong links between private tourism businesses and protected area systems are necessary. Representatives from all sectors need to work together to develop sustainable forms of tourism for protected areas.

2. Integrate environmental concerns into national and regional tourism policies and projects in East Asia. Sustainable nature-based tourism needs to be made a fundamental part of government policies relating to tourism.

3. Establish and implement national strategies for sustainable tourism that identify current opportunities and gaps.

4. Tourism development in and around protected areas should only occur if it is ecologically, culturally, socially and financially sustainable in the long term.

5. The private tourism sector should assist in maintenance of the natural and cultural resources of the protected area on which it depends.

6. Senior governments should develop national strategies and policies that place protected areas and their surroundings into a larger land-use planning context. Protected areas also need to be placed within an economic strategy and a tourism strategy.

7. For efficient management, it is necessary to have competent systems of tourism information collected by the protected areas' management. Systems should be compatible between different areas (i.e., collect data for the same units of scale). Jurisdictions should all possess standard definitions for key elements of a park tourism statistical program.

8. All park systems require a public use and tourism policy as well as a legal structure that enables the policy to be implemented. Review existing legislation to make sure it is compatible with sustainability goals, and make adjustments as necessary. Ensure that written instruments that provide a legally enforceable framework are in place (e.g., laws, governmental policies, and property rights).

9. Further development of networking systems for parks and protected area managers to discuss issues and related management options and solutions is desired. Better information channels are needed to enable experiences to be shared.

10. Governments should encourage and support the conservation of nature and culture as the major resources for tourism, and provide policies, plans and a legal framework for carefully controlling tourism so that it brings substantial benefits without generating serious problems (McIntyre, 1993).

11. The tourism industry should emphasise general policies and strategies, major development plans and programs and marketing. More specifically, they can establish policies, laws and incentives for socially conscious tourism (McIntyre, 1993).

Teresa Chang-Hung Tao

Every park requires competent, efficient management. This national park office in Taroko National Park in Taiwan provides a good work environment for the many specialists who are required to operate a modern national park.

3.0

Guidelines for Developing Sustainable Tourism

3.1 INTRODUCTION

In order to succeed, tourism must be planned and managed to improve the quality of life of residents and to protect the local, natural and cultural environment. Tourism is not feasible for every place, and the potential for developing it must be examined in each instance. In areas where some level of tourism development is appropriate, guidelines for sustainable tourism are needed. Guidelines help to combat the potential errors associated with a rapid pace of development and help to defend the protected areas from the variety of pressures that can damage them.

Protected area managers who make use of sustainable tourism concepts actively involve themselves in planning and decision-making in the area surrounding the park. The process of preparing a sustainable tourism action plan is key. "Protecting the environment and achieving successful tourism development are inseparable" (McIntyre, 1993, p. 3). Special interest groups, such as local communities that are affected by the plan or whose help will be needed in implementing the plan, should be involved from the very beginning of the process. A checklist for producing a sustainable tourism plan is provided in this section.

Items discussed in this section include:
- A 15-item checklist that outlines all the key areas in which efforts to develop and implement a sustainable tourism action plan must be made
- An in-depth explanation for each of the 15 items contained within the sustainable tourism action plan checklist
- Key concepts including limits of acceptable use, stakeholder involvement in the decision-making and management process, partnerships, environmental education, developing tourism inventories and the use of marketing to promote an area
- Case studies as they relate to the concepts discussed
- Best practice guidelines for various parties involved in the tourism process.

3.2 DEVELOPING A SUSTAINABLE TOURISM ACTION PLAN

A protected area management plan is the primary management tool to determine, publicise and implement objectives and priorities (Sharp, Odegaard & Sharp, 1994). All management plans should include a section on sustainable tourism management. Ideally, a national sustainable tourism strategy exists that will guide the development of strategies for individual protected areas. What works for one jurisdiction can rarely be applied without modifications to another ecological or socio-economic environment. However, there are strategic principles, common issues and consequential steps which are universally applicable to the development of management plans.

Figure 12 is a checklist of all the major steps associated with creating a plan for sustainable tourism development within protected areas. Some items, such as creating an inventory of natural, cultural and tourism resources, are best placed in the early planning stages. If tourism development is already in progress without a plan, it is never too late to incorporate steps from the checklist in an attempt to better plan for development and associated impacts.

It is neither necessary, nor desirable to implement items in the sustainable tourism action plan checklist in the sequential order in which they are listed. Determine a list of priorities that are best suited to the needs and current situation of the specific site to which they are being applied. Some items follow a logical discrete sequence, such as determining the limits of acceptable change before assessing new proposals for tourism development. Other items describe ongoing efforts, such as developing partnerships or involving local people in park planning and operations. The sustainable tourism action plan that is developed in consultation with all interested parties should be written into a working document, such as the park management plan, that is updated regularly, based on results of ongoing monitoring.

As noted in the introduction, Taiwan refers to Taiwan, Province of China.

FIGURE 12: A Sustainable Tourism Action Plan for Protected Areas

Summarised in the following checklist are all they key areas in which efforts to develop and implement a sustainable tourism action plan must be made. A sustainable tourism action plan should be part of the protected area's management plan. Each item is discussed in more detail throughout Section 3.2.

✓ **Item 1:** State clear objectives for sustainable tourism for each park.

✓ **Item 2:** Compile an inventory of natural and cultural features, as well as of existing tourism use and potential. Map and analyse the information.

✓ **Item 3:** Involve local people. This is key.

✓ **Item 4:** Work in partnership with local people, the tourism sector and other regional and local organisations.

✓ **Item 5:** Utilise zoning to identify and plan for areas where higher levels of tourism impacts may occur without harming areas of ecological significance.

✓ **Item 6:** Develop the limits of acceptable use for all parts of the protected area, set environmental standards, and ensure they are met.

✓ **Item 7:** Determine which tourism activities are compatible with the protected area and which are not, and develop related policies.

✓ **Item 8:** Assess the environmental, economic, social and cultural impacts of proposals for tourism development.

✓ **Item 9:** Develop education and interpretation programs for visitors and local people that increase understanding and appreciation of the area's environment, culture, heritage and important issues.

✓ **Item 10:** Design methods to channel visitors through desired areas with minimal negative impacts.

✓ **Item 11:** Survey and analyse tourist markets and visitors' needs and expectations. Ideally, this occurs both before and after developing ideas for new forms of tourism.

✓ **Item 12:** Brainstorm tourism products to be potentially developed and influence types of visitors choosing to visit. Identify the values and image of the protected area on which to base sustainable tourism and outline a promotional strategy for them.

✓ **Item 13:** Establish a program for monitoring the protected area and its use by visitors. At appropriate intervals evaluate the success of the plan in ensuring that tourism use maintains environmental standards. Revise the plan as needed.

✓ **Item 14:** Assess resource needs and sources, including provisions for training.

✓ **Item 15:** Implement the plan.

(Adapted from FNNPE, 1993)

3.2.1 Objectives

ITEM 1: State clear objectives for sustainable tourism for each park.

The first step in developing a sustainable tourism action plan is to identify the desirable objectives of sustainable tourism. The overall goal of sustainable tourism within protected areas must be to conserve protected areas in the long term. This and other objectives should be discussed and agreed upon by the stakeholders of the protected area. Certain zones within protected areas will require stricter protection from visitors.

Sustainable tourism benefits the protected area, local communities, the tourism sector and the visitors to the area. Stakeholders can discuss and agree upon the ways in which they anticipate sustainable tourism will benefit the area. Figure 13 provides some examples of conservation, cultural, social and economic objectives. Discussion amongst stakeholders may result in identification of additional objectives and/or more specific objectives than those

FIGURE 13: Objectives of Sustainable Tourism for Protected Areas

Environmental Objectives
• Ecological conservation, including conservation of biodiversity, land conservation, watershed management, and air quality maintenance

Cultural Objectives
• Better knowledge and awareness of conservation among local people and visitors
• Appreciation of local natural and cultural heritage
• Making sustainable tourism part of local and national culture

Social Objectives
• Visitor satisfaction and enjoyment
• Improvement of living standards and skills of local people
• Demonstration of alternatives to mass and package tourism and promotion of sustainable tourism everywhere
• Enabling all sectors of society to have the chance to enjoy protected areas

Economic Objectives
• Improvement of the local and national economies
• Provision of local business and employment opportunities
• Generation of increased revenue to maintain protected areas

(Adapted from FNNPE, 1993)

identified here. Conservation in the long term is the essential overall goal. Conservation objectives contained within a tourism action plan, or within an overall management plan, are one of many crucial elements that a good plan addresses.

3.2.2 Inventory of Assets

ITEM 2: Compile an inventory of natural and cultural features and of existing tourism use and potential. Map and analyse the information.

Performing inventories within a protected area traditionally refers to identification of flora and fauna species and the frequency and location of species' distribution. For ecosystem management to be based in science, adequate baseline information about the physical, geographical and biological characteristics, and existing and potential uses of the conservation area must be collected. This information guides planning and management of the area and can be used to develop public education programs (Parks Canada, 1994). By examining inventories of species (especially the identification of sensitive areas and endangered species) park managers can determine the best (and worst) areas for tourism activity and development. Strict protection and possible scientific study should be assigned to certain areas in which tourism is not appropriate or potentially highly destructive.

This information is just one element necessary for developing an inventory for

the purposes of sustainable tourism. Information about current infrastructure and available resources is needed in order to plan and manage tourism in protected areas effectively. Planners and managers must examine natural resource data (such as location and frequency of species' distribution), as well as human structures, the context of the wider area, available resources and the existing infrastructure that will support tourism development. For example, regardless of the ideal location for a park entrance based on distribution of species, existing roads and infrastructure largely determine the location of access points, unless they can be blocked off and new ones can be afforded.

Figure 14 outlines the types of inventory information necessary for proper planning and management of protected area tourism to occur. An interdisciplinary team should create a full inventory of the protected area and its surrounding peripheral or buffer zones. The inventory should be created through a partnership between park management staff, the tourism sector, and local communities.

Data analysis and identification of further necessary information are two important steps in this process. Protected area managers can apply data about the condition of natural and cultural features as they relate to visitor numbers in order to determine the limits of acceptable change of an area (this topic is discussed in more detail in Section 3.2.6). Knowledge of visitor numbers, distribution, and activities will assist in the creation of effective visitor management measures to reduce negative human impacts on the protected area.

Good information systems and modern technology software are desirable for storage and analysis of the data. For example, GIS software (Geographical Information Systems) is practical for handling map-based data. Application of this software makes it possible to establish a GIS study on tourism and recreation that aims to identify and document the environmental effects of tourism on the park and its communities. Visitor surveys can identify visitor locations, patterns and trends inside the park and in the buffer landscape protection zone. Alternative management options can be modelled through the computer program so that solutions can be found to issues such as traffic patterns and concentrations,

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FIGURE 14: Inventory for Developing Sustainable Tourism for Protected Areas

The inventory should ideally be comprised of the following:
- The natural and cultural features of the area and their condition in relation to current visitor levels
- Tourism organisations and structures, activities, facilities and visitor use, visitor attitudes and expectations within the protected area and its surroundings
- Data on visitor numbers, distribution, time and patterns of visits and tourism trends
- Current development policies and plans
- An assessment of the tourism potential of the protected area and it surroundings
- Constraints to development (e.g., specially protected areas, legislation, highly sensitive areas, existing problems from tourism use)
- Opportunities for tourism development and the use of special local skills
- Knowledge of likely sources of support or opposition to tourist developments.

(FNNPE, 1993, p. 23)

location of toilets at campgrounds and vulnerability of vegetation in high use locations.

3.2.3 Local People

ITEM 3: Involve local people. This is key.

A primary motive for supporting nature-based tourism is its potential to assist in nature conservation. This can only be successful if local communities obtain clear, sustainable and adequate benefits from the presence of tourism. The support of local people is key. Multiple-use planning will be more likely to succeed if the needs and desires of local, regional and international users are fully expressed and understood, and if local people are made part of the planning process. By enlisting their support, managers of protected areas make connections with people who are well informed, who are able to provide quality tourism services, and who may be the first and main point of contact visitors have in

> "Sustainable tourism involves informed participation by local people in their future."
>
> (Wight, 1996, p. 20)

Local people can benefit from park tourism policies. This aboriginal person is a park interpretive guide in Taroko National Park, Taiwan. Park visitors and managers can benefit from local people's knowledge of the area.

the area. Local people can be effective messengers for informing visitors about the history, culture, and special features associated with the protected area.

The conservation philosophy that has traditionally been used in the past in the creation of national parks has been a closed protection model. Parks were designed on the assumption that they were free from human influences. Large areas of land were set aside for protection. In non-populated areas, this system has advantages.

The challenge in East Asia is that in many potential locations where parks were to be designated, people were already living in some part of the area, and human influences were present. Using a traditional model, park agencies inform local communities of the specific park boundaries and tell them which activities are permitted and which are no longer permitted. Much attention is given to regulations and enforcement. In the traditional model very little consideration is given to the interests of communities in and around protected areas (Kim, Kang & Kim, 1999). Often no efforts are made to involve local people in the planning and management of the area, even though many regulations imposed by the park staff impact on the livelihoods of the residents. The results include poor relations between government park staff and local communities, confrontations, and lack of support for conservation activities.

One example of an alternative to the rigid conservation-focused traditional approach to protected areas is the biosphere reserve. Like national parks and other protected areas, one of their official functions is to protect genetic resources, the environment, the flora and fauna, etc.(conservation function). Biosphere reserves also have two other functions that address the human dimensions of park-human interactions. They are designed to facilitate sustainable development in socio-cultural, ecological and economic terms (development function) and to assist research, monitoring, environmental education and training, and information exchange related to issues on sustainable development at the regional, national and global levels (logistic support function). This is just one example where attempts are made to incorporate human considerations into the process of development and conservation.

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"Effective management of tourism growth requires more than legislation and enforcement to ensure that negative impacts are controlled. It also requires that people with a vested interest be able to reap the benefits accrued by management. This is equally true for local communities, brokers, and the tourists themselves."

(Agardy, 1993, p. 237)

All protected area systems need to incorporate human dimensions into their planning, management and decision-making processes. Ideally, in all park systems, local needs and concerns are listened to, and mechanisms for local involvement exist. Often this is not reality, and many problematic situations arise. This is especially true for parks that have been created without consideration for human influence in populated areas. Projects that do not take into account local interests and human resources, and that are imposed from the outside with no local involvement, usually do not support sustainable tourism development as a conservation tool. One example of local community resistance to park agency imposed restrictions was at Mount Sorak National Park and Biosphere Reserve, discussed in Case Study 4. This case study illustrates that planning efforts can fail if local people are not involved and they disagree with what they are being told to do.

When park agencies encourage involvement and try to gain support of local communities, the tourism sector and other local and regional organisations, they actively contribute towards the development of sustainable tourism in protected areas. Ideally, stakeholders are involved early in the planning process, however if planning and decision-making is already in progress, it is still never too late to facilitate local community involvement (regardless of the planning stage).

On an individual basis, local people can contribute valuable local knowledge when identifying opportunities and areas of concern. Problem solving discussions require their input. On a larger level, effective and capable local organisations and initiatives are worth the effort to develop and strengthen. Building the capacity of local agencies is more sustainable in the long term than getting foreign experts simply to do all the work to create a plan which gets left with local people who were uninvolved in the decision-making and planning processes. Without involvement in the planning process, there is no ownership to the plan. Capacity building of local people living in and around protected areas should be a focus of sustainable tourism development.

In situations where local control of tourism operations is possible, local communities will benefit more directly from tourism development in and around the protected area than where control is held by foreign investors or large organisations. Local control can help minimise negative social and cultural costs, and increase economic benefits. Local people will be more involved in decision-making, and a larger percentage of tourism spending will go directly to the local area. If park agencies retain a large degree of control, it is necessary to work at taking steps towards involving local communities in the management and decision-making processes. Various degrees of decision-making power need to be shared if the broader interests of local people are considered along with economic development goals.

Efforts must be made to secure consent and active support from local inhabitants in order for management of protected areas that overlap with communities and private land ownership to be successful. When local residents get benefits from reserves, they will become guardians of biodiversity conservation (Kim et al., 1999). Three ways to enhance benefits to local residents through ecosystem conservation include:

1. Admit property rights (ownership or right to use) of local residents to natural resources
2. Compensate local people for society-wide benefits arising from natural resource conservation
3. Encourage participation in conservation and management of the resources (Reid, 1997).

By involving the local communities in planning efforts, potential impacts on the natural, social and cultural environment are more likely to be considered from the perspective of the local communities. Each community has different values and different priority issues. In one location cultural erosion may generate community opposition to tourism development. In another location environmental issues may be a primary concern. As well, communities vary in their ability and willingness to absorb and benefit from visitors. The plans and decisions are more likely be supported by local communities if they have been involved in the process and benefit from the decisions.

CASE STUDY 4: The Need for Local People Participation and Support

Mount Sorak National Park and Biosphere Reserve (South Korea) – An Example of the Importance of Working with Local People in Management and Decision-Making Processes

Background Information
Mount Sorak was designated as a nature reserve in 1965, and as the fifth national park in South Korea in 1970. In 1982 it was also designated as South Korea's only biosphere reserve. Approximately 90% of all biosphere reserves in the world are overlapped with protected area designation such as national parks. The biosphere reserve covers 393.49 km² and crosses one city and three counties. Roughly 66% of the area is national and public land, and 34% is overlapping with private lands or temple property. It attracts roughly 3.5 million visitors per year. Even after receiving a biosphere designation, nature conservation continued to be the main focus of management, with little attention given to issues related to the development and logistic support functions associated with biosphere reserves. Park managers just recently started to take human influences into consideration (Shim, 1999).

The Source of Conflict
After the park was created, local residents were informed that they could no longer continue their traditional resource use of the land. Obtaining mountain vegetables, mushrooms, acorns and sap was totally banned in the name of park protection. Enforcement occurred through stationing guards at the entrance of trails and assigning patrols in different regions. For many years residents in Mount Sorak National Park have refused to co-operate in managing the park. In resistance to park regulations that were imposed without consideration of human activities and needs in the area, some residents, tourists and professional collectors averted regulations and restrictions and plucked mountain vegetables illegally. Since the 1980s they have also filed many complaints attempting to get various small areas ranging from one to eight km² excluded from the national park boundaries.

The relationship between ecosystem conservation and development of local communities should not be confrontational, but negative feelings existed on both sides. Park staff came to expect local communities to be the source of complaints, and communities came to distrust and resent park staff.

There are many drawbacks to poor relationships between government park agencies and local communities. A direct negative result is that local communities do not want to support conservation efforts such as obeying regulations. An indirect negative side effect of hostile relationships between park agencies and local residents is that park staff could not expect assistance from local residents to fight fires.

Attempting to Move Through the Conflict
Recently, the Mount Sorak National Park Office established a Mount Sorak National Park Ecosystem Conservation Plan from 1998 to 2007 to investigate ecosystem status and environmental conditions, examine conservation-oriented policies and systems, implement ecological park management and establish a base for ecological park management. It is hoped that an improved management approach will be created. It is expected that in a national park management plan some attention is devoted to natural resources. However it is also necessary to address issues of visitor management and local involvement. This is especially true in many parks in East Asia, since many local people live in and near borders of protected areas. In order to encourage sustainable development, park staff must pay attention to the needs and demands from local communities in park development and buffer zones (e.g., in South Korea national parks these are Human Settlement and Mass Facility Zones).

To create a common focus, discussions amongst the various stakeholders are one basic mechanism through which learning processes and negotiations are started.

After a long history of complaints and poor relations, park agency staff at Mount Sorak began to listen to local people's needs and concerns. In 1995 the National Parks Association decided to examine the feasibility of the park boundary every 10 years and modify park zones if necessary, with the understanding that the total park area must remain the same. The ecosystem management plan proposes that it is realistic to exclude some areas from park zoning, which shows that some progress is being made. Park staff are making the effort to listen to and understand the motives behind local people's resistance. Rather than viewing local residents as troublemakers and the source of complaints, park staff must work on viewing them as partners for park management. Efforts to establish mutual co-operation and coordination, and the involvement of local communities (rather than excluding them) must also be made.

As well, park agency staff realised that conservation objectives could not be achieved only through regulations that were not developed in consideration of local community concerns. As a result, the regulation that banned mountain vegetable plucking was reviewed in the context of local residents. In 1999 permits were given to local residents in three communities that allowed them to once again legally pluck mountain vegetables for subsistence and income for the first time in almost two decades.

> **Objectives for protected areas are unlikely to be achieved without the co-operation, support and continued involvement of those most directly affected by their establishment.**
>
> **(Parks Canada, 1994)**

A Policy that Addresses Local Concerns

The new vegetable plucking permit program supports the conservation concerns of the park agency as well as the local communities' desire to continue with traditional land use in a sustainable manner. Vegetable plucking is allowed in designated areas. Only applications from co-operating bodies are accepted (no individuals can apply for a permit). Plucking of certain vegetables whose numbers have sharply decreased is not permitted. Restrictions are placed on the types of tools that can be used for plucking. Obtaining plants in their blossoming or breeding season is totally banned as well. A few other conditions of permission are clearly outlined in the policy.

Even though the mountain vegetable plucking policy was enforced for the first time in 1999, many positive effects are already visible. Most of the residents are complying with permit conditions. They are also patrolling illegal plucking by strangers and showing much friendlier relations towards park management. It is too early to make conclusions on the effects of the policy, but initial results are encouraging. These positive effects may be a temporary initial response to being allowed to pursue traditional economic activities that have been restricted for decades since the park designation. Regular monitoring of the impacts of local resident use on the ecosystem should be conducted in order to assess the effectiveness of the new vegetable plucking policy.

The permit of vegetable plucking in Mount Sorak National Park is one of the most noticeable events in federal park policies. It illustrates the possibility of achieving both ecosystem conservation and sustainable development.

Summary

Conservation policies that focus only on ecosystem conservation and exclude local community interests, especially in areas where human settlement existed long before the parks were declared, do not support sustainable development as a conservation tool. Many disputes between local residents and conservation authorities over the use and access of natural resources have occurred in the past. Using strong enforcement tactics does not resolve the conflict. Discussions are the basic mechanism through which learning processes and negotiations are started. All stakeholder groups must be willing to listen to the concerns of the other parties involved and then begin to work towards actions that are acceptable to all. Local community participation in planning and management efforts are a key method used to gain support of the protected area's conservation objectives.

Park agencies must begin to see parks and protected areas not just in the natural conservation context, but also in the cultural and socio-economic contexts of local communities. New approaches need to be developed and applied that support sustainability of all of these aspects. Protected areas cannot implement their own functions when they are isolated from local communities. They can best fulfil their role when a co-operative system based on partnership with local communities is established.

3.2.4 Partnerships

ITEM 4: Work in partnership with local people, the tourism sector and other regional and local organisations.

Partnerships are the foundation for accomplishing environmental initiatives. This is a simple lesson to understand, but not necessarily an easy one to achieve. Much effort and commitment must be invested in order to form and maintain working partnerships. Partners can exchange skills in tourism, the environment and other disciplines. Examples of compatible organisations include conservation groups, research facilities, zoos, universities and museums.

Partnerships with non-governmental organisations contribute to effective planning and management of protected areas. Organisations can specialise in things such as the advocacy of natural area conservation or community development programs, or they can be general and broad based, covering a range of issues. Examples of contributions made by non-government organisations include conveying to government ways in which management of a protected environment can be improved, educating communities on conservation principles, and developing voluntary guidelines.

If there is some hope that local people will be involved in the planning and management efforts, then they must acquire adequate skills. Sometimes training is beneficial and necessary. Partnership with outside companies can provide valuable opportunities for local people to gain experience and training. Training opportunities may be available for example, through international development aid programs. Partnering with outside agencies or organisations that are equipped to

provide support enables local organisations to be developed and strengthened. Existence of capable local organisations provides a structure though which permanent local involvement in planning and decision-making can occur.

A key element to achieving sustainable tourism development is finding a harmonious relationship between the place, the visitor and the host community. The objective is to avoid leaving the visitor feeling unsatisfied, exploiting the local

community or depleting the resource. Community-based partnerships help to conserve the special quality of a place, promote recreation opportunities and support the local community.

Another example of what can be successfully achieved through working together is the establishment of new protected areas or the adjustment of boundaries on existing areas. Co-operation with other levels of government along with public consultation make such a large task

CASE STUDY 5: Investing Tourism Funds Into Conservation Through Public/Private Co-operation

Madikwe Game Reserve (South Africa) – An Example of Ecological Restoration Designed for Tourism and Paid for by Tourism

Established in 1991, Madikwe Game Reserve is managed by the North West Parks Board of South Africa. The reserve contains a restored African savanna ecosystem. Most of the reserve was once derelict farmland. Many farm buildings and structures, hundreds of kilometres of old fencing, and many alien plants were removed. Some buildings were kept and now serve as park offices and workshops, while various outposts were built to house game scouts and other reserve staff. Approximately 60,000 hectares of the reserve were enclosed in a perimeter fence, measuring 150 kilometres. This was electrified to prevent the escape of elephants and the larger predators. Where possible, local business and labour were used to demolish and clear unwanted structures, erect fences, construct roads and build dams and lodges. Several game lodges have already been built. Other lodges will be developed in the future.

Wildlife reintroduction began early in 1991, shortly before the perimeter fence was completed. Operation Phoenix, as the reintroduction program is called, is the largest game translocation exercise ever undertaken in the world. More than 10,000 animals of 28 species have so far been released into the

reserve, including elephant, rhino, buffalo, lion, cheetah, cape hunting dog, spotted hyena, giraffe, zebra and many species of antelope and herbivores. Leopard already existed in the reserve.

Madikwe functions through a system designed to benefit the three main stakeholders involved in the reserve. These are the North West Parks Board, the private sector, and the local communities. All three work together in a mutually beneficial partnership in conservation and tourism. The Parks Board is responsible for setting up the necessary infrastructure and the management to run Madikwe as a major protected conservation area in the North West Province. It also identifies suitable sites within the reserve which are leased to the private sector for tourism-based developments and activities.

The private sector provides the necessary capital to build game lodges and to market and manage the lodges and the tourism and trophy hunting activities in the reserve. In this way private sector money, rather than government funds, is used to develop the tourism potential of the reserve. By 1999, with only three of 10 planned lodges constructed, the economic impact of the tourism was already larger than that of the farms operations that were removed. Only with co-operation from all sectors was success of this project possible.

The Madikwe Wildlife Reserve was granted the British Airways/World Conservation Union award for park tourism in 1998. It is a superb example of ecological restoration, public/private co-operation and advanced ecotourism design.

Web site: http://www.parks-nw.co.za/madikwe/index.html

For further information: North West Parks Board, Tlhabane House, Tlhabane, PO Box 4124, Rustenburg 0300, South Africa. Telephone: (01456) 55-854 / 5 / 6 and 55 960 / 1 / 2 / 3. Fax: (01456) 55-964.

Madikwe River Lodge and Northwest Parks & Tourism Board of South Asia

possible (Parks Canada, 1994). Madikwe Game Reserve, outlined in Case Study 5, illustrates how the sum of the total efforts is much greater when various stakeholders combine efforts.

Extended achievements that are made possible through partnerships include working on joint projects and marketing, developing packages of complementary products, linking transportation networks and using economies of scale (FNNPE, 1993). For example, many small destinations can unite their promotional efforts and market themselves as part of a tourism circuit in order to attract more visitors overall to the area. Alone, any one of the individual small destinations might not be sufficient to convince a tourist to choose that location as a destination but if marketed together, they offer a broader variety of opportunities that will more strongly appeal to a larger group of potential visitors. Development costs can also be shared.

One example of creating linkages to market one destination with others is being considered in Xizang Autonomous Region. Efforts are planned to develop Lhasa, its capital, as a tourism centre which is linked to other destinations and attractions inside the region (e.g., Mount Everest Protected Area). As well efforts are planned to link with cross border tourism centres such as Nepal, whose strong ecotourism industry may provide an additional source of tourists.

Despite the hard work and ongoing effort to establish and maintain partnerships, the results produced by partnerships are often worth the efforts required to build and maintain them.

For further information...

Read more about community involvement in *Community Involvement in Wetlands Management: Lessons from the Field* (1994), available for direct download from the internet. Published by Wetlands International (a global non-profit organisation concerned with promoting the conservation and wise use of wetlands), this document outlines community involvement and co-management, including designing and implementing a co-management approach, with 14 case studies to highlight issues.

3.2.5 Zoning

ITEM 5: Utilise zoning to identify and plan for areas where higher levels of tourism impacts may occur without harming areas of ecological significance.

Zoning is an essential part of all protected area management plans. Its main purposes are to define and map the different levels of protection and use that will occur in the protected area and to separate potentially conflicting human activities. Zoning must be comprehensive, but also as simple as possible. This ensures it can be readily understood by the public and be translated into management actions and regulations that are easy to comply with and enforce. To avoid unnecessary regulation of human activities, each zone should have clear and justifiable objectives (Parks Canada, 1994).

Examples of zoning designations include areas of strict protection, low level use (e.g., scientific study or backcountry non-motorised travel in small groups), intensive use (e.g., visitor facilities such as washrooms, reception, parking lots and education centers, etc.), and park operations (e.g., administrative offices, maintenance sheds, waste disposal facilities, etc.). If additions to park tourism infrastructure are necessary, a few items (outlined in Figure 15) should be considered.

Integrated management that addresses a range of threats and accommodates a range of stakeholder interests can be achieved through multiple-use zoning. Zoning forces planners and managers to think ahead and to quantify present and future social and environmental impacts (Agardy, 1993). This method of planning commonly utilises zoning for different uses and varying degrees of use. Multiple-use zoning schemes can be used to minimise impacts on ecologically critical or sensitive areas. The design, nature and regulatory framework of a multiple-use protected area will depend on the primary objectives of the area. Zoning a protected area for multiple uses can ensure that critical core areas are not impacted (Agardy, 1993). In some cases, environmentally or culturally sensitive sites may require special management but do not fit the existing zoning designations. Management plans should include the guidelines necessary for the protection and use of such sites (Parks Canada, 1994).

> **FIGURE 15: Building Park Infrastructure**
>
> Zoning determines the location of appropriate tourism development, including the construction of buildings and other facilities related to visitor management and park operations. When adding to park infrastructure, the following should be considered:
> - Construct the minimum necessary
> - Construct to aid visitor management (e.g., location and size of car parks)
> - Structures should interfere as little as possible with the natural ecosystem
> - Structures should not dominate their natural surroundings and should, where possible, reflect local traditions and local materials
> - Environmentally friendly design should be applied to building design, construction and functioning. Consider waste minimisation and collection systems – energy saving should be encouraged, using renewable resources where possible, recycling waste water, and using natural filtration systems for sewage waste disposal
> - Accommodation should be modest, comfortable and unpretentious.
>
> (The Royal Society for the Conservation of Nature, 1998)

Strong resolve and political will are necessary to uphold guidelines of sustainable tourism and protection of the ecosystem by putting restrictions on the type and quantity of use that is appropriate for the protected area (Butler, 1992).

Zoning practices should also extend beyond the boundaries of the protected area when possible and when necessary. For example, where visitor demand is high, more resilient areas outside the park boundaries can be developed to accommodate overspill, with alternative trail systems, picnic sites and information points. The private sector may be involved in some of these operations.

3.2.6 Use Levels

ITEM 6: Develop the limits of acceptable use for all parts of the protected area, set environmental standards, and ensure they are met.

Limits of Acceptable Use
A concept that is fundamental to the management of sustainable tourism is the development of desirable limits of acceptable use. Simply stated, it measures the types and levels of use that are sustainable. Examples of questions to consider when determining these limits are "How much damage can the environment take?" and "How much degradation will be acceptable to tourists?" There is evidence that as environments become damaged or use levels and type changes, some tourists go elsewhere (Valentine, 1992). Three types

of limits are: a) environmental, b) cultural and social, and c) psychological.

Environmental carrying capacity is the most traditional concept of the three. Environmental limits are assessed according to the "degree to which an ecosystem, habitat or landscape can accommodate the various impacts of tourism without damage being caused or without losing its 'sense of place'" (FNNPE, 1993, p. 26). The assigned limits may vary depending on the season. For example, wildlife is more sensitive at certain times of the year, such as during breeding season, and weather conditions and water levels can alter the ability for habitat to withstand the pressures placed upon it.

Cultural or social carrying capacity refers to the "level beyond which tourism developments and visitor numbers adversely affect local communities and their ways of life." (FNNPE, 1993, p. 26). Tourism levels that are too high will interfere with local people's ability to go about their necessary daily routines, and after the initial curiosity and excitement associated with potential economic benefits fades, the local people may begin to resent tourists. Once communities become adversely affected (i.e., a once peaceful place becomes very busy and congested or a historic site is damaged), their ability to attract visitors declines.

Psychological carrying capacity is the "level beyond which the essential qualities that people seek in the protected area (such as peace and quiet, few other people, few signs of human developments) would be damaged by tourism developments" (FNNPE, 1993, p. 26). Each visitor to a protected area has certain expectations, including approximately how many other visitors he or she expects to encounter. At a beach on a hot day a visitor can expect crowds of people, whereas on a backcountry hike a visitor will expect less people. Psychological carrying capacity addresses this expectation. When visitors' expectations are not met, visitors may leave feeling unsatisfied and unhappy with their experience.

Determining acceptable use levels and assessing damage through indicators
How many visitors are appropriate? In determining the answer to this question, planners and managers may consider setting different limits for different areas

and determine whether or not current limits are realistic (i.e., should they be increased or decreased?). The assignment of such limits is subjective and arbitrary. Therefore, the planning process used to determine the limits is critically important, more important than the numbers themselves.

Due to the highly complex nature of interrelations contained within the ecosystem, damage is sometimes difficult to discern until obvious degradation (e.g., erosion, vandalism or the disappearance of certain species) is already occurring. A habitat or cultural site may be permanently damaged, and even when restoration is possible, it is a difficult and expensive process. Therefore, when developing carrying capacities, it is wise to choose a more cautious approach, especially in sensitive areas.

One of the challenges in assessing carrying capacity is determining specific indicators that are outlined in a way that measurements can be made and limits can be established (McMinn, 1997). Certain elements can be measured with a high degree of accuracy (e.g., a minimum size of a fish species that can be kept by sport fishermen in order to allow for replenishment over time and to avoid over-fishing). Other elements, especially those associated with the social environment, are much more difficult to measure. Any one site will possess many different factors, each with their own carrying capacities (and many with extremely subjective criteria whose values depend not only the element itself, but also on the people making the judgement). Decisions sometimes become political ones, and immediate social and economic needs are positioned against longer-term environmental factors. Efforts must be made to consider both the short-term and long-term factors.

For further information on indicators and how to measure them, there is an abundant body of literature on the "limits of acceptable change" concept, including information published by McCool (1990), and Sirakaya, Jamal, and Choi, (2000 in press). Refer to Appendix F for steps involved in the Limits of Acceptable Change Framework used by the United States Forest Service.

In assigning levels of acceptable use, the planning process used to determine the limits is critically important, more important than the numbers themselves.

Management Options to Control Visitor Impacts

Problems associated with limits of acceptable use are frequently related to the behaviour of visitors rather than the actual visitor numbers. Most impacts are behaviourally dependent, not density dependent. Density issues are briefly outlined, and general strategies to control visitor impacts are discussed.

It is crucial that an accurate assessment be made as to whether or not visitor density is the true primary problem, before steps are taken to reduce visitor numbers. Without this assessment, it is like applying a healing treatment to an injured area without accurately assessing what is wrong. The selected treatment may not be the best match and, therefore, not be entirely effective in addressing the problem. Would many negative impacts be reduced through encouraging changes in visitor behaviour regardless of a change in visitor density? After weighing these considerations, if it is concluded that too many visitors are causing too much negative impact, different management options that address density concerns include:

a) reducing visitor numbers in areas where numbers are too great
b) limiting visitor numbers in areas before they reach critical or unacceptable levels
c) changing the type of tourist travelling to the area.

It is also important to consider whether the goal of reducing visitor numbers is realistic. Is it even feasible to attempt to control or limit the numbers of visitors who arrive on the site? It is possible to control visitor numbers through pre-registration systems and effective marketing and promotions.

Since many negative visitor impacts are the result of visitors behaving in harmful ways, revising visitor behaviours is an important goal. Education of visitors, discussed in more detail in Section 3.2.9, is a key element in getting visitors to change their behaviours. In Case Study 6, the experiences of Fushan Botanical Garden provide one example of methods that were implemented to control visitor impacts.

Visitor impacts can be controlled and reduced (or carrying capacities can *sometimes* be increased) through various administrative and operational methods. These include zoning, user fees, schedules, activity regulation, infrastructure, quotas, visitor movement and access points. Each is outlined briefly.

CASE STUDY 6: Establishing Limits of Acceptable Use

Visitation to Fushan Botanical Garden (Taiwan) – An Example of Establishing Limits of Acceptable Use Through Effective Planning in Reponse to a Challenging Situation

Jiun-Chuan Lin

Background Information

The Fushan Botanical Garden (FBG) belongs to the Fushan Research Station of the Taiwan Forestry Research Institute in Taiwan. The purpose of the FBG is to collect, preserve and replant low to middle-latitude plants and vegetation systematically, to offer forestry research (teaching opportunities and internships), eco-environmental education, and to preserve the genetic diversity of the forest ecosystem. The recreation function is only a small part of the objectives of the garden. It is dramatically different from the general recreation areas that can be found in Taiwan.

The area is separated into three zones, and only a small part of one zone is open to the public. Now few people get inside this carefully guarded reserve, whereas in the past the reserve had open access to all people. When open access was granted to the public, it tended to occur at very high use levels and created high levels of negative impact. Management recognised the need to develop limits of acceptable use. Presently, groups apply for a one-day pass to walk through the central part of the reserve to see some of Fushan's 503 different species of trees and plants, its 103 species of birds, and perhaps glimpse some of the many rare and endangered species of animals that live in the area. A maximum number of 400 people are permitted per day. In addition, a few researchers who have permission are allowed to enter the reserve area.

1st stage: Uncontrolled Access

FBG opened its gates to the general public for the first time in 1991. Initially, there was no system in place to receive or manage visitors. There were no limits on the number of people that could visit, nor were there any educational materials available on how the park should be used. The lack of management in these areas resulted negatively on the garden's integrity as large numbers of visitors attended during holidays, for barbecues and picnicking with no restrictions on where they went or what they did. Facilities and plant life were destroyed in this first period of being open to the public.

Moreover, the public did not pay to visit the FBG. However, the increase in public use caused increased amounts of money and manpower to be spent to maintain the garden and keep it clean, especially after large visits. The condition of the road connecting the gardens to the main highway was also in poor condition. After one month of operation, the garden was closed for repairs. It was decided at this stage that the visitor management policies of the garden had to be reexamined.

2nd stage: Initial Development of a Limit of Acceptable Use

The recreation function is only a small percentage of the total purpose of the garden. Nevertheless, it became obvious that it was necessary to determine how many people should be allowed to enter the FBG for recreation purposes. The managers decided to use a standard that allocated use according to the area of the reserve. The hypothesis behind this principle is that 10 visitors in one hectare have the appropriate level of acceptable impact on the natural resources. Therefore, given the size of the reserve, a maximum capacity of 300 people per day was established. Various factors influenced the selection of this number, including the narrow road width (the road to the garden is only suitable for small to mid-sized vehicles) and the limited amount of space available for parking. In light of these physical entrance restrictions, 300 people per day seemed to be a reasonable limit.

Once the limit was decided upon, allocation of the available spaces had to be done. A mail reservation system was developed, which required people to register 15 to 60 days prior to their visit. Applications were evaluated and a certificate that had to be presented upon arrival at the garden was mailed back to the applicant. Each day, once the 300-person access limit was reached, access was denied to further visitors. Upon developing these principles, the FBG reopened at the beginning of December 1993.

Due to expansive media coverage of the planning of the garden, the public's awareness of the area increased and the number of applications soared. For example, one day 1,000 applications were received. Because this was the first location to implement this system, there was no model to follow. There were numerous administrative challenges at first. Staff members spent a great deal of time processing the application forms, but after one and a half years, the number of applicants settled to about 100 per day. A process for evaluating applications was determined. For example, one of the criteria specified that a group had to be no greater than 20 individuals, but since a 20-person size limit was not realistic for school groups, the maximum group size was increased to 50 people, and the daily limits were changed to 400 people per day. The Fushan Botanical Garden managers hoped

that this change would encourage outdoor education and internship opportunities.

3rd stage: Re-examination of Limits of Acceptable Use

After a period of operation with these new visitor limits and allocation procedures, administration re-examined their policies. First, the hiking trail was reviewed. They determined that there was no soil or plant cover destroyed, and concluded, therefore, that the number of people allowed in every day was acceptable. The examination also found that even though there are no waste receptacles in the garden, visitors did not litter and managed their own waste as a result of educational efforts.

Management Principles from the Fushan Experience

The implementation of limits of acceptable use is one of the most important steps in maintaining the natural resources in Fushan Botanical Garden. However, for this kind of semi-primitive and undisturbed area additional planning measures needed to be carried out that would sustain the natural resource. First, by locating the administrative area and major display area in a heavy use zone, the direct impact of human

activities to the remainder of the site's environment was reduced. Second, the hours of operation of the garden are from 9:00 a.m. to 4:00 p.m., which keeps visitors away from the wildlife during the food hunting hours of many animals. The garden closes in March every year to prevent negative impact from human beings during the blooming season of plants and the breeding season of wild animals. In terms of management of visitor recreation behaviours, activities which have larger impacts on the environment are prohibited, such as camping, fires, barbecue, and picking plants. Meanwhile, private vendors are not allowed to sell food and beverages in the garden, nor are permanent residents allowed in the garden.

These visitor use management techniques proved to be greatly helpful in maintaining the ecological health of the garden. By doing so, the garden can keep its most primitive appearance and also help serve the very large public demand for observation of the nature in the Fushan Botanical Garden.

For further information: Forestry Extension Education Centre, Fushan Research Station of Taiwan Forestry Research Institute, P. O. Box #132, I Lan, Taiwan.

Zoning: Zoning is a fundamental management component that enables protected area managers to assign specific uses to specific geographical areas. In intensive use areas a decision may be made to "harden the site" and monitor impacts rather than try to control the number of visitors entering.

User fees: It is usually necessary for park managers to charge sufficient fees to cover the costs of visitor management. However, charging user fees limits user numbers based on an ability to pay. Differential pricing policies are sometimes used (i.e., certain groups are charged more than others).

Schedule of use: Use can vary, for example through seasonal closure or assigned time intervals.

Activity regulation: Some activities can be prohibited or restricted.

Infrastructure: Infrastructure development controls how visitors use the site. For example, location and size of parking lots influence visitor use. The best and largest parking areas should be located within intensive use zones. Numbers of visitors and activities can be limited by the availability of lodgings, restaurants, tourism operators, etc.

Quotas: Managers often must limit the number of visitors who are granted access (this is the most direct method, but it does not address the importance of changing the problematic behaviour which is causing the negative impact).

Visitor movement: Park visitors move through a park. The path a visitor takes can be influenced by the provision of clearly posted signs and trails. Education can increase visitor awareness of the importance and significance of species, and impacts, leading to care when travelling in a park. Guides are often used to direct visitor movement. Physical structures can direct and control movement (e.g. mooring buoys to reduce anchor damage or boardwalks to reduce foot erosion).

Access points, reception areas, gateways: At entrance points park managers have the most control over visitor numbers, distribution and behaviour. Ideally when visitors arrive, they proceed immediately through a reception area where they can be met, have regulations explained, numbers counted, entrance fees collected and tours arranged. Information about the site should be provided. Information about the importance and need for visitor controls can also be explained. A well-designed entrance will ensure visitors have

information about where to go, what to do and what not to do during the visit, and why it matters.

Setting Standards

Once the limits of acceptable change have been assessed, the next step is to set standards based on people's use, understanding and valuation of the natural area. These standards are developed through input from technical and recreational park staff *and* discussion with all stakeholders. Once standards and management methods to maintain them are developed for the site, monitoring (discussed in more detail in Section 3.2.13) must be done in order to determine whether or not standards are achieved and maintained. The management agency, stakeholders and members of the public are responsible for monitoring and reporting on a regular basis how well the standards have been met. "This participative or co-operative management function enables those involved to modify standards or visitor use in response to

Foot traffic caused severe erosion to the sand dunes at Pinery Provincial Park in Ontario, Canada. A poorly designed trail eroded more than one metre after just a few years of high use. Erosion was solved through construction of a well-designed boardwalk.

actual ecological and social impacts" (Payne & Graham, 1993, p. 192).

A comprehensive collection of environmental standards relating to best practice guidelines for behaviour of visitors, tourism operators, park managers and companies operating or building near or inside the park is found in Section 3.3.

3.2.7 Appropriate Activities

ITEM 7: Determine which tourism activities are compatible with the protected area and which are not, and develop related policies.

Some recreational activities are acceptable, whereas others are not. It is critical that management policies are developed which outline the criteria used to evaluate the acceptability of activities. In general, acceptable activities are low impact, non-consumptive, promote education and awareness building, and fit with the goals and objectives of the protected area. Appropriate activities often occur in small groups rather than large tours (the exception to this is school groups arriving for an environmental education program).

Pursuits that require large infrastructure development, such as downhill skiing or involve motorised vehicles are examples of activities that are usually not acceptable. Major sporting events such as the Winter Olympics are not considered to be appropriate because of the scale and intensity of building and engineering work in sensitive areas (FNNPE, 1993). Sports events focus on competition rather than the enjoyment of the natural area, and place unnecessary pressure on the protected area. Large, organised groups are often not appropriate in many zones of the protected area, and specific management interventions are necessary to prevent erosion of trails for example. Limitations should be stricter in Category II national parks than in other protected area landscapes where larger communities can absorb tourism development.

Most protected areas have legally-enforceable regulations restricting the types of activities which are permitted.

3.2.8 Environmental, Economic, Social and Cultural Impact Assessment

ITEM 8: Assess the environmental, economic, social and cultural impacts of proposals for tourism development.

It is possible for sustainable tourism to play a positive role in the conservation of a protected area. As this concept gains acceptance among local businesses, the interest in capitalising on tourism opportunities rises. Proposals for tourism development increase. Private outside investors may be interested in capitalising on the protected area. International aid organisations may also want to get involved. Planners and managers need to combine their own vision for appropriate sustainable tourism development for the protected area with external demands for development. Tourists may also demand infrastructure development.

All tourism proposals need to be carefully assessed for their environmental, economic, social and cultural impacts. Environmental impact assessments are the most familiar assessment. One general question it addresses is how will the natural environment change based on tourism impacts? Social and cultural impact assessments are used less often, but they are also valuable. They combine objective (technical information) with subjective (political, social interaction, etc.) information in order to understand the opportunities and constraints presented by local communities to particular projects (Furze et al., 1996). Economic impacts are becoming increasingly common.

After doing an inventory and tabulation of the impacts, planners and managers must assess whether the identified and anticipated impacts are appropriate. It is critical that extensive public consultation be undertaken during the assessment and value determination.

Ecolabels can certify that specific, successful efforts have been made to apply concepts of sustainable tourism and reduce environmental impacts. Ecolabels can be a management tool used to improve the sector's sustainability (incorporating recognition, correction and monitoring of environmental impacts). Ecolabels are an important complement to regulatory tools, which should be designed to stimulate improvements that go beyond the regulations already in place (UNEP, 1998).

Other environmental management tools include environmental auditing (a way of assessing the environmental damage caused by a business), environmental management systems (EMS offers a structured and systematic way of incorporating environmental considerations into all aspects of a business) and environmental reporting (a way of communicating environmental objectives, practices and achievements to stakeholders) (UNEP, 1998, p. 40).

3.2.9 Education and Interpretation

ITEM 9: Develop education and interpretation programs for visitors and local people that increase understanding and appreciation of the area's environment, culture, heritage and important issues.

Park managers play an important leadership role in environmental education. Interpretation and public education programs promote the development of an environmental consciousness in the public and a willingness to take personal and collective action to protect and maintain the environment. Through interpretive programs, visitors can develop a better understanding and appreciation of the area's environment, culture and heritage, and the issues affecting it and the surrounding region. Through public education programs, and in co-operation with others, a stronger environmental ethic can be built, and support for conservation can be broadened (Parks Canada, 1994).

Interpretive facilities, such as visitor centres, and publications, such as a brochure on the area, are designed with at least one of four purposes:

1. ***To increase visitors' awareness about a resource or attraction*** (e.g., local legends, history, unique landmarks and sites). This gives visitors an idea of what life in the community is actually like.

2. ***To alter the behaviour patterns of visitors and residents.*** Explain why certain things should or should not be done, rather than just telling people not to do it. For example, a sign saying "Stay off the trail" only makes people more curious about what is on the trail, versus a sign saying "Overuse of this trail has caused erosion – Help nature rebuild it by choosing another route".

CASE STUDY 7: Strategic Planning and Sustainable Funding for Environmental Education

Environmental Education by a Non-Government Organisation at Mai Po Marshes (Hong Kong) – Efforts, Outcomes and Reasons for Success

K.W. Kwan

Environmental awareness and strong support can be raised through education. Located in the midst of a heavily populated area, Mai Po Nature Reserve provides a locally relevant context for educating the public about the importance of conserving wetlands, its ecological functions and traditional sustainable resource use.

Introduction

Declared as a Ramsar site in 1995, this area is recognised as one of China's seven most important wetlands. Mai Po Nature Reserve (380 hectares) covers an area of almost three kilometres long and one kilometre wide, inside the Deep Bay and Mai Po Ramsar site (1,500 hectares). The area has been managed and developed since 1984 by World Wildlife Fund Hong Kong (WWF HK), and assisted by the Agriculture, Fisheries and Conservation Department. Mai Po has Hong Kong's only extensive system of traditionally managed prawn ponds, and its largest mangrove stands. Increasing agricultural and industrial pollution and domestic sewage are negatively affecting the numerous important bird populations in Deep Bay. Many *gei wais* (shallow tidal pools) have been converted to sites for rice production, new housing, commercial fish cultivation, and other uses associated with rapid growth of the area (Nelson, 1993). WWF HK is attempting to conserve *gei wais* and their important ecological functions through the purchase and continued operation of them. Approximately 40,000 people visit Mai Po each year, one quarter of which are students.

Environmental Education at Mai Po

The protection of Mai Po is not sustainable in the long term without public support for conservation. WWF HK has aimed to develop conservation policies and legislation and to raise levels of awareness in order to build appropriate social context and capacity for conservation (Tilbury, 1999). The education program is designed to create appreciation and awareness and to arouse concern about wetland conservation in Hong Kong by providing learning experiences at Mai Po Nature Reserve. The centre provides a locally relevant context from which levels of environmental awareness and concern can be raised amongst the general public in Hong Kong.

Education and awareness are promoted at Mai Po through a number of facilities, including a well-designed wildlife education centre. Topics include farming, wetland ecology, wildlife and the history of *gei wai* shrimp farming. A network of paths, trails, bridges and boardwalks give easy access to the main areas around the reserve. Small camouflage shelters provide birdwatching opportunities. The education programs are very important to school children, who otherwise would have little understanding of the importance of traditional shrimp fishing activities to the creation and maintenance of the Mai Po habitat, or of the productivity, diversity and overall value of the mangroves and other elements of the Mai Po ecosystem (Nelson, 1993). Approximately 10,000 primary and secondary school students visited Mai Po in 1998-1999 as part of one of the 400 specially guided school visits.

Key Stakeholder Input into the Creation of the Environmental Education Program

There was very little awareness of wetland importance and limited government support for the first education centre to be developed by a non-governmental organisation in the 1980s when the education centre and program were being established. Other challenges also included lack of knowledge about education programs and lack of experience in managing the *gei wais* and fish ponds. A wetland ecologist was recruited by WWF HK to guide the creation of the education centre and its programs. Local experts – the villagers of Mai Po – were recruited as contractors to handle construction and then as field staff of the nature reserve to bring traditional wisdom to the program development. More experienced organisations provided assistance in the planning and development of education facilities and programs. Scientific information based on university research at the marshes was incorporated into the environmental education curriculum.

Outcomes and Positive Local Impacts of the Environmental Education Program

1. *Raised levels of environmental awareness*
   Through interpretation programs, visitors are encouraged to think about the value of the wetland, to consider the causes of threats to conservation of the area, and to support its protection. The broader concept of sustainable development and the need for sustainable planning in Hong Kong are illustrated.

2. *Increased government support for environmental education*
   Gradually as public awareness of Mai Po Marshes and the recognition of its conservation status have grown, government input has increased (I. Wong, personal communication, March 16, 2000). In the 1980s, the Education Department provided funding as a means to purchase services from WWF HK to organise field trips to assist biology teachers in fulfilling curriculum

requirements. Increasing recognition of the importance of environmental education in the 1990s helped to solidify the Education Department's view that funding the school visits program is an effective investment in environmental education. In 1999, funding was stated as a means to support environmental education in the 1999 government policy address issued by the Chief Executive of the Hong Kong SAR government. The strong institutional support for environmental education programs is verified through an increase in financial support from 50% in 1996 to 100% of the current running costs in 1999 (Tilbury, 1999). The Education Department now funds over 300 secondary and 100 primary school visits annually.

3. Raised profile of environmental education across sectors
Over the past six years, a higher profile for environmental education in the Education Department and the Environmental Protection Department has resulted from WWK HK activities (Tilbury, 1999). Educators, NGO staff and others have also been influenced to promote that increased attention be given to environmental education through their work. The profile of environmental education in the school system has also been raised, with demand for school visits exceeding availability.

What has led to the success?
1. Strategic Planning in Environmental Education
Strategic planning is a fundamental element in the success of environmental education at Mai Po Marshes. It is necessary to consider multiple plans simultaneously and as part of an ongoing process rather than a one-time accomplishment. For example, the creation of *An Education and Environmental Strategy and Three Year Plan (1997-2000)* facilitates effective planning and a conscious integration of WWF's mission with the nature reserve's management plan, and ensures that environmental education work at the centre is highly relevant to local conservation needs. Coordination of the education strategy with other strategies (e.g., the communication strategy, the conservation strategy, Mai Po five-year plan, the WWF HK business plan

and the fund-raising strategy) is a key to strategic planning (Tilbury, 1999).

2. Effective Communication Process
In addition to the development of more formal structures of integrated planning, opportunities have been developed so that staff working in nature reserve management, conservation and communication attend regular meetings to discuss the progress of education programs. Also, communication between departments is encouraged and strengthened through education staff attending meetings of other departments, and through an internal newsletter. Internal processes such as these enable education activities to focus sharply on local and regional conservation needs and to respond to changing priorities (Tilbury, 1999).

3. Self-Sustaining Financing from Diverse Sources
The reserve receives funds from the government for training and for the school visit programs. Financial support from the Education Department for the school visits program is essential to the success of that portion of the environmental education programs. However, the education programs could not occur without sufficient finances to run the entire site. Funding sources include the *gei wais* (these provide a source of steady income through the sale of traditionally harvested prawns) and revenue from visitors to the Education Centre. These sources enable Mai Po to be a self-financing reserve. Since being designated as a Ramsar site in 1995, the Agriculture, Fisheries and Conservation Department also provides funding for the wetland management work conducted inside the nature reserve. A semi-governmental green fund, the Environment and Conservation Fund, was set up in 1995. WWF HK also regularly applies for funding from this trust to support the development of new education programs in recent years (I. Wong, personal communication, March 16, 2000).

Web site: http://www.wwf.org.hk/en/maipo.htm

For further information: World Wide Fund for Nature Hong Kong, Tramway Path, Central, Hong Kong. Telephone: (852) 2526 1011. Fax: (852) 2845 2734. Email: wwf@wwf.org.hk

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It is unrealistic to expect any earnest efforts towards conservation to succeed if the ecology of an area is underrated by the people who should be its custodians.
(The Green Travel Guide, 1998)

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3. ***To explain community, organisation, or agency goals and objectives to visitors and residents.*** This not only increases awareness of their purpose, but also fosters community support of them.
4. ***To orient visitors to the area.*** Providing a list of different attractions and resources and directions on how to get there, helps visitors identify which they are interested in seeing and simplifies travel routes during their visits.

Properly planned and designed interpretive programs relay a theme and a message to visitors. A theme is a concept, idea, or message that visitors take away with them. A major program theme should relay a message or concept. Topics relay information related to the theme. Themes incorporate three learning components:

1. ***Educational component*** – What information do you want people to learn?

2. *Emotional component* – How do you want them to feel after experiencing it?
3. *Behavioural component* – What actions do you want to suggest they take?

For example, an interpretive sign to keep visitors out of a fragile wetland area would explain impacts of visitor use on the area (educational), how this harms flora and fauna of the area (emotional), and how visitors can prevent this impact by staying on boardwalks (behavioural).

Educating tourists through interpretation programs is a desirable goal. Education can also be applied to local people. Laws perform a necessary function of prohibiting improper and damaging use of protected area resources. Sometimes local people who have used the land and its resources long before the area attained protected status resent being told to act differently and do not understand the larger situation. In this case, laws will not resolve the fundamental problem of attitude and motivation. These issues are best addressed through education. Whereas law enforcement externally motivates people to change their illegal behaviours, education internally

Interpretive signs are one means of communicating messages to park visitors. The sign in the Pinery Provincial Park, Ontario, Canada shows "No picking wildflowers", "All dogs on a leash", and "No bicycles allowed" on the nature trail. Since the messages are communicated through pictures, no translation is required.

motivates a long-term sustainable change in behaviour. Once people understand the significance and special nature of the resources (and provided they have suitable alternative options), they are more likely to accept the rules that exist to protect the area.

When local people recognise the value of their environment, stewardship and a vested interest in conservation and sustainability can ensure long-term effectiveness. Designing well-planned tourism, ensuring income is distributed to local people and fostering a sense of pride in the environment are ways to encourage local people understand the full value of their environment. Case Study 7 outlines a very well-designed environmental education program and the positive impacts it has made on the local area.

3.2.10 Visitor Channelling

ITEM 10: Design methods to channel visitors through desired areas with minimal negative impacts.

Examples of questions that planners and managers should consider when designing channels for visitor movement throughout the park include:
- *How do visitors arrive?* (e.g., cars, buses, walking, bicycles)
- *How should visitors arrive?* Is it better to maintain the current methods of arrival or to encourage alternative forms of transport?
- *Where do they arrive now?* Do they arrive in sensitive areas? How do concentration points fit with the zoning scheme? Are existing movement patterns accommodated in the zoning scheme?
- *Where should visitors arrive?* Are there possible access points in or near intensive use zones? How many access points are most desirable (e.g., one or more than one)? How will points of access be controlled?
- *Where should visitors go after they arrive?* Ideally, visitors will be directed to the different use zones that have been prescribed in the plan, and will correspond to predicted numbers and frequency. Does the zoning plan acknowledge traditional use areas and distribution patterns and any desired changes?
- *How will visitors reach these areas?* Walk on trails? Is vehicle access permitted? How do people travel in the area now? Changing existing use

patterns can be difficult. One possibility may be to have different forms of access in different areas.

- **What kinds of experiences are available or desirable for visitors to have?** Different levels of experience can be offered to visitors, from large-group tours, to wilderness adventures in small controlled groups. What types of accommodations are available? Are trails self-guided or accompanied by a guide? Decisions are guided by the zoning plan, tourist markets being targeted, and available resources.

Shuttle buses

Shuttle buses can be an effective way of regulating entry and distribution of visitors. They can also be an attraction in their own right. The park agency can control how often they are run (e.g., one per hour or on demand). Resources considerations include sufficient parking space, back-up transportation if a shuttle breaks down and maintenance, safety and insurance requirements.

Trails

The location and destination of the trails largely determines the on-site distribution of visitors. Trails should be carefully planned. They can offer different levels of experience and duration, and should be accessible from the main access point. Well-designed trails will:

- be easy to find
- take visitors to interesting or well-known features
- accommodate a range of walking abilities (e.g., short, moderate, long, difficult, and easy)
- be easier to walk on than surrounding land
- be contoured on hills
- encourage a one-way flow of traffic (e.g., loop trails)
- have direction indicators at crossing points and in confusing sections of trails
- avoid very sensitive habitat types or species.

Self-guided trails that visitors navigate themselves are usually located in intensive use zones. Trail guides and good, easy-to-read maps are critical. Park staff or private tourism company guides may be desirable for larger groups and for travel into more sensitive areas. Park staff should be available for information provision, enforcement and monitoring.

Bookings, information and promotion

Some sites only allow visitors to enter if they have pre-booked their visit. For this method to work the park needs to be able to control access and enforce the need for pre-bookings. Information needs to be provided to visitors before they decide to visit, which can be accomplished by creating good links with tourist information centers, hotels and tourism operators. Information and promotional materials must explain regulations for visiting and procedures for permit application. Foreign tourist guidebooks also need to have rules and booking procedures explained (The Royal Society for the Conservation of Nature, 1998).

Registration

Registration at the point of entry provides a means for monitoring visitor numbers, activities and types (e.g., nationality, age range, group size, etc.).

One example where conscious efforts are being made to channel visitors through the area via two designated routes is at Changli Golden Beach Reserve in China. One land route and one water route have been designed to encourage visitation to certain areas (i.e., to spread out the high concentration of visitors in over-used areas) and to keep visitor traffic away from other areas (i.e., with the aim of reducing the negative impacts to the environment).

A second example of innovative visitor channelling is at Jiuzhaigou Nature Reserve in China. Air pollution from cars and terrible traffic congestion inspired a creative solution to develop an environmentally friendly public transport system to take visitors to and from the various scenic spots inside the reserve. Each public car has a trained interpreter who describes the value of the scenery and unique characteristics of each scenic spot. The green environmental car service helps to protect the natural environment (i.e., since it's implementation sulfur-dioxide emissions have been reduced by 56%, carbon-monoxide by 92% and hydroxide by 80%), enhance mobility of visitors and improve traffic order. This management program is part of a well-designed attempt to take an active role in protection, education and co-operation with others.

3.2.11 Market Research

ITEM 11: Survey and analyse tourist markets and visitors' needs and expectations. Ideally this occurs both before and after developing ideas for new forms of tourism.

Protected area managers must do market research in order to understand their visitor profiles. Examples of relevant questions that should be asked by planners and managers include:

- Who are the visitors, and what are their characteristics?
- Where do they come from, and how did they get here?
- What percentage of visitors are local, domestic and international?
- How long do they stay?
- How many visitors are currently attending the site?
- What do they do during their stay?
- What attitudes and expectations do they have?
- What would visitors like to see?
- What motivated them to choose a specific protected area as their destination?
- How satisfied are they with their visit?

Learning about and analysing visitor needs and expectations better enables park managers to provide satisfying experiences that will meet visitor needs and expectations. Focusing on specific market segments enables park managers to target visitor services more effectively. It is also worth noting that although sometimes visitors may express a certain desire for a particular experience, this demand may not be true to the area's image. For example, visitors may express a desire for luxurious accommodations within the protected area in order to wake up to a breath-taking view. However, developing this type of infrastructure may be inappropriate, depending on the goals of the protected area and on the proposed location (e.g., is it outside park boundaries?). It is important to decide what the specific area's ability is to meet demands of tourists. It is acceptable to declare a market demand as infeasible to implement, in light of protection or the non-sustainable nature of a proposal.

Visitor profiles can reveal important information to the manager. Information should be collected for various visitor groups. One group that is often ignored is the non-visitor. However, this group can also provide valuable information. Who is

not visiting and why? Potential tourism markets can be identified through this line of questioning. If park managers want to expand to different markets, this type of questioning is very useful as a means of identifying potential tourism markets. It can also identify types of changes that may need to occur (e.g., in marketing strategies, types of programs offered or facility design) in order to attract these potential visitors.

What are the perceived and realised benefits of tourists? Through interactions with visitors and also through partnership with social scientific research, park managers can identify components of satisfaction of the experience, what expectations visitor hold, how their expectations can be developed, and decide whether their expectations are realistic.

Simple marketing research is very useful for a tourism development plan. As well as considering the present condition, it is important to anticipate future conditions. Have any predictions been made? If the site is already well known, how much of a change can be expected in visitor numbers over the next 10 to 20 years? If the site is not well known, is it desirable to make it more known, and if so, what is the expected amount by which visitor numbers will rise? What are the best ways of managing this type of influx?

Travel companies that design and coordinate trips and tour operators and guides who control activities in the destination should share a conservation ethic. Interactions between these stakeholders and park staff enable information to be shared and a common understanding of one another's goals to be developed. Park managers should make the effort to educate these stakeholders on the importance of conservation and to outline the goals and appropriate activities for different types of parks within the jurisdiction. The shared ethic of conservation provides the framework within which all marketing and travelling efforts take place. Basic components include:

- increasing public awareness of the environment
- maximising economic benefits for local communities
- fostering cultural sensitivity
- minimising negative impacts of the travel environment.

By making the effort to educate these stakeholders who are involved in the early

planning stages of tourists' trips, planners and managers are actively influencing the types and expectations of visitors to the site. As a result, this reduces the level of on-site damage control efforts related to visitor management issues such as dealing with visitor conflicts, inappropriate behaviours and dissatisfied visitors (The Royal Society for the Conservation of Nature, 1998).

Two marketable aspects of a destination are attractiveness to travellers (e.g., high biodiversity, abundance of species, breath-taking scenery, unique geography, culture and traditions) and the tourism infrastructure (e.g., adequate accommodation, transportation, guides, access to natural areas and cooperative governments).

It may be necessary to change people's attitudes and perceptions of a protected area in order to promote an image that is more true to the area's qualities, or to target tourists who seek these qualities.

Marketing, advertising and communications should be designed to appeal to specific, desired target markets. Visitors can be segmented based upon demographic (e.g., age, sex, household income, education level, etc.), psychographic (e.g., motivations, values, etc.) and geographic (e.g., country of origin) characteristics. Park managers must identify anticipated characteristics of specific visitor groups in order to target these potential visitors with programs and services that correspond to their interests.

Identifying the types of activities that park visitors like enables planners and managers also to identify appropriate sources of advertising. Magazines and journals may be a good place to advertise. For example, many nature tourists are amateur photographers, so photography publications are a potential source. Specialised magazines, some of which are affiliated with internationally recognised organisations (e.g., National Audubon Society), are a prime source of advertising. Upscale travel magazines and special travel supplements in newspapers are other sources. Planners and managers can collaborate with tourism operators to develop brochures. Travel brochures should indicate the purpose and uniqueness of the destination.

Promotions can generate consumer excitement and expand the message of sustainable nature tourism to a wider audience. High profile partners with clients possessing similar demographics make good partners for tourism operators.

In summary, planners and managers of protected areas may decide that an appropriate goal is to encourage visitation by desirable target markets through a magazine article about the protected area. Park managers should think about what types of people read different publications. Most likely visitors possessing an environmental ethic will read environmental publications so that is one example of an appropriate place to advertise in order to attract the desired target market.

3.2.12 Product Development and Promotional Strategy

ITEM 12: Brainstorm tourism products to be potentially developed and influence types of visitors choosing to visit. Identify the values and image of the protected area on which to base sustainable tourism and outline a promotional strategy for them.

Marketing and product development are commonly used terms for activities in advertising and private industry. Since protected area management focuses on conservation of natural and cultural resources, advertising terms and activities used by private industry are likely unfamiliar territory to protected area managers. Developing a sustainable tourism action plan through multi-disciplinary partnerships will enable park managers to gain an appreciation of the role that these non-traditional park terms and activities can play within protected area management by developing multi-disciplinary partnerships with organisations more familiar with such terms.

Since many tourists want a varied experience, there are good opportunities for partnerships in marketing. Product linkages can be extended into marketing linkages. A key strategy is to develop a marketing mix that is attractive. For example, instead of promoting marine tourism all by itself, marine tourism in the area can be linked to culture, recreation, nature, wildlife viewing, etc.

Sustainable tourism development needs to be market based, focusing on the image and special qualities of the specific protected area, and targeting tourism markets which will be interested in buying these *products*. Protected area managers are thus able to have a greater influence over the types of visitors who come to the protected area, than through implementation of the market-led approach (developed according to demands of the

market). In this way, managers can encourage individuals who possess characteristics that support conservation efforts, who wish to participate in appropriate activities, and who want to learn about the areas special features, to come to the park.

Many visitors have a keen interest in learning about what features make the area significant and unique. Park managers should explore opportunities to develop tourism products that take advantage of educational aspects. Once visitors gain a deeper understanding of the area's significance, they will be more likely to support its protection. Park managers can also discourage visitors whose behaviour or interests do not correspond to park goals.

Private sector tourism operators should work with protected area managers to develop accurate images of protected areas and associated values. When tourists are properly informed about what to expect during the experience, reasonable expectations result in a satisfying visit.

Consumers are concerned about the environment, and will likely ask questions. Basic interpretation facilities are a valuable tool through which common questions can be addressed. To address more complex questions from highly-educated visitors one option is to establish partnerships with compatible organisations such as conservation groups, research facilities, zoos, universities and museums who may be interested in developing programs that provide specialised information.

Protected area managers should brainstorm ideas and proposals to create various educational programs, themes for park tours, trail development, etc. that are appropriate to the area's objectives and resources. Managers should keep in mind the inventory of park assets and facilities, along with facilities and assets of the surrounding communities when developing ideas.

Proposals for new developments in and near protected areas may be based in commercial development. Before permitting development, planners and managers should carefully examine a variety of relevant factors, including whether the development will result in excess use, and whether the use is appropriate. An analysis of the proposal for commercial development should be shared with appropriate planning and legislative agencies. In appropriate cases an environmental impact statement should be prepared (Parks Canada, 1994). Reference should be made back to the inventory of tourism and infrastructure resources. In terms of product development, what opportunities to develop tourism products and businesses exist? What

opportunities should be encouraged to thrive?

In terms of promotion, park managers should be aware of the types of expectations that visitors possess. Many travellers have come to expect a certain standard of comfort on a holiday (e.g., a level of quality of restaurants and hotels), and many people desire to see spectacular views with as little effort expended as necessary. Formation of expectations occurs through images and messages presented through advertising, which is why protected areas and tourist organisations should be careful about what images are portrayed when promoting tourism of protected areas. For example, promoting the natural beauty or spectacular wildlife of the area while at the same time also promoting easy access and high standards of accommodations and entertainment may cause conflict and unrealistic tourist expectations. If easy access and high standards of tourism infrastructure are not permitted in a sensitive protected area, then advertising must provide realistic images so that appropriate tourist expectations can be developed.

Parks Canada has now established a visitor satisfaction goal for each national park and each national historic park in Canada. This is the first time that a park management agency has set specific targets for client satisfaction.

It is important that both protected areas and tourist organisations work to portray the protected area destination accurately, both in terms of the special natural and cultural features it possesses, as well as in terms of the realistic limitations associated with conserving its naturalness.

Images should reflect the true value of the area, promoting a message of visiting nature on its terms, rather than massively altering the landscape to provide deluxe facilities that are insensitive to the primary attraction – the natural environment. Good standards of tourist services can be provided near protected areas but they should incorporate good sustainable design principles, including harmonising with the local environment. "Much of the infrastructure normally associated with 'mass' or package tourism is not compatible with beautiful views, undisturbed nature and the peace and quiet of protected areas" (FNNPE, 1993, p. 25).

One example of an appropriate message that could be conveyed through promotional images of protected areas is that breath-taking scenery and glimpses of wildlife will only be fully revealed to visitors who take the time to integrate themselves into the natural environment and experience its glory. These types of visitors will want to participate in low-impact activities. This message might discourage visitors who want to rush through it in a hurry to complete their checklist of stopovers. Their activities may be more consumptive in nature.

Quiet, low-impact activities, compatible with values supported by protected areas, are desirable and should be encouraged, especially in promotional materials. If images convey only activities that are compatible with sustainable tourism, visitors who desire more undisciplined and unruly activities may choose to travel elsewhere. If accurate images that portray the underlying values supported by protected areas are developed, self selection of visitors will enable management to avoid potential negative impacts caused by certain types of visitors.

3.2.13 Monitoring

ITEM 13: Establish a program for monitoring the protected area and its use by visitors. At appropriate intervals evaluate the success of the plan in ensuring that tourism use maintains environmental standards. Revise the plan as needed.

Monitoring is required to detect changes over time through comparison of two points in time, and determines whether these changes are due to natural causes or to stress caused by human activities (Parks Canada, 1994). Monitoring visitor impacts enables park managers to assess whether visitors are causing unacceptable levels of impact and whether management controls are effective and sufficient.

Incorporate links to scientific research
Managers of protected areas can work closely with universities to create an ongoing research portfolio. Results of studies that examine environmental impacts of tourist use can be compared to inventory information recorded in the early planning and development stages (benchmark information). If a preliminary inventory has not yet been recorded, then this must be made a priority, and completed. When

seeking partnerships with research institutions, protected area planners and managers may logically and intuitively focus on the collection of environmental data (since it is often the physical natural environment of which they are in charge of protecting). However, it is equally important to collect data on social, cultural and economic impacts of tourism. Examples of the types of social and cultural questions that research studies can address include:
- How should nature conservation benefit from commercial activities of nature tourism?
- How does tourism development in the area contribute to social and economic well-being of local communities?
- What skills are necessary for local people to participate in a community-based nature tourism project?
- What factors may prevent the success of such projects?

Montague Island Nature Reserve provides an excellent international example of environmental and financial impact monitoring (refer to Case Study 8).

Develop indicators
Planners and managers must choose indicators of change. Indicators are dependent on site objectives. Is the site's primary interest natural, archaeological, cultural, historical, etc.? For example, if the site's primary interest is natural, then many monitoring parameters will relate to its ecology. These are linked to ecological carrying capacity. Other indicators, linked to social and cultural, and psychological carrying capacities should also be considered. Common environmental indicators include:
- ***Loss and/or change in the vegetation structure:*** Vegetation is easily affected by people or vehicles travelling over it. A simple way to monitor changes is through fixed point photography (pictures taken facing the same direction, using the same coordinates and at the same time each year). Sample areas can be chosen with common sense. They should be comprised of highly visited and less visited areas of the same vegetation community.
- ***Trail width and depth:*** The amount to which trails get wider and deeper reflect visitor pressure. Proper design and good positioning can minimise deterioration. If trails become difficult to walk on, visitors may travel on undisturbed areas. Sample sections near the

CASE STUDY 8: Monitoring Environmental and Economic Impacts

Montague Island Nature Reserve (Australia) – An Example of Tourism Planning, Impact Monitoring and Community Development

Montague Island Nature Reserve

Montague Island is located off the south-eastern coast of Australia. The Reserve is a unique example of a protected area agency using tourism to provide essential financial support for conservation and the local community in an environmentally and politically sensitive protected area.

The nature reserve contains both natural ecosystems (penguins, seals, sea birds) and cultural features (European and aboriginal history) of national importance. The island became a Nature Reserve in 1990 and was placed under the care and control of the New South Wales National Parks and Wildlife Service.

From 1990 to the present the New South Wales National Parks and Wildlife Service developed a system to determine the Island's tour participant carrying capacity. The visitor use was monitored for both environmental and economic impacts. Wildlife monitoring required the development of new measurement methodologies and joint co-operation with commercial vessel operators to assess the impact of close approach tourism (e.g. when tourism vessels approach marine wildlife in attempts to get a good view) to the island's prominent marine wildlife.

In 1998 the nature tours grossed A$200,000 from the 4,300 participants that landed on the island. In 1999 a well-designed regional economic impact study determined that expenditures by visitors to the island contributed an estimated A$1.4 million in gross regional output per year to the regional economy. This included A$965,000 in gross regional product, including household income of A$468,000 paid to 19 people in the local economy.

In 1999 the Montague Island Nature Reserve was given the British Airways/World Conservation Union Award for park tourism. This award was given due to the following features of this project:

1. Careful development of a capacity limit for use
2. Thorough financial management so that tourism use pays for the essential management elements of the park
3. Good co-operative arrangements with the local community and with local universities
4. An openness to continual monitoring and evaluation of all aspects of park operation
5. A highly professional economic impact study
6. Good integration of both cultural and natural heritage elements in the tourism program
7. National ecotourism accreditation at the highest level
8. An obvious professionalism by the government agency staff members in all aspects of tourism management
9. The use of tourism to protect and manage some very important biological features, and
10. The ability of the site to serve as a best practice example for park tourism managers elsewhere.

Web site: http://www.npws.nsw.gov.au/parks/ south/sou018.html

For further information: New South Wales National Parks & Wildlife Service, Level 1, 43 Bridge Street, (PO Box 1967), Hurstville, NSW 2220, Australia.

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beginning, middle and ends of trails can be measured for width, depth and profile to monitor changes. Sometimes serious degradation in high use areas where trails have not be effectively designed is highly noticeable, even without scientific measurements.

- *Hot spots:* Changes to areas where visitors congregate should also be monitored.
- *Disturbance to animals:* This is more difficult to monitor, since animals are not stationary. One method is to perform annual counts of target animals, however this is time consuming and expensive. Feeding and nesting areas, especially of endangered species, should be avoided or have strict use limits so that disturbance is minimised.
- *Visitor control:* One indication of ineffective visitor control is the number of people found in sensitive areas. Park staff could record visitors seen in off-limit areas, walking off trails, attempting to enter illegally, etc.

Through development of a monitoring program, it is possible to identify the various steps and decisions associated with different development projects, and to note their contribution to successful protection or degradation.

Monitoring is time consuming and is neglected by some organisations. For monitoring to work over the long term, some of the techniques should be simple, inexpensive, easy to repeat with non-specialists, and if possible, should become part of the routine work of site staff (The Royal Society for the Conservation of Nature, 1998).

3.2.14 Resources and Training

ITEM 14: Assess resource needs and sources, including provisions for training.

Management plans should indicate staffing needs and identify major functions. Volunteers, consultants, and head office staff involved in the planning process should also be identified as this will provide a more accurate indication of staffing levels. Incorporation of this step allows deficiencies to be predicted and recommendations suggested.

All protected areas require staff with specialised training in visitor and tourism management. The staff functions are many. Eagles (2000 in press), identifies eight tourism competencies that must be present within a protected area management agency, outlined in Figure 16. It is important that the park agency hires people with these skills, or encourages existing personnel to gain education in these fields. It is also important that all park staff receive training in how to react to accidents and other emergency situations. Visitor safety, accidents, liability and search and rescue are issues that must be considered by park tourism managers.

Accidents do happen, and parks must be prepared to deal with them. Safety issues should be discussed and parks should develop a response to all potential emergencies. Staff and visitor training on safety, such as this canoe safety course instruction in Algonquin Provincial Park in Canada, enables a fast and effective response.

> **FIGURE 16: Tourism Competencies**
>
> The eight tourism competencies that must be present within a protected area agency are:
>
> 1. Understanding visitors' needs and wants
> 2. Service quality management
> 3. Leisure pricing policy
> 4. Leisure marketing
> 5. Tourism and resource economics
> 6. Finance
> 7. Tourism management
> 8. Interpretation.

1. Understanding visitors' needs and wants
This topic of market research is addressed in Section 3.2.11.

2. Service quality management
It is critical that visitor services are provided at the highest standard of service possible. Some park agencies have developed service quality goals, into their management goals. One example of a service quality goal is to have the majority of the visitors feeling that they received excellent service levels.

3. Leisure pricing policies
Most sites charge admission. Therefore, there must be a policy that determines the levels of prices. Many questions must be addressed. Are fees to be charged per person or per group? Are there different fees for different stakeholders or user groups? Are there different fees according to times of the day or seasons of the year? One example of differential pricing is to charge higher fees for higher levels of visitor services. Park planners and managers should develop a policy on fee collection.

4. Leisure marketing
It is important that park tourism managers understand the market for their services. What are the potential park visitors looking for? When do they want to visit? What services do they want to find at the site? How much are they willing and able to pay? These and many more key questions must be addressed in a marketing plan. More information on this topic can be found in Section 3.2.12.

5. Tourism and resource economics
Tourism is often a primary revenue source for the local economy and the country.

At the national level, government needs to be convinced that tourism will supply a significant amount of foreign exchange in order for them to provide technical and financial support for the protection of parks and protected areas. Actions must also be initiated and sustained through continuous investments until conservation objectives are met. Governments alone are not able to provide funds for protected area operations. Financing conservation efforts requires mixed strategies involving a combination of approaches and partnerships. Examples include grants and loans, user fees, development of public/private partnerships and community-based, co-management arrangements that build on local incentives.

6. Finance

Sufficient finance to cover park management is a universal issue. All parks need money. Development and implementation of management plans, interpretation, education, training, research, monitoring, and enforcement programs all require financial resources. Often these funds come from general government tax revenues. However, in recent years, the creation of new parks and protected areas has outpaced the ability of governments to pay for management. Many park agencies have developed finance structures that allow a more business-like approach to park management. Simply stated, these new management models encourage park agencies to function like a private corporation. Key components include:
- all revenue stays with the agency
- multi-year carry over of budget
- flexibility in pricing policy
- a flat management structure
- flexibility in the application of licences and contracts for concessions
- innovation in service delivery
- a visitor-focused administration
- flexibility in staff reward, including incentives for good practice
- high levels of private – public coordination, and
- staff with visitor management expertise.

Parks Canada is one agency whose management structure has been redesigned so that they now utilise some of these components. Importantly, the vast majority of the income for this new approach comes from park visitors and park tourism. For example, costs of operating visitor services can be paid for by through park visitor fees. Eagles (1999), identifies nine potential sources of income from park visitors:
- Park Entrance Fees
- Recreation Service Fees, Special Events and Special Services
- Accommodation
- Equipment Rental
- Food Sales (e.g., restaurant and store)
- Parking
- Merchandise Sales (e.g., equipment, clothing, souvenirs)
- Licensing of Intellectual Property
- Cross Product Marketing.

It is critical that park staff have good levels of understanding of park and tourism finance. All plan implementation must be monitored, to see if the policies are being successful. If problems are found, the implementation procedures must be alerted or the goals must be changed.

7. Tourism Management

Much of this document deals with managing park tourism. It is important for park agencies to have specialised expertise in the planning and management of tourism.

8. Interpretation

One of the most visible tourism competencies is that of interpretation. Most successful guide training programs share a number of characteristics. These characteristics are outlined in Figure 17. In Section 3.3.3 best practice guidelines including suggestions for private tourism operators, such as guiding companies are outlined.

FIGURE 17: Characteristics of Successful Guiding Interpretation Programs

Characteristics of successful guiding interpretation programs include:
- Provision of basic foreign language skills
- Selection of guides should include some self-selection, and favour park buffer zone for high likelihood of employment – individuals who make a sizeable sacrifice to attend training sessions (i.e., financial or social) may be more likely to complete the full training
- Course content development through collaboration with tourism operators, participants and conservation groups
- Focus on environmental interpretation, storytelling and conversation awareness, which have a higher focus than biological facts
- Encouragement for full-time trained teachers from the area, since often after some training, they make better instructors than visiting academic authorities such as botanists or ornithologists
- Opportunities for trainees to work as apprentices to more highly qualified national or international guides
- A suitable time frame (i.e., length of courses are sometimes designed based on their budget rather than participant needs).

Pinery Provincial Park, Ontario, Canada. Parks can rent recreation equipment to the park visitors. This equipment satisfies a need of the visitors and generates funds for the park.

3.2.15 Implementation

ITEM 15: Implement the plan.

The sustainable tourism action plan should be implemented. Later, adjustments may be made based on monitoring and project results. Publicising successful projects so that others may learn valuable management lessons from others' experiences is useful.

It is very important the park tourism plan be part of the overall management plan for the entire site. Tourism must be considered along with resource management, personnel management, public relations and all of the other important issues that are addressed in a park management plan. A balance must be found between planning, implementation and evaluation. Does a protected area achieve its management objectives (including tourism objectives)?

A common reason that protected areas do not achieve management objectives is because resources outlined in the planning phase exceed the amounts that are actually available for implementation (Hooten & Hatziolos, 1995). Even less attention is given to evaluation of success of management. In order for protected areas to achieve their management goals, once the management plan (or tourism action plan) has been implemented, it is essential that monitoring and review occur regularly. Monitoring and review should be part of all management programs. Sufficient financial, technical and human resources must be provided over a timeframe that is long enough to allow for effective creation, implementation, monitoring and review of management plans (Hooten & Hatziolos, 1995).

3.3   ACHIEVING BEST PRACTICE

3.3.1 Methods of Regulating Actions

Legal Regulations

Government regulations are an essential component to good overall environmental strategy. National and regional governments must provide certain standards of protection. Regulations define the legal framework within which the private sector should operate and establish minimum standards and processes (UNEP, 1998). It is essential that governments and park staff have the ability to enforce regulations of protection, and to punish those who do not comply. This means that they have the legal structure to develop, implement and enforce visitation rules. A lack of consistent and fair enforcement of the tourism regulations can lead to a complete breakdown of the planning system. All stakeholders, including the park managers, must comply with the tourism regulations.

Certainly, legal regulations, enforcement and punishment play a key role in protection of natural areas in certain situations. However, in terms of ensuring long-term commitments and improvements, particularly in an industry such as tourism where small and mid-sized businesses have a vested interest in not degrading the environment, voluntary approaches may also be effective (UNEP, 1998).

Ecolabels

Of the most successful voluntary approaches are programs where awards or ecolabels (sometimes also referred to as voluntary codes of conduct) are granted to companies or industries that attain high environmental standards.

Ecolabels are designed to improve environmental performance in the tourism industry. Awards can be promoted by different organisations (e.g., private businesses, industry associations, public authorities, non-government organisations), and be aimed at an international, regional, national, or sub-national level. Possible objectives associated with implementing voluntary codes of conduct are outlined in Figure 18.

Increasingly, consumers are looking for more environmentally responsible products and services (UNEP, 1995). Ecolabels offer a means of promoting a product. They certify that specific efforts have been made

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FIGURE 18: Objectives of Voluntary Codes of Conduct for Tourism

The objectives of voluntary codes of conduct are to:
- Serve as a catalyst for dialogue between government agencies, industry sectors, community interests, environmental and cultural NGOs and other stakeholders in tourism development
- Create an awareness within industry and governments of the importance of sound environmental policies and management, and encourage them to promote a quality environment and therefore a sustainable industry
- Heighten awareness among international and domestic visitors of the importance of appropriate behaviour with respect to both the natural and cultural environment they experience
- Sensitise host populations to the importance of environmental protection and the host-guest relationship, and
- Encourage co-operation among industry sectors, government agencies, host communities and NGOs to achieve the goals listed above.

(UNEP, 1995, p. 8)

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to reduce environmental impacts. They provide environmental information to consumers, which helps them make an informed choice. By incorporating recognition, correction, and monitoring of environmental impacts, they can also be a management tool used to improve the sector's sustainability (UNEP, 1998). Introducing ecolabel schemes to the tourism industry raises environmental awareness (of the industry, local authorities and consumers) and improves environmental performance, especially in areas where improvement is most needed (UNEP, 1998). Park managers can assist with the development of best practices by insisting that all tourism operators have suitable levels of accreditation.

Many awards are directed at accommodation (i.e., decreasing the use of resources such as energy and water), such as the Green Leaf program in Thailand run by the Board of Environmental Promotion of Tourism Activities. Implementation of best practices in energy and water conservation and waste minimization reduces operating costs. Other aspects of the industry also covered by awards include transportation, recreation facilities, travel agencies, tourism operators and overall destinations. The National Ecotourism Accreditation Program in Australia, run by the Ecotourism Association of Australia (EAA), focuses on facilities, services and location (accommodation, natural attractions and tourism operators). The PATA Green Leaf Program, run by the Pacific Asia Travel Association (PATA), focuses on all aspects. International examples of award programs are Green Globe, run by the World Travel and Tourism Council (industry association)

and the Audubon Cooperative Sanctuary System, run by Audubon International (a non-government organisation).

Benefits associated with implementing voluntary codes of conduct in the tourism industry include a shift in focus towards long-term viability (rather than solely on short-term profits) and strengthening the industry's long-term future. Improvements in the management of tourist impacts on natural environment result in improved sustainability of the tourist industry. In an industry where sometimes more emphasis is placed on short-term profits rather than on long-term gain, this shift in emphasis is crucial to the industry's sustainability. Ecolabels also offer short-term benefits by creating a competitive edge through the favourable image associated with them, thus maximising the recipient's ability to attract tourists who are seeking environmentally responsible forms of tourism. Also, the quality of the product is improved, which offers the destination a competitive edge.

For further information...

Key elements necessary for a tourism ecolabel to be effective, credible and efficient are described in *Ecolabels in the Tourism Industry* (UNEP, 1998). These elements include framing the criteria for qualification, having a procedure for assessing the performance of applicants, and using a sound monitoring system. Required levels of financial and human resources, membership fees, and the amount of technical assistance provided are outlined, and the means of assessing effectiveness are discussed.

3.3.2 Best Practice Guidelines

Codes of conduct, or best practice guidelines can help to guide people's behaviours, so that their actions are supportive of achieving sustainable goals of tourism within protected areas. Guidelines can be thought of as ideals that should be followed as closely as possible. Pressure to follow guidelines may stem from internal guilt at the thought of disobeying the guidelines. Pressure may also stem from external peer pressure, where the thought of being outcast from the group if guidelines are not followed motivates compliance.

Guidelines exist for all major stakeholder groups involved in protected area management. Sometimes it is useful to

have a pre-made list of guidelines that outlines general suggestions for how to act and how not to act. Park concessionaires or development companies can benefit from guidelines developed by a park organisation. Other times a more participatory approach to guideline development is more appropriate, such as with local tourism operators. Greater support will exist for guidelines that are produced in consultation with the people who are affected by the guidelines.

Some examples of general guidelines are presented in order to provide an understanding of the types of issues addressed through guidelines. These are meant as examples only, to be used as a starting point in the development of guidelines created for a specific area by the park staff and other stakeholders involved. Each area should make guidelines specific to the natural and cultural resources that are protected within the area. For example, at a workshop on biological and cultural diversity in Japan in 1997, in-depth discussions were held to develop a solid understanding of how to define ecotourism guidelines, who they are meant for, who should be involved in preparing them, and how they are meant to be used (Yoshida, 1997). A summary of workshop findings is located in Appendix G.

Developing guidelines involves the preparation of a road map for top performance, given the right tools, circumstances, expertise, and funds are available (The Ecotourism Society, 1993).

Park Manager Guidelines
All park management involves three basic issues: a) resource management, b) visitor management, and c) personal, legal and financial management. With park managers, the issue is not so much *what* they do, as much as *how* they do it (e.g., such as how they make decisions). One of the most important messages for park managers is that it is not only the answer,

but also the process of getting the answer, which is important. For example, rather than focusing solely on the levels of use, it is important to focus on the levels of impact that these levels of tourist use have on the protected area. Numerous tools are available to assist protected area managers. In the case of determining appropriate levels of use and corresponding impact limits of acceptable change, guidelines help provide a reference for park managers on how best to act and the types of processes involved in determining solutions for the given situation.

Numerous books offer guidance to planners and managers for sound decision-making in regards to park management issues. For example, the World Commission on Protected Areas (WCPA) has a series of four publications that discuss best practice protected area guidelines, including *National System Planning for Protected Areas* (Davey, 1998)*, Economic Values of Protected Areas: Guidelines for Protected Area Managers* (World Commission on Protected Areas, 1999b), and *Guidelines for Marine Protected Areas* (Kelleher, 1999). This document (*Guidelines for Tourism in Parks and Protected Areas of East Asia*) provides an introduction to the topic from a tourism perspective.

Tourism Operator Guidelines
Many companies provide visitors with designed tours of parks. It is important that their operations follow park rules, provide accurate and up-to-date information to visitors, are sensitive to the environmental and cultural features of the site and are willing to become a positive force for effective management. "Nature-based tour operators in particular are confronted with the task of finding ways of embedding the principles of responsible stewardship and sustainability into their day to day business activities" (Williams and Budke, 1999, p. 15).

A crucial step in the development of operational principles involves creating codes of conduct designed to self-regulate behaviour in the interest of ecological and cultural sustainability. The presence of a

Paul F.J. Eagles

Nature tour operator, Collingwood, New Zealand. Private tour operators can provide a valuable service to the public and to the park, but they have to be managed carefully to ensure maximum positive impacts and minimum negative impacts. Some parks require that all visitors use a guided tour in the most sensitive sites.

code of conduct does not mean that the specifications will automatically be honoured. For a code of conduct to be effective, the guidelines must be deemed fair and appropriate by interest groups involved and accepted on these grounds.

When making best practice guidelines, often the process of developing the guidelines, listening to concerns of different stakeholders and working towards consensus is as important as the final product (i.e., the codes of conduct that are produced). A participatory approach that involves local stakeholders can result in ownership and strong support of best practice guidelines that are developed. In other words, the process driving the code's conception is often as important as the actual content of such guidelines. Using a community-based process in the development of tourism operator guidelines helps facilitate communication and strengthen social ties between the operators (Williams and Budke, 1999).

One of the early efforts to develop guidelines for nature travel was made by the National Audubon Society. These guidelines are called *Travel Ethic for Environmentally Responsible Travel.* Audubon promotes these as rules for its

tours and urges all tourism operators to adopt them as goals. Seven major points are wildlife, sustainability, waste disposal, environmental appreciation, strengthening local conservation, respecting bans on trade in endangered species, and respect for cultures visited. The American Society of Travel Agents (ASTA) has developed similar guidelines in association with Club Med.

More recently, the Tourism Council of Australia (1999) published an excellent booklet describing basic procedures for sustainable tourism operators. This booklet provides useful ideas for all aspects of the travel experience, from planning activities, through site management to dealing with special types of outdoor recreation. The Ecotourism Society (1993) also produced a series of guidelines for nature tourism operators that outline specific guidelines associated with pre-departure programs, guiding programs, monitoring programs, management programs, and local accommodations checklist (refer to Figure 19).

Visitor Guidelines

Visitors may do damage to the natural environment either through ignorance, lack of care or purposeful action. To address problems caused by visitors unknowingly behaving in unacceptable ways, a code of conduct for visitors can be developed and distributed effectively. Codes of conduct for visitors are a relatively new phenomenon (Mason & Mowforth, 1995).

In order to be effective, visitor codes need to be readily accessible to the public, both on-site and in pre-visit information. They can be included in travel pamphlets and brochures, or posted on the protected area's internet web site. Visitor codes also need to be phrased in language that is easy to understand and in statements that are short and to the point. When busy group tours or wandering tourists pass by signs outlining acceptable and unacceptable behaviours, the information is easy to assimilate. Translation of visitor codes into languages spoken by international visitors may be a consideration.

Lack of care can be addressed through education. Often experiential, on-site learning is highly effective in changing people's attitudes and opinions towards protected areas, endangered species, and conservation. Once people learn why it is important to protect these areas, many will take more care.

FIGURE 19: A Suggested Code of Conduct for Tourism Operators

- **Prepare travellers.** One reason visitors choose to travel through a tourism operator rather than as free and independent travellers is to receive guidance. How can negative impacts while visiting sensitive environments be minimised? How should one interact with local cultures? What is an appropriate response to begging?
- **Minimise negative visitor impacts.** Prevent degradation of the environment, and/or the local culture by offering literature, briefings, leading by example, and taking corrective actions. To minimise accumulated impacts, use adequate leadership, and maintain small enough tour groups to ensure minimum group impacts on the destination. Avoid areas that are under-managed and over-visited.
- **Minimise nature tour company impacts.** Ensure managers, tourism operator staff and contract employees know and participate in all aspects of company policy to prevent negative impacts on the environment and local communities.
- **Provide training.** Give managers, tourism operator staff, and contract employees access to programs that will upgrade their ability to communicate with and manage clients in sensitive natural and cultural settings.
- **Contribute to conservation** of the regions being visited.
- **Provide competitive local employment** in all aspects of business operations.
- **Offer site-sensitive accommodations** that are not wasteful of local resources or destructive to the environment and that provide ample opportunities for learning about the environment and sensitive interchange with local communities.

(Adapted from TES, 1995)

FIGURE 20: Sustainable Tourism Accommodation Characteristics

Accommodations should be designed to:
- Act in harmony with local natural and cultural environment, using principles of sustainable design
- Minimise use of non-renewable energy
- Work in harmony with the local community offering jobs with a wide range of responsibilities and employment via contract with locally-owned vendors
- Work to provide benefits to public and private local conservation and research initiatives
- Offer excellent interpretive programs to educate the visitor about the local environment and culture
- Offer a tourist an educational and participatory experience
- Protect its operating environment.

(Hawkins, Epler Wood & Bittman, 1995)

However, some damage may be caused by visitors who place a high emphasis on personal goals. Some visitors have intentions to damage purposefully the protected area in order to attain some objective they see as worthwhile. For example, some people may pick wild flowers to decorate their picnic table. Others may collect plants for food. Others may try to poach wildlife for medicinal purposes. While it is important that local people be able to acquire sustenance, it is also important that unique species be protected. In some situations regulations and police enforcement are necessary, especially when damaging and illegal behaviour is occurring. It is hoped that these types of visitors are uncommon – if not, then in conjunction with strict enforcement, protected area managers should also take immediate actions to encourage better self-selection of visitors whose belief systems will support goals of conservation and protection over self-benefit of personal goals.

Example of the types of statements that can be contained within a visitor's best practice code while in the protected area include:
- Stay on marked paths
- Carry out with you whatever plastic, cans, bottles, etc. you brought in
- Stay a proper distance from animals (park specific, so park defines this)
- Do NOT remove any shells, wood, stones, etc.

Another complementary method to remind visitors of their obligation to act appropriately and responsibly during their visit to a protected area is to post signs that depict permitted and prohibited activities.

While it is important to outline specific codes of visitor behaviours that relate to the

circumstances present at each site, a more abstract and universal code of sustainable practices that travellers can adopt includes goals to:
- Travel in the spirit of humility and with a genuine desire to meet and talk with the local people
- Respect the ways of life and local customs of the other environment or country. Respond and adapt to them
- Act in a responsible and sensitive manner towards the people, culture and physical environment
- Do not seek to exploit any economic advantage the tourist may have which would diminish the standing of the host – pay fair prices
- Leave any place visited in at least as healthy a state as when the tourist first arrived
- Remember that you are only one of thousands of visiting tourists. Do not expect special privileges.

Guidelines for Companies Operating or Building In or Near a Protected Area

Commercial developments inside protected areas should be regarded as exceptions, impositions and interferences. Zoning of protected areas provides guidance for appropriate and inappropriate location for park tourism infrastructure. For example, no buildings should be erected within zones of high levels of protection, such as wilderness zones of a national park or core zones of a biosphere reserve. If infrastructure already exists, efforts for sustainable operations should be made. Where existing facilities conflict with the aims of the protected area, there should be a policy to re-design or remove them. In commercial development proposals, the development should be justified before being built, and should remain justifiable and within the confines of appropriate use.

If infrastructure is being developed outside the protected area boundaries, a number of well-understood characteristics can be implemented to make the design more environmentally friendly. Infrastructure should be developed and managed in an environmentally and culturally sensitive manner. The philosophy of ecological sensitivity that underlies and defines sustainable tourism operations should be applied to buildling design. Other key characteristics of sensitive design related to the construction of tourist accommodations are outlined in Figure 20.

In general, when creating environmentally friendly building designs, various factors should be considered, including:
a) environmental elements (e.g., hydrology, climate)
b) human factors (e.g., local culture, historic site uses, owner's plan) and
c) the surrounding context (e.g., What are the adjacent land uses? Who are the neighbouring communities? How can the design achieve harmony with the landscape and local architecture?).

Buildings should incorporate energy and water efficiency, environmentally friendly materials, sustainable methods of construction, and waste management. Traditional infrastructure design, such as park structures and facilities which have been built and proven successful in the

United States and then summarised in a publication entitled *Design* that outlines structures, plans, designs and layouts for various situations, are sometimes appropriate to construct (U.S. National Park Service, n.d.). Other times, something more creative or natural looking may be desired.

Before the decision to build is made, questions to consider include:
• Who monitors the impact of the project after its implementation?
• Is tourism really appropriate for the specific area and site?
• If it is, how does it fit into the broader spectrum of sustainability?

To be sustainable, development does not have to be large and overwhelming. The concept of *small is beautiful* can be applied to both infrastructure and operations. Buildings do not become the focal point of the landscape, and local communities and people reap greater benefits when tourism operators and businesses remain independent and small scale (compared to international corporations whose purchasing and employment commitments are based off-shore).

Kingfisher Bay Resort, Fraser Island, Queensland, Australia, is a large-scale, sensitively-designed, private ecotourism resort developed adjacent to a national park. The resort has won awards for environmentally sensitive design and operation. The extensive landscaping with native Australian plants helps the resort fit into the natural environment.

For further information …

Numerous publications exist that discuss best practices. For example, *Best Practice Ecotourism – A Guide to Energy and Waste Minimisation* (Commonwealth Department of Tourism, 1995), outlines new practices and technologies in energy and waste minimisation and provides practical information to assist tourism operators in modifying facilities, practices and business objectives to be more environmentally friendly. *The Ecolodge Sourcebook for Planners & Developers* (Hawkins, Epler-Wood & Bittman, 1995) describes in detail how to develop environmentally friendly accommodations.

3.4 SUGGESTIONS

Building upon the policy suggestions from Section 2.8, the following recommendations will further guide sustainable tourism development in parks and protected areas:

1. Governments, protected area managers, and tourism sector staff in East Asia should utilise the 15-item sustainable tourism action plan checklist (outlined in Figure 12) to guide sustainable tourism development in and around protected areas.

2. A sustainable tourism action plan should be created for each protected area. This should be done in consultation with the tourism sector and the local communities. This tourism plan should be part of the overall park management plan that all protected areas must have for successful long-term planning and management to occur. Conservation and tourism objectives for each protected area need to be identified.

3. Compile an inventory of each site's natural and cultural characteristics, as well as existing and potential tourism opportunities. Park managers should use hands-on knowledge and scientific research to develop an understanding of visitors' needs, expectations, behaviours and characteristics.

4. The value of involving local people in planning and protection activities is enormous and should be viewed as a necessity. Park managers should make efforts to have ongoing contact and good working relations with local communities. Promote domestic capacity for participation in management of the protected area and enable benefits to be distributed to local areas.

5. All stakeholders associated with tourism in parks and protected areas should examine and pursue possible partnership opportunities that bring about greater sum benefits than when working alone.

6. Zoning should be used in the planning process to identify areas which are best suited for higher use levels along with the range of appropriate use levels for the areas of the site.

7. Limits of acceptable use should be part of the management plan for each site. Managers of protected areas must use all available information and professional judgement to develop levels of acceptable use for their areas. Once levels of acceptable use are established, desired standards to be maintained through sustainable tourism need to be identified. The degree to which these standards are maintained needs to be monitored regularly.

8. Requirements to set limits of acceptable use should be embodied in protected area legislation. Managers of protected areas should have the power to act quickly if inappropriate activities are occurring to prevent or reduce damage that may be caused.

9. All parks and protected areas should use visitor management methods such as zoning, visitor channelling, education, interpretation and policy enforcement to ensure that tourism levels and impacts remain within acceptable limits established for the area. A monitoring program should be established to evaluate the success of these management tools. Indicate how often evaluations will occur and how revisions will be incorporated when necessary.

10. All park agencies should support development and additions to environmental education and interpretation programs. Through such programs visitors and local people increase their understanding and appreciation of the area's environmental and cultural features. Scientific research can be applied to the development of these programs.

11. All proposals for tourism development in or near protected areas should be subject to an environmental, social, cultural and economic assessment. Whenever possible, large-scale tourism developments should not be located in and around protected areas. Carefully consider small-scale tourism development proposals in the context of conservation and tourism objectives of the protected area, appropriate zoning and desirability. Create or refine a formal evaluation process that can be used to assess tourism development proposals.

12. Protected area agencies and staff should learn and apply concepts of market research and product development to

management. Ideally, at least one staff person within the agency should possess marketing expertise. Another option is to build partnerships with other organisations or agencies whose staff can provide this type of input.

13. Sufficient resources and training are needed to encourage the development of sustainable tourism, to repair existing damage, and to develop visitor management. All parks should assess resource needs and sources. All protected area agencies need to train and hire individuals who possess skills related to tourism competencies. Each protected area should have staff people who possess specialised training in visitor and tourism management.

14. Both ecolabels and codes of conduct are aimed at improving environmental performance within the tourism industry, in all sectors (e.g., private companies, government agencies, visitors, etc.), and therefore should be further encouraged and supported.

Paul F.J. Eagles

Marenco Beach and Rainforest Lodge, Costa Rica, is an ecolodge on the Pacific Ocean coast adjacent to Corcovado National Park. It provides ecotourism accommodation and guided education experiences. All visitors move from the resort to the park by small boat (a low impact type of travel), as no roads or trails are provided.

4.0

Sustainable Tourism in High-Altitude and Marine Environments

4.1 INTRODUCTION

Sustainable tourism development is a desirable and necessary component of the overall planning and management regime of all protected areas. However, some areas are more susceptible to tourism pressures than others. Certain environmental, social and cultural factors make particular locations highly sensitive and harder to repair if exposed to an onslaught of unanticipated and poorly managed impacts of non-sustainable tourism. What makes certain areas so susceptible and what precautions can be taken to ensure tourism development is sustainable in these areas?

Two environments that are potentially more susceptible to tourism pressures are slow-growing, high-altitude areas and marine areas. Section 4 examines qualities that make these areas unique and why extra care should be taken to plan for sustainable tourism development in these fragile environments.

Fragile ecosystems are considered to be:
> those plant and animal communities which are particularly vulnerable to damage by humans but those in slow-growing alpine regions and those in high latitudes in particular that have suffered very considerable destruction due to the low powers of regeneration and recovery. Wetland communities… are also considered fragile communities in that they require very specific conditions of wetness and pH for their survival (Jones, 1990, p. 180-181).

Fragile ecosystems are fragile either inherently (e.g., wetland communities) or in relation to human activities (e.g., alpine and high-altitude ecosystems, and most desert and savannah ecosystems). The fact that human beings have become agents of change at a global scale (e.g., human population growth, urbanisation, industrialisation, pollution and climate change) has resulted in a the term *fragile environments* being used more generically in a global sense.

4.2 A BRIEF EXAMINATION OF HIGH-ALTITUDE ENVIRONMENTS

Some jurisdictions in East Asia contain high-altitude systems that are sensitive to environmental and cultural changes associated with an influx of tourists. For example, China has many mountains and boasts all of the world's 14 highest mountain peaks that are all more than 8,000 meters above sea level. High-altitude areas such as these contain fragile ecosystems.

Mountain environments are fragile in relation to the introduction of new agricultural and forestry land uses and technologies often associated with immigration. Tourists are often drawn to areas where traditional ways of life are still practised by unique cultures, or to protected areas that are located far from developed urban areas. As increasing numbers of tourists travel to these areas, interest in sustainable tourism development often increases. Development of rural ethnic areas to accommodate tourist interest and demand brings with it improvements to health care, improvements to transportation and education systems, and increased employment opportunities. These changes raise the level of social and economic living conditions and improve the overall quality of life of area residents. As a result, people from other areas are sometimes drawn to tourism centres in hopes of also being able to benefit from the improvements associated with tourism development.

Two common themes expressed by fragile high-altitude mountain environments world-wide are increased population pressure and integration into external economic systems, which often coincides with changes in patterns of land tenure. These are major contributing factors to undesirable changes in the biophysical environment (Price, 1996). Not only is the biophysical environment fragile, but so too are social structures.

Examples of population pressure and tourism pressure experienced in Huangshan Mountain Scenic Spot are outlined in Case Study 9.

As noted in the introduction, Taiwan refers to Taiwan, Province of China.

CASE STUDY 9: Mountain Area Management

Huangshan Mountain Scenic Spot (China) – An Example of Pressures Caused by Tourists and Local Migration to a Mountain Tourism Area

Introduction

Huangshan Mountain is located 1,200 km south of Beijing in the southern part of Anhui Province. Although it is not a mountain of religious significance, it has been worshipped since ancient times for its unique beauty, and has inspired in a rich legacy of art and literature. It is famous for its unusual pine trees, strange rock shapes, spectacular sea of clouds through which the peak protrudes, and thermal spring. It is considered to be a prime example of classic Chinese scenery.

The total area covers 1,200 km^2 and extends across four counties, however, the main concentration of scenic spots cover an area of 154 km^2. One of 44 major scenic sites, Huangshan Mountain Scenic Spot is one of China's top 10 attractions and the only mountain listed in China's Top Ten Scenic Spots. It is also a World Heritage Site designated by UNESCO for both cultural and natural heritage.

Several areas within the property have been intensely developed for visitors. A network of footpaths connects the various main scenic spots. Three routes lead up to the top of Huangshan Mountain: a short but difficult route (3 hours long, 7.5 km), a long but easy route, and a cable car. A minibus shuttles visitors from the Huangshan Gate near the eastern steps to the lower cable car station. The ride up to the summit is short but line-ups can be over an hour wait. If hiking, visitors travel for 10 hours on a round trip circuit. If visitors are planning on staying overnight in one of the accommodations located on the mountaintop, it is also possible to hire a sedan chair pulled by two men.

Visitor Numbers

Apart from temples being constructed and access routes built the property remained largely undeveloped until this century. Now some areas are extensively developed. In 1979 there were approximately 280,000 visitors to Huangshan, almost none of which were foreigners. At that time, facilities could accommodate 4,000 visitors overnight. In 1989 visitor numbers roughly doubled to approximately 500,000. The area now receives over one million visits annually. Visitor numbers can be as large as 10,000 visitors per day on holidays such as International Labour Day (May 1st) and National Holiday (October 1st).

Management Concerns

The large numbers of visitors that ascend Huangshan Mountain is a major management issue. A second management issue relates to migration to the area. Numerous farmers have moved to the area to reap benefits associated with tourists (e.g. opportunities to earn money). Huangshan is one of many places throughout East Asia where migration to parks is occurring at a fast rate.

Tourism development in Huangshan Mountain Scenic Spot offers important economic opportunities to farmers who live around the park. Thousands of farmers go to the mountain scenic spot to sell various services and products. Potential negative impacts include environmental problems (e.g. destruction of forest coverage and reduction of wildlife and wild plant resources) and social problems (e.g. driven by benefits of selling product, some farmers were pushy, forcing visitors to buy their products and sometimes cheating visitors with expensive prices).

Other concerns include water supply, sewage disposal and garbage management. The water supply at Huangshan Mountain is limited. Underground water is the main source of water to the area. Accommodations located in the core visiting area must carry bed sheets down the mountain to be washed and then brought back up. Restaurants in the core visiting area must wash and clean vegetables and other fresh foods outside the core visiting area, and then transport them to the restaurants. Right now the huge amount of farmers and individual businesses going to the area has magnified the problem. Other issues include sewage disposal and garbage. Garbage management and treatment is a problem in East Asia, particularly around tourism destinations.

Actions to Address Concerns

In 1987 the Huangshan municipal government was established in order to provide a unified administration over both the mountain and its surrounding area. Its role is to protect better the natural heritage of Huangshan Mountain, while also developing sustainable tourism options. Conservation regulations adopted in by the municipal government in 1989 resulted in the establishment of the Huangshan Mountain Scenic Spot Management Committee. The management committee is responsible for protection, management and development of the property, including the implementation of the Huangshan Mountain Scenic Spot General Management Plan.

The primary objective of the management plan is to conserve the beauty and natural resources of the site. Issues addressed include pressures of high visitor use, technical capabilities for fire-fighting, communications, environmental monitoring and pollution control. Regulations prohibit harmful activities (e.g. cultivation, collecting wood for fuel, livestock grazing, mining enterprises, etc.). Construction is prohibited within the buffer zone if it is likely to harm the environment. The property is divided into six tourist zones and five protection zones. Scenic resources are graded on a scale of one to three, each grade having its own set of conservation regulations.

"Just as traditional uses of soils, water, plants, and animals – often developed over centuries (or longer) of experimentation to minimise change in a community's biophysical life-support system – may be rapidly degraded by external influences, the community's societal structures are equally susceptible to change by external human forces, whose magnitude and potential impacts are not always predictable."

(Price, 1996, p. 5)

Within the plan, various strategies are being implemented in order to relieve pressure from intense visitor numbers. These strategies include methods to control visitor impacts (as discussed in Section 3.2.6) including guiding visitors' behaviours through education, restricting access or visitor numbers in certain areas, and implementing differential pricing fees.

A key strategy being implemented is to develop the area around Huangshan Mountain in order to relieve pressure from high levels of use on the mountaintop. The mountain environment can be highly sensitive to visitor pressures. Development of areas that are located at lower, less sensitive sites is an excellent way of addressing this concern. An example of such development is in the Yang Lake area near the northern park gate of Huangshan Mountain. Development of areas that are not on the fragile mountaintop can redirect visitors from overcrowded areas and thus relieve some pressure experienced in key areas. It also facilitates day visits to Huangshan Mountain with an opportunity to sleep in the less fragile development areas at night.

In regards to pressures associate with migration to the area, a main goal of encouraging tourism to the area is to improve local economic development. If individual farmers were prohibited from running their business, the conflict between scenic spots and the community would grow stronger, and this ban would also go directly against the purpose of encouraging tourism as a means of improving local economic development. The management committee worked with Huangshan city council to establish and officially announced the existence of the Huangshan Scenic Spot General Management Plan and public proclamation declaring that protection of the area was a primary goal, along with satisfying visitors and meeting local peoples' needs.

The management committee is trying to relocate the farmers down the mountain in 2 to 3 years by educating people, suppressing illegal

businesses and instituting regulations. In order to enhance the local people's knowledge of the public proclamation, the management committee sent education teams to the villages around the park to educate people, and to connect the idea of protecting Huangshan Mountain with tangible benefits associated with sustainable tourism development. If the local farmers benefit from tourism, they will be more likely to support conservation efforts. The management committee also tried to establish concentrated living areas, and arrange other jobs or supplementary money to encourage local people to stop harmful businesses and have their losses supplemented as ways to address the problematic situation.

Now 80% of the farmers who live in and around Huangshan Mountain have become rich. Good relationships between the local community and the park have promoted stability and development of Huangshan Mountain Scenic Spot. The management committee also connected with local government and 23 nearby villages to sign a fire-fighting treaty, and also improved infrastructure including communication and fire-fighting equipment.

This case study reveals the need for a management plan that understands the tourism issues as well as provides options and solutions to these issues. It is critically important to have a competent management agency that is capable of long-term implementation of the plan. The management plan is currently being implemented, and the results and success of the project are being monitored.

Web site: http://www.intohuangshan.com
Email: webmaster@intohuangshan.com

For further information:
Huangshan Scenic Spot Management Committee
Directors: Xuefan Hu and Zhi Li
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People's Republic of China
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   86-0559-5562848

> **Like other uncontrolled forms of migration, rapid tourism development clearly causes problems, and the best counter to this, again, may be found in institutions strongly supported, if not initiated, at the local level, and the sensible implementation of policies that carry a wide range of community approval.**
>
> **(Price, 1996)**

For more information:

The Asia Pacific Mountain Network (APMN) is a regional network consisting of mountain inhabitants, peoples, communities, professionals, planners, and decision-makers. Launched in November 1995 with a grant from the Swiss Agency for Development Cooperation (SDC), APMN works to raise mountain issues at the local, national, and international levels, facilitate dialogue and improved communication between mountain communities and decision-makers, and catalyse global action towards equitable and ecologically sustainable mountain development. It enables distant mountain areas to rapidly share successful interventions and best practices. It also serves as Asia and the Pacific regional node for the Mountain Forum (a global network for sustainable mountain development) which provides APMN members with a direct link to the global mountain community through electronic discussion lists and electronic

conferences in the Asia-Pacific region. The International Centre for Integrated Mountain Development (ICIMOD) based in Kathmandu, Nepal serves as the Secretariat of the APMN and coordinates the network.

Contact Information:
Asia Pacific Mountain Network (APMN) Website:
http://www.apmn.mtnforum.org
Email: info@apmn.mtnforum.org

Mountain Forum Website:
http://www.mtnforum.org/mtnforum/index.html

International Centre for Integrated Mountain Development (ICIMOD)
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4.3   AN IN-DEPTH EXAMINATION OF MARINE ENVIRONMENTS

4.3.1 Defining the Marine Environment

The marine environment is critical to the natural and cultural heritage of the world. Coastal and marine areas are abundant throughout the East Asia region. On a global scale, identification and management of marine protected areas is a recent development in comparison to terrestrial systems. The World Conservation Union defines a marine protected area as any "area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment" (Kelleher, Bleakley & Wells, 1995, p. 2).

The designation *marine or coastal protected area* encompasses a range of areas, from small marine parks assigned to protect a specific endangered species, a unique habitat or a site of historical or cultural interest, to vast reserves that target a whole range of conservation, economic and social objectives (Agardy, 1993). Generally, large protected areas such as multiple-use marine parks embrace a wider range of objectives managed through a more complex set of jurisdictions than small parks. Types of protection include parks, biosphere reserves, and marine sanctuaries (Agardy, 1993).

Coral reefs are among the world's most biologically rich and productive ecosystems on earth. These and related ecosystems such as mangroves, seagrass beds, wetlands and estuaries support a large diversity of plants, animals and habitats. They provide food, minerals, pharmaceuticals, construction materials and many other products. Along with the aforementioned ecosystems, beaches, dunes and cliffs, islands, deep sea and open ocean are also included under the umbrella category of marine protected areas. Despite the valuable contributions made by marine resources to overall human well-being, many marine ecosystems face serious threats, such as overexploitation, pollution, conflicting uses of resources and degradation and destruction of habitat (Hooten and Hatziolos, 1995).

"The nature of the marine environment is such that there are national and international responsibilities for the proper stewardship of the living and non-living resources of coastal and deeper ocean seas and the seabed to ensure their maintenance and appropriate use for the direct benefit and enjoyment of present and future generations. The development of such stewardship requires coordination and integrated management of a number of potentially competing uses at international, regional, national, and local levels"

(Kelleher and Kenchington, 1991, p. 10).

The variety and complexity of threats in coastal zones is large. Examples of direct degradation include over-fishing, debris build-up through ocean dumping, poisoning of marine organisms, wetlands conversion, coastal deforestation, dynamiting of coral reefs, harvesting endangered species and habitat alteration of sea walls, dykes and harbours (Agardy, 1993). Indirect impacts may seem insignificant due to their subtle nature, however, over time they can inflict chronic damage to the environment. Examples include downstream effects of river pollution, nutrient loading of coastal waters from upstream rivers and runoff, changes in ecosystem community structure due to loss of a key species or introduction of a foreign species, and changes in ecosystem functions caused by loss or degradation of a linked critical habitat (Agardy, 1993).

4.3.2 Approaches to Marine Conservation

Effective coastal management must accommodate human needs and potentially conflicting uses in a systematic and comprehensive way (Agardy, 1993). The marine environment is a large and intricately linked system. This means that attempts to conserve it need to focus on more than protecting small individual components or sectors one at a time. The close interaction between the marine environment and the adjoining land "imposes an urgent need for the integration of protected area management and an overall conservation strategy in the coastal zone" (Kelleher et al., 1995, p. 5). Marine protected areas should be managed as part of a broader program. Wherever possible, management of marine protected areas should be coordinated with the management of adjacent land areas.

Kelleher and Kenchington (1991) identify three general approaches to marine conservation:

1. Regulation and management of individual marine activities (e.g., commercial fishing) by specialist agencies, not necessarily with coordination of regulation between different agencies nor coordination of management of adjacent lands

2. Establishment of small marine protected areas that provide special protection for particularly valuable areas within the

broad areas which were subject to regulations in the first approach or to no regulation at all

3. Establishment of a large, multiple-use protected area with an integrated management system that provides varying levels of protection throughout the area. Ideally this approach includes coordinated management of marine and terrestrial areas in the coastal zone and beyond, however due to complexity of boundaries and competition of jurisdictional responsibility, this is not always feasible.

Regardless of the specific approach, an overall management plan for the area is necessary. Similar to terrestrial park management plans, marine park management plans should include a section that addresses human use and tourism influences. General functions incorporated within an integrated management plan include: limiting levels of inputs to the marine environment, establishing sustainable levels of harvesting or resource extraction, and designating areas for reference, research, non-extractive recreation, and subsistence of local people.

In Case Study 10, examples of the multiple considerations that must be addressed in marine park planning and management are outlined for Soufrière Marine Management Area.

The complex interaction of socio-economic and political factors within the communities that use and influence the marine area influences the type of approach that works best for each situation. Australia's Great Barrier Reef Marine Park Act has a single integrative, legislative mechanism that is successful. The best approach usually involves collaboration between many parties across national and international jurisdictional boundaries (Kelleher & Kenchington, 1991). UNEP Regional Seas Programme is an example of a framework that recognises the linkage of management issues. "Usually effective management for protection, conservation and sustainable use of marine environments will require collaboration and co-operation across jurisdictional boundaries within and between several nations" (Kelleher & Kenchington, 1991, p. 13).

4.3.3 Differences Between Terrestrial and Marine Planning

The primary reasons for creating marine protected areas are the same as for terrestrial protected areas, however, differences in the nature of marine ecosystems must be considered.

Marine protected areas are almost always associated with large, dynamic, open ecosystems and where rates of change associated with many important ecological processes involve relatively little time. In contrast, terrestrial parks are usually associated with semi-closed ecosystems dominated by components that are essentially fixed in space and subject to rates of change over relatively long periods of time (Parks Canada, 1994). Events and impacts originating outside the protected area travel more freely through the marine environment. This means that the minimum size necessary for viability is many times larger than minimum viable size of terrestrial reserve.

The water column transports pollutants from far distances (e.g., atmosphere, upstream run-off) making marine protected areas vulnerable to downstream effects. Planners and managers need to be aware of events occurring outside the boundaries of the protected marine area, so that they are able to take action against potentially damaging inputs arriving through the water column. From a positive perspective, because marine populations are more affected through the water column by events originating outside the area, marine ecosystems have a higher capacity to restock and regenerate than terrestrial communities.

On land, most often the habitat that is critical for the survival of an endangered species is protected. This type of protection on land usually receives support. In the sea though species survival is not usually linked to one specific site. This is because species are rarely restricted to a specific habitat location. Several species undertake far-ranging migrations associated with their feeding or reproductive cycles. In the sea, protected area boundaries are not usually based on a specific habitat linked to the survival of a specific species. More often water boundaries are either based on protection of a particularly good example of habitat type with high genetic diversity of species, or protection of critical habitat for

CASE STUDY 10: Multi-stakeholder Involvement in Marine Area Management

Soufrière Marine Management Area (St. Lucia) – An Example of Tourism Management Considerations in a Sensitive Marine Environment

Soufrière Marine Management Area was established in 1994 to protect and manage marine resources, including coral reefs, near the island of St. Lucia in the Caribbean Sea. It is funded by various government agencies, and by the sale of goods, user fees and an active *Friends Group* of volunteers. The park is managed by the Soufrière Foundation and Department of Fisheries, under the guidance of a Technical Advisory Committee comprised of key management authorities and user groups. Each year the park attracts around 3,600 yachts, 5,000 boats, 21,000 snorkellers and 12,000 divers.

The park was created after a lengthy negotiation process between the government, the local fishing community, dive operators and other shore-based interests. The park tourism replaced some of the local reliance on fishing. The fisherman gave up access to near-shore fishing areas in return for other employment opportunities, provision of small business loans, and other economic alternatives. The marine reserve now provides excellent fisheries' spawning and replenishment functions for a much larger area.

The park area is divided into zones, each with an activity profile. Some polluting activities are placed into zones acknowledging the activity. The park managers established a visitor management program, with specific emphasis on controlling the numbers and activities of the divers attracted to the marine resources. Yacht anchoring is restricted to a few selected areas. In these yacht zones approximately 60 mooring stations have been installed for anchoring. Marine biologists have confirmed that some reefs are already showing progress in recovering from previous damage due these management actions.

The park has an active education and interpretation program. Lectures, brochures,

Chris Huxley

video and the internet are used to disseminate information on the park and its use. Private dive operators are required to give specific training and guidance to divers.

The Soufrière Marine Management Area has monitoring programs designed to measure change of the ecosystem in response to human activities and environmental impact. The routine measurements attempt to track environmental, biological and socio-economic variables at key locations in the area over the long term. Research projects are designed to improve knowledge and understanding of the structure and function of the marine ecosystem of the Soufrière coast. They range from studies of coral fish migration to profiles of the Soufrière community.

This Marine Park was granted the 1997 British Airways/World Conservation Union Award for excellence in park tourism. It is a good example of careful community development, multi-stakeholder management, sensitive tourism development, and good planning. The management frameworks allow visitor use without negative impact on the marine resource. As a result of all the efforts, an important marine resource in the Caribbean Sea is protected and well managed.

Web site: http://www.smma.org.lc/

For further information: Soufrière Marine Management Area Box 305, 3 Bay Street, Soufrière, St. Lucia, West Indies. Telephone: (758) 459-5500. Fax: (758) 459-7799

commercially or recreationally important species.

Buffer zones, often applied successfully to terrestrial protected areas, are sometimes impractical in marine protected areas due to the linear nature of some coastal environments, along with heavy established use. Because of the open nature of the marine system, attempts to protect a community or fragile habitat may only be achieved by making protected areas sufficiently large so that some part of the critical community remains relatively undisturbed.

The effects of pollution and over-exploitation are critical concerns in marine protected areas since the gradual alterations they cause on the physical, chemical and biological processes are not often immediately apparent. Critical concerns on land are more often related to habitat loss and fragmentation linked to forestry, agriculture and transportation which are more visible.

On land, management plans usually obstruct the removal of native species, whereas establishment of marine protected areas is often feasible only if controlled

exploitation is allowed to continue in some areas of the protected area. This exploitation must be compatible with the protection of the area. Consideration of continuing human use within and adjacent to marine protected areas should play a role in their selection, design and management. Even though protection without alteration by human activity is often adopted as an acceptable management philosophy to terrestrial areas, it is necessary to embrace a wider number of concepts including preservation, maintenance, sustainable use and restoration of the natural marine environment in the management of marine protected areas.

4.3.4 Legislation for Marine Protected Areas

The complexity of legislation and jurisdictions affecting the marine environment can be challenging. Federal acts, regional acts, and international conventions and accords all relate to the protection and use of marine environments and resources. Close collaboration and co-operation across many jurisdictions and boundaries are necessary for long-term protection of marine environments, especially considering the open nature of the ecosystem and the strong link to upstream terrestrial activities (World Commission on Protected Areas, 1999a).

For some countries, a broad, integrated approach to conservation, management and

Motorized recreational vehicles, such as this jet boat in Hanmer Gorge, New Zealand, can have negative impacts on both the ecology and on the leisure experience of other users.

Paul F.J. Eagles

protection of marine resources is a new or recent endeavour for which adequate legislation may not yet exist. Review and revision of existing legislation and development of new legislation is helpful when developing a management program (Kelleher & Kenchington, 1991). Review helps confirm that legislation concerning living resources provides sufficiently for conservation, and also provides the opportunity to strengthen the capacity to implement conservation legislation.

Declaration and management of new marine protected areas can be achieved through a range of options, from creating new specific purpose legislation to continued use of existing legislation with minor modifications (Kelleher & Kenchington, 1991).

Objectives for education, conservation, recreation and scientific research should be written into legislation. If it is not done, and conservation is not given a high priority, then declaring protected areas may be an empty political gesture. Conservation must be a primary objective in resource management legislation in order to ensure sustained use and enjoyment of the resource (Kelleher & Kenchington, 1991).

Zoning is an essential part of the national marine conservation area management plan (World Commission on Protected Areas, 1999a). Zoning reflects a continuum of protection and use. Types of zoning that are especially effective in marine environments include temporal and vertical zoning, since they provide flexibility and objectivity in harmonising use. For example, temporal zoning could prohibit visitor access to, or commercial fishing near, a particular fish spawning ground, sea bird colony or whale calving area during the reproductive season but allow it throughout other, less critical periods. Depending on the factors involved, the time span may be long-term, seasonal, cyclical or even daily. Vertical zoning at different depths below the water's surface may also be appropriate in some situations where, for example, certain species or habitats require absolute protection while fishing, transportation or recreational uses continue at or near the surface of the water (Parks Canada, 1994).

In other cases, a marine conservation area may encompass an existing protected area where the degree of protection and allowed uses do not correspond precisely to the national marine conservation area zoning definitions. In this situation, where the existing protected area contributes to the overall purpose and objectives of the conservation area, it may be designated as a special-use zone to ensure its function and identity remain intact (Parks Canada, 1994).

Since protected area systems in the marine environment are less developed than terrestrial systems, it may be necessary first to focus on proper system selection and establishment before addressing other issues such as visitor management and sustainable tourism development. Necessary steps for encouraging development and effective administration of a national marine system are summarised in Figure 21. The concepts can also be applied to any terrestrial system to confirm and improve the comprehensive design of the system.

FIGURE 21: Development of National Marine Protected Area Systems

In the context of encouraging development and effective administration of a national marine (or terrestrial) system all relevant stakeholders should:
- Agree on a classification system, including identified bio-geographic regions
- Review existing protected areas, to establish the level of representation of each classification category within those areas
- Determine existing and planned levels of use and the likely effects of those uses
- Identify potential areas consistent with above objectives and determine priorities for their establishment and management
- Develop and implement extensive community education programs aimed at specific groups to stimulate crucial community support and awareness and to achieve substantial self-regulation
- Allocate sufficient resources for development and implementation of management plans, for review processes, for interpretation, for education, for training, for volunteer programs, for research, for monitoring, for surveillance, and for enforcement programs.

(Kelleher & Kenchington, 1991)

4.4   SUGGESTIONS

Suggestions for special areas within the protected area systems in East Asia include:

1. Incorporate any special considerations related to protected area management of fragile high-altitude environments.

2. Recreation groups, such as divers or mountain climbers, can often be key allies in alpine and marine area conservation. Park managers should make special effort to work co-operatively with such groups.

3. Confirm and improve the comprehensive design and effective management of a representative system of marine protected areas.

4. Continuing human use within and adjacent to marine protected areas should play a role in the selection, design and management of marine protected areas. The framework provided by UNEP's Regional Seas Programmes encourages regional co-operation for integrated planning for the use and protection of large marine ecosystems.

5. Marine conservation is often poorly understood by the public. Therefore, high levels of marine conservation education needs to be provided in all marine conservation areas.

6. Many countries in the world are encountering similar challenges with marine and alpine conservation. East Asia park agencies should encourage their managers to establish and maintain contacts with park managers in other countries that have similar conservation challenges. Such contacts can be invaluable for the exchange of valuable management experiences.

5.0

Conclusions

5.1 IMPLEMENTING SUSTAINABLE TOURISM

Striving for sustainable tourism is a challenge faced by all people involved in protected area tourism. Some progress is being made, but a portion of tourism is still unsustainable and is damaging these special areas. Especially in rural areas, short-term economic benefits of mass tourism can cloud the greater long-term benefits of more sustainable forms of tourism. Implementing sustainable tourism ensures long-term benefits to both the environment and communities within.

Necessary elements of sustainable tourism have been highlighted throughout this document. In order for sustainable tourism efforts to succeed, there is a clear need for:
- Combined long-term planning efforts and immediate action
- Ongoing and continual efforts
- Encouragement to adopt sustainable practices
- Communication amongst all stakeholders
- Widespread political and financial support
- Sustainable financing.

The Need for Combined Long-term Planning Efforts and Immediate Action

Making tourism sustainable requires the ability to look to the future and focus on long-term relationships amongst tourism, development and the environment. It also requires the ability to insert this long-term vision into daily efforts that focus on how best to respond to the current tasks and issues immediately facing park managers that day, or week or month.

Long-term planning decisions must be made regarding limits of acceptable use, facility design, energy use, transportation, waste disposal, and available resources when designing tourism facilities and services. These types of decisions will impact the overall, long-term tourism development of a site. For example, deciding upon limits of acceptable use will determine the types and amounts of infrastructure that is required within the park. This infrastructure will be in place for years to come. Decisions such as these are often very complex, and it is good to seek opinions and assistance from a broad range of other people during the decision-making process.

Long-term planning, such as establishing limits of acceptable use, affect how a site is developed. This bridge, which is a structure in Fushan Botanical Garden in Taiwan, was designed to accommodate the 400 people granted entrance per day.

Other decisions need to be made as a result of issues, conflicts or situations that are presently occurring and have caught the attention of park managers. For example, if a visitor accidentally starts a fire that begins to burn out of control, the park manager must deal with this situation immediately. Unplanned developments of this sort are an expected part of routine tasks and problem solving. Another example involves the distribution of management funds. Each year the park manager must examine the available budget, prioritise projects, and designate funds accordingly. These types of decisions affect immediate and short-term situations in the park, and are often made by the park manager alone, or in consultation with a small number of others. These decisions are often reactionary rather than designed with forethought. When dealing with current management situations on a regular basis, it is possible to forget to refocus on the long-term issues and vision of the future as well. Park managers must try to achieve a balance between focusing on long-term planning and tasks that require immediate doing.

The degree to which different decisions support or impede sustainability of the project varies. For example, it may be cheaper to use non-local material, but benefits of using local building material may be increased harmony with the environment. On the other hand, using local material may have a local negative environmental impact if the required materials are scarce. Whatever choice is made, it will impact sustainability of the area. Decisions such as this one are partially based on individual judgement. Sometimes park managers must be able to consider the various issues and make

As noted in the introduction, Taiwan refers to Taiwan, Province of China.

a decision without much guidance. Fortunately, guidelines, frameworks and other sources are available to assist in the decision-making process.

While some decisions are based largely on individual judgement, others are based on regulations or restrictions. For example, if developers are legally required to conduct an environmental impact assessment as part of the approval process for development, the decision to conduct such an environmental impact assessment may mean that developers are simply following the rules. If they do not conduct one, it is easy for park managers to make the decision to not accept the proposal, since the regulation was not fulfilled. It is the responsibility of every individual, organisation and business to act in an ethical and conscientious manner when making decisions that will possibly affect the local people, the tourists and the environment. Government legislation and policies can be created to encourage unwilling participants to think about the impacts that today's choices can have on tomorrow's outcomes.

Long-term planning ensures that the future is considered during the decision-making process. Focusing on long-term planning encourages decision-makers to ask the question "How do we want this area to be twenty years from now?" A common vision can be determined, and referred to when choosing between alternative paths upon which to proceed. Identifying short-term and medium-term goals as *action steps* or benchmarks for long-term planning enables stakeholders to prioritise the areas of the project where energy and finances are to be concentrated. Often there is not enough money, time or staff available to accomplish an ideal amount of change. An old adage advised that a journey of a thousand miles begins with the first step. It is necessary to identify the resources that are currently available, and then allocate where they are most needed in order to begin the process of consciously choosing to plan and manage protected areas in a sustainable manner. These immediate choices can be guided by overall long-term goals that act as reminders of desired future accomplishments.

As illustrated through the case studies presented in this document, different projects advance at different rates, and each situation has different strengths and areas for improvement. A balance must be created between long-term visionary planning and immediate actions that fulfil present needs. Although immediate action is often used to address some pressing needs, hopefully some portion of immediate actions involve consideration of how the present actions will impact the natural and human dimensions of the area in the long term. Through this, a sustainable planning and management process will occur. The process should be aimed at improving and/or protecting the environmental, social, economic and cultural elements in any given location.

The Need for Ongoing and Continual Efforts

"A structured and well-planned approach is essential if tourism in and around protected areas is to become sustainable" (FNNPE, 1993, p. 60). The 15-item checklist for developing a sustainable tourism action plan outlined in Figure 12 offers a set of guidelines or a framework to support proper and effective planning of new and existing tourism developments within parks and protected areas. It is through the continual and ongoing application and revision of this framework that sustainable tourism developments are achieved.

Do not think of sustainable tourism as a checklist where items can be checked off and are not referred to again. Instead, think of it as a never-ending dance that revisits the same important elements (outlined in Figure 12) to the process time and time again. These issues need to be examined repeatedly to assess their current state (which changes continually if efforts are being made to induce change) from the perspectives of both long-term vision and immediate action.

Understanding the theory behind sustainable tourism development is one accomplishment. It is possible to read this document and understand the concepts being discussed. A more difficult accomplishment is to transfer the theory successfully to real situations in real locations.

Efforts to apply sustainable development concepts are being made throughout the world. A small portion of projects have successfully adopted sustainable tourism concepts and applied them to all major domains of operation. Examples of such projects include the four international case

studies that illustrate outstanding park tourism, as well as the Mai Po case study. It is very likely that the valuable natural, cultural, social and economic integrity of these areas will remain intact based on the current situations that exist. However, no project is ever at the point where no further efforts for improvement need to be made. Once the project is running smoothly, more efforts can be invested in monitoring and evaluating the success in different domains. Also, unexpected changes sometimes occur for which adjustments will need to be made.

Many projects are still working to apply sustainable tourism concepts to the various domains of operation. The levels of success vary between different aspects of any particular project. Some domains of operations will be well developed, whereas other domains will still need considerable efforts before a sustainable state is reached. For example, limits of acceptable change may be well understood and applied to planning and management of a particular site. However, the site may rely on government funds as its sole source of income and the amount the government provides is insufficient. An area of improvement at this site would be to broaden methods of generating further income. Case studies from East Asia were used to highlight strong aspects of various projects. In many projects, some aspects of sustainable tourism development are running smoothly while other aspects still need more work. Efforts to create sustainable tourism must be ongoing since there are so many domains that need work. It is important to recognise sustainable tourism development as a process rather than a one-time event.

The Need for Encouragement to Adopt Sustainable Practices

Whenever any person actually pauses from the hectic world that is driven by profit and productivity and steps out of the self-centred, self-important roles to which humans unconsciously assign themselves, it becomes highly evident that our planet is in peril. The earth's natural spaces are being consumed at an alarming rate by development, urban sprawl, pollution, farming, and other human activities. Ideally, the realisation occurs to each person that without drastic and immediate action, the world that is passed to our

"In the end we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught."

– Baba Dioum

grandchildren will look very different. This should be sufficient motivation to change the damaging and thoughtless behaviours that are destroying areas rich in natural and cultural significance. Unfortunately, this realisation is not universal, and there are many barriers on the path to adopting sustainable practices.

Motivation to pursue sustainable practices can be derived from the realisation by stakeholder groups that, once established, sustainable tourism will generate resources for conservation of the protected areas and for the local economies. Emotive and logical reasons that motivate people to take action to change sometimes do not produce sufficient momentum to successfully work through barriers. For example, a lack of resources to begin the project may prevent people from even thinking about how to make their operations and decisions sustainable. In some situations, change is desired, but there is no hope or understanding of how to transfer the idea into reality. Understanding the importance of adopting sustainable practices is a good start.

One incentive to adopt sustainable practices is provided through learning about how people will benefit from their efforts. Intrinsic motivation (e.g., desire to do that which is best) is usually not sufficient on its own to change peoples' actions. Other incentives must also be used. Especially for projects that are being converted from traditional non-sustainable forms of tourism, short-term resources and incentives may be necessary in order to speed up the process and repair damage that has already occurred. Incentive measures are one way to encourage local people, tourism operators and other stakeholders to adopt sustainable tourism practices. It is possible to create inducements that are specifically intended to motivate government, local people, and international organisations to conserve biological diversity. Incentives are used to divert resources such as land, capital, and labour towards conserving biological resources and to facilitate the participation of certain groups or agents in work which will benefit these resources (McNeely, 1988).

A desirable option is to involve local communities as early as possible during the planning stages. A fundamental assumption behind incentive measures is that they influence the decision-making process,

which means that input from relevant stakeholders is necessary throughout the review, design and implementation process. Environmental and cultural conservation should always remain the top priority, since without the precious wildlife, landscapes, and cultures, the very foundation of tourism will be lost.

For further information…

A technical paper on incentive measures (Bagri & Vohries, 1999) entitled, *Incentive Measures to Encourage the Application of the Wise Use Principle*, urges contracting parties to the Ramsar Convention on Wetlands to review their existing, or evolving policy, legal and institutional frameworks. They were are encouraged to identify and promote those measures which encourage conservation and wise use of wetlands and to identify and remove any counterproductive measures. The paper presents a useful table of categories of instruments or measures available for the conservation and sustainable use of biological resources. Three general categories (tax policy, enforcement, institutional mechanisms) have various sub-categories, for which there are several instruments available. The paper can be accessed online at web site: http://ramsar.org/cop7_doc_18.3_e.htm

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Long Point Provincial Park, Ontario, Canada. Parks provide valuable resources for all levels of environmental education for school children, including advanced education in ecology for university students. Here Professor Eagles provides instruction in sand dune ecology.

The Need for Communication Amongst All Stakeholders

Communication is a key element to achieving success in the process of establishing sustainable tourism practices. First, it is important that governments and institutions provide a method for effective and ongoing communication between higher authorities (e.g., head offices in government agencies) and park staff at individual sites located throughout the jurisdiction. One aspect of achieving operating effectiveness within the government or agency is to create open communications between employees, which facilitates the sharing of goals, problems and concerns, and potential solutions.

Looking beyond any specific institution or group, protected area managers, tourism business staff and local people need to make frequent efforts to communicate with one another. Through communication, each other's needs and concerns can be expressed and understood. They can be taken into consideration when negotiating decisions related to the tourism and management of the park and surrounding areas. Ongoing communication makes it possible to build working partnerships. It also develops a closer working relationship that facilitates skill and knowledge contribution from all interested parties towards the ongoing planning and management of the area. Often, more can be accomplished in partnership than through unconnected individual efforts.

Examples where efforts are being made to design new projects or convert existing situations into sustainable tourism need to be shared amongst professionals on a national and international level, at conferences, workshops, and other meetings. The East Asia meeting of WCPA members provides one such venue for valuable knowledge-sharing opportunities. Attempts by individual park managers or tourism operators to convert tourism practices in protected areas to sustainable ones are an essential component. Political and financial support for sustainable tourism from higher authorities at a system-wide level is also critical.

The Need for Widespread Political, Institutional, Legal and Financial Support

All parks and protected areas function within a society. They are established by government laws and regulations. Funding usually comes mainly from government. Local people are impacted by park decisions. Local visitors and tourists spend scarce money and time on their visits. Companies and individuals that provide services to the park are very interested in the park and its policies. Clearly, the park and all its policies are critically dependent upon the support of many groups and stakeholders, such as governments, local people, and tourists.

If parks and protected areas are to thrive, they must have sufficient financial resources and sufficient staffing and political resources. None of this can exist without public support. Parks must have public support. Therefore, it is critical that park managers and other park supporters make it a high priority to help the park gain widespread political, institutional, legal and financial support.

The most critical group of all is the park visitors, the tourists. These people must be sufficiently satisfied with the park, its environment, programs and facilities, to become motivated supporters. If the park develops a sufficiently-large, motivated constituency of park visitors, it will soon gain political support from governments. The park visitors will make it their business to inform government officials of the value and the needs of the park. The visitors will also take on the job of protecting the park from the assaults from non-sustainable activities such as resource extraction. The visitors will help fund the park through the payment of fees. They may lobby government for more funds when the needs of the park become obvious to them. They become a key part of the park's political structure.

How can the park gain the support of its visitors? When people visit the park they must be given opportunities to learn about the unique and important environments that exist there. It is important that visitors feel special, feel connected to the unique environments and cultural resources of the site. The site's environmental and cultural significance must be emotionally connected to the life of the visitor. They must come to accept some responsibility for the park's

"Just as land and resource development must be environmentally sustainable to meet long-term objectives for improving human welfare, so conservation efforts must be financially sustainable to ensure long-term environmental protection and continuous benefits."

(Hooten and Hatziolos, 1995, p. v)

protection. With abundant opportunities for park interpretation, environmental education, school education and consultation in decision-making, people will gain a life-long love and respect for the park and its special resources. When sufficient numbers of people have such feelings, then political, institutional, legal and financial support should follow.

Allocation of financial and human resources by national and jurisdictional governments is currently insufficient in many areas of East Asia, and greater political and financial commitments must be made. A critical step towards gaining these commitments is the development of a mobilised constituency of interested and committed park visitors.

The Need for Sustainable Financing

All planning and management actions are only possible if sustainable financing exists. It is necessary that every protected area have a realistic budget. Without a sufficient budget for basic and essential operating costs (e.g., wages, vehicles, building maintenance), in the long term, no protected area can succeed. A secured minimal annual budget supplied by the protected area government agency frees staff to seek additional project funding from other sources. If funds are not sufficient to cover basic operating costs, it is more difficult to attract high calibre professionals to manage parks and work within the protected area system.

Government budgets are limited, and often the funds that are available from government agencies who manage protected areas are not sufficient. It is necessary to develop innovative approaches and to form partnerships to generate sufficient funds so that sustainable financing occurs. Hooten and Hatziolos (1995) and IUNC (1996) discuss methods of generating finances, which include:
- Challenge grants where governments promise to match private donations
- Farm partnerships with non-government organisations and the private sector
- Hold annual donation campaigns
- Use tax incentives, such as tax deductions for donations to protected areas, or tax charges for development projects that result in losses of biodiversity
- Collect *rent* for resource uses from fisheries or tourism

- Sell attractive items such as publications, videos, badges and other souvenirs
- Conduct research that evaluates and publicises the economic benefits of protected areas and feasibility of integrated conservation and development
- Establish and utilise trust funds.

Parks, for example, can generate funds through tourist levies, entry charges, royalties and user fees. As well, private and voluntary sectors can be encouraged to invest in the park system. International organisations and the tourism sector are also able to contribute funds towards sustainable nature-based tourism efforts.

For further information...

For an excellent source of information about developing political and financial support, refer to *A Regional Action Plan for Protected Areas in East Asia* (IUCN, 1996). Also included in this report are chapters discussing the legal framework, improving management, boosting training, developing public support, and working together. For in-depth information on protected area financing, refer to the IUCN publication on *Guidelines for Financing Protected Areas in East Asia* (2000), produced in conjunction with this publication.

5.2   SUGGESTIONS

When considering key elements from Section 5.1 that are necessary for successful adoption of sustainable development practices, overall suggestions for achieving sustainable tourism practices include:

1. Sustainable tourism practice is a long-term commitment. Think long term, but also set realistic short and mid-term goals to be accomplished. Individuals, businesses and organisations must be aware that benefits are long term. Do not expect to experience benefits immediately once the first efforts to establish sustainable practices are implemented. Instead, expect to experience only a small portion of benefits soon after tourism development, and larger portions of benefits only after three or four years of continued effort.

2. For assistance, refer to Figure 12: Checklist for Developing a Sustainable Tourism Action Plan for Protected Areas. However, do not think of sustainable tourism as a checklist where items can be checked off and never referred back to again. Instead, think of it as a never-ending dance that revisits the same important elements to the process time and time again.

3. Develop incentive measures that will influence the decision-making process. Create inducements that are specifically intended to motivate government, local people, and international organisations to conserve biological and cultural diversity. Review existing legislation and economic policies to identify and promote incentives for the conservation and sustainable use of the resources, stressing removal or mitigation on incentives that threaten biological diversity.

4. Make ongoing efforts to communicate with all stakeholders, including government agencies, tourism organisations, non-profit organisations, private businesses, and other constituencies.

5. International organisations need to encourage governments to make improvements in the following critical areas:
   - Support for effective legislation, with adequate resources for implementation
   - Development of a management plan for each protected area, covering all activities, including tourism, to ensure that objectives are achieved and resources are well used
   - Creation of national policies on protected areas and the management of tourism (as well as education about the environment and conservation).

6. Invest and assign some tourism revenue to local communities, so that local people see direct financial benefits from park tourism.

7. Allocate sufficient funds for effective planning and management of protected areas, including the management of tourism. A professional management team should be in place, with funding, before the area is opened to tourism.

8. Ensure every protected area has a realistic budget.

9. Encourage creative and innovative methods for raising revenue for protected areas.

5.3 PARK TOURISM PLANNING AND MANAGEMENT: A SUMMARY

Tourism is a dynamic industry, and strategies must be flexible and able to respond to changing situations. The process undertaken to develop strategies, codes of conduct or other actions is more important than finding a *correct* answer. There are no definitive answers. Only the desire to strive towards sustainability.

The various concepts and issues that have been discussed throughout this document have the power to influence significantly the thoughts and actions of those involved in the protected area and tourism industries. Various key concepts have been discussed, and some specific suggestions have been identified. A summary of the suggestions made within the document is found in Appendix H. Contained within the pages of this document, one cannot find all the answers. In fact, the only thing that becomes entirely apparent is the high degree of complexity and intricacy of humankind's interactions with our environment and each other.

When trying to adopt sustainable tourism practices for protected areas, it is important to integrate (versus separate) environmental, social and economic development. Striving for sustainable development integrates decision-making and demonstrates that the elements can be mutually supportive and advantageous. Integrated planning for a successful sustainable tourism venture within an overall management plan involves:
- carefully defining objectives
- understanding the natural resources base and ecosystems
- understanding land ownership, resource management and use patterns
- understanding the park visitor
- understanding threats to the ecosystems
- designing an ecotourism strategy as part of an overall land and water management plan, and
- preparing detailed plans for development
- attaining sufficient funds to implement the plan and manage the park (Wight, 1996).

No easy step-by-step answers can be provided. Each site and each situation will be unique. Instead, using the concepts and issues presented as tools, all professionals involved in any aspect of conservation of protected areas need to continue to interact with local people living in and near these areas and other organisations working in related fields. As professionals and as human beings, it is our responsibility to seek out paths and solutions that will be beneficial today, but that will also preserve our environment for future generations. The process of interacting and communicating with fellow humans from different backgrounds, interests, knowledge and perceptions enables situations, concerns, visions, alternative courses of action and potential impacts to be identified and shared. Often it is this journey which is infinitely more valuable than the specific tangible outcomes produced as a result of the process. It is hoped that the knowledge contained within this document is a useful companion along each unique journey.

6.0
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7.0
Appendices

APPENDIX A:
Park and Protected Area Stakeholders

Parks and protected areas have identifiable stakeholders that are interested in various aspects of park tourism. All of these stakeholders are interested in participating in the various planning and management functions associated with park tourism. Examples of stakeholders include:
• Park managers
• Park volunteers
• Park visitors
• Governments
• Allied and competing government agencies
• Profit-making private sector
• Non-governmental organisations (NGO's)
• Local community
• Native community
• Educational institutions
• Research bodies
• Media
• Park employees
• Tourism operators
• Concessionaires, licencees and permit holders
• Residents with private inholdings (private land parcels within the park)
• Resource extraction interests.

APPENDIX B:
Definition of Terms for Park Visitation and Tourism

For the comparison of public use measurements, over time and between sites, it is necessary to adopt a standard set of definitions of the terms and concepts involved. The following definitions comprise the basic terms that describe public use of parks and protected areas. The definitions are grouped as they relate to each other, rather than in alphabetical order.

A) **VISITOR:** a person who visits the lands and waters of a park or protected area for purposes mandated for the area. A visitor is not paid to be in the park and does not live permanently in the park.

Typically, the mandated purpose for the visit is outdoor recreation in natural parks and cultural appreciation for historic sites.

B) **VISIT:** a measurement unit involving a person going onto the lands and waters of a park or protected area for the purposes mandated for the area.

Each visitor who enters a park for a purpose mandated for the area creates a visit statistic. Typically, the visit statistic has no length of stay data associated with it. However, the collection of additional data on the length of stay of a visit allows for the calculation of visit-hour and visit-day figures.

The purposes mandated for the area typically are recreational, educational or cultural. Non-mandated purposes could include passage through the park on the way to a site outside the park, or entrance by park maintenance vehicles. This definition of visit means that if a person leaves the park and re-enters at a later time, then a second visit data unit is recorded.

C) **VISITATION:** the sum of visits during a period of time.

Visitation is usually summed for use at periods such as daily, monthly, quarterly or annually.

D) **ENTRANT:** a person going onto lands and waters of a park or protected area for any purpose.

The entry figure for a park is typically larger than the visit figure. The entry figure

includes data for all recreational or cultural visits as well as data for people who are in the park for activities not related to the purposes mandated for the area. For example, the entrant figure may include park visitors, plus those just driving through, local people who may pass through a corner of the park, or the daily activities of park workers. These non-visitors are usually not there for recreational or cultural purposes, but their use of park resources, such as roads, do have an impact and therefore their activities are worthy of note.

E) **EXCLUSIONS:** park or protected area use which is not visitation for statistical reporting purposes.

For park management purposes, it is useful to record all entrants to the park. Later, for a variety of reasons, some types of entrants may be subtracted from or excluded from the figures that are reported as park use. Even though all entrants to a park have some degree of impact, there are reasons to exclude some types of use from that reported as park visits. Entries that are usually not considered park visits include traffic from commuters along major roads or railways crossing the park, traffic of attendees at non-park related activities (craft shows, races, or civil ceremonies), and traffic from residents of villages surrounded by park land. Traffic for which counts are adjusted includes traffic of individual residents, movement of park employees, volunteers working on park activities, travel of concessionaires and their employees, and the travel of tradespeople delivering supplies to the park. Also excluded is brief traffic across short sections of park land or waters, persons engaged in the pursuit of specific legal rights such as subsistence hunting, fishing, or native ceremonies. Sometimes law or policy dictates the type of traffic that is required to be reported, such as cruise ship passages, aircraft overflights, or commercial fishing use.

Examples of common exclusions include:
- trips by **tenants or residents** within park boundaries (including guests),
- travel by **employees** of, **volunteers** at, or **contractors** to the park (including concessionaires and their employees),
- brief, **incidental passage** into the park by pedestrian or vehicular traffic, and
- persons engaged in the pursuit of specific **legal rights of use** (e.g., subsistence

hunting and fishing, traditional ceremonies), unless there are legal or official requirements to report.

Most excluded traffic is of a type that can be issued identification, such as with windshield stickers, to facilitate passage and to help park staff keep track of the traffic volume. It is important to keep track of the exclusions, so this data may be subtracted from the total entry counts that may have been derived from manual counters such as road counters.

For management purposes, data on the exclusions can be useful in its own right. For example, tenants at private cottages in the park may use the roads. Knowledge of this use is important for maintenance purposes. Similarly, data of the levels of subsistence fishing in the waters of the park is needed for fisheries management purposes. Therefore, it is important that all data on all use be documented.

In high use areas it may be difficult to detect recreational use from activities normally excluded. Visitor studies of a sample of the park users may be necessary to ascertain the reasons for use.

F) **CALCULATIONS:** determining or refining visitation by mathematical conversion of counts, partial counts, study data, recorded observations or judgement. Common types of calculations are given below.

Adjustment, meaning a change of a visitation or entries count to remove exclusions, e.g., a traffic count might be reduced by 25% to adjust for local traffic that is just passing through.

Correction, meaning a change of an instrument reading to reflect error that has been determined by independent calibration (by visual, multiple instrument counting, etc.).

Constant, meaning a fixed number for minor volumes of activity determined by a one-time measurement, a special study, or the judgement by staff.

Approximation, meaning a number assigned to an uncounted area based on measurements at nearby or comparable areas, where studies have determined the relationship between the two sites.

Estimate, meaning a number derived from a methodical computation based on regular but partial counts. An example is a figure of 2.3 persons per car, an estimate based on a

one-week sample gate count collected at the beginning of the peak season.

Substitution, meaning the use of a previously recorded number for an area when current data are temporarily unavailable, for example when the traffic counter is temporarily broken. An example might be the use of the number from the same month the previous year.

Conversion, meaning the change of a number from one indicator to another. Several conversions are typically made. It is common to convert from visit hours to visit days, for example one person may stay for four hours, which converts to .33 visitor days when one is using a definition of 12 hours for a visitor day. Another conversion is from visitor nights to visit days. Since many campers or lodge users stay for an entire 24-hour period, it is common to equate one visitor night, of 24 hours, as being equal to one visit day of 12 hours. Many agencies simply count the number of entrants to a park, without recording the length of stay for each entrant and without checking to see if the entrant is really a visitor. To convert entrants to visits, it is necessary to find the number of entrances that are not related to the park. This can be done by sampling the stream of traffic entering the park and asking the people the reasons for their entry. Once the sample data is obtained, the percentage of entrances that are really visits can be calculated, then multiplied by the entire entrance data set to get the actual visitor numbers. Similar logic can be applied to finding visitor hours. Sample surveys of visitors can be done to find the average length of stay. This average length of stay can then be multiplied by the total visit figure to get visitor hours.

G) **COUNT:** the direct observation and immediate recording, measurement by instrument, or recording by registration form (such as fee collections) of park or protected area use.

H) **VISITOR NIGHTS:** the count of persons staying overnight in a park or protected area for a purpose mandated for the area.

Typically people stay in the park either in a lodge or in a camping area. Many parks record data on such use as bed nights or camper nights, figures comparable to visitor nights.

I) **ENTRY NIGHTS:** the count of persons staying overnight in a park or protected area for any purpose.

Entry nights data are larger than visitor nights data. Entry nights include all visitor nights, plus the nights of people who are not visitors. For example entry nights might include the data of overnight stays of park staff or concessionaire employees.

J) **VISITOR HOURS:** the total length of time, in hours, (both continuous and intervals) that visitors stay in the park while visiting for a purpose mandated for the area.

K) **ENTRY HOURS:** the total length of time, in hours, (both continuous and intervals) that visitors and entrants stay in the park for any purpose.

L) **VISITOR DAYS:** the total number of days that visitors stay in the park.

The visitor day figure illustrates levels of park use. It is calculated for comparative purposes between sites and between time periods. Visitor day data can be recorded directly from the visitors. For example, in some parks all visitors sign in and sign out of the park, thereby providing very accurate records on length of stay. However, such precise data is rare. Therefore, the visitor day figure is usually calculated from visit figures multiplied by the length of park stay. The length of stay is often an average figure derived from visitor surveys of a sample of visitors. A "visitor day" is often defined as 12 "visit hours" of park use, however this varies amongst agencies. The total visitor day data is generated by the addition of various lengths of stay. Small parks and historic parks may have short average lengths of stay, say three hours, which means that it will take several visits to add up to one "visitor day." Large national parks often have long periods of stay, say three days, which means that a single visit constitutes more than one "visitor day." The visitor day indicator makes a comparison possible between historical and natural sites, between different park systems and between different countries.

M) **TOURIST:** a person travelling to and staying in a place outside their usual environment for not more than one consecutive year for leisure, business and other purposes.

The definition of a tourist involves two elements, travel of a certain distance from home and a length of stay. For most parks a portion of the visitors will be tourists, the rest being considered local residents. It is often useful for the park's visitor management personnel to report on the percentage of park visitors that are tourists.

The definition of tourist varies amongst countries. Consultation with the national tourism body is necessary to ensure that the collection of visitor data from a park can be done in a way that is consistent with the collection of tourism data for the country.

CONSISTENCY WITH NATIONAL TOURISM STATISTICS

It is important that data on park visitors be defined and collected in such a way that it is consistent with the broader tourism data collected for the country. For example, one key aspect of the definition of a tourist is the length of travel from home to the visitation site. However, this varies. Canada typically uses an 80-km distance (50 miles), but the USA typically uses 160 km (100 miles). Therefore, the designers of data collection effort in a park system need to be aware of both the national and the international approaches. The World Tourism Organization developed guidelines on international tourism. These guidelines were subsequently adopted by the United Nations Statistical Committee and published in report format. Appendix C contains a more complete set of tourism definitions.

Source: Hornback & Eagles (1999, p. 8-11).

APPENDIX C:
International Tourism Terminology

A strong statistical base is essential for a good understanding by governments, industries, academia and the public of tourism's contribution to the social, cultural and economic development of a country. For the comparison of tourism measurements in different jurisdictions, it is important for standard definitions to be used. Listed below are the standard tourism definitions accepted by the United Nations Statistical Commission.

Tourism: the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes.

Domestic Tourism: involving residents of a given country travelling only within their own country.

Inbound Tourism: involving non-residents visiting a country other than their own country. It is essential to classify visitors by country of residence rather than by nationality.

Nationality: the government issuing the passport (or other identification document), even if the person normally resides in another country.

Outbound Tourism: involving residents travelling in another country.

Internal Tourism: comprises domestic and inbound tourism.

National Tourism: comprises domestic tourism and outbound tourism.

International Tourism: consists of inbound and outbound tourism.

International Visitor: any person who travels to a country other than that in which he has his usual residence but outside his usual environment for a period not exceeding 12 months and whose main purpose of visit is other than the exercise of an activity remunerated from within the country visited.

Domestic Visitor: any person who resides in a country, who travels to a place within the country, outside his usual environment for a period not exceeding 12 months and whose main purpose of visit is other than the exercise of an activity remunerated from within the place visited.

Overnight Visitors: visitors who stay at least one night in a collective or private accommodation in the place visited.

This definition includes cruise passengers who arrive in a country on a cruise ship and return to the ship each night to sleep on board even though the ship remains in port for several days. Also included in this group are owners or passengers of yachts and passengers on a group tour accommodated in a train.

Same-day Visitors: visitors who do not spend the night in a collective or private accommodation in the place visited.

Tourism Expenditure: the total consumption expenditure made by a visitor or on behalf of a visitor for and during his or her trip and stay at a destination.

To obtain the full report, titled *Recommendations on Tourism Statistics*, contact the World Tourism Organization at omt@worldtourism.org. The report presents a conceptual framework, classification system and an overview of future challenges.

Source: United Nations and World Tourism Organization (1994).

APPENDIX D:
Characteristics of Ecotourism

According to Butler (1992), there are eight characteristics that an activity should meet in order to be considered ecotourism:

1. It promotes positive environmental ethics (fostering preferred behaviour in its participants).

2. It does not degrade the resource (e.g., fishing may be part of wildland (green) tourism but is part of adventure tourism). No consumptive erosion of the natural environment occurs.

3. It concentrates on intrinsic values rather than extrinsic. Park facilities are used to facilitate the visitors' experience with the intrinsic resource but they do not become attractions in and of themselves nor do they distract from the natural attraction itself.

4. The philosophy is biocentric rather than homocentric. Visitors accept the environment on its terms rather than expecting to change it or have it modified for their convenience.

5. It must benefit the wildlife and environment. Ways to measure benefits include socially, economically, scientifically, managerially, or politically. There should be a net benefit to the sustainability and ecological integrity of the environment.

6. It is a first-hand experience with the natural environment. This means movies and zoological parks do not offer an ecotourism experience. Visitor centres and interpretive slide shows do when they direct people to a first-hand experience.

7. It has an "expectation of gratification" measured via education and appreciation rather than thrill seeking and physical achievement (such as in adventure tourism).

8. It has a high cognitive and effective experiential dimension. Ecotourism involves a high level of preparation and knowledge from both leaders and participants, and the satisfaction derived from the experience is felt and expressed strongly in emotional and inspirational ways.

Source: Butler (1992, p. 6).

APPENDIX E:
Operational Policies for Tourism of the United States National Park Service

The 1995 White House Conference on Travel and Tourism established a basis and framework for closer co-operation and mutual understanding between land-managing agencies and the tourism industry. Regional and state tourism conferences have brought park managers and tourism operators together. This dialogue has fostered many of the principles incorporated in the following operational policies:

It is National Park Service policy to:

4.1. Develop and maintain a constructive dialogue and outreach effort with state tourism and travel offices, and other public and private organizations and businesses, using a variety of strategies, including but not limited to memberships in organizations, participation in conferences and symposia, and internet-based information resources.

4.2. Collaborate with industry professionals to promote sustainable and informed tourism that incorporates socio-cultural, economic, and ecological concerns, and supports long-term preservation of park resources and quality visitor experiences. This collaboration will be used as an opportunity to encourage and showcase environmental leadership by the Service and by the tourism industry, including park concessioners.

4.3. Encourage practices that highlight America's diversity and welcome park visitation by people of all cultural and ethnic backgrounds, ages, physical abilities, and economic and educational means.

4.4. Foster good relationships with park neighbors by promoting visitor and industry understanding of, and sensitivity toward, local cultures, customs, and concerns.

4.5. Provide cost-effective park visitor orientation and information services to visitors in parks and, as funding and partnerships allow, at the visit planning stage, at park gateway communities, and at appropriate threshold locations within park units.

As part of this effort, the Service will work to ensure that all who provide information to visitors are well informed and provide accurate information about park activities and resources, including current conditions and seasonal variations.

4.6. Pursue practices, such as the use of universal design and the inclusion of metric measures on signs and printed media, that will contribute to the safety and friendly accommodation of all visitors.

4.7. Encourage visitor use of lesser-known parks and under-utilized areas; use during non-peak seasons, days of the week, and times of the day; and visitation to related sites beyond park boundaries, as appropriate, to enhance overall visitor experiences and protection of resources.

4.8. Specifically address long-term tourism-related trends and issues, and their implications for park plans and management decisions.

4.9. Represent park needs and realities during the preparation of plans and proposals for gateway community services and park tour operations that could impact park visitation, resources, visitor services, and infrastructure support.

4.10. Promote positive and effective working relationships between park concessioners and others in the tourism industry to ensure a high quality of service to park visitors.

4.11. Identify desired resource conditions and visitor experiences, and work to establish supportable, science-based, park carrying capacities, as the basis for communicating acceptable levels and types of visitor use, recreation equipment use, tours, and services. Carrying capacities are defined for each park as an outcome of the National Park Service planning process.

4.12. Participate in and monitor travel industry research, data gathering, and marketing initiatives to ensure that the Service is fully informed of demographic changes and visitor trends.

4.13. Work with partners to provide timely, accurate, and effective park

information, and to ensure that realistic situations and safe, resource-sensitive, recreational practices are depicted in promotional materials and advertising. This includes providing appropriate information as early as possible to the tourism industry regarding changes in operations and fees.

4.14. When feasible, and consistent with park resource protection and budgetary needs, schedule construction, repairs, and resource management practices, such as prescribed burns, in ways and at times which keep key visitor attractions and services accessible for public use during peak visitation periods. This will help to minimize adverse impacts on visitors, as well as on park-visitor-dependent businesses.

4.15. Establish and maintain lines of communication and protocols to handle the impact of park emergencies and temporary closures so that state tourism offices and the public, including tourism communities and tourism-related businesses, have the best and most current information on when park services will be restored.

4.16. Inform visitors, state tourism offices, gateway communities and tourism-related businesses about current conditions of key park resources and current protection and recovery/restoration measures. Establish a common understanding on what is needed to ensure adequate protection of those resources for present and future enjoyment and how this can contribute to sustainable park-related businesses and economies.

4.17. Develop new partnerships to help implement Service-wide priorities, and seek partnership opportunities with the industry to fund products and programs mutually beneficial to accomplish National Park Service mission goals.

Director's Order #17: National Park Service Tourism
Approved: Robert Stanton, Director, National
  Park Service
Effective Date: September 28, 1999
Sunset Date: September 28, 2003

APPENDIX F:
Limits of Acceptable Change Framework

The Limits of Acceptable Change Framework utilised by the United States Forest Service consists of four basic components:
1. Identifying acceptable and achievable social and resource standards
2. Documenting gaps between desired and existing circumstances
3. Identifying management actions to close these gaps
4. Monitoring and evaluating management effectiveness.

There are nine steps through which the framework is implemented.
STEP 1: Identify area concerns and issues
STEP 2: Define and describe management objectives
STEP 3: Select indicators or resource and social conditions
STEP 4: Inventory resource and social conditions
STEP 5: Specify standards for resources and social indicators
STEP 6: Identify alternatives
STEP 7: Identify management actions for each alternative
STEP 8: Evaluate and select an alternative
STEP 9: Implement actions and monitor conditions

Visitor planning and management frameworks should be integrated into the existing park management frameworks to address a wide range of visitor management issues, from how to deal with pressures associated with high levels of visitation to conflicts between different user groups. Other examples of visitor planning and management frameworks include the Recreation Opportunity Spectrum (U.S. Forest Service), Visitor Impact Management (U.S. National Park Service) and the Visitor Activity Management Process (Canadian Parks Service). Each framework has its strengths and weaknesses associated with its use.

Source: Payne & Graham (1993, p. 190-191).

APPENDIX G:

A Framework Guideline to Develop Ecotourism Guidelines for Protected Areas in Asia

Participants of the Workshop on Biological and Cultural Diversity and Protected Areas in the Asian Region that was held on July 9, 1997, discussed intensively and concluded that:

- [The] Mission of Ecotourism is to achieve the conservation of the biological/cultural diversity and sustainable development of local community through promotion of environmentally sound tourism.
- The mission can be achieved when five sectors related to ecotourism (local inhabitants, central/local government, researchers, travel agents and tourists) have cooperated with each other.
- There is urgent need to develop a local ecotourism guideline for each protected area, where it will be appropriate, and to deliver it to every sector related to ecotourism.
- The ecotourism guideline for each protected area should be developed to adjust a specific condition of the protected area through discussion with every sector related to ecotourism. This workshop provides a framework guideline to develop a specific ecotourism guideline in each protected area.

WHAT is an ecotourism guideline?
- It should clarify the mission of ecotourism.
- It should clarify the role of every sector related to ecotourism.
- It should be prepared to provide a carrying capacity [or limits of acceptable use] of the protected area to avoid impact on natural/cultural resources.
- It should clarify the economical value of protected areas (including uncountable value of ecological services and human welfare) to persuade decision makers.

WHO is going to prepare and use this guideline?
- Five sectors related to ecotourism should be asked to join this preparation process.
- Scientists can play [an] important role in this process, because the scientific understanding on natural/cultural resources is essential.
- Participation of local community could be very important to implement this guideline.
- Participation of guides could raise awareness in protected natural/cultural resources.
- Support from local government will be essential to implement this guideline.

HOW to use this guideline?
- It should be used to collect and provide information on ecotourism in the protected area.
- It should be used to establish a mechanism to monitor and control an acceptable impact on biological/cultural diversity.

WHEN this guideline should be used?
- Public participation to information gathering process could raise a public consciousness to ecotourism.
- Conservation of natural/cultural resources should be monitored and benefit to local community through ecotourism should be guaranteed by this guideline. (If appropriate, an opportunity cost for management of traditional landscape should be considered).

WHERE to deliver this guideline?
- A guideline of tourists (Code of Ethics) should be delivered to them effectively not later than their entrance to the protected area.
- A guideline of guides could be delivered to them through a training seminar organized by the guide association or park authority.

Source: Yoshida (1997, p. 8-9).

APPENDIX H:
Summary of Suggestions

1. Strong links between private tourism businesses and protected area systems are necessary. Representatives from all sectors need to work together to develop sustainable forms of tourism for protected areas.

2. Integrate environmental concerns into national and regional tourism policies and projects in East Asia. Sustainable nature-based tourism needs to be made a fundamental part of government policies relating to tourism.

3. Establish and implement national strategies for sustainable tourism that identify current opportunities and gaps.

4. Tourism development in and around protected areas should only occur if it is ecologically, culturally, socially and financially sustainable in the long term.

5. The private tourism sector should assist in maintenance of the natural and cultural resources of the protected area on which it depends.

6. Senior governments should develop national strategies and policies that place protected areas and their surroundings into a larger land-use planning context. Protected areas also need to be placed within an economic strategy and a tourism strategy.

7. For efficient management, it is necessary to have competent systems of tourism information collected by the protected areas' management. Systems should be compatible between different areas (i.e., collect data for the same units of scale). Jurisdictions should all possess standard definitions for key elements of a park tourism statistical program.

8. All park systems require a public use and tourism policy, as well as a legal structure that enables the policy to be implemented. Review existing legislation to make sure it is compatible with sustainability goals, and make adjustments as necessary. Ensure that written instruments that provide a legally enforceable framework are in place (e.g., laws, governmental policies, and property rights).

9. Further development of networking systems for parks and protected area managers to discuss issues and related management options/solutions is desired. Better information channels are needed to enable experiences to be shared.

10. Governments should encourage and support the conservation of nature and culture as the major resources for tourism, and provide policies, plans and a legal framework for carefully controlling tourism so that it brings substantial benefits without generating serious problems (McIntyre, 1993).

11. The tourism industry should emphasise general policies and strategies, major development plans and programs and marketing. More specifically, they can establish policies, laws and incentives for socially conscious tourism (McIntyre, 1993).

12. Governments, protected area managers, and tourism sector staff in East Asia should utilise the 15-item sustainable tourism action plan checklist (outlined in Figure 12) to guide sustainable tourism development in and around protected areas.

13. A sustainable tourism action plan should be created for each protected area. This should be done in consultation with the tourism sector and the local communities. This tourism plan should be part of the overall park management plan that all protected areas must have for successful long-term planning and management to occur. Conservation and tourism objectives for each protected area need to be identified.

14. Compile an inventory of each site's natural and cultural characteristics, as well as existing and potential tourism opportunities. Park managers should use hands-on knowledge and scientific research to develop an understanding of visitors' needs, expectations, behaviours and characteristics.

15. The value of involving local people in planning and protection activities is enormous and should be viewed as a necessity. Park managers should make efforts to have ongoing contact and good working relations with local communities. Promote domestic capacity for participation in management of the protected area and enable benefits to be distributed to local areas.

16. All stakeholders associated with tourism in parks and protected areas should examine and pursue possible partnership opportunities that bring about greater sum benefits than when working alone.

17. Zoning should be used in the planning process to identify areas which are best suited for higher use levels along with the range of appropriate use levels for the areas of the site.

18. Limits of acceptable use should be part of the management plan for each site. Managers of protected areas must use all available information and professional judgement to develop levels of acceptable use for their areas. Once levels of acceptable use are established, desired standards to be maintained through sustainable tourism need to be identified. The degree to which these standards are maintained needs to be monitored regularly.

19. Requirements to set limits of acceptable use should be embodied in protected area legislation. Managers of protected areas should have the power to act quickly if inappropriate activities are occurring to prevent or reduce damage that may be caused.

20. All parks and protected areas should use visitor management methods such as zoning, visitor channelling, education, interpretation and policy enforcement to ensure that tourism levels and impacts remain within acceptable limits established for the area. A monitoring program should be established to evaluate the success of these management tools. Indicate how often evaluations will occur and how revisions will be incorporated when necessary.

21. All park agencies should support development and additions to environmental education and interpretation programs. Through such programs visitors and local people increase their understanding and appreciation of the area's environmental and cultural features. Scientific research can be applied to the development of these programs.

22. All proposals for tourism development in or near protected areas should be subject to an environmental, social, cultural and economic assessment. Whenever possible, large-scale tourism developments should not be located in and around protected areas. Carefully consider small-scale tourism development proposals in the context of conservation and tourism objectives of the protected area, appropriate zoning and desirability. Create or refine a formal evaluation process that can be used to assess tourism development proposals.

23. Protected area agencies and staff should learn and apply concepts of market research and product development to management. Ideally, at least one staff person within the agency should possess marketing expertise. Another option is to build partnerships with other organisations or agencies whose staff can provide this type of input.

24. Sufficient resources and training are needed to encourage the development of sustainable tourism, to repair existing damage, and to develop visitor management. All parks should assess resource needs and sources. All protected area agencies need to train and hire individuals who possess skills related to tourism competencies. Each protected area should have staff people who possess specialised training in visitor and tourism management.

25. Both ecolabels and codes of conduct are aimed at improving environmental performance within the tourism industry, in all sectors (e.g., private companies, government agencies, visitors, etc.), and therefore should be further encouraged and supported.

26. Incorporate any special considerations related to protected area management of fragile high-altitude environments.

27. Recreation groups, such as divers or mountain climbers, can often be key allies in alpine and marine area conservation. Park managers should make special effort to work co-operatively with such groups.

28. Confirm and improve the comprehensive design and effective management of a representative system of marine protected areas.

29. Continuing human use within and adjacent to marine protected areas should play a role in the selection, design and management of marine protected areas. The framework provided by UNEP's Regional Seas Programmes encourages regional integrated planning for the use and protection of large marine ecosystems.

30. Marine conservation is often poorly understood by the public. Therefore, high levels of marine conservation education needs to be provided in all marine conservation areas.

31. Many countries in the world are encountering similar challenges with marine and alpine conservation. East Asia park agencies should encourage their managers to establish and maintain contacts with park managers in other countries that have similar conservation challenges. Such contacts can be invaluable for the exchange of valuable management experiences.

32. Sustainable tourism practice is a long-term commitment. Think long term, but also set realistic short and mid-term goals to be accomplished. Individuals, businesses and organisations must be aware that benefits are long term. Do not expect to experience benefits immediately once the first efforts to establish sustainable practices are implemented. Instead, expect to experience only a small portion of benefits soon after tourism development, and larger portions of benefits only after three or four years of continued effort.

33. For assistance, refer to Figure 12: Checklist for Developing a Sustainable Tourism Action Plan for Protected Areas. However, do not think of sustainable tourism as a checklist where items can be checked off and not referred to again. Instead, think of it as a never-ending dance that revisits the same important elements to the process time and time again.

34. Develop incentive measures that will influence the decision-making process. Create inducements that are specifically intended to motivate government, local people, and international organisations to conserve biological and cultural diversity. Review existing legislation and economic policies to identify and promote incentives for the conservation and sustainable use of the resources, stressing removal or mitigation on incentives that threaten biological diversity.

35. Make ongoing efforts to communicate with all stakeholders, including government agencies, tourism organisations, non-profit organisations, private businesses, and other constituencies.

36. International organisations need to encourage governments to make improvements in the following critical areas:
    • Support for effective legislation, with adequate resources for implementation
    • Development of a management plan for each protected area, covering all activities, including tourism, to ensure that objectives are achieved and resources are well used
    • Creation of national policies on protected areas and the management of tourism (as well as education about the environment and conservation).

37. Invest and assign some tourism revenue to local communities, so that local people see direct financial benefits from park tourism.

38. Allocate sufficient funds for effective planning and management of protected areas, including the management of tourism. A professional management team should be in place, with funding, before the area is opened to tourism.

39. Ensure every protected area has a realistic budget.

40. Encourage creative and innovative methods for raising revenue for protected areas.