

PUBLIC / PRIVATE PARTNERSHIPS FOR SUSTAINABLE TOURISM



DELIVERING A SUSTAINABILITY STRATEGY FOR TOURISM DESTINATIONS



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JULY 2002



**ASIA PACIFIC ECONOMIC COOPERATION
APEC TOURISM WORKING GROUP**

The Australian Cooperative Research Centre for Sustainable Tourism was commissioned by APEC as part of its Tourism Working Group Program to produce this report (APEC TWG 05/2011T)

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Published for:
APEC Secretariat
348 Alexandra Road # 14-00 Alexandra Point Singapore 119958
Tel: 65-6276-1880 Fax: 6276-1775 Email: info@mail.apecsec.org.sg

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APEC#202-TR-01.2

The CRC for Sustainable Tourism was established under the Australian Government's Cooperative Research Centres Program to underpin the development of a dynamic, internationally competitive, and sustainable tourism industry. The CRC for Sustainable Tourism is a not-for-profit company owned by its industry, government and university partners

National Library of Australia Cataloguing-in-Publication Data

Terry De Lacy, Marion Battig, Stewart Moore, Steve Noakes
Public/Private Partnerships for Sustainable Tourism: Delivering a Sustainability Strategy for Tourism Destinations

Bibliography.
ISBN 1 876685 89 1.

1. Ecotourism – Asia. 2. Ecotourism – Pacific Area. 3. Public-private sector cooperation – Asia. 4. Public-private sector cooperation – Pacific Area. 5. Sustainable development – Asia. 6. Sustainable development – Pacific Area. 7. Tourism – Environmental aspects – Asia. 8. Tourism – Environmental aspects – Pacific Area. I. De Lacy, Terry. II. Cooperative Research Centre for Sustainable Tourism.

338.4791

Acknowledgements

Material has been contributed by the following CRC for Sustainable Tourism Researchers; Dr Peter Daniels, Dr Diane Lee, Prof Ashley Scott, Dr Jim Ness, Melinda Watt, Prof Larry Dwyer, Prof Peter Forsyth, Prof Ray Spurr, Graeme Worboys, Dr Pramod Sharma and Dino Zanon.

Photos have been supplied by Tourism Queensland, CRC for Sustainable Tourism and the Chilean Tourism Service (Photo on front cover by Tourism Queensland).



EXECUTIVE SUMMARY

The objective of this report is to provide a framework for the sustainable development of the travel and tourism industry in the APEC region, through public / private partnerships, and to deliver a sustainability strategy for tourism destinations.

An interim report was submitted at the 19th TWG Meeting in Bangkok (November 2001). That meeting agreed the report should concentrate on the development of a template for tourism sustainability. Therefore, the report has been expanded to include a new Part 2 '*Sustainability model for tourism destinations using public/private partnerships*'. The model/template is suitable to be used by economies whenever destinations are investing in tourism development (marketing, planning, infrastructure etc). Part 1 will remain an overview and discussion of public/private partnerships for sustainable development, including example case studies where appropriate.

Methods used for the development of the report include:

- i. Collect and collate secondary data within and external to APEC economies;
- ii. Design and conduct a survey (primary data) within APEC economies and analyse the data;
- iii. Collect and collate case studies within APEC economies;
- iv. Report on CRC for Sustainable Tourism research into the sustainability of tourism destinations; and
- v. Produce a publication for distribution within APEC economies.

Part 1 of the report discusses how tourism is more than an economic activity and that it is inherently interrelated with culture and environment, touching all countries of the world and affecting their people, cultures and environments. Tourism's interconnection of people and their environment, means that its long-term survival depends on sustainable tourism developments that foster healthy and vibrant natural and cultural environments. Furthermore, coordinated action between different sectors (public and private) allows for more successful tourism planning, management, marketing, product development, training and education. Partnerships are at the core of sustainable development and sustainable tourism.

Since natural and cultural resources provide the foundation for many tourism products, tourism has the potential and responsibility to give value to local cultures and natural environments and to encourage their protection. One of the most widely accepted principles in achieving this is through local community involvement in tourism planning and management. Community participation in tourism can support and uphold local culture, tradition, knowledge and practises, maintaining diversity and creating pride in heritage.

Sustainable tourism development involves an integrated whole of community approach. The most effective way to approach sustainable tourism development and management is through destinations, as Part 2 of this report outlines. Part 2 discusses the 5 **Ps** for sustainable destination planning, development and management. This includes:

1. **P**olicy and planning
2. **P**redictive modelling
3. **P**erformance monitoring
4. **P**erformance improvement
5. **P**erformance reporting

Sustainable **P**lanning principles have been developed in response to the growing international concern over resource degradation and the wide variety of social and environmental impacts being experienced in poorly planned destinations. A sustainable vision for a tourist destination is of great importance and should be about minimising ecological impacts, spreading financial returns throughout the community, investing in best practice environmental programs, ensuring tourism activity is responsive to and reflects community values, and ensuring tourism respects and appropriately presents local culture.

It is important that the community and industry can **P**redict what the environmental demands and impacts will be as a result of various levels, scales and types of tourism developments. The development of such predictive modelling tools and their regular use is a core component of sustainable tourism development. There are a variety of techniques available for examining environmental impacts associated with tourism. This report discusses tools such as input-output models, computable general equilibrium models, computable general and systems such as GIS.

Performance monitoring is essential to ensure environmental and social performance in travel and tourism. This can be achieved through the establishment of sustainability indicators, together with best practice performance benchmarks for these indicators.

It is further evident that appropriately designed integrated systems are required to ensure continuous environmental Performance improvement throughout the travel and tourism industry. The Earth Check™ system is one such approach that incorporates the continuous monitoring of each of 20 individual travel and tourism sector's environmental performance together with an environmental management system (EMS) for each sector.

A crucial component of achieving sustainability in destinations is Performance reporting on progress. For communities and regions that make up a destination, the best means is by using State of the Environment Reports. Individual enterprises that provide services in the destinations should undertake triple bottom line reporting.

Having developed tools to assist travel and tourism enterprises and communities to monitor, improve and report their performance, it is important that this is actually put to use and implemented. One powerful means of doing this is through the Green Globe sustainability, benchmarking, certification and improvement system as detailed in this report.

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Abbreviations

APEC	Asia Pacific Economic Cooperation
APEC TWG	Asia Pacific Economic Cooperation Tourism Working Group
APTEC	Asia Pacific Tourism Exchange Centre
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEHAA	Department for Environment, Heritage and Aboriginal Affairs
EAA	Ecotourism Association of Australia
EEBP	Energy Efficiency Best Practice
EIA	Environmental impact assessment (analysis)
ESD	Ecologically Sustainable Development
GG 21	Green Globe 21
GGAP 21	Green Globe Asia Pacific 21
ICLEI	International Council on Local Environmental Initiatives
IIED	International Institute for Environment and Development
IUCN	The World Conservation Union
LA21	Local Agenda 21
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
PATA	Pacific Asia Travel Association
PPP	Polluters Pay Principles
PPT	Pro-poor Tourism
RING	Regional and International Networking Group
SoER	State of The Environment Reporting
UCEP	UNESCO Cousteau Ecotechnic Programme
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
WCED	World Commission on Environment and Development
WSSD	World Summit Meeting on Sustainable Development
WTO	World Tourism Organization
WTTC	World Travel and Tourism Council

Part 1

PUBLIC/PRIVATE PARTNERSHIPS FOR SUSTAINABLE TOURISM



1. OVERVIEW

1.1 The Tourism System

Over the past 50 years the travel and tourism industry has experienced phenomenal growth to become one of the most dominating socio-economic activities at the beginning of the 21st Century. It is a major creator of jobs across national and regional economies (World Travel and Tourism Organisation & International Hotel and Restaurant Association 1999). Research based on simulated Tourism Satellite Accounting for 160 countries in the year 2000, illustrated that the direct and indirect impacts of travel and tourism were estimated to contribute Gross Domestic Product of US\$3,575 billion. This represents 10.8 per cent of the total worldwide (WTTC 2001a). In employment terms, it was estimated in the year 2000 that travel and tourism generates 192 million jobs around the world, across all industry sectors, which represents 8 per cent of total employment (WTTC 2001a). It is expected that tourism will continue to expand and grow significantly over the next two decades (WTO 2001a). In the year 2000 alone, international trips increased by nearly 50 million, bringing the total number of international arrivals to a record 698 million (WTO 2001a). Global tourism is growing at an annual rate of 7%. It is still difficult to accurately quantify the number of domestic tourists, but researchers estimate there are approximately 5 times as many domestic as international tourists (Ceballos-Lascurain 2001).

A whole range of different services and products in both the source market and destination, are dependant on, create and shape the travel and tourism industry. What makes tourism distinct is that people often travel far distances to reach the product. It is a complex and highly integrated activity, reaching the upstream suppliers (i.e. aircraft manufacturers or food producers) and downstream services (i.e. retail shops) (WTTC & IHRA 1999). This is also known as the 'flow-on' or the 'multiplier' effect of tourism (Elliott 1997).

A whole range of stakeholders from both the private and public sector participate in the tourism system. Stakeholders in the tourism industry include (Table 1):

Supply side

- a. Those whose resources are used – e.g. government bodies such as parks and wildlife, galleries, museums, heritage sites, traditional landowners
- b. Those who deliver the product – e.g. tourism operator such as airlines, hotels, restaurants, attractions, tour operators.
- c. Those who manage destinations – e.g. tourism commissions
- d. Those who provide infrastructure – e.g. roads, building, water supply, waste disposal.

Demand side

(those who use the product – tourists)

- a. International
- b. Domestic

In the South East Asian countries, including Vietnam and Cambodia, tourism is positioned as one of their top five income generating activities.

In 2000, China received more than 31 million international visitors, Malaysia more than 10 million and Thailand 9+ million (WTO).

Table 1: Stakeholders in the tourism industry (CRC for Sustainable Tourism 2002)

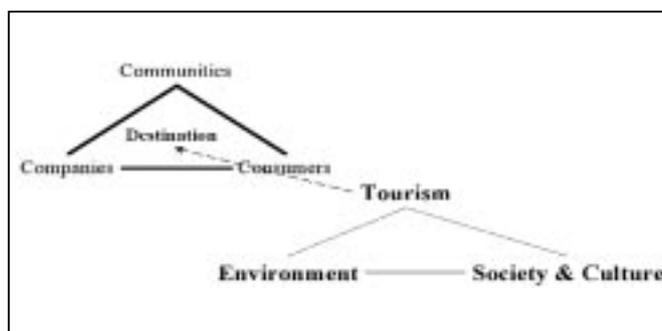
	CATEGORY	EXAMPLES
SUPPLY SIDE	Resource owners	Traditional landholders
	Resource managers	National park managers
	Providers of infrastructure	Construction, design, power, gas, water, waste treatment
	Planners and development control	Local government authorities
	Deliverers of product	Enterprise operators – hotels, airlines, airports, hire cares, attractions, tour operators, travel agents, farm stays, convention centres, restaurants, museums, sporting events
DEMAND SIDE	Destination developers and marketers	Tourism commissions; local government
	Employees	Managers, hospitality, planning, communication, ICT, finance, construction
	Tourists	Domestic and international – e.g. package holidays, ecotourists, business travellers, backpackers, visiting friends and relatives, events, conferences, cultural tourism

The travel and tourism industry has the ability to create and spread wealth, employment and innovation from urban to rural and regional areas, while acting as a catalyst to the development of other economic activities (WTTC 2001a). Importantly, tourism is a catalyst of entrepreneurship and small businesses.

Tourism however is more than an economic activity and an industry; it is inherently interrelated with culture and environment (Figure 1). It is a universal, dynamic, social and cultural phenomenon, touching all countries of the world and affecting their people, culture and environments (Elliott 1997). Tourism’s interconnection of people and their environment, means that its long-term survival depends on sustainable tourism developments that foster healthy and vibrant natural and cultural environments.

As a result of travel and tourism’s diverse nature, it is also a highly fragmented industry. Therefore, the long-term survival of the industry also depends on coordinated action between different sectors. This is both challenging and important in order to achieve a more sustainable industry. It demands that further development should be guided by greater dialogue, co-operation and partnerships between the public and private sectors (WTO 2001a) (Figure 1). This is not to say that sustainable tourism development cannot result from partnerships within the one sector. Collaboration between various stakeholders however does allow for more successful tourism planning, management, marketing, product development, training and education (Selin 1999). To achieve responsible tourism planning and management outcomes, partnerships must be holistic in outlook and based on sustainable development principles, and exist at the national, provincial and importantly at local levels (WTO 2001a). The process of collaboration and partnership is a key element for planning and managing natural and cultural assets/products. Partnerships are at the core of sustainable development and sustainable tourism.

Figure 1: Interrelationships in tourism



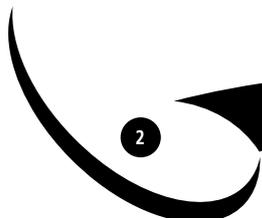
Clearly, tourism plays a paramount economic role in countries around the world and, if planned and managed correctly, can significantly contribute to sustainable socio-economic development and environmental conservation. By experiencing different cultures and traditions, tourism can also represent a critical force for peace and understanding among peoples of the world (WTO 2001a).

1.2 The public and private sectors

1.2.1 Public sector

The term ‘public sector’ covers the whole range of public organizations, from national government ministries and departments to government business enterprises and local government tourism departments. Just as tourism has been identified as important to many governments economically and politically – public sector (government) involvement is very important to the sustainable growth and development of the tourism industry (Elliott 1997).

The public sector makes up a core component of the tourism industry. Many tourism products are based on public assets such as the natural and cultural environments. A key role of the public sector is to provide basic infrastructure, essential services, destination management and marketing, innovation, training and



education (Elliott 1997). These are important components in providing a sustainable and profitable travel and tourism industry. Governments provide a policy and planning framework for environmental protection and heritage management and set strategies to encourage the private sector to take the issue of sustainability seriously (Swarbrooke 1998).

1.2.2 Private sector

Private enterprises provide the basic tourism products, facilities and essential services, such as: accommodation, transport, restaurants, retail, various attractions and even experiences (Tonge and Myott 1996). This sector ranges from large vertically and horizontally integrated global corporations such as tour companies, airlines and hotel chains, to tiny, remote local family businesses, such as craft shops and lodges.

The private sector therefore, plays an essential role in the development and management of tourism and must be equally involved with national, regional and local government, in the management and sustainable development of tourism (Tonge and Myott 1996).

1.2.3 Public/private partnerships in tourism

Until recently, the travel and tourism industry has been hesitant in establishing public/private partnerships, because of the very competitive market within which it operates. Industry has been reluctant to participate in public policy objectives, in case they are required to do anything that will increase their costs, or otherwise reduce their competitiveness (Swarbrooke 1998).

Public/private tourism partnerships however, can do quite the opposite. They represent a pooling of knowledge, expertise, capital and other resources from various stakeholders (Bramwell and Lane 2000). There is gradually a growing awareness of the benefits of partnerships. They ensure consistency within a framework and act as an effective agent for planning, management, problem solving and change, and therefore enhances rather than reduces the competitive advantage of the tourism product (UNCSD 1999a).

According to Wood and Gray (1991:146) collaboration occurs: "...when a group of autonomous stakeholders of a problem engage in an interactive process, using shared rules, norms and structures, to act or decide on issues related to that problem" (Bramwell and Lane 2000).

Whatever the tourism objective is, from economic development, poverty reduction, protected area management, conservation, cultural development or social justice, the travel and tourism industry is beginning to

realise the power of collaboration and partnerships. Most important are the partnerships between local community, and the tourism industry, which provides opportunities for community involvement and participation in tourism (Tonge and Myott 1996).

This integration has spawned a diverse array of new inter-organisational forms and agreements including regional planning authorities, joint management of protected areas, community-based cooperatives, multinational firms and coalitions formed by global accords (Bramwell and Lane 2000).

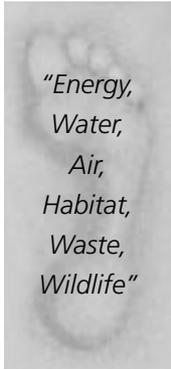
There are various inter-organisational forms and agreements that represent the travel and tourism industry on the global, and regional level. They play an important role in coordinating, organising and planning the travel and tourism industry. On a global level, key intergovernmental and industry organisations include the World Tourism Organisation (WTO) and the World Travel and Tourism Council (WTTC). There are also various sector associations representing the private sector, for example the International Hotels and Restaurant Association (IHRA). On a regional level, key bodies include, the Asia Pacific Tourism Association (PATA) and the Asia Pacific Economic Cooperation (APEC) Tourism Working Group. There is an increasing awareness in the APEC region that strengthened partnerships between the public and private sectors in tourism will assist tourism to effectively meet economic, environmental and socio-cultural goals. This will benefit industry, private sector, tourist consumers and host communities (WTO 1997).

1.3 Sustainable development

The word 'development' includes many inherent tensions as global economic growth at all costs intersects with local empowerment, environmental protection and cultural diversity. The subsequent emergence of notions of 'sustainable development' was partly recognition of the impossibility of continuing a growth-at-all-cost strategy of development.

Sustainable development was interpreted in the Brundtland Report (WCED 1987:43) as: "*Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (Weaver and Lawton 1999).

In 1992, sustainable development and related concepts were adopted as the central theme of the UNCED Rio Earth Summit Meeting, producing a comprehensive document, known as Agenda 21 (Weaver and Lawton 1999). Agenda 21 contains 40 Chapters dealing with matters of social and economic development, the



“Energy,
Water,
Air,
Habitat,
Waste,
Wildlife”

conservation and management of natural resources, stakeholder groups, and means of implementation (Weaver and Lawton 1999). This document was globally adopted by 182 signatories and represents an international consensus and a comprehensive program of necessary actions, (actions that governments and international organizations, as well as industry and the community, can take to achieve lasting changes), in order to move towards a global goal of truly sustainable development (UNCED 1992).

Sustainable development involves an integrated whole of community approach. As early as 1987, the Brundtland report raised the requirement for collaboration and partnership building as an integral part of the route to sustainable development (Lane 1999). Its objectives are no less than the alleviation of poverty, hunger, sickness and illiteracy at the same time halting the deterioration of the ecosystem on which humankind depends to sustain life. Nonetheless, while the concept of sustainable development is an important one, we should be careful to recognise some of the problems and contradictions that its uncritical use may imply. Agenda 21 does not pretend to represent the last word, or even the current leading edge, as a consensus document, in approaches to sustainable development (UNCED 1992). As mentioned within the document itself: *“It cannot hope to deal in a final way with all the apparent contradictions and difficult decisions needed to marry the goals of human development and environmental quality in the 21st century. It is however a major step forward for the international community. Agenda 21 is and must remain a living document”* (UNCED 1992).

In September 2002 a World Summit Meeting on Sustainable Development (WSSD) will be held in Johannesburg, South Africa, to review the progress of the global commitment to sustainable development and of the implementation of Agenda 21. The summit will be reinforcing components of sustainable development to ensure a balance exists between economic development, social development and environmental protection, as these are interdependent (UNCED 2002).

1.4 Sustainable tourism

Inappropriate tourism developments produce negative impacts on natural and cultural environments. Life cycle assessments of tourism consumption indicate tourism is a large consumer of natural resources. The so-called “ecological footprint” of tourism is large. Consequently, poorly managed tourism can:

- degrade heritage sites;
- commodify the sacred;
- create a market for prostitution and drugs;
- reduce biological diversity;
- destroy habitat for wildlife;
- pollute lakes, rivers and coasts;
- overuse valuable fresh water resources;
- contribute significantly to global warming;
- lead to a loss of scenic beauty; and
- reduce the pleasure and satisfaction obtained from an unspoilt environment.

Experiences throughout the world show that poorly planned and managed tourism that fails to support its environment base, results in a falling market share and sows the seeds of its own destruction (APEC 1996). Environmental deterioration will inevitably lead to economic deterioration, where the impacts of poorly planned and managed tourism development results in long-term problems that outweigh the short-term economic benefits that tourism may bring (APEC 1996). With the potential for self-destruction, achieving a more sustainable option is becoming the most important issue facing tourism.

Sustainable tourism development is described as: *“Sustainable tourism development meets the needs of the present tourists and host regions while protecting and enhancing the opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled, while maintaining*

cultural integrity, essential ecological processes, biological diversity and life support systems”(WTO) (UNEP 2001).

Since natural and cultural resources are the core of many tourism products, tourism has the potential and responsibility to encourage sustainable development in the countries and communities in which it operates (WTTC, WTO and Earth Council 1996).

Tourism can give value to local cultures and natural environments and can act to enhance their protection by (WTTC & IHRA 1999):

- increasing consumer commitment to sustainable development principles through tourism’s unparalleled communication channels; and
- providing an economic incentive to conserve natural, environments and heritage places.

Travel and tourism was identified at the 1992 UNCED, Rio Earth Summit Meeting, as one of the sectors able to make positive contributions to achieving sustainable development. As a result in 1994 the WTTC, WTO and the Earth Council launched Agenda 21 for the Travel & Tourism Industry (UNCSD 1999a). This document contains priority areas for action with defined objectives and suggests steps to be taken to achieve them. It provides a framework for sustainable tourism, highlighting how it is fundamentally linked to sustainable development, and demonstrates the enormous benefits in making the industry sustainable (WTTC, WTO and Earth Council 1998). It explains the importance of optimum use of resources, ensuring environmental, socio-cultural and economic sustainability (UNEP 2001).

The document also emphasises the importance of partnerships between government, industry, non-governmental organizations and local populations, in order for tourism benefits to reach all stakeholders. Sustainable tourism planning and management approaches can promote efficient use of resources, minimise environmental damage and share benefits equitably. The approaches taken however, must be well suited to the characteristics of

the destination site, as well as to the, political, legal and cultural institutions of the economy (APEC TWG 1996). Sustainable tourism can provide economic benefits to an economy as a whole, improving living standards for local residents and maintaining or even increasing the quality of the local environment (APEC TWG 1996). Safeguarding the quality of the local cultural and natural environment ensures a destination that is unique. This is important for destinations in maintaining or gaining their competitive advantage.

Following the UN Commission on Sustainable Development 7th meeting in 1999, which focused on sustainable tourism, the WTO worked with interested stakeholders to develop a *Global Code of Ethics for tourism* (Box 8) (WTO 1999). This sets a global frame of reference for the sustainable and responsible development of world tourism (WTO 1999).

For APEC member economies, the development of sustainable tourism is an important consideration. Spatially dispersed, job-creating tourism, that is environmentally and culturally sensitive is greatly desired in many APEC member economies, as an alternative to extractive and polluting industries, or to migration to cities and resulting urbanisation (APEC TWG 1996). APEC has already shown its commitment to sustainable and viable tourism growth in its region, through adopting, together with PATA, the *APEC/PATA code for sustainable tourism* (Box 32) (APEC & PATA 2001). This code acts as a guide for APEC activities and promotes sustainable tourism principles to members and affiliates.

Also, the APEC Tourism Working Group reflects its commitment to sustainable tourism in one of its four policy goals, which sets out to: “Sustainably manage tourism outcomes and impacts” (APEC & PATA 2001).

1. APEC TWG Survey results

According to the surveys, 15 APEC economies (75%), have a peak tourism industry association. Of these 15 peak tourism organisations only 4 have developed a set of sustainable development principles for the travel and tourism industry.

(see Appendix 1 for more details)

1.5 Public and private sector roles in achieving sustainable tourism

1.5.1 Public sector role

Governments establish the legal, policy and institutional framework in which the tourism industry functions and sustainable development can be achieved (UNEP 2001).

National Government

The role of national governments is to set the broad policy agenda and provide the framework in which development takes place (WTTC, and IHRA. 1999). Governments can and should provide a lead for integrating travel and tourism into overall policy for sustainable development (UNEP 2001). There is a need to ensure Agenda 21 principles are incorporated into tourism policies and strategies at national, regional and local levels (UNCSD 1999a), to ensure that tourism is balanced with broader economic, social and environmental objectives (UNEP 2001).

a. Regulation:

Governments establish the legal and regulatory framework for overall economic development, including planning and development control, environmental protection and heritage conservation (UNCSD 1999b). For example, this might involve establishing tourism development agencies; protected areas and institutions to manage them; taxation benefits to encourage environmental best practise; education and training programs; and so on.

b. Infrastructure and facilities:

Governments provide a great deal of infrastructure, such as, ports, roads, waste management and potable water supply, crucial for tourism development. They also ensure that the design and location of privately owned travel & tourism infrastructure is sustainable and upholds nationally agreed development standards. Governments should support performance related incentives for responsible development and operation of tourism facilities, to enhance the up-take of best practice innovation.

c. Marketing and promotion:

Governments often invest in marketing and promoting tourism destinations within their country. It is important that the message contained in such promotion enhances sustainability principles. Conditions for sustainable consumer behaviour can be improved by promoting sustainable tourism facilities, environmentally friendly modes of transport and renewable sources of energy (UNCSD 1999b).

d. Education and training:

Governments are major providers of education and training. They need to support public education programs to raise awareness of sustainability principles amongst consumers (UNCSD 1999a). This involves encouraging responsible consumption and use of natural resources, environmental protection and local culture conservation. Introducing training and education programs in environmental management and sustainable tourism development for guides, tour operators and marketers, is also important. Finally, sustainable development education should be incorporated into the curricula of hospitality, tourism and related courses in colleges and universities (UNCSD 1999b).

Local Government

Action at the local level is vital in moving toward sustainable development. Local Agenda 21 (LA21) provides a forum for local people to come together with tourism operators and share common concerns and reach solutions that benefit local people. LA21 helps develop and support programs that revitalise the diverse aspects of local cultures. This builds the capacity of a destination to host tourism and ensures sound and effective management and product development of destinations (UNCSD 1999b).

Of the three levels of government, local government is the one involved most directly with communities and individuals, and therefore provides the 'on-the-ground' interface where most government policies are implemented (Worboys *et al.* 2001). The problem is that often the role of local governments is very limited in its scope.

At the local level, sustainable development is achieved by steering local development activities to simultaneously achieve 3 objectives (The International Council on Local Environmental Initiatives (ICLEI 1999):

- Increase local social welfare;
- Achieve greater and more equitable distribution of local economic wealth; and
- Enhance integrity of local ecosystems.

Local authorities provide social services, build economic infrastructure, regulate economic activity and manage natural environment. Consequently they are able to directly influence the direction of local tourism development (ICLEI 1999). Another important role local authorities play, especially in a global economy, is to act as facilitators amongst diverse interest groups that exist within a community. This is important as it assists to define

community interests as a shared vision and guides action consistent with that vision.

Non-governmental organisations (NGOs)

NGOs play a key role in representing and acting for the community. NGOs range from small local institutions such as women's groups to large global organizations such as WWF (UNCSD 1999a).

NGO roles include:

- Bringing together key players and decision makers to discuss areas of common interest or concern (WTTC & IHRA 1999).
- Promoting consensus on the need for action and in influencing decision makers;
- Participating with industry in awareness raising campaigns and education activities to minimise the impacts of consumer behaviour and consumption patterns;
- Assisting with measurement and monitoring of progress towards sustainable tourism (UNCSD 1999a);
- Supporting educational awareness programs on tourism for local people;
- Playing an important role in advocating bottom-up approach in tourism planning, development and management – through putting pressure on the industry and facilitating contracts and local participation for community development;
- Initiating stakeholder dialogue on community involvement in tourism development;
- Promoting respect for indigenous peoples and local community self-determination, autonomy and social and cultural integrity;
- Promoting consultation processes in tourism planning;
- Strengthening efforts to empower disenfranchised groups (in particular women);
- Promoting relevant research; and
- Monitoring tourism developments (UNCSD 1999b).

International organisations

Tourism is a very global industry, and not surprisingly a variety of international organisations have developed to

represent the various stakeholders in the tourism system. Some of these are United Nations organisations such as UNEP. Others are a representation of governments, such as WTO and APEC; and still others represent industry associations such as, WTTC and PATA. Such international organizations can enhance global sustainability by:

- Promoting global ethics and best practice and
- Facilitating transfer of knowledge to industry sectors.

1.5.2 Private sector role

This section focuses on what initiatives the tourism industry itself can take in order to improve its environmental, cultural, social and economic profile and make sure this is sustainable. It is important that both small and large-scale tourism operators continuously improve their sustainability performance (UNCSD 1999a). The travel and tourism industry must ensure that decisions (investment, employment, operational and other business) take full account of the principles of Agenda 21 and continue to develop voluntary programs (self-regulation) to improve environmental management and enhance positive social impacts. There should also be a commitment to education and environmental training of staff (WTTC & IHRA. 1999). By educating staff the travel and tourism industry can minimise negative environmental and cultural impacts and create incentive schemes to promote sustainable behaviour (UNCSD 1999b).

Further industry initiatives for sustainable tourism include (UNCSD 1999b):

- Adopting environmentally sound technologies;
- Implementing polluter pays principles;
- Financing protected areas;
- Encouraging destinations to support environmental protection and actions;
- Promoting projects which are compatible with and support local cultures;
- Facilitating local small and medium sized enterprises, which encourage local entrepreneurship;
- Supporting industry awards for best sustainability performance;
- Encouraging a participatory approach to planning; and
- Encouraging innovation of process and management through adopting new technology.

There is increasing recognition that companies should place sustainable development issues at the core of their management process (UNCSD 1999a). Agenda 21 for the Travel & Tourism Industry has summarised a key points companies should adapt to achieve greater sustainability (WTTC, WTO and Earth Council 1996):

- A statement of the company's commitment to sustainability objectives;
- An assessment of the impacts of the business on the environment and local community;
- Involvement of all staff and designation of an individual as responsible for environmental activities;
- The development and publication of an environmental policy (either stand-alone or as part of a mission statement);
- Identification of overall objectives for the environmental program; and
- Definition of priority areas for action; this should focus on the priority areas identified by Agenda 21.

Specific action should include (UNEP 2001):

- Responsible use of natural resources such as land soil, energy and water;
- Reducing, minimising and preventing pollution and wastes including solid, liquid and atmospheric emissions;
- Maintaining or enhancing biodiversity through the protection of plants, animals, ecosystems and sensitive areas;
- Maintaining and enhancing cultural diversity through the protection of landscapes and cultural heritage;
- Respecting the integrity of local cultures;
- Co-operating with local communities and people;
- Utilising local products and skills; and
- Industry accreditation schemes.

True sustainable tourism however can only be achieved through the participation of the local community in tourism, a so-called bottom-up approach. This will involve major participation of community owned businesses to help reduce financial leakage and support local economies. The training and hiring of local people and contracting with local businesses should be high on travel

and tourism agenda. Facilities such as accommodation should be built and staffed by local people. Most importantly, there must be respect for local cultures and awareness of and sensitivity to local customary laws, regulations and traditions (UNCSD 1999b).

1.5.3 Public/Private Partnerships

Although both enterprises and governments can individually take action to enhance sustainability, working together will achieve much more (UNEP 2001). The process of collaboration and partnership is a key element of sustainable tourism development. This can best be done through partnerships involving: international bodies, governments, national tourism authorities, international and national industry associations, travel and tourism companies, NGO's and the voluntary sector (UNCSD 1999a).

Public/private partnerships are essential in order to launch a dialogue process on sustainable tourism between all stakeholders and identify mechanisms and action plans to achieve sustainable development goals in tourism. Specific aims of public/private partnerships include (UNCSD 1999a&b):

- Regulatory regime – self-regulation and where necessary this is supplemented with regulation in areas such as land-use and waste management;
- Agreed indicators – measuring progress towards achieving sustainable development;
- Agreed and widely used certification criteria;
- Public funding programs on marketing and destination development should have sustainable development principles as part of their eligibility criteria;
- Research into sustainable tourism needs;
- Environmental education and training programs;
- Greater investment and use of new technology; and
- Fair and non-discriminatory taxes with revenue allocated to environmental improvement programs.

The cumulative benefits of public/private partnerships, involving travel and tourism companies, local and national government, communities and other industries, will outweigh individual efforts and protect the quality of the tourism product (WTTC, WTO and Earth Council 1996).

The achievement of objectives will depend on the quality of the partnerships. The most effective partnerships are

those developed for mutual benefit (WTTC, WTO and Earth Council 1996).

They must include a wide and representative range of stakeholders from the local community, who are able to play an active role in partnerships (Bramwell and Lane 2000). By involving a range of organisations, tourism can significantly contribute to the development of the local economy. There is an urgency to constructively shape tourism in order to support local development and conservation goals.

Effective travel and tourism partnerships should include (UNCSD 1999a; WTTC, and IHRA 1999; UNCSD 1999b):

- National governments – raising the profile of social and environmental issues within the tourism industry;
- Local Authorities – engaging the local population through including tourism issues in Local Agenda 21 plans;
- NGO's – raising awareness of tourism issues in their work and activities and provide feedback to the travel and tourism industry;
- International organizations – partnerships must be planned within the framework provided by UN treaties and declarations;
- Development organizations – to communicate with host communities to understand their needs and requirements; and
- National and International Trade Associations, labour representatives, education and training providers – to increase awareness and training of staff in social and environmental issues.

Public and private sector initiatives to establish and maintain effective partnerships

a. Public sector initiatives in participation

Government departments, national tourism authorities and trade organizations can take a number of steps to develop successful partnerships (WTTC, WTO and Earth Council 1996):

- Offer support and assistance in the form of effective legislation where necessary, in order to encourage sustainable tourism initiatives and to help provide a climate of self-action in the travel and tourism industry;
- Offer a coordinating mechanism between government departments with responsibility for sustainable development, travel & tourism and the environment;

- Work to ensure that the policies developed and advice offered by government departments to the Travel & Tourism industry are consistent;
- Facilitate information exchange between companies and government agencies and local authorities to help industry develop more sustainable operations and products;
- Recommend/introduce incentives and awareness-creation measures to assist the industry to adopt more sustainable procedures;
- Promote sustainability accreditation schemes, which encourage responsible entrepreneurship;
- Encourage all branches of industry to train people in environmental management;
- Work with government to ensure that the necessary infrastructure is in place for companies to operate in an environmentally responsible manner (for example sewage treatment plants, recycling facilities, etc.); and
- Assist the travel and tourism industry to adopt suitable targets for energy and materials use reduction, waste minimization, fresh water resources management, and waste water management and to achieve them consistently.

b. Private sector initiatives in participation

Travel and tourism companies should (WTTC, WTO and Earth Council 1996):

- Foster dialogue between individual businesses to formulate solutions to joint problems;
- Work with small and micro enterprises to build management skills, market development, and technology transfer;
- Work with governments to establish an enabling framework for the achievement of sustainable development;
- Promote interaction between tourists and host communities and so enhance the industry's potential to contribute to increased understanding of other cultures; and
- Incorporate the concerns of communities – especially indigenous communities – in the planning process so that they effectively participate in sustainable development.

Effective partnerships will result in the following benefits (Bramwell and Lane 2000):

- Involvement by a range of stakeholders all of whom are affected by the multiple issues of tourism development and may be well placed to introduce change and improvement;
- Decision-making power and control may diffuse to the multiple stakeholders that are affected by the issues, which is favourable for democracy;
- The involvement of several stakeholders may increase the social acceptance of policies, so that implementation and enforcement may be easier to effect;
- Parties involved in policy-making may have a greater commitment to putting the resulting policies into practise;
- More constructive and less adversarial attitudes result from working together;
- The parties who are directly affected by the issues may bring their knowledge, attitudes and other capacities to the policy-making process;
- Greater innovation and effectiveness;
- Learn much through working together – learn the work and skills of other parties, develop negotiating skills that help to make partnerships successful;
- Improved coordination of policies and actions;
- Greater consideration of the economic, environmental, social and cultural issues that affect the sustainable development of resources;
- Greater recognition of the importance of non-economic issues and interests, which will strengthen the range of tourism products available;
- Pooling of resources of stakeholders, which may lead to their more effective use;
- Resulting policies are more flexible and more sensitive to local circumstances and to changing conditions; and
- Non-tourism activities may be encouraged, leading to a broadening of the economic employment and societal base of a given community or region.

Not all partnerships however are effective. Some potential problems with collaboration and partnerships include (Bramwell and Lane 2000):

- Only limited number of stakeholders participating;
- Token partnerships – to avoid tackling ‘real’ problems head on with all interests;
- Actors may not reduce their own power or not be willing to work together with unfamiliar partners or previous adversaries;
- Those stakeholders with less power may be excluded from the process or may have little influence on the process;
- Some key parties may be uninterested or inactive in working with others, sometimes because they decide to rely on others to produce the benefits resulting from a partnership;
- Some partners may coerce others;
- Involving a range of stake-holders in the policy-making may be costly and time consuming;
- The complexity of engaging diverse stakeholders in policy-making makes it difficult to involve them all equally;
- There may be fragmentation in decision-making and reduced control over implementation;
- The power of some partnerships may be too great, leading to the creation of cartels;
- Some collaborative arrangements may outlive their usefulness, with their bureaucracies seeking to extend their lives unreasonably.

One response to these potential problems to partnerships for sustainable tourism is to strengthen the role of elected local government as an organisation able to facilitate and coordinate in the work of partnerships, and also to mobilise debate, opinion and support where necessary. There is a need to see partnerships and collaboration within the context of the public interest as opposed to only the market interest. Partnerships and collaborations need to be challenged by focusing on equity and access to all stakeholders in tourism planning and policy processes (Bramwell and Lane 2000).

2. SUSTAINABLE TOURISM POLICY AND STRATEGIES

Achieving sustainability and in particular sustainable tourism, requires a whole of community approach (Worboys *et al.* 2001).

This involves:

1. Environmental legislation and policy
2. Local community participation and socio-economic policy
3. Industry performance
4. Individual action
5. Sustainable tourism strategies

Sustainability involves participation from all groups and institutions in society. The following figure illustrates the range of human and ecosystem dimensions that need to be considered in establishing sustainable policies and strategies (Figure 2).

2.1 Environmental legislation and policy

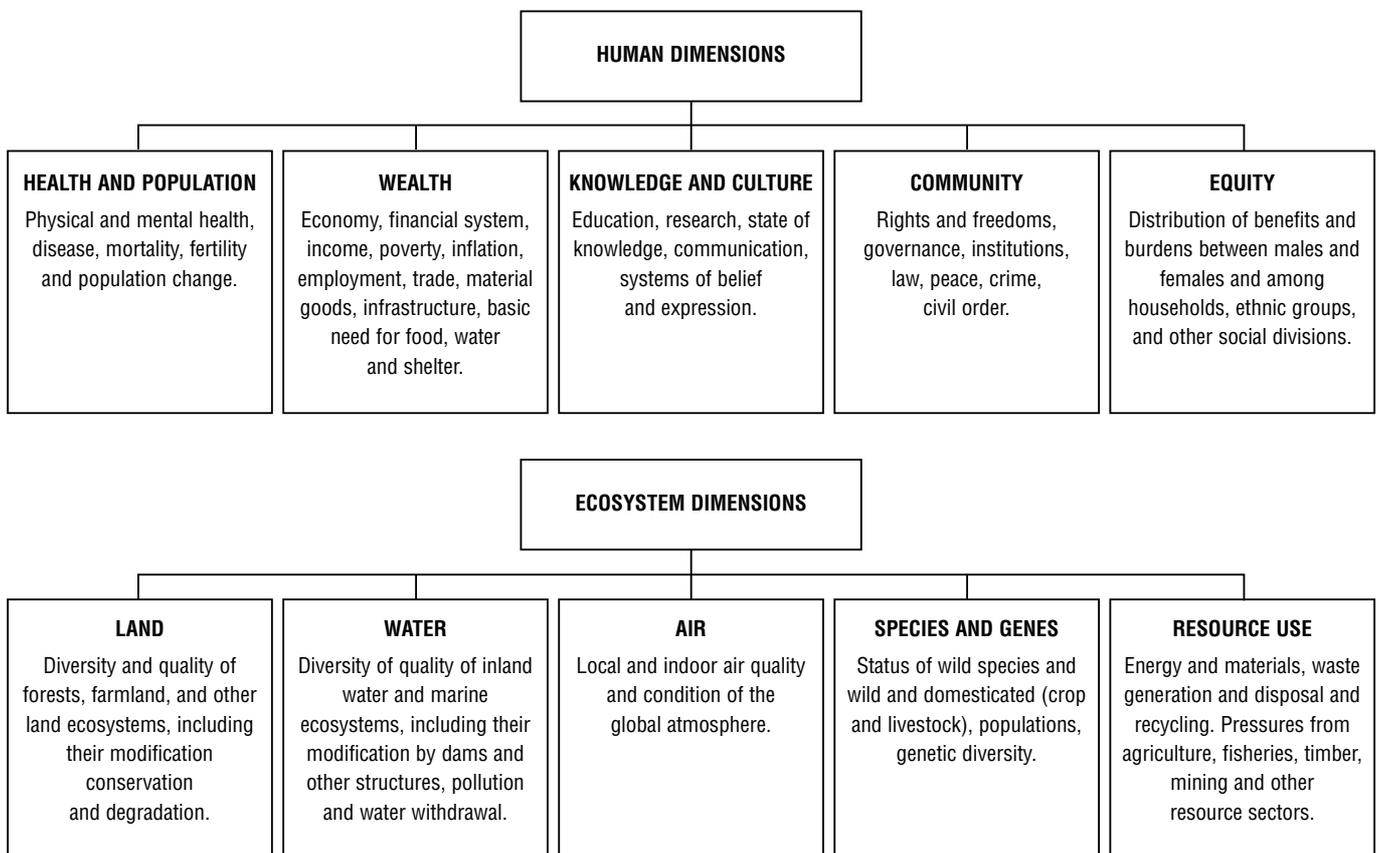
2.1.1 Legislation and planning

Environmental legislations and regulations are powers of law, introduced by government at national and provincial levels that assists in protecting the natural environment in restricting polluting or destructive activities that people might pursue (Worboys *et al.* 2001).

This includes:

- Environmental planning and development control
- Policy reform and economic instruments
- Conservation legislation (i.e. wildlife, forests)

Figure 2: Sustainability dimensions (Prescott-Allen 2001)



2. APEC TWG Survey results

19 APEC economies (95%) suggested they have national, provincial or local planning regulations in place to control the location of and type of tourist development (See Appendix 1 for more details).

3. APEC TWG Survey results

According to the survey results, in 17 (85%) APEC economies tourism developments are required to undertake an environmental impact assessment. (See Appendix 1 for more details)

Environmental planning and development control

The increasing use of land for tourism in many countries has brought about conflicting interests between tourists and the needs of the host population. To minimise potential impacts of land use conflict, national development plans must contain a set of development guidelines for the sustainable use of land, water and natural resources. An effective legislative framework is required, setting standards for physical facilities for tourism and land use in tourism development. These standards must then be successfully enforced (Ceballos-Lascurain 2001).

There are various scales at which planning and development occurs:

- National level
- Regional level
- Local level

The local level is the most important in tourism. Planning and regulation of tourism needs to be destination specific, as the development impact of tourism will not be uniform. It varies widely within and between communities and destination areas (Ceballos-Lascurain 2001). Therefore, it is important that tourism destinations can develop within their boundaries to suit the specific requirements of their local

socio-economic and environmental situation. Importantly however, the consistency with overall international, national, and regional standards and guidelines must be maintained (UNEP 2001). Careful planning and design, based on an understanding of local livelihoods, and an understanding of the type of tourist(s) a community wish to cater for, can greatly minimise the negative impacts and enhance the positive impacts of tourism.

Ecologically and socially conscious site design, design of infrastructure and landscaping, is indispensable to ensure harmony between tourism development and environmental protection. There is a need for a holistic approach to site planning and design. Sustainable site planning and design can lead to a greater integration of tourism facilities and their natural surroundings, which can help lessen the environmental impact of these facilities (Ceballos-Lascurain 2001).

Environmental Impact Assessments (EIA) can be an effective method in planning to minimising negative impacts of tourism developments, as they help determining whether the project will be sustainable (UNCSD 1999a) (Box 1). An EIA aims to address and help avoid negative environmental and social impacts that may arise at an early stage of the development process. Alongside this, there also needs to be on-going monitoring of impacts.

Box 1: Environmental Impact Assessment (EIA)

An EIA in its simplest form is a planning tool implemented at the early stages of a development or project. It is the mandatory assessment of the compliance of planned activities. It is a formal planning process to try and predict the environmental consequences of proposed development activity. This then forms the basis for granting or denying approval for a proposed development.

Key elements of an EIA are:

- Scoping – identify key issues and concerns of interested parties
- Screening – decide whether an EIA is required base on information collected
- Identifying and evaluating alternatives – list alternative sites and techniques and the impacts of each;
- Mitigating measures dealing with uncertainty – review proposed action to prevent or minimise the potential adverse effects of the project;
- Issuing environmental statements – report the findings of the EIA.

Policy reform and economic instruments

Increasingly, environmental economic instruments, such as polluter pays principles (PPP), are being used to achieve environmental protection. They are an effective and efficient complement to traditional and widely used regulatory controls. Under certain conditions, economic incentives are more likely to influence firms and individuals and attain desired environmental outcomes than regulations alone (APEC TWG 1996).

The Polluter Pays Principle (PPP) implies that actual costs are internalised to operations (APEC TWG 1996). In other words, those who pollute the environment and destroy biodiversity should carry the costs of the negative effects pollution and loss of biodiversity create in society (UCEP). Making polluters pay should provide a disincentive to pollute and simultaneously provide an incentive to implement sustainable practices. This in turn should generate funds to compensate those in society that experience the negative effects of pollution. The concept has the potential to encompass a mechanism to transform unsustainable practices to sustainable ones, while simultaneously providing financial resources to facilitate the transformation (Greenpeace International).

Pollution and other sources of the environmental degradation should be reflected in the costs of goods and services, which cause pollution in production and/or consumption (Box 2). Existing market prices still do not accurately reflect the total environmental costs involved (UCEP). There are however various incentives to make polluters pay (APEC TWG 1996):

- *Direct (income) or indirect (tax) subsidies* for environmentally consistent actions;
- *Taxes fees on emissions of pollutants* or environmentally incompatible behaviour i.e. carbon trading (revenue programs) (Box 3);
- Deposit-refund schemes that control management of potentially harmful materials;
- *Tradable permits* that increase flexibility and reduce costs of meeting specific environmental targets for like groups of establishments;
- *Banking and offsets* that help firms mitigate damages efficiently when they are otherwise unavoidable; and
- *Performance bonds* posted in advance of development that help ensure delivery of environmental commitments during construction and operation.

Box 2: The 'real' price

"Timber prices do not usually include the total environmental costs of logging operations (e.g. loss of habitat, biodiversity and recreational values etc.). Timber markets, like so many others, are therefore subject to market failure. If added to the price of forest products, consumers would be better informed about the environmental costs involved. If cheaper, more environmentally friendly products are available they might then prefer them. The positive effects would be many: a cleaner environment and improved social welfare. Economists often refer therefore to the importance of 'getting the prices right' through public interventions, as a key environmental management policy tool". (UCEP)

Some potential problems with PPP include (UNCSD 1999b):

- when and how much the polluter should pay is often still unclear;
- how to set the level of the charge in order to achieve the desired level of pollution reduction;
- how to identify polluters;
- enforcement and control; and
- the risk that investors or developers can pay a symbolic fine for imposed irreversible negative impacts on the local environment.

4. APEC TWG Survey results

According to the surveys, 19 (95%) APEC economies have national/provincial policies in place for establishing parks etc to conserve biodiversity.

(See Appendix 1 for more details)

5. APEC TWG Survey results

According to the survey results, 15 (75%) APEC economies have policies/strategies in place for community participation in tourism development and management.

(See Appendix 1 for more detail)

Box 3: Carbon trading

What is carbon trading?

Carbon emissions trading regimes are usually tied to the Kyoto Protocol designed to slow global warming. A carbon trading system allows the development of a market through which carbon (carbon dioxide) or carbon equivalents (other greenhouse gases such as methane expressed in units of carbon relating to an equivalent warming capacity) can be traded between participants, whether countries or companies.

In an 'allowance' trading system each participant is allocated an emissions limit. The participants can then sell any unused component of the carbon allowance, obtained by reducing emissions below their limit, or they can buy carbon credits from others, allowing them to exceed their original limit. The participants would choose the least cost alternative between reducing emissions or buying additional allowances from the marketplace.

In a 'credit' trading system, each participant earns credits for reducing emissions by more than is required. Credits can then be stored for future use or sale. Credit or allowance systems could coexist or be introduced independently and one or the other may be better adapted to specific.

How would carbon trading work?

For a carbon trading system to operate effectively there needs to be:

- effective emissions monitoring and reporting by participants;
- independent verification of the emissions; and
- an enforcement mechanism.
- a number of other economic instruments, such as high penalties for non-compliance, should coexist with trading.

(Australian Minerals & Energy Environment Foundation 1997; The Carbon Trader 2002)

Conservation legislation

Resource legislation helps establish natural areas, which in turn are managed by government agencies (i.e. national parks). Such national parks, nature reserves and other protected areas help conserve a countries' biodiversity.

Parks however, have experienced increased pressures from resource users such as agriculture, forestry, mining and tourism. Effective strategies for protected area management are very important for the conservation of these protected areas (Worboys *et al.* 2001). National parks and other protected areas are subject to regulations that minimise to a greater or lesser extent activities that threaten the area's environmental carrying capacity and can act as indications of sustainability (Weaver and Lawton 1999). IUCN (International Union for the Conservation of nature; also referred to as the World Conservation Union) and other conservation organizations have made a huge international effort to establish a world system of protected areas (Worboys *et al.* 2001).

Intact and healthy ecosystems are becoming the world's most sought-after tourism destinations (Lindberg 1999). Protected areas and tourism will be discussed in more detail in Section 3.2.

2.2 Community participation and socio-economic policy

As tourism has attained a major socio-economic role round the world, it must be ensured that tourism is balanced with other economic, social and environmental goals (Ceballos-Lascurain 2001). However, the tourism industry has been slow to integrate economic force with environmental and social requirements. While the industry may be willing to improve their products and services (to be more sustainable in nature), there is a conflict between the industry's pursuit of economic gains and social and environmental responsibility. For instance, increasing tourist numbers in a destination area will often lead to a competition of resources, where frequently tourists are supplied at the expense of the local population. The social and environmental effects of tourism on local people can therefore be profound.

2.2.1 Community participation

On the contrary, tourism can be seen as a vehicle to transform local communities positively and provide a more sustainable alternative (Elliott 1997). One of the most widely accepted principles in achieving this is through local community involvement in tourism planning and management (Swarbrooke 1998). Community participation

in tourism can support and uphold local culture, tradition, knowledge and practises, maintaining diversity and creating pride in heritage.

Community involvement and control of tourism development will also ensure that tourism revenue stays in the host communities. This will enhance livelihoods and generate a profitable source of income, empower and motivate local groups to direct cross-cultural exchange in the way they wish and adopt practices, which conserve, protect and preserve the environment (UNCSD 1999b). This will be discussed in more detail in Section 3.4.

2.2.2 Tourism leakage

The tourism industry is characterised by a high degree of monopoly, which implies a concentration of services and profits into very few big transnational corporations. In many countries, tourism facilities mostly belong to foreigners. As a result, a significant amount of foreign exchange revenue leaks from the destination countries. Also, many tourists tend to purchase most of their materials, products and services in their country of origin. In turn, foreign exchange earnings generated by tourism are retained by tourist-generating countries, rather than being retained by tourist-receiving countries (Benavides 2001).

Very often the investors are not approaching the local community to see what it actually can provide. There is a danger that a global economy can undermine possibilities of individual countries and regions to control their tourism industries and gain economically from tourism (UNCSD 1999b).

The multiplier effect from tourism is less significant than sometimes assumed. In order to minimise tourism leakage, there is a need for a move towards greater community participation in tourism where local supply capacities are strengthened so that products are produced and owned by the local population (UNCSD 1999b; Benavides 2001). Another factor in minimising leakage levels is to identify the type of tourism that is being promoted. For instance, high-income tourism requires the provision of very high quality and high priced goods. This may actually result in increased leakage in some cases, despite the higher income it may generate. The potential of leakage with mass-tourism can be higher than with environmental or ecotourism because the latter group value and consume local resources as part of the tourism experience (Benavides 2001).

2.2.3 Rural and regional development

In many countries the value of tourism for rural and regional development is increasingly being recognised. Rural and regional tourism is an industry sector characterised by small-scale tourism businesses, set in areas where land use is dominated by agricultural pursuits, forestry or natural areas. There are numerous rural tourism products, for instance: sightseeing, camping, hiking, visiting friends and relatives, historical towns, experiencing heritage and culture, arts and crafts, and visiting national parks.

Box 4: Mundo Maya Project, San Juan, Mexico

San Juan is a rural, largely Mayan community, which is part of the mega project, "Mundo Maya", supported by three countries, to protect the Mayan heritage. The "Mundo Maya" project has drawn attention to the plight of the Maya peoples and their needs and desires to benefit from the state's major industry, tourism. As part of this project, an NGO is involved in assisting the community to participate in tourism activities.

San Juan is located in a region, which previously has achieved large-scale mass tourism by advertising its coastal town Cancun as the 'Caribbean attraction' of sun, sand and sea. Today the region appears to be entering a second phase in tourism. San Juan is now promoting its 'Mexican cultural attractions', in an effort to develop tourism that will lead to improvements in the rural infrastructure and standard of living, preserve culture, improve social welfare and reduce migration to nearby cities. (Hemmati 1999)

Local communities gain significant benefits from rural tourism, provided it is sustainably and responsibly planned and managed. Such benefits include:

- *Economic:* Increased non-agricultural income – diversification of the regional economic base and improved employment opportunities in the rural areas from associated activities.
- *Social:* The use of visitor facilities for community purposes – enhancing lifestyle through the development of visitor facilities and services.
- *Cultural and environmental:* Opportunities for interactions with people of other cultures and backgrounds – cultural exchange; provides sense of community pride; recognition of the need to preserve the natural and cultural beauty of the area – maintenance and enhancement of cultural and natural attributes of an area and community.

To achieve successful planning and management for sustainable tourism development in any locality or region, there must be collaboration between public and private sectors. To create positive opportunities for community development in remote areas the community must be well represented through substantial local government input

and involvement. If collaboration exists between the public and private sectors, infrastructure is likely to be planned and developed with a more 'holistic' view. Convenient forums for bringing the stakeholders together are regional Tourist Associations (Tonge and Myott 1996).

Box 5: The Agro-Tourism Network, Island of Chiloe, Chile



As a product of history, Chiloe has developed a culture more resistant to foreign influences. Chiloe's population farm small areas of productive land to complement small-scale fishing. In search of alternatives to facilitate development and generate new income, the Ministry of Agriculture and the

Diocese of Ancud (Ancud – the main city of Isla Grande of Chiloe) decided to combine traditional and new economic activities centred on providing rural tourism services. In 1996 dozens of families from the archipelago were invited to form a network of Agro tourism under the coordination of a NGO linked to the Diocese of Ancud. The families were urged to participate in the program and condition their homes to receive visitors. The objective was to develop a new product "the sale of an Agro-Tourist experience". This tourist attraction that the project offers, is based on the different domestic productive activities that farming families carry out. It is a chance for visitors to share farming family life. To do this, the tourist needed to be integrated into the lives of host families, who give the tourists personal service.

From an economic point of view the project tried to take full advantage of the natural and cultural resources (some of Chiloe's interesting churches were recently listed as World Heritage Sites). From a social view point, the project aims to generate productive development with an ethical base; mutual support among participants and respect for the environment were the fundamentals of the ethical base. From a cultural perspective it is hoped that the project will protect the unique identity of Chiloe, its origins and customs.

Families part of the project received training and support in the fields such as administration, and budgeting, agro-tourism, preservation and food technology, customer service and service quality. To facilitate commercialisation of the network's guesthouses an information centre was formed in Ancud. Simultaneously the National Tourism Organisation contributed to the project by distributing promotional material that included a brief explanation of the services and the prices that each family offered. The host families themselves also provide the tourist with all the relevant and relative information and services. Some

additional products the families can offer are guided water excursions on authorised boat, fishing expeditions, hiking etc.

Outcomes of the project:

As a result of the project, the sources of income for the participating families became diversified.

The project has been developed with direct and active community participation. The initiative has increased their sense of dignity. It has channelled multiple public and private resources to convert the community, users and beneficiaries, into "actors" instead of passive receptors of external attractions.

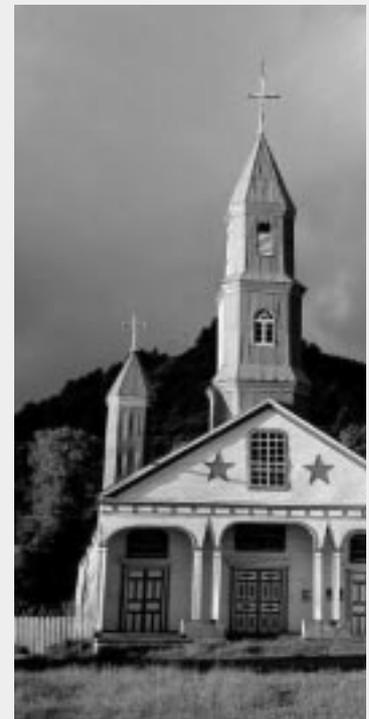
The role of Chiloe's women has undergone a transformation – traditionally limited work options opened options for more formal economic activities.

The project has given special care to both the environment and the traditional cultures of Chiloe, as these are bases of Chiloe's attractiveness for tourists. The network has had a dual effect encouraging the population in general to take a greater interest in the environment and a more respectful attitude toward indigenous cultures.

Challenges:

One of the challenges is to develop a more integrated tourism product, involving the rest of the community. Other problems to be solved are sewage treatment and making drinking water more available. An important challenge that should be immediately addressed is the dissemination of information about the project. An improved working relationship between participating families the coordinating NGO and government organizations could help solve some of the problems.

(The Ministry of Agriculture and the Diocese of Ancud. 1999)



2.2.4 Pro-poor tourism

Travel and tourism has the ability to provide concrete and quantified trading opportunities for all nations, regardless of their level of development. Tourism provides a source of foreign currency and employment and constitutes a platform for economic development (Benavides 2001). However, many government development plans do not consider their involvement in tourism activities, especially sustainable tourism as an option to alleviate poverty.

Tourism is highly dependent upon natural capital and culture. These are assets that often the poor have, even if they have no financial resources (Ashley *et al.* 2001). The poor can be involved in all the initiatives – as individual producers, casual labourers, operators of micro and small businesses and as members of the community. Tourism can be more labour intensive than manufacturing (though less labour intensive than agriculture) and compared to other modern sectors, a higher proportion of tourism benefits go to women (Ashley *et al.* 2001)

Tourism's diverse nature has therefore the potential to effectively contribute to poverty reduction. Pro poor tourism (PPT) strategies focus on three core areas:

1. *Increased economic benefits* – expanding business and opportunities, enhancing collective benefits;
2. *Positive non-economic impacts* – capacity building, training and empowerment, mitigating environmental impacts, addressing social and cultural impacts; and
3. *Policy process reform* – building a more supportive policy and planning frame work, promoting participation in decision-making (there is a need for collaboration and communication between the various parties), bringing the private sector into pro-poor partnerships (particularly if marketing is to be effective) (Ashley *et al.* 2001).

As a result of tourism's diverse nature, all stakeholders (government, the private sector, NGOs, community organisations and local communities themselves) have a critical and very different role to play in PPT (Roe and Urquhart 2001).

The private sector, such as tour operators and lodge operators, play a number of important roles from product development, marketing and investment to operation (Ashley *et al.* 2001).

For governments it is important to provide a leading role in setting the policy environment (framework) that facilitates PPT; or at a minimum play a supporting role. The policy framework – while many interventions and actions can take place outside the sphere of responsibility of the state, they

cannot be fully effective without a strong commitment and involvement of government in the area of policy.

The community itself is critical to PPT. A community needs to be organised at the local level in order to engage effectively in tourism (Ashley *et al.* 2001).

There are however, critical issues affecting PPT. Often the markets are controlled by well-established operators and the access of the poor to these markets can be a difficult. Vertical linkages such as, hotels, tour operators and airlines, further limit opportunities for entry into the sector. There is also the question of how PPT strategies can be commercially feasible and include the private sector. The challenge is commercial pressure, which makes the private sector very reluctant to change any aspect of their behaviour that might decrease profits.

Then there is the problem of leakage. Tourism is often driven by foreign and private sector interests, and so it can have limited potential to contribute to poverty elimination in developing countries. It is noted for high levels of revenue leakage, and of the revenue that is retained in the destination country, much is captured by rich or middle-income groups – not the poor (Roe and Urquhart 2001). Tourism is also a volatile industry, being extremely susceptible to events, which are difficult to control – political unrest, exchange rate fluctuations and natural disasters.

However, if PPT strategies are planned and managed through community involvement, alongside the concepts of sustainable development, PPT strategies may unlock opportunities for the poor and ensure that tourism growth contributes in a very meaningful way, to poverty reduction (Ashley *et al.* 2001).

2.2.5 Indigenous people and tourism

Indigenous people may represent the entire host community or a component of the host community. They are the 'first peoples' or oldest surviving inhabitants of an area who have usually lived in a traditional homeland for many centuries. Their subsistence practices rely on the use of local resources and ecosystems (Worboys *et al.* 2001).

Typically, indigenous groups have suffered from the colonisation of their land by others, with their populations decimated by violence and disease (Worboys *et al.* 2001). Unsustainable tourism can add to this injustice by damaging the environment and violating indigenous peoples' and local communities' rights of access and ownership to land and natural resources essential to food security, self-sufficiency and cultural identity. It also commercialises and commodifies indigenous communities and their cultural heritage, and sacred sites integral to traditional cultural and knowledge systems (Pera and McLaren 1999).

“Control by indigenous peoples over developments affecting them and their land, territories and resources, will enable them to maintain and strengthen their institutions, cultures and traditions and to promote their development in accordance with their aspirations and needs” (Draft Declaration of the Rights of Indigenous People, The United Nations Commission on Human Rights).

The impacts of tourism however, can be minimised if indigenous communities become the prime decision-makers with regard to tourism that will impact their cultures and environments (Pera and McLaren 1999). In other words, sustainable tourism developments will and must:

- foster indigenous community participation in tourism planning, implementation, and regulation;
 - provide access to all information (negative and positive – prior-informed consent: includes decisions based on knowledge about both the pros and cons of development);
 - ensure that the benefits of tourism impact the whole community;
 - provide support for economic diversity within communities; and
 - support for development of Indigenous community programs.
- (Pera and McLaren 1999)

Sustainable tourism developments are becoming an important path for indigenous people in all parts of the world, who seek a degree of economic independence. The ethics of sustainable tourism necessitate that indigenous people be actively involved in the management of their natural and cultural sites. Furthermore, traditional knowledge and wisdom of indigenous people can help us to develop more sustainable relationships between people and resources. There is now a growing recognition of the need to integrate the knowledge of indigenous people into national strategies for environmental and conservation management. Partnerships between ‘science’ and indigenous knowledge form a strong basis for environmental protection (Worboys *et al.* 2001).

“A mistake made by the community is a thousand times better than a solution imposed by an expert” (Mexican proverb).

2.2.6 Women in tourism

The integration of gender into the discussion of tourism is particularly important, as the tourism industry is a major employer of

women. In general, women constitute a higher proportion of the workforce in the tourism sector (46%), than the global workforce (34%).

Work undertaken by women provides a vital basis for tourism services, as women dominate the service sector, with more than 90% being employed in catering and lodging as waitresses, bartenders, maids, babysitters, cleaners, housekeeping, helpers, laundries, drycleaners and the like. This reflects that the traditional roles of women perpetuate within the industry, resulting in women entering an imperfect labour market on unequal terms. Women are consistently denied positions of leadership and responsibility within the tourism industry; they proportionally earn less and work longer hours and they are being objectified as part of the tourism ‘package’ (Hemmati 1999).

In less direct ways too, women will be among those most affected by unsustainable tourism developments. For example, if hotels direct water supplies away from local communities, it will be women who walk the extra miles each day to collect a families’ supply. If a local community is denied a fair share of tourism development profits, it is often women who struggle to sustain their families. Without social justice and peace, we will not achieve sustainable tourism development (Hemmati 1999).

Alternatively, with social justice in place, the travel and tourism industry has the ability to offer a wide range of employment opportunities to women. The tourism sector can provide various entry points for creating self-employment in small and medium sized independent income generating activities; promote women in managerial roles; improve access to training and education opportunities, and provide the appropriate support for women. Thus creating paths towards the elimination of poverty of women and local communities in ‘developing’ countries (Hemmati 1999).

The tourism industry appears to be good ‘candidate’ for engaging in efforts towards the advancement of women. Due to its size, rapid growth, its extremely diverse and dynamic nature, the tourism industry has an enormous flexibility. In some instances, we are seeing

Box 6: Tour operators cooperative, Honda Bay, Philippines

As a result of dramatically decreasing fish catch in recent years, the fisher folk in the village formed the Honda Bay Boatmen Association (HOBBAI), with the aim of alleviating poverty, by turning around the household incomes of the fishing community. This association has provided a participatory process, including extensive consultations between the local authority and the fishing community and designing an alternative. It is also assisting in evolving policies to break the monopoly of five families over providing boat rides to tourists

From this stems the 'tour operators cooperative'. Through this, village women have emerged as organisers and leaders and now are primary managers of this community-based sustainable tourism project. Women's concerns, skills and leaderships grew through the project's use of participatory planning and management. There has been a sustained involvement of village women in local tourism

politics and legal defence of their marine and coastal resources. By using participation techniques this community organization has made significant progress toward equitable and community-wide sharing of both responsibilities and profits.

It has largely been NGO women that have advocated to policy makers that community-based sustainable tourism initiatives should be the primary thrust of tourism development on the bay. Before cooperative neither women nor men from the small tour boat operating families in Sitio Honda Bay were involved in local tourism planning or earning their potential from already existing tourist market. Now women have a stake in several sectors of tourism, including provincial and local government officials, local and international business interests, and local NGO and PO members. Women have also become visibly and consistently involved in the planning and implementation of local tourism strategies. (Hemmati 1999).

women carving out new roles for themselves in their families and homes, as well as within the local power structures, and are increasingly becoming involved in decision-making processes so crucial to the development and stability of their local communities (Hemmati 1999).

Many of the changes, which are necessary to achieve social equity, refer more to social and cultural attitudes than to few a precise policy measure. This in turn certainly raises complex questions, where what is understood to be morally and culturally acceptable, varies from different countries. However local governments and NGOs, industry and individuals can encourage a move toward a more positive and equitable attitude by applying guidelines, codes of practice, training and education, and not least through example. This requires efforts in all sectors, with the collaboration of all stakeholders – governments, and intergovernmental bodies, local government, industry, trade unions, local communities and their different member groups, NGOs, community based tourism initiatives etc (Hemmati 1999).

2.2.7 Small and micro business development

The travel and tourism sector is characterised by, on the one hand large vertically and horizontally integrated companies and on the other hand, small, family owned, micro enterprises. Indeed, the limited research that has been done (CRC 2001), indicates over 80% of all tourism enterprises are so called SMTEs (small and medium sized tourism enterprises). SMTEs are the lifeblood of local destinations. They provide the character, culture and environment that visitors travel to experience. SMTEs are expression of local entrepreneurship and the real engine for local participation in the tourism industry.

The travel and tourism industry should promote the establishment of small and medium-sized tourism

enterprises (SMTEs) which, compared to large-companies, have less impact on the environment. Policy needs to be implemented to directly encourage the development of SMTEs. This involves simplifying bureaucratic regulations, providing start-up loans, facilitating training and skill development, supporting collaborative marketing strategies and so on.

2.2.8 Protection of cultural and religious traditions

Tourism can be a means of protecting cultures, traditions and religions. However, it can also create change or loss of local identity and values, which are brought about by several influences i.e. commercialisation, materialism, standardisation, loss of authenticity, staged authenticity and adaptation to tourist demands. The need for tourism to be sensitive toward local traditions and cultures, and focus on protecting cultural and religious traditions, is high (UNEP 2001).

Box 7: Regulations and restrictions for preserving historical cultural heritage, Macau

Government concerns to preserve and revive the historic, cultural and architectural heritage of the Territory, resulted in the creation of the Cultural Institute (of Macau). The Cultural Institute seeks to coordinate activities in the cultural field and aims to promote, encourage and support cultural and artistic activities and festivals. It combines sectors of cultural heritage, cultural activities, training and research. (The Cultural Institute)

6. APEC TWG Survey results

According to the surveys, 11 (55%) of APEC economies suggested they have policies and strategies in place to control the impact of tourism and tourists on religion, culture and heritage of the local population.

(see Appendix 1 for more detail)

As tourism involves movement of and contact between people in different geographical locations, social relationships between people who normally would not meet arise. Cultural clashes can take place as a result of differences in cultures, ethnic and religious groups, values and lifestyles, language and levels of (monetary) prosperity (UNEP. 2001).

2.3 Industry performance

The travel and tourism industry should always act in accordance with the surrounding natural and social environment, respecting the cultural integrity of the tourism destination. One method of accomplishing this is through industry self-regulation or voluntary initiatives for example by defining codes of conduct for the industry.

Voluntary initiatives is a generic term for voluntary programmes, voluntary agreements, codes of conduct and standards, best practice management, industry accreditation schemes, principles and guidelines etc. Voluntary initiatives adopted by the tourism industry represents action taken by the industry that goes beyond existing environmental laws and regulations (UNEP 2001).

These are important measures of the travel and tourism industry's commitment to sound management practises, given the predominance of small and medium sized businesses in travel and tourism. Self-action and voluntary initiatives can be a more effective first approach than government legislation (UNCSD 1999a). They however only complement, and do not replace legislation, regulations, economic measures, information or other policy tools. Voluntary initiatives are discussed further in Chapter 5.

2.4 Individual action

Individual consumers also have the power to encourage sustainable and responsible behaviour in the tourism system. They can take action by purchasing 'green'. By creating a demand for ecologically sound products, consumers can change the types of products and the ways they are produced (Worboys *et al.* 2001). This is a powerful way for individuals to express their concern about the environment.

Consumer power is reflected in the effort that industries now make to promote themselves as environmentally friendly. An example of this is industry self-regulation and eco-labelling of products and services (Worboys *et al.* 2001).

Box 8: WTO Code of Ethics

The WTO Code of Ethics is a global framework for responsible and sustainable travel and tourism development. The code includes 9 articles outlining the "rules of the game" for destinations, governments, tour operators, developers, travel agents, workers and travellers themselves.

1. Tourism's contribution to mutual understanding and respect between peoples and societies
2. Tourism as a vehicle for individual and collective fulfillment
3. Tourism, a factor of sustainable development
4. Tourism, a user of the cultural heritage of mankind and contributor to its enhancement
5. Tourism, a beneficial activity for host countries and communities

6. Obligations of stakeholders in tourism development
7. Right to tourism
8. Liberty of tourist movements
9. Rights of the workers and entrepreneurs in the tourism industry

The 10th article involves for the first time (for a code of its type) mechanisms for enforcement of the code:

10. Implementation of the principles of the Global Code of Ethics for Tourism

This suggests that the public and private stakeholders in tourism development should cooperate in the implementation of these principles and monitor their effective application. (WTO 2001)

2.5 Sustainable tourism strategies

A national tourism strategy or plan aims at guiding tourism development so that tourism positively contributes to national, regional and local development goals and objectives. It is important that the plan is a joint undertaking by industry, community and local government, and that the type of tourism development outlined in the plan, remains in line with development of the region as a whole.

Box 9: Philippine Master Tourism Plan

At a national level the main goals of the Philippine master tourism plan are to:

- Optimise the contribution of tourism to economic growth at a national; and regional level
- Enhance and contribute to social cohesion and cultural preservation at a local level
- Develop tourism on an environmentally sustainable basis; and
- Develop a diversity of destinations attractions and markets to minimise exposure to major internal and external threats to tourism activity.

The Tourism Master Plan is being implemented collaboratively by the concerned national government agencies (public sector) and the private sector.

Box 10: Environmentally Sustainable Development Strategy for Hong Kong's Travel and Tourism Industry

Through a collaborative effort between the Hong Kong Tourist Board and the Hong Kong SAR Government Industry Development, an Environmentally Sustainable Development Strategy for Hong Kong's Travel and Tourism Industry was established by the Hong Kong Productivity Council. The strategy aims at improving environmental quality of the travel and tourism industry and sustaining its development into the future in order to meet economic functions over long term. The Strategy is designed to recommend comprehensive and practical measures based on sustainable principles for industry member use. The Strategy is arranged into four priority areas:

1. environmental management;
2. sustainable training, education and public awareness;

National sustainable tourism strategies ensure that tourism is balanced with broader economic, social and environmental objectives at the national and local level by setting a national tourism strategy that is based on knowledge of environmental, biodiversity and cultural resources, and is integrated with national and regional sustainable development plans (UNEP 2001). This in turn will provide a framework for (Tonge and Myott 1996):

1. balanced and responsible development of tourism throughout the region covered
2. forward planning by individual sectors of the tourism industry, the community and local government
3. the protection of the inherent character of the community and areas of environmental and cultural sensitivity.

3. facilitating exchange of information, skills and technology related to sustainable travel and tourism;
4. assists in land use management and planning for sustainable travel and tourism development.

The strategy advocates that the future success of its implementation depends upon the participation of industry operators and recommendations that the responsibility of encouraging members to adopt the strategy should not be left up to any single industry body or organization to assume. Instead, voluntary participation and cooperative efforts will be encouraged for all parties involved.

As part of the strategy a quarterly newsletter has been established, to distribute information on the environmentally sustainable development strategy for Hong Kong's travel and tourism industry, and to facilitate exchange of information related to sustainable travel and tourism in Hong Kong. (Hong Kong Tourist Association)

7. APEC TWG Survey Results

According to the surveys, conducted by the Cooperative Research Centre for Sustainable Tourism, 16 APEC member economies (80%) have a National Tourism Strategy/Plan in place. Of those 16 economies, it was found that:

- All include sustainable tourism principles in their strategies (90% of total);
- 12 (60%) economies have the strategy included at the provincial/state level; and
- 13 (65%) have the strategy included at the regional/local level.

(See Appendix 1 for more detail)

Box 11: Malaysian National Ecotourism plan

The plan has been developed by the Ministry of Culture, Arts and Tourism (Government of Malaysia). The plan serves as an appropriate instrument within the overall sustainable development of Malaysia and the economy and assists government at the Federal and State level in the development of Malaysia's ecotourism. It aims to act as an effective tool for the conservation of Malaysia's natural and cultural heritage, through cooperation and integration of all sectors (government, businesses, customers and local residents) to maximise the economic, socio-cultural and environmental benefits it has to bring.

The Ministry of Culture, Tourism and the Arts acts as a single coordinating body for planning, promotions and regulation. However the Ministry recognises the imperative role of the private sector and specifies roles for all sectors of Federal, State and Local government, private businesses, NGOs and other players.

The plan is divided into 6 parts and an executive summary.

Part 1: *The National Ecotourism Plan* – identifies 14 broad strategies, 37 issues based upon discussion with all sectors (government, business, customers and local residents) and 21 action plans to tackle the issues;

Part 2: *Site Listing* – lists 52 project suggestions, and also lists existing and potential sites with development;

Part 3: *Guidelines* – addresses specific activities and functions (e.g. carrying capacity, health and safety);

Part 4: *Status* – describes ecotourism areas and the current state of ecotourism;

Part 5: *The region* – sets Malaysia within the Asia-Pacific, providing largely background material; and

Part 6: *Annexes* – bibliography, contacts, and other data.

The first 3 sections (the action plan, site proposals and Guidelines) set out the implementation part of the Plan.
(Luong *et al.* 1999)

Box 12: Planning for a National Ecotourism Strategy, Vietnam:

Vietnam's biodiversity and cultures are its key tourist attractions. Therefore, a strategic alliance between tourism and conservation is particularly urgent. Vietnam's tourism industry needs a national strategy to protect Vietnam's natural areas. "Ecotourism may be viewed as a strategic alliance between tourism and the environment" "Ecotourism planning in Vietnam involves a strategic alliance between private-sector tourism entrepreneur, public-sector land managers and other government agencies and NGOs.

A National Ecotourism Strategy would be driven by The Vietnam National Administration for Tourism (VNAT). To be successful it must involve a wide range of public sector groups, together with the private and voluntary sectors. It is intended to involve several different types of policy initiatives, each concerning a strategic alliance between tourism and conservation interests:

- international marketing of Vietnam's natural and cultural heritage as a basis for a globally competitive tourism sector
- land-use planning to ensure that adequate areas are set aside for conservation and tourism, and protected from damage by other industry sectors
- environmental management within the tourism industry, to minimise its impacts on the natural and cultural environment on which it depends
- environmental education both by and within the tourism sector, to generate respect for nature and culture within domestic as well as international tourists
- joint lobbying information gathering education and local community development projects by tourism and conservation interests to overcome wildlife poaching and illegal trade in endangered species and body parts.
(Luong *et al.* 1999)



Box 13: New Zealand Tourism Strategy 2010

“The strategy aims to provide a framework for decision-making that will allow the tourism industry to face the future with confidence and build the capabilities for its sustainable growth”.

The New Zealand Tourism Strategy is a joint industry and government initiative. It was developed by the Tourism Strategy Group and builds on the work of the Tourism Industry Association in 1999. It has involved extensive input from the industry, industry stakeholders and the Maori Tourism Advisory Group.

The strategy aims to be of interest to a wide range of stakeholders, and strengthen New Zealanders’ understanding of the importance of tourism. Overall, the aim of New Zealand is to maximise tourism’s income potential while ensuring cultural, social, environmental sustainability.

The key principles that throughout the strategy include:

- *Sustainability* – sustainable development is critical to ensure the benefits of tourism will it be short-lived.
- *Yield driven* – this highlights the importance of strategies that increase visitor spending rather than focusing solely on growing visitor numbers.
- *Maori participation* – Maori will play a key role in tourism and will increasingly benefit from it as more Maori are employed in the sector and take an equity stake.
- *Public/private commitment* – more effective public private partnerships consistent with the Treaty of Waitangi.

The main objectives of the strategy are:

1. *Securing and conserving a long-term future* – conserving the natural, built, cultural and social environment with which tourism interacts. Managing the core elements of Maori involvement in tourism in a manner consistent with the Treaty of Waitangi.
2. *Marketing and managing a world-class visitor experience* – developing and managing the brand in the marketplace. Attracting more visitors to travel and within New Zealand with higher yield mix (based on components of stay and spend) providing them with reasons to visit at different times of the year and to visit different parts of New Zealand products to meet visitor needs.
3. *Working smarter* – minimising duplication in activities and structures, utilising common or consistent systems and practices, maximising coordinating and collaboration throughout the sector and reducing barriers to development and investment to provide a more effective, efficient and attractive industry.

4. *Being financially and economically prosperous* – balancing the elements of developing a world class visitor experience, working smarter and conserving and securing a long term future in a manner that provides viability and prosperity in the tourism sector over the longer term.

Some of the processes to achieve each objective include:

1. Develop environmental standards, monitor and manage impacts, develop facilities, improve tourism planning, encourage Maori partnerships, Maori investment and Maori participation, promote New Zealand heritage and capitalise on the culture and create community goodwill
2. Building the brand, mark of authenticity, maximising marketing mix, year round products, event development, development distribution, visitor information
3. Less is more, government investment, improve SME capability
4. Promote the use of pricing and yield management strategies to improve financial and economic viability, tourism operators increase their use of competitive yield management strategies.

The NZ Strategy explains that tourism will be a key sector in the transformation of the New Zealand economy and contribute significantly to economic growth both nationally and regionally. Therefore the benefits to New Zealand of ‘getting tourism right’ are potentially very large. The sector has debated these issues and challenges of achieving a more sustainable tourism industry for some considerable time. The Tourism Strategy 2010 notes many of these issues and challenges and focuses on actions that should be taken to ensure that New Zealand maximises the opportunities in a sustainable manner for or environment, culture and built heritage.

The strategy outlines that to achieve the goals it sets out, there will need to be a significant change in the sector over the next 10 years. In 2010 some of the achievements it has envisaged include that:

- Maori will participate fully in all facets of tourism and will play a key role in differentiating the New Zealand tourism experience.
 - The New Zealand experience will stand out as a unique global offering. Destination New Zealand will be seen as a leading global tourism destination.
 - Tourism destinations and products will have been developed in a way, which protects our environment, culture and built heritage.
 - All sector participants will work towards securing and conserving our long-term future. New Zealand will have achieved its carbon neutrality targets and will lead the world in Green Globe and other environmental management strategies.
 - The destination marketing and destination management will be closely aligned to ensure that New Zealand delivers on our promise to visitors.
- (Tourism Strategy Group 2000)

3. EFFICIENT USE OF NATURAL AND CULTURAL RESOURCES FOR TOURISM

In Australia, average domestic power consumption per person approximates 16 kWh per day, compared to for example, 29 kWh, whilst staying in a new tower hotel on the Gold Coast (for top-end and older accommodation the figures can be up to 2-3 times higher) (CRC for Sustainable Tourism 2000).

The heavy consumption of natural resources (e.g. water, oil, fire wood) by tourists and tourism infrastructure is incompatible with sustainable development. The carrying capacity of natural, social and cultural environments is often exceeded with the addition of tourist demands, creating conflict between community groups and tourists (UNCSD 1999b). Reconciling conflicting resource use is not easy. It involves identifying and resolving potential or actual conflicts between tourism and other activities over resource use at an early stage. It is very important to involve all stakeholders (especially the local community) in the development of sound plans, policies and strategies where different interests can complement each other within a balanced programme for sustainable tourism development. Also important is to provide the organisational and enforcement capacity required for the effective implementation of these strategies (UNEP 2001).

3.1 Wise management of natural resources

There is considerable capacity to reduce tourism use of energy, water consumption and waste production, but there is still a lack of travel and tourism specific knowledge, support and incentives to do so (CRC for Sustainable Tourism 2000). The reduction of energy use, water consumption and waste production, not only will improve environmental performance but also reduce costs for travel and tourism enterprises and host communities.

3.1.1 Greenhouse gas and energy

Through participating in travel and tourism, individuals become significantly higher energy consumers than by staying at home. High levels of energy are consumed by infrastructure (e.g. buildings, recreational facilities) and transport facilities (including customer transfer, maintenance and on-site vehicles) (STTI 2001). It is not, however, just in direct energy usage that travel and tourism can result in higher consumption levels. Increased resource consumption of resources such as water, building products etc (in addition to resource depletion) translates into greater energy demand related to supply, treatment and disposal (CRC for Sustainable Tourism 2000).

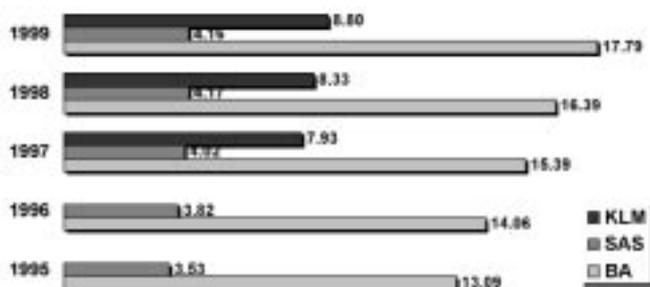
This high consumption of energy also translates to high levels of greenhouse gas emissions. Table 2 illustrates greenhouse gas emissions in Australia resulting from travel and tourism accommodation and transportation. By 2008 these emissions will result, in an estimated 40 Mt of CO₂-e from around 40,000 Australian "direct" travel and tourism businesses; including accommodation (4.9 Mt CO₂-e in 2008), travel (*not including personal car travel*) (9.3 Mt CO₂-e in 2008), restaurants (2.1 Mt CO₂-e in 2008) and other activities where data were accessible (1.8 Mt CO₂-e in 2008) (CRC for Sustainable Tourism 2000).

Table 2: Greenhouse gas emissions resulting from travel and tourism accommodation and transportation within Australia (CRC for Sustainable Tourism 2000)

INDUSTRY SECTOR/COMPONENT	CO ₂ EQUIVALENT, MT
Road transport	8.4
Air (domestic)	2.5
Shipping (domestic)	0.2
Railways (excludes electricity)	0.4
Total (tourism) transport	11.5
Accommodation	2.5
Total transport & accommodation	14.0
% of total GHG emissions	4.0%

The example of Australia also relates to the pattern of energy consumption and greenhouse gas emissions of global tourism. Travel and tourism involves the movement of people from their homes to other destinations and accounts for about 50% of traffic movements. The rapidly expanding air traffic contributes about 2.5% of the production of carbon dioxide and is therefore a major contributor to the increasing concentrations of "greenhouse gases" in the atmosphere (UNEP 2001). Figure 3 demonstrates how the quantity of greenhouse gas emissions from flight activity has steadily increased over the period of 1995 to 1999.

Figure 3: Flight activity of various airlines – GHG emissions (million tonnes CO₂) (source: KLM, SAS, BA Annual Reports)



Tourism is not only contributing to climate change, but is also affected by it. Some of the negative impacts that the world risks, as a result of global warming are, rising sea levels, storm surges, drought, diseases and heat waves. Such impacts will keep tourists away from holiday destinations. For example, less snow in the ski resorts means shorter skiing seasons in the Alpine regions; vulnerable ecosystems risk harm because of rising temperatures and less rainfall; and in coastal regions high value tourism infrastructure will suffer increased risk (UNEP 2001).

An overall reduction in energy consumption will have a positive impact on operational costs and will have major environmental benefits, primarily through conservation of natural resources and lowering associated greenhouse gas emissions (STTI 2001). The long-term solution to reducing energy consumption and greenhouse gas production is to introduce more efficient less non-renewable energy intensive equipment and procedures. This will not only improve environmental performance but also reduce costs for travel and tourism enterprises and host communities (Box 14). Some examples of more efficient less non-renewable energy intensive equipment and procedures include the use of solar power, wind power, geothermal power, low-scale hydroelectricity, natural gas and biomass. Solar energy especially has an enormous potential (both for heating water and for generating electricity) but so far is not exploited to its full potential in the majority of countries and regions (Ceballos-Lascurain 2001).

Box 14: A hotel's energy use



This project is a partnership between the Australian Hotels Association and the Commonwealth's Energy Efficiency Best Practice (EEBP). It has demonstrated how hotels can maximise profits, minimise energy costs and demonstrate leadership by reducing energy use and greenhouse gas emissions. The hotels energy use benchmarking project concluded that, best practice hotels have systems in place to regularly monitor, record, analyse and report on hot water, gas and electricity use.

Parkroyal Surfers Paradise

The Parkroyal Surfers Paradise is a 379 room hotel. The hotel has been reaping the benefits of energy efficiency since its construction in 1990. However it has only been since 1996 that the hotel instituted a formal environmental policy to ensure energy and conservation get the priority they deserve.

Key efficiency initiatives:

Initiatives incorporated during building construction

1. Air-conditioning door switches fitted on guests room balcony doors, to turn off room air-handling unit when doors are open;
2. Energy efficient , award winning, centrifugal chiller installed in the North tower;
3. gas connected for water heating, pool heating and space heating;
4. fluorescent lamps for bathroom vanity units lighting.

Lighting initiative since construction

1. 348 50 Watt lamps in guest bathrooms replaced with efficient 20 Watt dichroic lamps;
2. compact fluorescent lights installed in guest area corridor;
3. 80 150 Watt PAR 30 lamps in conference rooms replaced with 75 Watt lamps.

Building Management Systems (BMS) controls

1. In 1999, a disused energy management system was removed and the BMS was extended to control hotel common area lighting and air-handling units.

2. Digital controls installed to replace the failing pneumatic control units. This increases the BMS's control of the air-handling units and reduces operating costs.

Water heating

In 1999, a new central gas hot water boiler system was installed at a cost of just over \$AUS 68,000. This eliminated the need for 16 individual gas storage water heaters and is saving more than \$AUS 8,700 per year.

Pool heating

The hotel has two pools with capabilities of 150 000 and 470 000 litres respectively. The larger pool is heated by solar heating system with a gas booster and a natural gas heater heats the smaller pool. The hotel has decided to heat only the smaller pool year round. In the winter months the guests are directed to that pool. Total energy savings are more than \$AUS 16,000 per year.

Key energy efficiency investments and savings:

Item	Capital Cost \$	KWh energy savings p.a	Energy Cost savings p.a \$
Pool solar water heater	18,000	42 000	4,521
No heater for larger pool during winter	1,000	197 100	16,320
Gas boiler for domestic hot water	68,000	105 120	8,704
Efficient compact florescent lights	4,548	109 500	7,665
Efficient halogen lighting	1,740	20 360	1,425
Metal halide – external lighting	5,000	32 850	2,299
Efficient lights for conference rooms	1,200	21 900	1,533
Total	129,448	604 430	47,759

(EEBP 2001)

3.1.2 Waste

Waste management is an ever-increasing worldwide problem, as the majority of solid waste is still disposed to landfill (e.g. 80% of solid waste in the Sydney Metropolitan area, 2000). Box 15 demonstrates solid waste received and disposed of at landfill throughout Australia (1996-97).

Not only is there a pressing shortage of new landfill sites, but waste materials sent to landfills also represent a loss of resources, causing the degradation of the surrounding environment and producing significant amounts of methane, a potent greenhouse gas (Scott and Watt 2001). The best approach to waste management is to avoid producing waste in the first place, instead of finding ways

of treating it or getting rid of it (Ceballos-Lascurain 2001). In other words, cleaner production followed by reuse and then recycle are the key strategies to both minimizing primary resource consumption and landfill demand (Scott and Watt 2001). One way of doing this is by using biodegradable practices or bio-convertible material as much as possible (Ceballos-Lascurain 2001).

Box 15: Solid waste in Australia

Solid waste is generally classified by municipal, commercial, industrial, building, demolition and hazardous wastes. In Australia the majority of waste is disposed of at landfill sites, which in 1996-97, was estimated at 21.2 million tonnes (Table A). An audit in 1997 by the Beverage Industry Environment Council (BIEC, 1997) found that the average Australian household generated 15.7 kg of waste for collection each week. This was broken down into 11.9 kg of garbage, 3.1 kg of recyclables, 0.2 kg of contaminants (materials in the recycling stream not included as part of a council's recycling service) and 0.5 kg of green waste. Around 44% of the waste stream consisted of organic material.

Table A: Solid waste received and disposed of at landfill (1996-97) (adapted from Waste Management Industry (1996-97))

State/Territory	'000 tonnes
NSW	7,170.7
VIC	5,020.1
QLD	4,428.8
SA	1,334.3
WA	2,429.1
TAS	n.p.
NT	n.p.
ACT	236.0
AUSTRALIA	21,220.5

(Scott and Watt 2001)

Table 3: Average Rates of Waste Generation and Energy and Water Usage (CRC for Sustainable Tourism 2000)

TYPE	ENERGY USAGE (KWH/VISITOR NIGHT)	WATER USAGE (KL/VISITOR NIGHT)	WASTE GENERATION (KG/VISITOR NIGHT)
1, 2 Star & ungraded*	20	350	2.2#
3 Star	36	400	2.2#
4 & 5 Star	55.7	579	2.2#
Backpackers/hostel*	10	200	1.5
Rented House or Flat	15.9	314	1.2
Bed and Breakfast	15.9	314	1.5
Caravan *	10	200	0.5
Other*	15.9	314	1.2

* Typical energy usage rates for these facilities could not be obtained and were estimated as interpolations of available data.
 # Average value for hotels.

3.1.3 Water

One third of the world’s population lives in countries experiencing moderate to high water stress. This global water situation will get considerably worse over the next 30 years, as the share of the world’s population in countries undergoing water stress could rise to two thirds by 2025. Such a water shortage leads to competition between users. At the international level this means increased conflicts between nations that share water resources. For many countries water sets a ‘development ceiling’. It constrains improvements in: agriculture, industry (including travel and tourism) and home use.

Potable water resources can be consumed not only by drinking, but through other activities such as washing (personal and laundry), recreational facilities, gardens and cleaning of surfaces. Tourism is a heavy user of water and many operations are located in regions where access to fresh water is a concern (STTI 2001). Consequently there is a need for the travel and tourism industry to concentrate on reducing its use of water and introducing best practice.

Water use can be drastically reduced in many simple ways, especially in toilets and showers (Ceballos-Lascurain 2001). Actions leading to an overall reduction in water usage (from lowering demand and/or increasing reuse and recycle) will be a significant contribution to the local environment and the long-term sustainability of the operation (STTI 2001).

Table 3 provides a summary of waste generation, energy and water usage in various classes of Australia tourism accommodation.

Two case studies (Box 16 & 17) present summaries of the results achieved by an environmental management program in Jamaica’s Hotel industry (by the Caribbean Association for sustainable tourism’s implementation of the Green Globe program), which helped in significantly reducing the use of water, energy, materials and chemicals as well as the volume of solid waste generated by its operations.

Average daily per person water consumption in Brisbane is around 320 L/day, but when the same “average person” stays at that tower hotel, they can consume over 500 L/day (CRC for Sustainable Tourism 2000).

Box 16: Environmental management in Jamaica's Hotel Industry – Negril Cabins



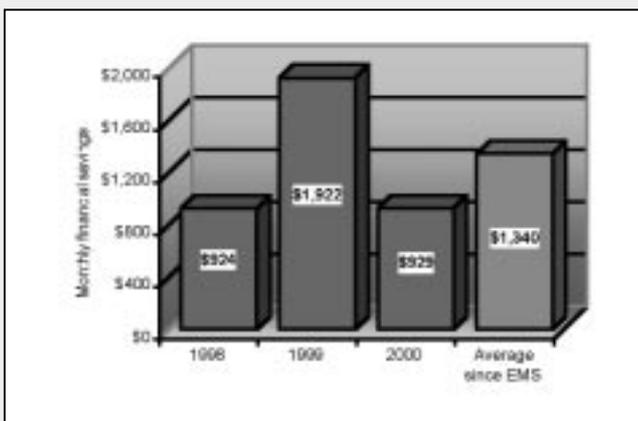
This case study presents a summary of the results achieved by the environmental management program that was developed by Negril Cabins in collaboration with the Environmental Audits for Sustainable Tourism (EAST) project. In November 1997, an EAST project team conducted a detailed assessment of Negril Cabins' infrastructure, equipment, practices and operations. This activity was designed to gauge the current (or baseline) environmental performance of the property, identify opportunities to improve efficiency and reduce environmental impacts. Following the assessment and the review of the recommendations proposed by the EAST team, Negril Cabins set out to develop and implement an Environmental Management System (EMS)¹ tailored to the specific characteristics, needs and objectives of the property. This effort has been so successful that Negril Cabins became, in 1998, one of the first hotels in the world to meet the requirements for Green Globe certification, the leading international voluntary environmental standard for the tourism industry, and received an environmental achievement award at the 2000 Caribbean Hotel Industry Conference.

Key Results

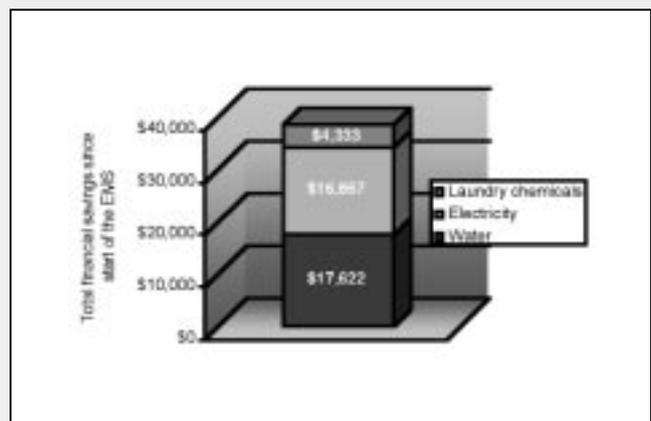
The EMS has helped Negril Cabins significantly reduce its use of water, energy, materials and chemicals, as well as the volume of solid waste generated by its operations. For example, in the 29-month period since the launch of its environmental program (5/98 to 9/00), Negril Cabins has:

- saved approximately 2,500,000 imperial gallons (IG)² of water and 147,000 kilowatt-hours (kWh) of electricity by implementing a broad range of water and energy conservation measures;
- saved \$4300³ worth of laundry chemicals by implementing a voluntary towel reuse program in guestrooms and optimising the use of chemicals in the laundry;
- produced 35 tons of compost from yard and food waste; and
- replaced synthetic fertilizers with homemade compost in all landscaping operations.

In addition to boosting environmental performance, the changes brought about through the EMS process have helped Negril Cabin reduce its operating costs and improve its bottom line. For instance, the savings achieved in only the three categories tracked for this case study – that is water, electricity and laundry chemicals – amount to \$38,000 since the start of the program.



Average monthly savings in water, electricity and laundry chemicals achieved since the start of the EMS (5/98 to 9/00)



Total savings in water, electricity and laundry chemicals achieved since the start of the EMS (5/98 to 9/00)

(PA Consulting Group)

1 An EMS is a management tool which helps a property incorporate environmental care in all key aspects of its operations, management and decision making process. By promoting the efficient use of resources and waste prevention, an effective EMS can simultaneously improve the environmental performance and reduce the operating costs of a property.

2 1 imperial gallon = 1.2 US gallon = 4.55 liters.

3 All financial figures in US\$

Box 17: Environmental management in Jamaica's Hotel Industry – Swept Away Beach Resort



Swept Away Beach Resort is well known for offering its guests a natural holiday experience, and therefore embarked in 1999 on a project to further improve its environmental performance. As a result the PA Consulting Group was organised to perform a detailed environmental assessment of the hotel's infrastructure, equipment, practices and operations. This activity was designed to gauge the current (or baseline) environmental performance of the property, identify opportunities to improve efficiency and reduce environmental impacts, and set the stage for the creation of an environmental management system (EMS) at Swept Away.

Summary of key results

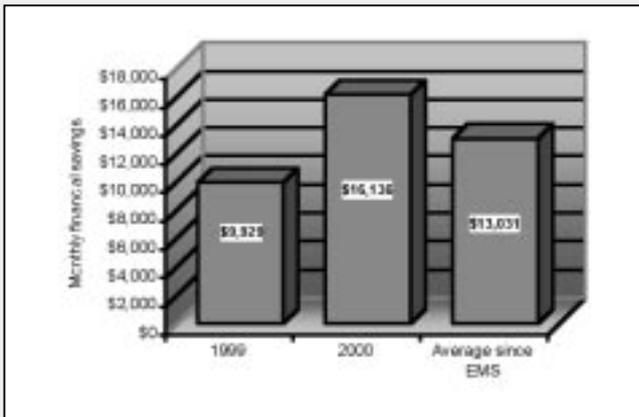
After reviewing the recommendations proposed by the assessment team, Swept Away set out to develop and implement a comprehensive EMS tailored to the specific characteristics, needs and objectives of the property. The creation of this EMS has required a fair amount of dedication and teamwork from the property's management and staff, but it has yielded remarkable results. Over a surprisingly short period of time, Swept Away has managed to greatly reduce its use of water, energy, materials and chemicals, as well as the volume of solid waste generated by its operations.

For example, in the first 18 months of its EMS Swept Away has:

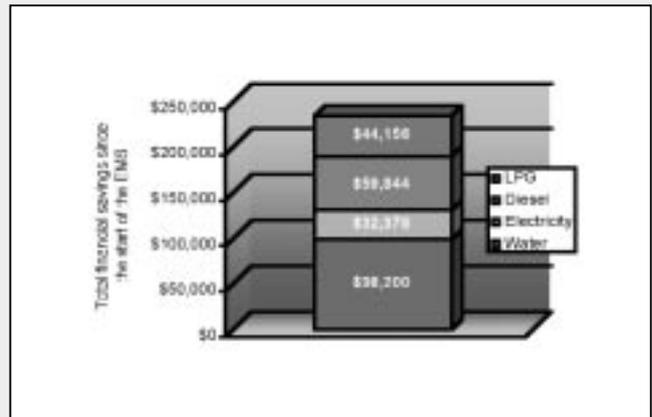
- reduced its water consumption by 20,900,000 imperial gallons (IG);
- saved 430,000 kilowatt-hours (kWh) of electricity, 169,000 liters of liquid petroleum gas (LPG), and 159,000 litres of diesel;
- transformed yard clippings and green kitchen waste into a rich compost rather than sending this material to the landfill.

In addition to boosting environmental performance, the changes brought about through the EMS have also helped Swept Away reduce its operating costs and improve its bottom line. For instance, the savings achieved only in the 4 categories tracked for this case study – that is, water, electricity, LPG and diesel – amount to \$2 in 34,000 the first 18 months of the EMS (4/99 to 9/00).

The property's EMS and efforts to improve environmental performance have been highly cost effective. Given that Swept Away has spent approximately \$35,500 on equipment upgrades, new appliances, consulting fees and other related items, it is estimated that the property's program has yielded a return on investment (ROI) of 660% over the first 18 months.



Average monthly savings in water, electricity, LPG and diesel achieved since the start of the EMS (4/99 to 9/00)



Total savings in water, electricity, LPG and diesel achieved since the start of the EMS (4/99 to 9/00)

(PA Consulting Group)

8. APEC TWG Survey results

17 (85%) of APEC economies suggested that protected areas are managed for tourist use.

(See Appendix 1 for more detail)

3.1.4 Biodiversity

Tourism plays a significant role in giving value to ecologically significant areas, including natural resources and biodiversity. It is very important to recognise the need for an effective relationship between biodiversity conservation and tourism. Sustainable ways need to be found to have tourism contribute to biodiversity conservation and vice versa. Keeping the biodiversity resource base means enhancing the tourism attractiveness of a country.

Yet one of the more significant environmental impacts of travel and tourism is its impact on ecosystem biodiversity. The reduction of biodiversity has resulted from the consumption of natural resources and the environmental impacts arising from waste, water use and resources use for materials (Ceballos-Lascurain 2001). Ways of reducing impact on biodiversity are to minimise the consumption of natural resources, by purchasing materials from sources using environmentally sound ingredients and process, using biodegradable cleaning agents and minimising waste.

Box 18: Costa Rica

Much of Costa Rica's tourism activity is based on natural resources. The key factor for the success of the tourism sector is its sustainability. The State plays the role of coordinating entity and regulator of projects and programmes that provide incentives to the communities, and also promotes and generates a real need for a sustainable model as part of environmental, business and local participation schemes. Tourism activity is one of the most important ways of valuing biodiversity and backing its conservation. National and foreign tourists are the main clients of the National System of Conservation Areas (SINAC's). It is they who currently generate the greatest amount of resources for the institution. (Ceballos-Lascurain 2001)

3.2 Protected areas and sustainable tourism

Natural and cultural resources supply travel and tourism with one of its main attractions. Without these there would be no tourism.

There are many tourism destinations that are based on the enjoyment and appreciation of the natural environments, such as, protected areas and national parks. However, irresponsible tourism developments in these environments often result in unsustainable outcomes (Worboys *et al.* 2001; Weaver & Lawton 1999).

If tourism in protected areas is planned and managed sustainably, it may provide a viable alternative and a compatible means of generating income from the parks without destroying the natural resource base (Weaver & Lawton 1999). Therefore, sustainable tourism in such areas can raise the awareness of the local population with regard to the financial value of natural and cultural sites, and make the community proud of its heritage (UNCSD 1999a).

This in turn provides a direct and powerful motivation (an economic incentive) to conserve or establish protected areas. The capital that tourism provides has assisted various governments to designate large areas of land as national parks or wildlife reserves. Prior to tourism they had failed to provide the capital resources required to afford an appropriate level of protection.

The sustainable use of natural resources such as protected areas, has been defined as 'use of living things or areas within their capacity to sustain natural processes while maintaining the life-support system of nature, and ensuring that the benefits of use do not diminish the potential to meet the needs and aspirations of future generations' (Worboys *et al.* 2001).

The demand for nature travel is increasing at an annual rate between 10% and 30%, as estimated by the WTO and the World Resources Institute. The Asia-Pacific region has also experienced similar annual growth rates of 10% to 25% in recent years (Carter *et al.* 2001). As a result of this continuous increase in visitations to protected and natural areas, the future of sustainable protected area tourism lies in its planning and management (Worboys *et al.* 2001; Newsome *et al.* 2002). This is best carried out in an inclusive manner, where cooperative partnerships are developed between all stakeholders such as, the tourism industry, conservation agencies, protected

area managers, other land managers and the community (Worboys *et al.* 2001). This would allow for stakeholder input and participation to work together towards achieving (Worboys *et al.* 2001; UNCSD 1999a):

- responsible planning that reflects a balanced approach to how natural resources are used;
- active management of sites;
- management of appropriate visitor use:
 - i. providing a range of opportunities for visitors to interact with the natural and cultural features of protected areas, whenever this is compatible and appropriate – Tourism in protected areas can increase consumer or tourist commitment to sustainable development.

ii. planning limits for visitor destinations;

- monitoring; and
- rapid response to unsustainable actions.

Cooperative partnerships have been more successful in their efforts to achieve sustainable visitor use. Usually such partnerships allow the free exchange of information and a greater appreciation of each other's goals. This also allows for active exchange of expertise, which means better decisions on behalf of visitors and protected areas (Worboys *et al.* 2001).

Box 19: Jiuzhaigou National Nature Reserve, China



Jiuzhaigou Nature Reserve is a World Natural Heritage Area, in the very North of the Sichuan Province, China. It contains attractions that draw people from great distances to enjoy, such as its ancient forests, glorious scenery, unique wildlife and fascinating Tibetan culture. Jiuzhaigou is the heartland of a still largely intact wide and magnificent mountain landscape that is endowed with some of the richest manifestations of temperate biodiversity in the world. This area provides good habitats for numerous living creatures and a variety of vegetation types. The area contains two of the world's most enigmatic species, the giant panda and the snow leopard, both critically endangered. It also contains the golden monkey, the red panda and many other highly threatened species.

Between 1972 and 1979 extensive logging took place, and concern about this promoted the proposal of the area as an area of scenic beauty and historic interest by the state Council of the People's Republic of China in 1982. The site was inscribed on the World Heritage list in 1992 and designated as UNESCO World Biosphere Reserve in 1997. The reserve has an area of 72,000ha, with a buffer zone of an additional 60,000ha.

The remote sanctuary has been officially open to tourists since January 1984. Since then, tourist numbers (including those from overseas) have been increasing annually, from 5,000 in 1984 to 140,000 in 1994, and 830,000 in 2000. Recent figures estimate visitor numbers in 2001 to be at 1,200,000. With the current international and domestic tourism explosion in China, tourism numbers could rise to 3 million people/year in the next 5 years.

Figure: Tourism development in Jiuzhaigou



Jiuzhaigou Nature Reserve is aiming to implement sustainable tourism in order to protect its precious resources and empower local communities. The park is developing sustainable best management practices in collaboration with the Australian Cooperative Research Centre for Sustainable Tourism that hopefully can be used as a model for ecotourism development and management in China. Some initiatives include:

- The Green Bus System. Jiuzhaigou allows no private transport within its boundaries. Instead, it has established a green bus system whereby 180 LPG run buses provide an environmentally sound transport alternative.
- Increasing local employment and economy. Employment in the local Tibetan communities is now largely based on tourism rather than the previous industries of forestry and agriculture. Jiuzhaigou employs 1000 local community members in tourism and conservation management, from cleaners, guides and administrators to the park's director general. This has resulted in a tenfold increase in net average income for local communities over a 12-year period.
- Sustainable hotel industry. 27 major hotels have been built around the reserve within the last year. Such growth requires a sustainable plan that marries reserve and valley needs with tourism infrastructure growth.



• Tourist number control: Visitor numbers have been limited to less than 12,000 per day since the 1st July of 2001.

- Eco-toilets: Jiuzhaigou has introduced 8 mobile toilets and eco-toilets of 260 odd bowls to replace previous fixed flush toilets.
- Working toward Green Globe certification: Jiuzhaigou Nature Reserve will be the first Chinese destination to become certified under the Green Globe benchmarks for sustainable tourism.

Further key issue that must be addressed in Jiuzhaigou in order to ensure the long-term viability of this extraordinary area, including developing:

- Effective waste management systems
- Regulation of the hotel industry
- Endangered wildlife conservation management plans
- Visitor and community education programmes
- Diversified ecotourism experiences
- Integrated research and monitoring programme.

Only if such issues as described above are addressed will tourism in Jiuzhaigou directly contribute to the conservation of the giant panda, snow leopard, golden monkey and the red panda as well as supporting the culture and development of the local Tibetan people. (GGAP 2002)

Box 20: National Integrated Protected Areas System Act, Philippines

In June 1992 an act was established, providing for the establishment and management of National Integrated Protected Areas System (NIPAS), known as the NIPAS Act. This was in response to the need for an Integrated Protected Areas Law, implementing rules and regulations, to conserve heritage areas, outstanding landscapes and seascapes, wildlife sanctuaries, strict nature reserves, marine reserves, natural parks, natural biotic

areas and similar reserves, which are now components of the protected areas system.

It is acknowledged that the use and enjoyment of these protected areas must be considered within the principles of biological diversity and sustainable development. An integral part of this is effective administration of these areas, which is only possible through cooperation among national and local government and concerned private organizations. (Congress of the Philippines 1992)

Box 21: The Fushan Botanical Garden (Nature park), Taiwan

The Fushan experimental forest is managed by the research body known as the Forest Experimental Institute (FEI). This research body has established a research station in the Fushan experimental forest. The Fushan research station has set aside 409 hectares of its total 10.85km square for setting up the Fushan Botanical Garden (Park). The aim of the Park is to manage its natural environment and protect it from human interferences, whilst playing an educational role. The issue of carrying capacity in Taiwan is a fundamental consideration in managing a natural tourist destination. In order to minimise negative visitor impacts, the research station has adopted several necessary measures:

a. Keep development small – only 30 hectares of the park is developed with necessary facilities such as restrooms, trails and visitor centre.

b. Admission limits of 300 visitors per day – an additional 100 is specially reserved for schools for educational activities.

c. Provide interpretation services – information in visitor centre, interpretive boards along the trails of the park, and an interpreter for visitors who would like a more in-depth tour of the park.

d. Regulate visitor activities – introduction to the park with an audio-visual show; visitors are prohibited to camp, set fire, picnic, pick flowers and plants, catch or feed the animals, they are requested to keep their voice down, so to not disturb the wild life and visitors must take their litter with them as they leave.

3.3 Cultural heritage areas and sustainable tourism

Cultural heritage areas are manifestations of past events and are places that show people's interaction with their environment. People leave marks on the environment as they seek food, tools other resources or shelter (Worboys *et al.* 2001). Some cultural heritage areas may not include any physical evidence, as they are spiritual sites (Worboys *et al.* 2001). Others constitute magnificent heritage cities like Bhaktapur (Box 22) or religious monuments such as Angkor Wat.

Cultural heritage areas are of great importance to travel and tourism. In fact, there is tremendous growth occurring in cultural heritage tourism, as people travel locally and internationally to experience a small piece of either, their own, or someone else's, cultural heritage (Hatton 2001). Cultural heritage resources however need active and responsible management for their protection, as a result of their significance not only to tourism, but to humankind. For instance (Worboys *et al.* 2001):

- Cultural heritage areas provide people with tangible evidence of their past and reveal the cultural roots of today's societies.
- Many visitors are interested in learning about and experiencing aspects of cultural heritage.

Box 22: Heritage City, Bhaktapur

Bhaktapur is one of the best preserved and least polluted cities in the Himalayan Kingdom of Nepal. The glories of Bhaktapur lie in its unrivalled art and culture, which has attracted many visitors seeking a unique experience.

The successful protection and management of this heritage city has been achieved through the effective cooperation of the Bhaktapur Municipality with the local citizens, as well as the visitors to the area. All of Bhaktapur Municipality's undertakings are transparent and made public. Here the lowest sector of society takes part in extensive discussions before any major undertakings of public interest are endorsed. Bhaktapur Municipality encourages as much public participation in tourism and heritage conservation as possible.

In an effort to raise funds for its conservation oriented works, the municipality began levying 'service charge'. This method proved to be an effective tool for both conservation and the city's tourism trade. The new source of income enabled the local body to undertake many conservation works.

Because the city is so well preserved, it is often referred to as the "living heritage". The preservation efforts of this ancient township have been recognised by UNESCO and as a result the city was awarded the 'First Honourable Mention from Asia for 1998-99'.

- More recently, aspects of indigenous cultural heritage, has increasingly received more attention.
- For many indigenous people, cultural heritage is very important as the sites and places are where traditional life has persisted, and they have sacred or other symbolic significance to indigenous people today.
- Some sites show fascinating and unique cultural values and creativity of indigenous cultures.
- The material fabric of historic structures suffers with time, incidents and disasters. Once historical structures are destroyed they can never be replaced.
- Historic buildings that remain from other eras provide a diversity of building forms and give character to surrounding environments, towns and cities.

There are multitudes of actors involved in cultural heritage tourism, including government, industry and the local community. As discussed throughout this report, achieving coordination and partnerships across these sectors is challenging but is the key to the sustainability of tourism. Various types of partnerships might be pursued – one manifestation may be in the form of national or regional cultural heritage tourism councils (Lindberg 1999).

Box 23: Sustainable tourism development in the Lower Volga Region, Russia

The Lower Volga Region is the historical and cultural basis of Southern Russia. A regional NGO project "The crossroads of civilisation" is aimed towards revealing, reviving and pre-serving the heritage of the areas. The heritage has been considered the resource for the social and economic development of the Lower Volga Region.

This project was established in 1995. It is a non-profit, membership based, non-governmental organization, created in order to protect common interests of its members and to reach its charter goals, which are proclaimed to be: revealing, reviving, public rehabilitation, preservation and rational usage of natural, historical and cultural heritage of the Lower Volga Region, establishing public guardianship over it, forming a healthy way of living of the region's population (articles 2.1 and 2.1.4 of the Charter).

Tourism activity is an important economic sector in this region. Farmhouses close to attractive historical and natural elements of the region's heritage were chosen so that these rural guesthouses are situated near the objects of special tourist interest. The goal of the project was to engage 200 persons in the services business in each of these regions. (Hemmati 1999)

Importantly there is a need to take into account the needs of local people and the specific features of a destination. Sustainable cultural heritage tourism recognises the value of cultural diversity, and respects not only cultural heritage, but also local culture and traditions, and provides local cultures with a forum in which they can participate in decisions that affect the future of their culture (Hemmati 1999).

Box 24: Songup Folk Village, Cheju Island, Korea

The Songup Folk Village is an excellent example of tourism development sustaining and even enhancing local culture, heritage and lifestyle. Environmentally sustainable development is given the highest priority, in socially equitable and culturally appropriate ways. In this case the local community, is actively involved in the planning and implementation of tourism development, with support from the central government. (Hatton 2001)

3.4 Community based tourism

The influence and impact of travel and tourism on a community is significant. One of the more obvious influences is the revenue tourists bring. How this revenue is attracted and the number of people who reap the benefits varies greatly. At one level, there are large-scale resorts owned and operated by remote corporations, where there is little or no economic impact on the community and people from the community are mostly

offered low-skilled minimum wage jobs. In effect there are tourists, but no tourism industry (Hatton 2001).

On the other end of the spectrum there is a dynamic community based tourism industry, which is underpinned by community (local) participation in tourism, and involves a collection of local businesses that create and sell a variety of goods and services to visitors (Hatton 2001). Such community based tourism typically subscribes to a number of broadly defined goals. Perhaps most important, community based tourism is socially sustainable and respects local culture, heritage and traditions. This means that tourism activities are developed and operated, for the most part, by local community members, and certainly with their consent and support. Often community based tourism reinforces principles of culture and tradition. Similarly, community based tourism is environmentally sustainable and implies respect and concern for the natural environment of the area, particularly where environment is one of the attraction. Although there is a natural friction between tourists and the environment, there are benefits to be reaped from the natural environment through planned, community based tourism. Local communities have come to recognise that, should the environment suffer, so will the revenues from tourists. This recognition has increased environmental protection and conservation of such areas (Hatton 2001).

Another component closely linked to community based tourism, is the growth of employment opportunities, particularly for women, young people and indigenous

Box 25: A Community-Based Eco-Tourism Project, Umphang District, Thailand

The development and growth of tourism within the Umphang District has mainly been owned and operated by the local people acting as tourist guides, punters, mahouts, mini-bus drivers, housekeepers and cooks, to provide additional and important family income. Many also operate independent travel agencies, guesthouses and restaurants.

With increasing tourism in Umphang, the Umphang District Administration and the Royal Forest Department, in cooperation with the Tourism Authority of Thailand (TAT), established a committee for the coordination and promotion of sustainable tourism in the Umphang District (in 1994). The aim of the committee was to directly attack the current problems of environmental deterioration, by focusing on the design and development of strategies to create and implement a broad-based tourism plan that would continue to involve the local communities. This would directly benefit the people of the area and protect the environment so that natural resources would be available now and in the future for the people of the area, as well as, for generations of tourists.

The committee included representatives from a variety of public and private sector agencies, emphasising local participation. They implemented 13 projects under seven themes, all of which were designed to promote the area as a community-based, eco-tourism destination. Tourism problems have been addressed through cooperative efforts of both public and private sectors, and involving local community members. It has been the local people who have agreed to, and implemented, this new management plan and programming.

The results of this type of tourism management program have been successful. Instead of short-term gain, longer term planning and cooperation is producing results that will be longer lasting and enjoyed more broadly. For example, sustainable employment and the broader distribution of tourism-related income throughout the community has been achieved. Also, the critical problem associated with irreversible environmental damage and the rapidly increasing number of visitors, has been addressed, by placing limits on the numbers of visitors according to their type of visitation program.

Building on the success of Umphang, the Umphang District Eco-Tourism Program has turned out to be a model pilot project for other areas in the country. (Hatton 2001)

people (Hatton 2001). Probably one of the most significant aspects of community based tourism is that it has the capacity to empower local and indigenous communities through community participation in tourism planning and management and through ownership of tourism infrastructure, as well as interpretation of visitors (WTTC and IHRA 1999). Host communities should be empowered to choose the type and the pace of tourism development, if at all they choose tourism, and set guidelines for tourism if they so wish (Lindberg 1999). More specifically, land ownership should be reviewed where possible, and transferred to local communities (UNCSD 1999b).

The involvement of local communities in travel and tourism not only benefits the community and the environment, but also improves the quality of the tourist experience (Newsome *et al.* 2002). Communities play an important role as the receivers of tourists (Lindberg 1999). The satisfaction of visitors with the tourism experience is essential to long-term viability of a sustainable tourism industry. If the case of unsatisfied host communities, there is a deterioration in the way host communities perceive tourism, due to unsustainable tourism developments. This results in an overexploitation of the social, environmental and cultural carrying capacities⁴ of the local community (UNEP 2001). When social, environmental and cultural carrying capacities are exceeded, community needs and concerns are compromised and their overall quality of life undermined, often resulting in communities becoming hostile and even aggressive towards tourists (Timothy 1999; UNEP 2001). This is exemplified in Table 4, which demonstrates how local attitudes towards tourism progress and unfold through the stages of euphoria, where visitors are very welcome, through apathy, irritation and finally antagonism, where residents may feel resentment towards tourism (Doxey 1975). This situation potentially threatens the viability and values of a tourism destination, as tourism commonly thrives on community resource, where hospitable and friendly host community is essential (Murphy 1985; Dredge 1999).

Box 26: Banff Heritage Tourism Strategy, Canada

Banff National Park is the world’s third-oldest national park and a Canadian icon. Tourism directly or indirectly employs almost everyone in Banff. There are however many ecological problems associated with tourism in such an area – for example, the constant threat of habitat destruction, declining natural food supplies and highway mortality. The whole ecosystem is gradually getting out of balance – yet tourism operators continue to market Banff as “pristine” and “a wilderness”.

The Banff Heritage Tourism Strategy (HTS) is a community-based tourism initiative, aiming to overcome the impact caused by too many people in a fragile place. The approach taken is to protect the natural environment whilst allowing tourism-based business to grow, accepting that travel must have limits, as many tourists will not visit a landscape that is compromised and damaged.

HTS has developed 4 objectives as a means of incorporating the notion of preservation with the reality of tourism:

- Make sure visitors are aware they are in a national park
- Encourage opportunities, products and services that are consistent with heritage values
- Foster environmental stewardship
- Strengthen employee knowledge of heritage values through training and accreditation.

To date several tourism operators have embraced the fundamentals of the HTS and it is beginning to take hold in the industry sector. Parks Canada is redefining its own role and taking a more proactive management stance in the park. Initiatives include closing several facilities surrounding Banff town site that were barriers to wildlife movement; setting limits on how many people can visit certain “beauty spots” such as Moraine Lake. However, there is a need for ongoing and even greater dialogue among various factions and interest groups. (Quan 2001)

⁴ *Social carrying capacity* – limits of acceptable change in the social systems inside or around the destination
Environmental carrying capacity – limits of acceptable change in the natural environment in and around the destination
Cultural carrying capacity – limits of acceptable change in the culture of the host population

Table 4: Irritation Index or “irridex” model (Doxey 1975):

STAGES	SOCIAL RELATIONSHIP	COMMUNITY REACTION
a) Euphoria	Initial phase of development; visitors and investors welcome	Delight in contact
b) Apathy	Visitors taken for granted; contact between residents and outsiders more formal (commercial)	Increasing indifference with larger numbers
c) Irritation	Saturation points approached; residents have misgivings about tourist industry	Concern and annoyance over price rises, crime, rudeness, cultural rules being broken
d) Antagonism	Irritations openly expressed; visitors seen as cause of all problems	Covert and overt aggression to visitors

Yet another reason to encourage community based tourism, is that a growing number of tourists would like more meaningful contact with local communities. This inturn will foster links between all-inclusive resorts and local enterprises and give opportunities to the local people for interacting and benefiting from the visitors (Ceballos-Lascurain 2001).

Community based tourism requires *meaningful* participation and collaboration of all stakeholders at all stages of tourism development, in order to work towards a more sustainable tourism industry. Governments for instance, should include the perspective of local and indigenous communities into local and national sustainable development strategies and ensure public (local) participation in tourism (UNCSD 1999b). Local Agenda 21 (LA21) for example (Box 27) is one process, which provides measures to ensure meaningful participation of all. It helps develop a shared vision and plan for the sustainable development of tourism, and involves all stakeholders in the decision-making process. Stakeholders should be aware of the importance of LA21 and aim at developing such a process when engaging in tourism development planning and decision-making.

Box 27: What is Local Agenda 21

“LA21 is the mandate to local governments to translate the United Nations Action Plan for 21st century Agenda 21 to the local level” (from implications of local agenda 21).

Many of the problems and solutions that are being addressed by Agenda 21 have their roots in local activities. Therefore, the participation and cooperation of local authorities will be a determining factor in fulfilling Agenda 21 objectives. Local authorities play an important role of constructing, operating and maintaining economic, social and environmental infrastructure. Furthermore they oversee planning processes, establish local environmental policies and regulations and assist in implementing national and subnational environmental policies. They play a vital role in educating, mobilising and responding to the public to promote sustainable development, being the level of governance closest to the people.

The framework of LA21 seeks to integrate the social, economic and ecological needs of the community in a balanced manner. (UNCED 1992; The Hague’s Local Agenda 21 Plan)

As illustrated, community based tourism will assist in minimising the negative impacts of tourism and maximise the positive effects to work towards a more sustainable tourism industry.

The next section will discuss the importance of promotion and marketing in achieving sustainable tourism. To minimise the impact of travellers on local cultures, it is essential that appropriate literature (including appropriate promotion) is offered to travellers, so they may develop educational and environmental awareness of the area they are visiting.

Box 28: Tourism based community development, Japan

1. *Process for resident participation* – Manazura, is a town of beautiful blue sea, sun and lush greenery. The town passed an ordinance for enrichment of the town and the life of residents. The ordinance provides methods for rules on development and construction and community development and the roles of the town assembly and participation of residents.
2. *Promoting community development activities* – In Yayasan Wisnu there is an NGO-supported workshop mainly composed of villagers, promoting community development activities through tourism. The workshop addresses the themes of forming organisations to promote and manage tourism, and encourages the continuous use of local resources and personnel.
3. *Cultural preservation through local government* – Based on the Cultural Asset Preservation Law, the village government focuses on preserving the community of wooden houses and has established the Foundation for Preservation of the World Heritage ShirakawaOgo Wood House. This promotes income-generating projects for the local population and in turn protecte4s the lives of the local community.
4. *Returning income to community* – In the town of Minanmi Kiso there are inefficient funds for resource preservation. As a result, revenues gained from a parking lot operated by the town, are injected back into the community for landscape preservation activities. (Natori 2001)

4. PROMOTION AND MARKETING OF SUSTAINABLE TOURISM

4.1 International market context

As the global population grows and world trade continues to be more liberalised, competition in global travel and tourism will increase. To be successful in the global tourism and travel market, enterprises and destinations need to understand and learn from international competitors and international customers. No market position developed by tourism enterprises or destinations is secure without constant attention to high levels of customer satisfaction and on-going product innovation.

North America and Europe continue to be the world's major travel source markets. The relative remoteness of tourism destinations within Asia Pacific has been an impediment to tourism growth from the more travelled regions of the world. However, there has been significant growth in intra-Asia holiday travel in the late 20th century, with that trend expected to continue. Potential major outbound markets such as China and India would have a major impact on the type of tourism the Asia Pacific region supplies into the 21st century.

Underlying the expansion of the global travel and tourism marketplace is the revolution in global information and communications technology. Furthermore, there will be demand for increased global standards of consumer protection legislation that will filter around the world, particularly in regards to false or misleading advertising of destinations promising a 'clean and green environment.' Travel and tourism enterprises and destinations that can promote and deliver international standards of responsible and ethical conduct in sustainable tourism will enjoy a competitive advantage with the 21st century traveller.

4.2 Promotion and marketing of sustainable tourism through public/private partnerships

Sustainable tourism requires honesty, responsibility and integrity in the creation and management of destination images by the public and private sectors, along with a

realistic expectation that the product or destination demand generated by the motivation force of the imaging can actually be delivered.

Where nations have decided to use tourism as a key source of export currency for their local economies, the national destination marketing processes are usually structured as some form of public sector/private sector alliance, joint venture or partnership. Generally, there is more private sector engagement in the MDC's (More Developed Countries) than is the case in the LDC's (Less developed Countries), where tourism provides one of often limited ways to participate in the global economy. This reflects the level of maturity of the destination and its tourism infrastructure in a competitive marketplace.

The underlying objective of the promotion and marketing of sustainable travel and tourism through public/private partnerships for both enterprises and destinations is to:

- identify and exploit new market potential and growth which can create wealth in the destination
- provide the basis for an ethical approach to marketing via the use of real and demonstrated environmental credentials (economic, environmental, social/cultural)
- ensure any marketing promise of environmental responsibility to local cultures, natural areas and business practices can be consistently and ethically delivered

4.3 Destination image

The perceptions of various attributes within a given destination will interact to form an overall image – media stories, memories from school days, music, television, major news items, contact with nationals from the destination and so on. That is, the potential traveller will process information over time from numerous sources to create an enduring image of a destination. The image can be modified as new, multi-dimensional information is absorbed over time, inclusive of one of the most importance sources of information, from friends and relatives.

9. APEC TWG Survey Results

According to the surveys 17 (85%) of the APEC economies suggested that they promote sustainable tourism principles to the local tourism industry, their citizens and to tourists.

(See Appendix 1 for more detail)

10. APEC TWG Survey Results

According to the surveys, 13 (65%) of APEC economies perceive their country's reputation as a sustainable tourism destination as a competitive advantage in the international market.

(See Appendix 1 for more detail)

Lawson and Baud-Bovy (1977) defined destination image as the expression of all knowledge, impressions, prejudices and emotional thoughts of an individual or group has of a particular object or place.

11. APEC TWG Survey Results

The following information suggests how important APEC economies perceive their country's 'image', which it promotes to international markets as a destination (ranked in terms of importance):

Low	5%
Low-Medium	5%
Medium	30%
Med-High	45%
High	10%

(See Appendix 1 for more detail)

An image can be described as a set of beliefs, ideas and impressions that people have of a place or destination. (Crompton 1979; Kotler et al. 1993). Gunn (1972) describes how destination image evolves at two levels to give an 'organic' and an 'induced image'. The 'organic image' is formed from an early age and based on what is learnt of a destination, while the 'induced image' is the result of promotion of the destination.

Destination image is a significant concept in influencing the destination selection process of potential visitors. Those responsible for the creation and management of tourism branding and/or imaging of a destination can be well served by increasing their knowledge of what and how 'images' are formed. To achieve a sustainable tourism outcome, those images must increasingly incorporate the 'truth in advertising' philosophy. This philosophy does not have to compromise advertising creativity if managed in a responsible way.

4.4 Marketing 'greenwash'

The tourism industry and tourism destinations have many sophisticated techniques and an enviable track record often with powerful and successful marketing initiatives to influence consumer behaviour.

Clever marketing and image creation can easily present a façade of environmental and cultural sensitivity and responsibility, which will appeal to an increasingly eco-sensitive marketplace. The potential traveller can be exposed to creative images of the natural environment, the unique wildlife, the fine hotels, and types of words, such as "untouched wilderness", "unspoiled settings", "virgin rainforest", "bountiful wild animals" and "crystal clear waters", that lure many tourists to distant destinations (Worboys et al. 2001). However, beyond that image and experience there might well be pollutants running into streams, garbage causing public health problems, labour exploitation and dangerous work practices (Box 29).

Box 29: The concept of 'marketing greenwash'

"One of the greatest dangers is where the tourism industry starts to believe its own pro-environment rhetoric. The marketing spin needs to be positive and enticing but care and understanding need to be exercised in doing so. An "untouched tropical island paradise" may in reality be an island that is heavily disturbed, has septic tank overload ground water pollution, solid waste dumps, waste oil dumps and a real problem of introduced plants. Its greatest tourism amenity may well be its scenic location and climate. However such environmental performance at a tourism destination is disturbing". (Worboys et al. 2001)

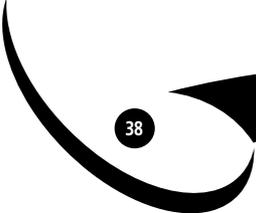
4.5 Ethical destination and product marketing

There is a growing expectation of experiencing environmental integrity in the destination. Tourism marketing for the new millennium and beyond must focus on forms of tourism that are sensitive to promoting and sustaining the environmental integrity of natural and cultural heritage resources (WTO 1994). The information and point of contact offered through brochures and other promotional material may provide key opportunities to create more considerate and responsive clients, and in turn generate a consumer demand for sustainable tourism.

The principles of marketing sustainable tourism are largely the same as for marketing any other product. Basically, marketing includes the following phases:

- inventory of existing attraction and activities;
- targeting of appropriate market segments of specific groups of tourists;
- evaluation of the appeal of the various attraction for each target group; and
- promotion

A tourism enterprise may advertise a claim to be 'environmentally or culturally responsible' but their actual behaviour within the destination might be as 'exploiters or polluters'. The issue is who does the consumer trust? The entrepreneur with a highly



motivational marketing image may be supported by one of numerous programs aimed at encouraging and promoting environmentally sensitive practices – but what guarantee is there for the consumer to be assured of the actual environmental performance?

Due to the increasing demand for responsible travel and tourism, benchmarking, certification and independent auditing of environmental performance schemes such as Green Globe will increasingly become standard practice for destinations seeking to achieve marketing programs, which contribute to sustainable tourism outcomes (Box 30 & Box 31). The image of local heritage, traditional ways of life, the indigenous behaviour, unspoilt natural environments, clean resort precincts can be consistently delivered to those purchasing the tourism product with a more rigorous approach to sustainable management practices as championed by Green Globe.

Box 30: The 'green travel' trend

“Although some parts of the industry have responded to environmental concerns, there has been a worrying lack of activity to improve the wider impact of tourism on local people. With increasing competition in the industry, the companies that dare to become more ethical and respond to this unmet consumer demand will be able to gain a competitive edge. Nearly half of those questioned said they would be more likely to go with a ‘company that had a written code to guarantee good working conditions, protect the environment and support local charities in the tourist destination’. Taken with the fact that there is low brand loyalty, this willingness to go with more ethical companies is both a warning and a positive opportunity to companies who are expecting to lead the way in the UK tourism industry at the start of the new millennium: ‘Change in line with changing public attitudes or be left behind!’ (Tearfund Research 2000)

Box 31: An important USA market perspective on future consumer expectations

‘What has evolved over the past decade is abiding consumer awareness – and subsequent concern – that destinations are morphing into homogenous places that offer like experiences. Environmental issues have evolved into the more basic concerns for popular destinations such as National Parks, which are affected by simply too many visitors. Not only are the Parks sustaining irreversible environmental damage, the quality of the visitor experience is suffering. We are, in effect ‘loving places to death’.

In the effort to please everyone and to make them feel ‘at home’, the travel industry risks sacrificing the very things that attracted consumers in the first place. What has resulted is a loss of distinctive characteristics, an erosion of local customs and cuisines, an absence of regional architecture and general culture..... it is these factors that primarily attract the consumers who take the most trips, spend the most money and produce the greatest volume of visitors overall.

‘These travellers (55.1 million Americans identified in the survey) have ceaseless expectations for unique and culturally authentic travel experiences that protect and preserve the ecological and cultural environment. In addition, the other segments represent close to 100 million travelling Americans that could be moving in that direction’. (National Geographic Traveller and the Travel Industry Association of America 2002)

12. APEC TWG Survey Results

The following information suggests how important APEC economies perceive their country’s ‘reputation’ as a sustainable tourism destination to their major markets (ranked in terms of importance):

Medium	30%
Medium-High	30%
High	40%

(See Appendix 1 for more detail)

5. INDUSTRY SELF-REGULATION AND BEST PRACTICE

13. APEC TWG Survey Results

12 (60%) of the APEC economies suggested that they have industry self-regulation schemes for best practice management in travel and tourism.

(See Appendix 1 for more details)

14. APEC TWG Survey results:

According to the surveys, the extend to which APEC economies have codes or principles for sustainable tourism (for development of tourism policy and practice) are:

Low	3 (15%)
Low –	
Medium	1 (5%)
Medium	5 (25%)
Medium –	
High	8 (40%)
High	1 (5%)

(See Appendix 1 for more detail)

If tourism destinations are to improve their environmental sustainability this will have to be accomplished by each of the individual tourism enterprise improving their environmental performance. The industry itself has a core role to play in enhancing sustainability in tourism planning, development and management. Industry self-regulation or voluntary initiatives are mechanisms to assist in improving the sustainability of travel and tourism. Voluntary initiatives include, programs, agreements, guidelines, codes of conduct, principles and standards (UNEP 2001). These voluntary initiatives embody 'actions' that go beyond existing environmental laws and regulations and are adopted by a company, enterprise etc. Industry self-regulation is more flexible than government regulations and may be better suited to rapidly changing or complex situations. Key elements of self-regulation include (UNEP 2001):

- *Cooperation* – full participation of stakeholders in preparation of the initiative is needed;
- *Commitment* – to achieve effective implementation, the political will is required;
- *Content* – target must be meaningful;
- *Communication* – listening to feedback and reporting to the public on results; and
- *Checking* – it is essential that implementation and results are monitored.

The interest in self-regulation, as an alternative to more traditional measures of regulation, stems from the recognition of several benefits including (CRC for Sustainable Tourism 2000):

- Self-regulation can be less costly (to taxpayers) than government-imposed regulations;
- Offering a greater degree of opportunities for innovation and flexibility in meeting environmental goals;

- Promoting a consensus approach to industry development of standards of behaviour; and
- Improving dialogue and trust between businesses, government.

As noted by Gunningham and Rees, (1997: 363): *"There is growing evidence of a range of circumstances where self-regulation (either alone, or more commonly, in conduction with other policy instruments) can be a remarkably effective and efficient means of environmental management"* (CRC for Sustainable Tourism 2000).

5.1 Codes of conduct

Codes of Conduct are sets of guidelines, which industries prepare as a guide to how they should operate. They are not enforced, nor are they enforceable (UNEP, IE 1995). They are important means of industry self-regulation. Agenda 21 established the development, adoption and implementation of Codes of Conduct as a main priority for industry in achieving sustainable development. This applies particularly for an industry such as tourism, with its many small and medium sized enterprises, which have vested interest in protecting natural and cultural environments (UNEP, IE 1995).

A joint project between PATA and APEC, for example, introduced "a Code for Environmentally Responsible Tourism", in order to strengthen the principles of sustainable and responsible tourism in the region (WTTC & IHRA 1999) (Box 32)

Box 32: APEC/PATA Code for Sustainable Tourism

The Code for Sustainable Tourism by both PATA and APEC encourages sustainable tourism development across the Asia and Pacific region. The code is designed for adoption and implementation by a wide range of tourism-related organisations and companies. This code urges PATA Association and Chapter members and APEC Member Economies to:

Conserve the natural environment, ecosystems and biodiversity
CONTRIBUTE to the conservation of any habitat of flora and fauna, affected by tourism
ENCOURAGE relevant authorities to identify areas worthy of conservation and to determine the level of development, if any, which would be compatible in or adjacent to those areas
INCLUDE enhancement and corrective actions at tourism sites to conserve wildlife and natural ecosystems.

Respect and support local traditions, cultures and communities
ENSURE that community attitudes, local customs and cultural values, and the role of women and children, are understood in the planning and implementation of all tourism related projects
PROVIDE opportunities for the wider community to take part in discussions on tourism planning issues where these affect the tourism industry and the community
ENCOURAGE relevant authorities to identify cultural heritage worthy of conservation and to determine the level of development if any which would be compatible in or adjacent to those areas
CONTRIBUTE to the identity and pride of local communities through providing quality tourism products and services sensitive to those communities.

Maintain environmental management systems
ENSURE that environmental assessment is an integral step in planning for a tourism project
ENCOURAGE regular environmental audits of practices throughout the tourism industry and to promote desirable changes to those practices
ESTABLISH detailed environmental policies and indicators, and/or guidelines for the various sectors of the tourism industry
INCORPORATE environmentally sensitive design and construction solutions in any building or landscaping for tourism purposes.

Conserve energy and reduce waste and pollutants
FOSTER environmentally responsible practices for:

- reducing pollutants and greenhouse gases,
- conserving water and protecting water quality,
- managing efficiently waste and energy,
- controlling noise levels and
- promoting the use of recyclable and biodegradable materials.

Encourage a tourism commitment to environments and cultures
ENCOURAGE those involved in tourism to comply with local, regional and national planning policies and to participate in the planning process
FOSTER, in both management and staff of all tourism projects and activities, an awareness of environmental and cultural values
ENCOURAGE all those who provide services to tourism enterprises to participate through environmentally and socially responsible actions
SUPPORT environmental and cultural awareness through tourism marketing.

Educate and inform others about local environments and cultures
SUPPORT the inclusion of environmental and cultural values in tourism education, training and planning
ENHANCE the appreciation and understanding by tourists of natural environments and cultural sensitivities through the provision of accurate information and appropriate interpretation
ENCOURAGE, and support research on the environmental and cultural impacts of tourism.

Cooperate with others to sustain environments and cultures
COOPERATE with other individuals and organisations to advance environmental improvements and sustainable development practices, including establishing indicators and monitoring
COMPLY with all international conventions and national, state and local laws which safeguard natural environments and cultural sensitivities.
(PATA & APEC 2001)

Box 33: Code of ethics, Philippines

The Department of Tourism has prepared the Code for Environmentally Responsible Tourism and the Ecotourism Code of Ethics to encourage the private sector, local governments and other stakeholders in tourism to promote sustainable tourism development.

5.2 Best practice management

Best practice management aims to protect the environment by setting clear environmental quality standards, along with guidelines and targets for reducing pollution from tourism and to prevent development where it would be inappropriate.

To establish common approaches to best practice management there must be cooperation and collaboration within the industry and between states. This will ensure that tourism and the environment are mutually supportive at all levels (UNEP 2001). Partnerships should aim to deliver agreed common standards and tools to enable the effective measurement of progress towards achieving sustainable development (WTTC & IHRA 1999).

Examples of best practice standards and guidelines include:

- Agenda 21 for travel and tourism (discussed earlier – see Chapter 1)
- The International Hotel's Environment Initiative (IHEI) (Box 34)
- Green Hotelier (Box 35)
- Tour operator's initiative
- Industry accreditation schemes

Box 34: International Hotels Environment Initiative (IHEI)

IHEI was established in 1992 by the world's leading hotel groups. The aim was to bring continuous improvement in the environmental performance of the global hotel industry. IHEI initiatives have raised awareness of responsible business practices amongst the international hotel industry, tour operators, government bodies, trade and business media, academia, consumers and suppliers to the hospitality industry. The initiative provides practical guidance for the industry on how to improve environmental performance, and how this contributes to successful business operations. (The International Business Leaders Forum 1992)

Box 35: Green Hotelier Magazine

This is an IHEI initiative and aims to provide the hotel industry with an environmental magazine. It is a source of international news, case studies, cost saving techniques and practical advice for hotel executives who want to stay up to date in environmental issues. (The International Business Leaders Forum 1992)

5.2.1 Tour operator's initiative

As part of the travel and tourism industry's responsibility toward building and maintaining a sustainable tourism destination, tour operators especially, must demonstrate initiative to ensure that the environment quality and social integrity of destination communities are maintained and even improved. There must be evidence in destination communities that tour operators are integrating their objectives with the wider objectives for sustainability and are contributing to balanced and diversified development in the destinations (Tapper 2002).

Various tour operators from around the world are beginning to commit themselves to the concepts of sustainable development as a core component of their business activities, and to work together through common activities to promote sustainable development. From this arose the Tour Operators Initiative for Sustainable Tourism Development. Members of the initiative aim to encourage companies to reflect 'best practice' sustainable tourism in their businesses (UNEP 2001). This includes not only their internal company operations, but also the design of tours and their external business relationships with partners, suppliers and subcontractors. Best practice management includes (UNEP 2001):

- Responsible use of natural resources such as land, soil, energy and water;
- Reducing, minimising and preventing pollution and wastes including solid, liquid and atmospheric emissions;
- Maintaining or enhancing biodiversity through protection of plants, animals, ecosystems and sensitive areas;
- Maintaining or enhancing cultural diversity through the protection of landscapes and cultural heritage;
- Respecting the integrity of local cultures;
- Co-operating with local communities and people; and
- Utilising local products and skills.

Best practice management includes greater investment and commitment towards the use of new environmentally sound technologies. In the case of water utilisation, measures might be water saving equipment, desalination systems and collecting and utilising rainwater. In the case of energy use, measures might be to install renewable sources of energy systems (i.e. solar energy and/or wind power) in new buildings and constructions. Furthermore, appropriate waste disposal systems and ways to separate

Box 36: Tour Operators initiative in Scandinavia

Scandinavian Leisure Group (SLG) is Scandinavia's major tour operator. SLG has adopted an environmental policy based on the WWF/Tourism Concern Principles for Sustainable Tourism. This policy has been developed into an Environmental Action Plan, which sets clear and measurable environmental goals. SLG requires the hotel management to provide annual information about production of waste and consumption of energy, water and chemicals in order to carry out an environmental audit for each of its hotels. SLG encourages that guests are provided with useful information on the environment, as they will often respond appropriately. If guests are told, for example, that the area they are in is undergoing a serious dry period, many will try to save water. Since the actions of local authorities often define the conditions under which hotels have to operate, SLG concluded it might be able to make an important difference by contacting local authorities to conduct a destination eco-audit.

SLG performs its destination eco-audits in order to:

- Assess the environmental performance of the destinations it visits.
- Increase SLG's and its customers' knowledge of the environmental situation at the destinations.
- Provide local authorities with information about what SLG has found important in relation to the environment.
- Open up a dialogue with local authorities at destinations, and support and facilitate the implementation of environmental action plans.

(UNEP 2001a)

garbage into organic and non-organic waste is another measure. Organic waste can be composted and reused on hotel gardens or even for local farming, which could be done through collaboration with local residents (UNCSD 1999b).

Members of the initiative also seek to further the goals of sustainable tourism by enhancing co-operation and collaboration between the tourism industry, national and local authorities, and local communities. This includes cooperation in the development and implementation of integrated planning and management of destinations to protect the quality and future of these destinations (UNEP 2001).

5.2.2 Industry accreditation and certification schemes

Industry accreditation and certification schemes are industry initiatives, responding to the need for a system that encourages best practice standards. A standard is a level that everyone must meet and certification should place more requirements, raising the bar in terms of the criteria that need to be met (Ceballos-Lascurain 2001). To encourage the development of environmental management and awareness for the travel and tourism industry, many accreditation schemes now consider environmental (including conservation, maintenance and enhancement), socio-economic (comprising level of participation of local people, and benefit sharing), and cultural criteria (Ceballos-Lascurain 2001). Certification is a means by which an organisation is able to demonstrate in the public domain, its responsibility and commitment towards environmental and social sustainability (Rodgers 2002).

There are various types of certification schemes:

1. Business to business – i.e. ISO 14000 Schemes (Box 37)
2. Product to consumer – i.e. eco-labels (Box 38)
3. Business to consumer – i.e. Green Globe and International Ecotourism Standard (Box 39 and Box 40)

Box 37: International Organisation for Standardisation (ISO)

The ISO is a certification system that has set up an international voluntary standard for environmental management systems (EMS) known as ISO 14001 (a part of the ISO 14000 core series). This aims to help companies to identify and manage their environmental impacts. An EMS provides a framework for companies and organisations to achieve environmental improvement through effective management of environmental impacts.

Benefits of EMS's include:

- Good public and community relations – stakeholders are sure of the organisation's commitment to environmental management;
 - Potential cost savings due to improved resources utilisation and waste minimisation;
 - Legislative compliance; and
 - Higher productivity and competitiveness.
- (PSB Certification)

Box 38: Ecolabels in the Tourism Industry

Ecolabels are both a marketing and environmental management tool. They help tourism suppliers in the identification and implementation of eco-efficient solutions. While ecolabels can help sell tourism products, they assist in identifying products that decrease the use of resources such as energy and water, reducing costs for the operator. In turn they lead to effective ways of monitoring and reporting on environmental performance. (UNEP 2001)

Box 39: Green Globe 21

Green Globe 21 is a global environmental benchmarking, certification and improvement system, for sustainable travel and tourism. It responds to consumers' environmental and social concerns and provides benchmarking and audit reports for company environmental reporting. Green Globe 21 connects companies, communities and consumers to reduce costs and improve competitiveness. (See Chapter 12, Part 2, for a detailed discussion on Green Globe 21)

Box 40: International Ecotourism Standard

The EAA in conjunction with the CRC for Sustainable Tourism of Australia, has developed the International Ecotourism Standard. This standard is based on the successful Australian Nature and Ecotourism Accreditation Program (NEAP), Agenda 21 principles and guiding principles for sound ecotourism certification. Green Globe 21 has the exclusive licence for the distribution and management of the International Ecotourism Standard.

The principle objective of this standard is to facilitate environmentally sustainable ecotourism. The International Ecotourism Standard provides a basis for assessing a baseline environmental; management performance standard for ecotourism products and recognising best practise ecotourism. Certification to the Standard will help to:

- Provide ecotourism businesses with a benchmark of best practice ecotourism principles and encourage continual improvement of their product;
- Provide primary consumers (the visitors) and secondary consumers such as local communities, protected area manager, and tour wholesalers with a means of recognising genuine ecotourism product;
- Protect local and global environmental quality;
- Encourage contribution to local communities and conservation; and
- Improve profitability by being less wasteful and more efficient.

Ecotourism products that have been certified are entitled to use Green Globe 21 logo with tick and the NEAP Ecotourism Certification logo to promote their environmental; achievements. (EAA and CRC for Sustainable Tourism 2002)

Box 41: The Rainforest Alliance

The Rainforest Alliance is "a non-for-profit international organization dedicated to the conservation of tropical forests for the benefit of the global community". Their mission is to develop and promote economically viable and socially desirable alternatives to the destructive use of this endangered biologically diverse resource. One of these alternatives is seen as sustainable tourism. The Alliance is presently promoting a "Sustainable Tourism Stewardship Council" (see Box 42) to develop a global accreditation scheme for sustainable tourism. In broad terms the scheme is intended to accredit various local, national or international certification schemes that meet minimum performance and quality assurance standards (such as the NEAP scheme mentioned above) (Rainforest Alliance)

Box 42: Sustainable Tourism Stewardship Council

The Sustainable Tourism Stewardship Council is a proposed global accreditation body for sustainable tourism and ecotourism certifiers, setting international standards. It is a multi-stakeholder body that aims to stimulate production and consumption of certified products, which in turn aims to facilitate consumer choice. This is a response to market demand to have international, comparable standards. At present there are over 100 certification schemes in tourism. (Rainforest Alliance)

Certification relies on the credibility of the process, the competence of the auditors and the independence of the certification body (Rodgers 2002). Effective certification schemes, benchmark companies and communities and provides them with practical means through which they can improve and monitor their environmental performance. This in turn, provides consumers with the assurance that a product or service will be delivered with a commitment to best practice environmental and socio-cultural management. Such performance monitoring and improvement will be discussed in more detail in Part 2.

Part 2

A SUSTAINABILITY STRATEGY FOR TOURISM DESTINATIONS



6. THE FIVE Ps OF SUSTAINABLE TOURISM DESTINATIONS

Sustainable tourism development involves an integrated whole of community approach. The most effective way to approach sustainable tourism development and management is through destinations. Destinations bring consumers, companies (enterprises) and communities together in a "tourism system". The most appropriate 'scale' for destination management is the local scale – e.g. city, prefecture, shire, district, protected areas.

Part 2 will discuss the 5 **P**s for sustainable destination planning, development and management:

1. **P**olicy and planning

- Local Agenda 21
- Community sustainability strategy
- Environmental planning and development control

2. **P**redictive modelling

- I/O models
- Computable general equilibrium models
- Systems modelling / Futures simulator
- Geographic Information system (spatial) modelling

3. **P**erformance monitoring

- Of whole communities
- Of individual enterprises

4. **P**erformance improvement

- Of whole communities
- Of individual enterprises

5. **P**erformance reporting

- Of whole communities
e.g. State of the environment reports
- Of individual enterprises
e.g. Triple bottom line corporate reporting

The last Chapter (12) in Part 2 will use Green Globe to illustrate implementing the triple P of performance:

- **P**erformance monitoring – *benchmarking*
- **P**erformance improvement – *EMS certification*
- **P**erformance reporting – *using Green Globe performance assessment*

7. POLICY FRAMEWORK – AGENDA 21

7.1 Planning for Sustainable Tourism Destinations

Sustainable planning principles have been developed in response to the growing international concern over resource degradation and the wide variety of social and environmental impacts being experienced in poorly planned destinations.

Hall *et al.* (1997), argue that the principles for sustainable tourism planning have basically been adapted from traditional tourism planning to include the consideration of environmental and social concerns.

While a wide variety of definitions exist, the following is generally consistent across APEC countries. *“Sustainable tourism is the development of an internationally competitive ecologically sustainable and socially responsible tourism industry based on the integration of economic, social and environmental objectives”* (State of Queensland 1997).

The triple bottom line principles of sustainable tourism include:

- Ecological sustainability;
- Economic sustainability; and
- Social / cultural sustainability.

Given the above principles, a sustainable vision for a tourist destination should be about striking a balance between:

- Minimising ecological impacts (preserving why people live in a destination and the natural values that draw visitors);
- Maximising economic benefits (spreading financial returns throughout the community and growing profitable businesses, which can, in return, invest in best practice environmental programs);
- Achieving socially responsible tourism (ensuring tourism activity is responsive to and reflects community values, including social and religious beliefs); and
- Culturally responsible (ensuring tourism respects and appropriately presents local culture) (Hoogerwaard and Rossi 2002)

Research undertaken by the CRC for Sustainable Tourism on the Gold Coast indicates that the following steps should form part of any planning process involving sustainable outcomes for a tourist destination:

1. Development of a shared community vision for sustainable tourism. This should, where possible, bring together industry, Government and community representatives.
2. An audit of natural and cultural assets to determine the significance and state of health of resources. This can form the foundation for state of the environment reporting.
3. A review of where a region sits with regard to its destination lifecycle. This includes the maturity of core product areas and market segments. Destination lifecycle is important because mature destinations face different types of planning issues than developing destinations.
4. A review of the relationship that exists between tourism and the rest of the economy. This includes whether tourism is currently recognised and is included in the forward planning undertaken on social, economic and service infrastructure plans.
5. Infrastructure and product audit. This includes a review of the adequacy of essential service infrastructure, such as transport, solid waste, water and energy to meet the future needs of both resident and visitor populations.
6. Scenario planning, including forecasts for population, visitor growth and changing market and consumer trends.
7. Development of environmental benchmarking indicators in accordance with for example Green Globe 21 environmental performance indicators.
8. A move towards a shared vision for destination management.

7.1.1 Tourism Planning and Agenda 21

The importance of planning for sustainable tourism was recognised at the Rio Earth Summit, resulting in the launch of *Agenda 21 for the Travel & Tourism Industry* by the World Tourism and Travel Council (WTTC), the World Tourism Organisation (WTO) and Earth Council. This

document provides a framework for sustainable tourism development, explaining the importance of optimum use of resources in ensuring environmental, socio-cultural and economic sustainability.

7.2 Local Agenda 21

7.2.1 Concept

Since planning for tourism is often implemented at a local level, and indeed many of the issues addressed by Agenda 21 are imbedded in local activities, Agenda 21 recognises in particular, the importance of local authorities: *"..the participation and cooperation of local authorities will be a determining factor in fulfilling its (Agenda 21's) objectives. Local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilising and responding to the public to promote sustainable development."* (UNCED 1992).

As cited in the Durban (RSA) LA21 Plan, "Preparing a Local Agenda 21 plan involves the development of an environmental management strategy and action plan based on the principles of sustainable development and community participation" (www.gdrc.org). A LA21 plan is more than just an environmental plan, namely it is a framework which seeks to integrate the social, economic and ecological needs of a community (DEHAA 1999).

7.2.2 Local Agenda 21 and Tourism

Although sustainable tourism and visitor strategies are but one component of a LA21 plan, it can be argued that for effective planning for sustainable tourism, the two cannot be separated. The nature of the tourism industry is such that it depends on a range of different features of the destination, such as physical resources, people, infrastructure, goods and services. For example, having a sustainable tourism plan in place may provide for the protection of waterways by controlling water-based tourism development and activity, but it would not be effective in maintaining clean waterways if poorly treated town sewage was to be released into them. In this case a tourism industry based upon a clean environment could not be sustained.

7.2.3 A process

In order to take LA21 from theory into practice, a process for developing a LA21 program is required. The South Australian Government has developed a partnership with the Local Government Association of South Australia and

participating councils have formed the *Partnership for Local Agenda 21* which has identified a process for developing a LA21 plan. This process for developing a Local Agenda 21 program is outlined below (DEHAA 1999):

1. Getting Started

- Make a commitment at a policy and budgetary level to undertake a LA21 program
- Create a climate of support and awareness of what LA21 is about
- Set in place the decision-making structure and processes to facilitate the program with full community and tourism industry participation

2. Setting Priorities

- Jointly define (Council, tourism industry and Community) a vision of what sustainability will mean to the area in the long term and what priority issues need to be addressed to achieve the vision
- Assess what the Council, tourism industry and community are already doing or need to do to address these issues
- Draft policy statements, management plans and action plans, which are integrated with the Council's corporate and strategic planning processes and linked with other tourism industry and community environmental initiatives

3. Implementation

- Build on existing initiatives
- Establish systems to ensure that the plan is implemented, for example, environmental management systems
- Set up and continue partnerships to maintain the program (Government, industry and community)

4. Evaluation – Review and Monitoring

- Set in place mechanisms and systems that ensure a long-term commitment to the monitoring, review and evaluation of the LA21 program for example the use of State of Environment reporting

This four-stepped process does not necessarily have to be linear. Different steps can be occurring at the same time and in the order that best suits the particular community. As an LA21 should reflect local needs and issues, no two

LA21 plans will be the same. Therefore the process outlined above should be adapted to suit each community and council's needs.

Although each LA21 will be different, their core principles should be the same. A LA21 program should have a long-term commitment, an ongoing process, which is integrated into the overall corporate and strategic planning of a council. Further to that, a key issue with LA21 is that the respective local community should feel a sense of ownership through their involvement and participation. Any LA21 plan should fully involve active community participation in the decision making process and in its development and implementation.

In developing a LA21 Plan, the Rushmoor Borough Council (United Kingdom) identified six key elements of a Local Agenda 21 (1996):

1. Managing and improving the local authority's own environmental performance
 - Corporate commitment
 - Staff training and awareness raising
 - Environmental management systems
 - Environmental budgeting
 - Policy integration across sectors
2. Integrating sustainable development aims into the local authority's policies and activities
 - Green housekeeping
 - Land use planning
 - Transport policies and programmes
 - Economic development
 - Tendering and purchase/provider splits
 - Housing services
 - Tourism and visitor strategies
 - Health strategies
 - Welfare, equal opportunities and poverty strategies
 - Explicitly 'environmental' services

3. Awareness raising and education
 - Support for environmental education
 - Awareness-raising events
 - Visits and talks
 - Support for voluntary groups
 - Publication of local information
 - Press releases
 - Initiatives to encourage behaviour change and practical action
4. Consulting and involving the general public and industry
 - Public consultation processes
 - Forums
 - Focus groups
 - 'Planning for real'
 - Mapping
 - Feedback mechanisms
5. Partnerships
 - Meetings, workshops and conferences
 - Working groups/advisory groups
 - Round tables
 - Environment city model
 - Partnership initiatives
 - Developing-world partnerships and support
6. Measuring monitoring and reporting on progress towards sustainability
 - Environmental monitoring
 - Local state of the environment reporting
 - Sustainability indicators
 - Targets

- Environmental Impact Assessment
- Strategic environmental assessment

7.2.4 Green Globe 21

Once a LA21 program has been developed, and priorities and policies are in place, the key challenge for local governments and communities is the actual implementation and monitoring of the sustainability principles and priorities identified, ie. is the plan in effect and is it working?

Green Globe 21 is a useful benchmarking tool, which can be used by communities to monitor their environmental performance. The Green Globe program is outcome focused, meaning that it monitors actual environmental performance, rather than the existence of management systems and policies. The key environmental issues identified by Agenda 21 are targeted by Green Globe:

- Increasing energy efficiency
- Reducing potable water use
- Reducing waste water
- Reducing solid waste
- Reducing hazardous substances
- Ecosystem conservation
- Landuse planning
- Community involvement
- Greenhouse gases

8. PREDICTIVE MODELLING

Travel and tourism is a rapidly growing industry with consequent rapidly increasing public and private infrastructure development. As a result, more pressure is exerted on natural and cultural resources through for example, energy use, waste to landfill, land use changes, impacts on biodiversity as well as impact on local community assets such as roads, protected areas, beaches, cultural resources and so on. To achieve sustainable tourism development in a holistic way, it is important that the community and industry can predict what the demands will be as a result of various levels, scales and types of tourism developments. Since travel and tourism affects many sectors in an economy, predicting the types of tourism impacts is not a simple task. To date, tourism has lacked effective modelling tools that consider all components of the system. The development of such predictive modelling tools and their regular use is a core component of sustainable tourism development.

There are a variety of techniques available for examining environmental impacts associated with tourism. Economic impacts are typically measured using tools such as cost-benefit analysis, market research, input-output analysis and computable general equilibrium models. Efforts limited to direct monetary income flows neglect the "external" environmental effects that may determine the future options available for tourism and the long-term viability and sustainability of the industry.

8.1 Input/output models

8.1.1 Economic Input/output models

At the core of all I/O model approaches is the conventional financial input-output table representing the interdependencies or market transactions between:

- Primary inputs – the factors of production such as labour and capital, and to some extent land, and imports that provide the actual source of value-added to goods and services
- Intermediate (producer) industries
- Final sales sectors – this is the set of demands upon the economy from consumers; changes in levels of final demand (for example, in the profile of tourist expenditure) are thought to be exogenous or occur outside the model.

8.1.2 Material flow analysis

One of the most significant recent trends in scientific analyses of the links between the economy and environment has been the shift to perspectives that adopt notions of the "physical economy". The conceptual bases of most physical economy approaches are rooted in notions that production and consumption become inextricably tied to the natural world as catabolic and anabolic processes. This view forces recognition of the physical relevance of human interaction with the natural environment and represents a marked departure away from the abstraction of human activity from nature in purely monetary interpretations of the human economy (Fischer-Kowalski, 1997; Ayres 1998; Ayres and Simonis 1994; Eurostat 2001).

While such material flow analysis (MFA) methodology can be seen to have great potential for integrating a wide range of the physical economy approaches, the economy-wide orientation has covered a fairly limited disaggregation of all materials for a region or nation. But this detail is growing rapidly (Poldy and Foran 1999) and continues to develop in terms of methodological sophistication and mutually beneficial data interchange (for example, with physical and environmental input-output tables). However, the limited data and methodological approach regarding specific economic activity links to environmental impacts inhibits its use for cost-effective prediction of the environmental consequences of tourism scenarios and strategies.

8.1.3 Physical input-output models

Physical input-output tables (PIOT) extend conventional economic input-output methodology and classifications to incorporate environmental resource and waste output "sectors" to provide measures of the physical flow of materials and goods within the economic system, and between the economic system and the natural environment. PIOTs trace how natural resources enter, are processed and subsequently used (as commodities are moved around an economic region) and finally returned to the natural environment in the form of residuals. They undertake the *detailed* investigation of inter-sectoral physical flows of environmental resources inputs, commodity weights and residuals. Given this inter-sectoral specification and transactions matrix structure, have the ability to evaluate the cumulative environmental burden (total direct and indirect effect material requirements and pressures) of private consumption and other final demand for the products of different industries

(Gravgård Pederson 1998; Stahmer, Kuhn and Braun 1997).

The inter-sectoral flow of money is effectively replaced by the flow of a single material or commodities containing key materials. Hence, separate tables are often compiled for individual materials such as animal and vegetable products, energy materials, plastics and packaging to show the detailed transfer and accumulation of materials and commodities. They can also be compiled with an environmental problem-theme focus (for example, global warming).

PIOTs can provide a wealth of highly-disaggregated data for studies utilising information on ecological-economic interactions and have the advantage of retaining economic activity classifications that are consistent with the national accounts and monetary input-output analyses. However, they have enormous resource requirements and have only been pursued in earnest at the national level (and with considerable methodological discrepancies) in a small group of countries with strong and comprehensive economic and material statistical accounting systems.

8.1.4 Environmental input-output analysis

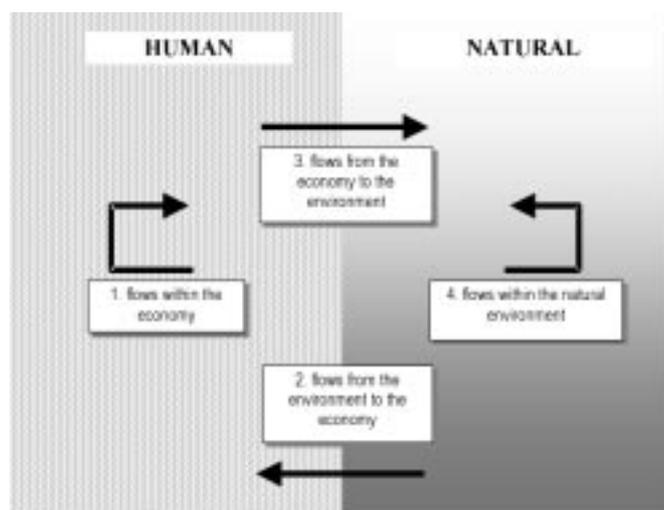
A number of variants of environmental input-output analysis (EIO) have been developed and implemented since their conception in the late 1960s. They all share the basic principle of building on the format of conventional *monetary* input-output framework utilised in national income accounting. This is achieved by adding columns and rows (using the same headings and categories as the financial data) to include *physical* values of the environmental inputs and outputs associated with the level of activity in each economic sector (Huang *et al.* 1994). Emissions and natural resource inputs are quantified and grouped by the standard industry branches, or sectors of final sales (for example, public authority or households) that generate or extract them. While the conceptual basis of EIO is quite well-developed, the implementation of the technique has been fairly limited. Recently substantial improvements have been made in methodology, the availability of complementary data sources and frameworks (including a wide range of emissions data and the development of integrated environmental and economic accounts), and information technology systems.

EIO provides a very systematic and comprehensive framework for establishing the nature of the linkages between economic and environmental flows relevant to the two main domains of interest in environmental analysis – the human economy and the natural environment. There are four possible sets of linkages

between activity groups or process chains to be derived from the conjuncture of these two domains (Figure 4):

1. flows within the economy
2. environmental to economy flows
3. economy to environmental flows
4. flows within the natural environment

Figure 4: Four Types of Linkages in the Human Economy – Natural Environment Nexus



In EIO, the measurement of flows within the economy [1] is covered by standard economic input-output tables to explain the way the various parts of the economy interact. For example, it can reveal how developments or policy leading to changes in the pattern of consumer demand or expenditure, impact the level of output in a range of relevant sectors in the economy, and for the economy overall. Economic sector outputs are affected directly as tourists purchase from local businesses (for example, accommodation, cafes and restaurants). More indirect effects follow as these businesses purchase inputs locally from other sectors and as households that receive income from these businesses spend their additional earnings at local enterprises. Standard input-output analysis is designed to gauge both direct impacts, and cumulative (direct and indirect) or “multiplier” impacts that result from these flow-on effects.

Using this same structure, important flows of natural resources “supplied” to various economic activities or sectors can be tracked from the natural environment [3]. They can include materials and energy inputs from land (for example, minerals, fish and forest products), the atmosphere (for example, clean air) and water, in addition to the accession and transformation of land and

ecosystems, and associated loss of less obvious services such as landscape amenity. In most EIOs, these flows are measured in physical terms such as kilograms, or cubic metres, per unit time (usually one year).

Similarly, there are environmental commodity or residual flows (or emissions) that are released from these sectors into the environment as a result of processing and consumption of environmental and intermediate inputs [3] (Pearce and Turner 1990). These measures reflect how land, air and water, and associated ecosystems, act as receiving media for the waste outputs of the economy. The flows are also quantified in physical terms in EIO. Ecological-economic interactions may result in adverse conditions such as air pollution, soil degradation and loss of habitat (with consequent economic, social and health costs) that actually detract from the ability to extract resources back into the economy (as in [2]).

Finally, there are the biological, geological and meteorological flows, processes and cycles that occur, in-situ, within the natural environment [4] and act to determine the assimilation, absorptive and regeneration capacity of natural resources and the ability to cope with economic pressures and maintain the ongoing supply of ecological services.

Coverage of these four sets of flows is an important factor in distinguishing the existing diversity of environmental extensions to input-output analysis. An idealised table covering most of the suggested environment-related extensions to standard input-output tables is presented (in Table 5) to summarise the various proposals. In practice, there are no empirical studies that have achieved anywhere near this level of detail or disaggregation.

The extensions of Table 5 encompass the features of three main EIO model types (Kandelaars 1999; Huang *et al.* 1994; Miller and Blair 1985; Karunaratne and Jensen 1978; James and Opschoor 1978). All three general model approaches add new rows and columns that connect physical flow measures of environmental inputs and outputs to the standard input-output format. The three main EIO model formats are generally recognised as:

1. *augmented or extended environmental economic input-output models (or "pollution generation-elimination" models)*

This approach has been responsible for the addition of extra rows to show the physical generation of pollution from sectoral output and the addition of a column to separate out pollution abatement industry activities. The "output" of the pollution abatement industry is the amount by which residuals are reduced and can be measured in physical or monetary terms. A major objective of this model has been to assess the

economic costs, distributional impacts and related effects of environmental policy and regulation (via the operation of a pollution abatement sector).

2. *integrated ecological-economic accounting environmental input-output models*

These models incorporate ecological commodities as inputs to, and residuals from, economic sectors. In addition, they attempt the highly ambitious task of comprehensively analysing all four of the possible sets of interactions between and within the economy and nature. In particular they include mapping of the "sub-matrices" of flows of materials and energy through nature and the economy by focusing on understanding and measuring relevant processes and interactions within the natural environment (see ECOL in the bottom right-hand cell of Table 5).

3. *ecological-economic commodity-by-industry (C-I) studies*

A more practical model for EIO is presented in this approach by de-emphasising the need to fully understand all relevant processes within nature. Some important potential feedback effects of economic activity (from environmental commodity outputs) on the supply of ecological services can be neglected by this omission. However, connections can still be made to cater for the joint production of economic commodity outputs (goods and services) and environmental commodity outputs (residuals) from economic sectors (Huang *et al.* 1994). This model type provides a framework that adds rows for environmental commodity inputs and columns for environmental outputs and typically includes commodity classifications to establish commodity-industry linkages (make and use tables). As discussed, this procedure can help clarify the exact interactions between production and consumption and their "source" and "sink" demands upon the natural environment. Greater detail in the identification of commodity-industry relations tends to enhance the viability of assuming that environmental input and residual coefficients are fixed. In reality, empirical EIO studies have been restricted mainly to industry-by-industry formats (Førsund 1985).

The three model types vary considerably in terms of their adherence to, and utilisation, of ideal materials balance principles. However, while there special difficulties faced because of the monetary core of EIO models, material balance methods are widely used to complete data sets, for consistency checks, and to model material cycles and estimate natural resource sectoral or commodity input use and residual outputs.

Adding total flow values of identified physical environmental inputs and outputs as rows and columns in the EIO is consistent with the transactions matrix format of standard input-output analysis. Alternatively, physical flows are often derived, or calculated, as coefficients in relation to the unit value of economic sector outputs. Thus, environmental residual coefficients would be expressed as the physical quantity of emissions per million dollars of output – for example, in kilograms of CO₂ or nitrogen released per million dollars of output from the steel industry. Environmental input coefficients can be expressed in a similar manner (for example, millions of litres of water required per million dollars of sectoral output). Measures of this form are equivalent to the direct, or technical coefficients in standard inter-industry input-output tables. Total environmental flows are often calculated on the basis of known technical relationships governing material and energy input and output requirements for physical economic output, and conversion to monetary output value equivalents.

However, a significant feature of the input-output approach, maintained in EIO, is the ability to apply Leontief matrix inversion to evaluate not just the environmental repercussions of direct spending changes in a sector but the full impacts from the economic structure in the form of flow-on economic effects in other industries that feed into this sector. It produces indicators of the pollution generated (or environmental inputs absorbed) directly and indirectly in all sectors per unit dollar of final demand in each sector (Pearson 1989). Hence, it is possible to derive cumulative coefficients that describe the total pollution or natural resource-intensity of each sector and can be used to predict the full environmental implications of different patterns of final demand.

Table 5: The Complete Environmental Input-Output Table (ignoring process interactions within the natural environment)

OUTPUTS						
Receiving	C Commodities	I Industry	<i>PA</i> Pollution abatement activities	<i>FD</i> Final demand	Total Economic Outputs (\$s)	Environmental commodity outputs – emissions to the environment PHYSICAL UNITS
Delivering						
<i>INPUTS</i>		U		F	Q	R
C						
I	V	Monetary Units			X	S
<i>PA</i>						
<i>VA</i>		W		K	GDP	B
Total Economic Inputs	Q _r	X _r		J	L	Z
	P	T		H	TEI	ECOL
Environmental commodity inputs – shows how the environment supplies inputs to the economy PHYSICAL UNITS						

Source: Adapted from Kandelaars (1999); Perman and McGilvray (1996) and Førsund (1985)

Table 5 Notes

C = Commodities – specific goods and services 1,2..N (\$s)

I = Industries – economic activities 1,2..M (\$s)

PA = Pollution re residuals treatment or abatement activity – sometimes assumed to be unique to each residual (\$s); part of each of the total industry matrices can be attributed to a pollution abatement “sector” (though these activities are often actually carried out within the generating industries); the outputs of this sector refer to the amount of residual treated and can be calculated in value or physical terms

FD = Final demand – the consumption sector (the driving force of the model); generally comprised of expenditure for household consumption, government consumption, private gross fixed capital formation, general government gross fixed capital formation, change in inventories and exports but may be disaggregated in more detail 1..G (\$s)

EO = Environmental commodity outputs – waste discharge to the natural environment [how environmental resources act as receiving media for waste (kgs, joules, cu. metres)]

U = the **use matrix**; the amount of economic commodities industries use as inputs e.g. commodities used as inputs in process of further production

F = matrix of the final demand for commodities; how much of each commodity is required to meet each type of final demand

Q = a vector showing the total (intermediate plus final demand) commodity outputs for commodity groups 1,2..N

R = the amount of residual wastes discharged by each type of final demand for commodities measured in F (kgs, joules, cu. metres)

V = the **make matrix**; the value of economic commodities made by each industry (\$s)

X = the vector of the total outputs of industries (\$s)

S = the discharge of waste products by each industry (kgs; joules)

VA = value-added or primary inputs; the contribution to the final value of goods or services, or industry output from the primary inputs of the main factors of production (labour, capital, land, entrepreneurship); in the national accounts it is usually divided into employee compensation, gross operating surplus, taxes less subsidies and competing imports 1..P (\$s)

W = matrix showing how much each industry spends on the primary inputs contributing value-added to their output (\$s)

K = the expenditure on each primary input associated with/according to each category of final demand (\$s)

GDP = the total expenditure on primary inputs; sum of W and K (\$s)

B = residual wastes generated by households and other owners of factors of production (CO2, solid waste, sewage)

Q_r = the total output of commodities (\$s)

X_r = the total inputs to industries (\$s)

J = total expenditure on all inputs by category of final demand (\$s)

L = total expenditure on all commodities and all primary inputs; not a vector but a scalar or single value (\$s)

P = the inputs of environmental commodities to economic commodities – e.g. how much water, land is used etc (kgs, area, joules)

T = the extraction or *direct* use of natural resources (environmental commodities) and recreation services as inputs to industries e.g. oxygen, water (kgs, area, cu metres, joules); not included if already “processed” by another sector (e.g. the water supply sector)

H = the possible direct extraction or use (including recreation services) of natural resources by final buyers (e.g. fresh air, clean water, fish caught for personal consumption)

TEI = total environmental inputs (kgs, area, joules)

Z = a vector showing the total amount of waste discharged by the economy classified by type of waste

ECOL = all of the processes and interactions, within the natural environment, that are relevant to the provision of ecological services to the human economy

8.1.5 NAMEA Extension to Environmental Input-Output Analysis

The NAMEA approach (National Accounting Matrix including Environmental Accounts) is one of the most popular and influential new extensions of the environmental input-output analysis. The NAMEA model for assessing ecological-economic interactions is dominating related work in Europe and is shaping the development of the United Nation's standard framework for integrated environmental and economic accounting at the international level. The approach shares many features with EIO including the consistent extension of conventional national accounts with environmental accounts measured in physical terms.

NAMEA has a very practical policy emphasis in its accounting methodology. It is designed specifically to reveal how different sectors of the economy contribute as sources of major or "headline" sustainability problems. To date, the focus has been on environmental pollution issues but the approach is also suited to a wide range of natural resource depletion problems. The NAMEA is highly promising and pragmatic tool with substantial applications for assessing regional ecological-economic interactions.

8.1.6 Advantages and Limitations of Environmental Input-Output Analysis

Environmental input-output analyses offer many general practical advantages for ecological-economic analysis. Firstly, it provides an excellent means of systematically and explicitly compiling and presenting existing data and accommodating the incremental acquisition of new information on linkages between economic activities and environmental flows (Forsund, 1985). The input-output framework of EIO structures the recording of data into a consistent historical set of economy-environment parameters that can be stored, investigated, tested, traced over time and modelled for a wide range of purposes. EIO is also capable of incorporating and adapting flow parameters from a wide range of sources (of example, industrial process coefficients and the rapidly expanding global pool of information on emissions and natural resource use). It intrinsically provides the relevant data required for adjustments according to the unique nature of regional economic characteristics. The rich "snapshot" focus of input-output tables may be a limitation in terms of static input-output coefficients and the loss of important dynamic processes such as technology change. However, this can be addressed through time-series data collection and by building upon the basic input-output framework with additional data and more sophisticated mathematical techniques (for example, structural decomposition analysis).

Furthermore, the input-output basis concisely summarises all relevant economic transactions and ecological-economic interactions, is analytically meaningful, and highly tractable mathematically. The utilisation of core financial input-output relations enables the aggregation of economic measures and provides an easy means for setting up and applying anticipated, planned or proposed economic changes in order to identify detailed impacts on both the economy and the environment.

The limited use of EIO in the past does suggest that the approach faces some major limitations and these constraints must be acknowledged in any attempt to apply the methodology. Despite these limitations, the outstanding promise of EIO stems from its systematic, open-ended, flexible and transparent framework for organising, storing and incrementally accumulating data on ecological-economic interactions within a region. It has a multitude of beneficial potential compatibilities and links with the range of the physical material and energy accounting techniques and with the inevitable changes in national income accounting requiring the integration of environmental accounts. The format and content of EIO is also consistent with the informational requirements for the effective implementation of ISO 14000, Green Globe, Earth Check™ and other environmental management systems and environmental performance indicators as essential dimensions of international competitiveness for regional enterprises in the near future. Furthermore, EIO can provide appropriate data for social cost-benefit analysis (and economic valuation methods) for assessing the net benefits of a wide range of proposals in the region.

8.1.7 Potential Tourism-Related Applications of Environmental Input-Output Analysis

EIO has a very extensive range of potential applications for tourism related studies. Most of these applications are natural extensions of the planning, forecasting, and impact analysis tools of input-output tables. As with input-output tables, policy applications can be roughly divided into (1) monitoring (of the economic and physical environmental impacts of existing situations or actual policy changes) and (2) prediction or simulation of anticipated or hypothetical policy styles. The incorporation of environmental flows within the input-output framework makes it possible to identify and monitor, or predict, both major economic and environmental consequences of current, projected or planned economic changes. In addition, they also offer the ability to evaluate the economic repercussions of achieving environmental targets and strategies accompanying policy and regulation.

A brief description of the potential tourism-related applications of environmental input-output analysis is presented below. It excludes the capabilities of implementing conventional input-output analysis to assess the direct and indirect economic impacts (on output, regional product, income and employment) of changes in the nature of tourism in a region (see West and Bayne 2002 and Centre for Economic Policy Modelling 2002). Potential applications include:

1. *Estimation of environmental resource pressures from regional economic changes associated with various projections or scenarios for tourism*

Sources of economic change associated with tourism are injected directly into EIO models as changes in consumer spending or final demand. The direct and indirect pollution or resource-intensities of different patterns of final tourism demand can be investigated together with forecasting of future levels of pollution emission and natural resource use with likely or projected patterns of final tourism demand.

Changes in the final demand vectors can be assessed to investigate many aspects of change associated with tourism including:

- different visitation patterns, profiles and levels (for example, by place of origin, individual-group status, socio-economic status, consumption and activity patterns)
- proposed tourism-related private and public infrastructure projects and alternatives
- urban planning strategies with consequences for tourism (for example, the economic and spatial characteristics of light rail or new airports projects or urban consolidation strategies)
- fiscal and other incentives to change tourism-related consumption patterns
- changes in technology and factor use mix linked to tourism activities and needs (for example, energy resource conservation measures and incentives)

Hence, the approach helps forecast (and efficiently plan for) the nature and magnitude of environmental quality impacts and problems, and associated preventive and remedial abatement costs and infrastructure needs, accompanying likely or potential patterns of final tourism demand.

2. *Estimation and comparison of the economic and tourism costs of alternative regional environmental strategies and goals.*

EIO can be used to help assess the economic impacts of technological and related infrastructure changes designed to prevent environmental stress and enhance the sustainability of the tourism industry (for example, increased use of public transport by tourists).

The ability to effectively stimulate economic efficiency processes (through knowledge gained from the EIO technique) will be a major factor in maintaining the competitive advantage of both tourism-related and other productive enterprises in the region.

3. *Identification of likely economic structural impacts of alternative visitation patterns, profiles and levels, and environmental strategies and goals.*

Economic structural changes involve variation in the relative and absolute levels of activity and importance of economic sectors such as accommodation, cafes and restaurants, transport, trade, entertainment and recreation and food processing. The ability to more accurately predict associated economic structural changes allows a wide range of advantages for pre-emptive social and economic planning in addition to the identification of related environmental consequences.

One of the major overall benefits of EIO-styled environmental analysis is the way that it reveals the quite detailed structural nature of economic and environmental flows of inputs and outputs through the regional economy. A primary feature of the approach is to identify the specific nature of individual industry demands for raw materials and energy (and intermediate products) and the pattern of waste outputs. This information presents an invaluable source of information for implementing industrial ecology re-use and recycling linkages between productive enterprises so that waste outputs from one firm become economic inputs to others. Industrial ecology systems are being widely encouraged and implemented at regional levels and offer very substantial potential for direct input and waste disposal cost-savings (and hence competitiveness) as well as the reduction of negative environmental externalities. This ability to utilise latent industrial ecology linkages depends on the availability of current and disaggregated, local data.

Overall, EIO can play a pivotal role in the design of proactive strategies (1) to plan and cater for projected tourism development and consequent changes in the economy and environmental conditions in a rational and cost-effective manner, and, (2) to guide and nurture the tourism industry (and its visitation profile and activity patterns) and the supportive infrastructure into less environmentally-intensive forms. The assessment of a range of relevant options in terms of both economic and environmental effects would help identify preferred

policies or policy mixes, avoid inconsistent policy combinations, and achieve optimal choices or compromises across multiple, and sometimes conflicting, economic and environmental objectives. The EIO framework is a sound basis for effective and well-informed private and public cooperation, and planning and action for sustainable tourism.

8.2 Computable general equilibrium models

EIO can provide a detailed picture of the specific links between types of economic activity (sectors) and environmental impacts. Based on the monetary flow structure of the conventional, core section of the accounts, the mathematical matrix relations of the table can be used to identify the full economic flow-on effects of initial changes in one sector as they feed through the system requiring additional inputs from other sectors. With known relationships between the monetary economic outputs of sectors, and environmental demands, the environmental consequences of initial changes in economic activity can be effectively estimated.

However, the EIO approach shares many of the same limitations as standard input-output tables. A major source of problems, is the assumed fixed “technological” nature of the relationship between inputs and outputs in the system (and limited ability to substitute between inputs). The approach also takes limited account of the impacts between relatively open input-output systems (for example, the feedback effects of growth in exports to other regions). The strict demand-side orientation of input-output analysis is considered a very significant limitation in comparison to some alternative economic approaches. The neglect of supply or capacity constraints (the ability to meet new demands in sectors say with suitable employees or raw materials) is thought to remove a critical part of the microeconomic market logic of demand and supply. The failure to account for ongoing price changes that will eventually modify (usually dampen) the demand response itself is a major source of potential inaccuracy in prediction.

Cost-price equations can be introduced to input-output analysis to help account for these effects. One alternative approach, that is more comprehensive in this regard, is that adopted in the computable general equilibrium (CGE) models which are focused on predicting changes in economic (and environment-related) variables as a result of exogenous (outside system) shocks or changes to the level and composition of economic activity or expenditure.

8.2.1 The General Equilibrium Approach

It is important to recognise the integrated, or general equilibrium nature of the economy even if it is not feasible

to model it and calculate indirect and feedback effects. Fortunately, nowadays, computable general equilibrium (CGE) models of economies can be constructed which enable quantitative assessments to be made of the net impact of changes on variables such as output, employment and imports. A CGE model has an Input Output model embedded in it, but it also has other markets, and the links between markets, explicitly modelled. These recognise that consumers must choose how to spend their budgets – they do not have unlimited budgets. Resources are limited too, and they are normally allocated by markets. These markets may not perform well, and market imperfections can lead to unemployment. Governments can spend, but if they do they must raise taxes (or debt) and this means that other actors in the economy, consumers and firms, must spend less; this in turn has economic effects. The economy is linked to the rest of the world via a foreign exchange market; when demand for exports increase, the exchange rate rises, discouraging other exports and encouraging imports (Dwyer *et al.* 2002).

Over the past two decades there has been rapid development of computable general equilibrium models. These models incorporate an Input Output framework, but they also model markets for goods and services, factor markets, recognise resource limitations, model consumer spending, allow for government spending and taxing, and allow for external constraints. Models can either be quite basic, incorporating a few sectors and the links between them, or very detailed. They may be static, (a snapshot in time) or dynamic, allowing for the tracking of changes over time (Dwyer *et al.* 2002).

8.2.2 Using CGE Modelling in Tourism

As a tool, CGE analysis has broad applicability in tourism. Whenever the objective is to determine how a change in the tourism sector, or a change affecting it, will impact on overall economic activity or output, and on particular aspects of the economy, like employment or imports, CGE analysis can be used. Some types of issues, which can be explored using CGE analysis are as follows (Dwyer *et al.* 2002):

- What impact will a change in tourism, to a country from abroad, or to a state from outside its borders, have on activity?
- What impact will an increase in outbound tourism have on activity in the home country?
- What impact on economic activity within a state will intrastate tourism have?

- What impact on state or national activity will a special event, such as a motorcar Grand Prix or a music festival in a small town, have?
- How will a tourism specific tax, such as a bed tax, affect activity?
- How will a general tax change, such as the introduction of the GST, impact on the tourism sector and on output generally?
- How will changes in international aviation regulation impact on tourism activity and activity in the economy as a whole?
- How will tourism crises, such as that of September 2001, impact on the economy?

This is not an exhaustive list; rather it is a sample of the types of issues, which can be handled using this type of analysis. Granted that models are available, the main problem is how to incorporate the changes being considered in the context of the model. Most models do not have a “tourism” sector as such, but they do have the industries, which constitute the tourism sector (accommodation, transport etc). It is then a matter of specifying what the tourism sector consists of, and then setting out how the change being considered will impact on the components of this sector (Dwyer *et al.* 2002).

8.2.3 Tourism Satellite Accounts

Tourism Satellite Accounts (TSAs) are a means of measuring the size of the tourism sector in an economy, or measuring the “contribution” of tourism to the economy, which are growing in popularity. They are essentially a form of static “snapshot” of the tourism sector with the rest of the economy as a backdrop (Dwyer *et al.* 2002).

CGE models go much further than TSAs – with them it is possible to tell what impact a change – such as a 10% increase in inbound tourism, will have on variables in the economy, including GDP, employment and exports. TSAs cannot be used for this purpose. As long as a CGE model has an explicit tourism sector, it will embody a TSA. Typical results from using a CGE model will not include a TSA as normally presented. However, a CGE model is possible of producing, as an output, the TSA, which it embodies. The degree of accuracy and detail in this TSA will depend on the degree of detail incorporated in the model (Dwyer *et al.* 2002). Hence, a TSA generated as an output of a model may not be as accurate or detailed as one, which has been specifically constructed. However, if similar assumptions have been used in developing the CGE model in the TSA, the resulting TSA will be consistent. Hence it is feasible to produce a TSA from a CGE model of the

economy, which incorporates an explicit tourism sector (Dwyer *et al.* 2002).

8.2.4 Modelling environmental impacts by CGE models

CGE models have been used to assess the national output impacts of different scenarios involving the implementation of global warming policy instruments (Dwyer *et al.* 2002).

The CRC for Sustainable Tourism is now developing tourism CGE models to also incorporate other variables, such as, infrastructure requirements and impacts and other environmental variables such as water usage, waste to landfill and energy usage. Such whole of system CGE models will be invaluable tools to understand the interactions between tourism and other components of the community most importantly infrastructural and environmental parameters. Their predictive capacity will enable them to greatly assist sustainable tourism development.

8.3 Tourism systems models

Tourism is a complex system of interdependent factors and activities, which are managed and controlled by a multitude of interest groups and stakeholders (i.e. community groups, tourists, tourism industry, other industries and various levels of government). These different interest groups often pursue conflicting objectives and demonstrate a lack of understanding and appreciation of other stakeholders’ views (Lee 2001).

To manage a complex system like this, it is essential to develop a *systemic view* of how economic, environmental and social factors, affecting the region interact. The focus of a systemic view of tourism is to identify the underlying causes of problems, and evaluate the consequences of management responses (Lee 2001).

8.3.1 Tourism futures simulator

Most tourism models in the past have focused narrowly on economic variables. Recent modelling, however have broadened the focus. The Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO), coordinated by Dr Paul Walker, has developed the Tourism Futures Simulator (TFS). The TFS framework is based on a *Systems Thinking* approach, which aims to define key social, economic and environmental outcomes (problems) of various development scenarios, by identifying the underlying causes of the problems. The TFS formulates and tests potential solutions or management responses, through the use of computer simulation (Walker *et al.* 1999). It is a systems analytical tool – something similar to

a flight simulator – that allows people to explore the future implications of tourism management and policy options (Walker *et al.* 1999). The goal is to have it widely adopted by tourism operators, management agencies and local planners (Lee 2001).

Using *systems* tools, we are able to describe direct and indirect implications of actions affecting part of the system, at least in a qualitative way (Lee 2001). The TFS allows the user to explore the tourism system and uses simulation techniques, which provide a simultaneous assessment of how these linkages respond to a change in a controlling factor. It also provides tools, which help the user to interactively view these linkages by simply pointing and clicking on words in any diagram displayed (Walker *et al.* 1999).

In short the framework of a TFS consists of:

- processes for understanding the systemic interactions between the tourism sector and other sectors of the economy; for example between tourism environmental and social factors;
- a process for establishing a tourism data base which is relevant to industry and local government and which can be administered and maintained by them;
- a computer model for developing and quantitatively comparing the impacts of tourism strategies – this model is known as the Tourism Futures Simulator (TFS) (Walker *et al.*, 1998).

The TFS includes the capability for displaying different stakeholder mental models about the future of tourism within one system. Building these stakeholder views into the TFS is very important. It is essential to identify the potential users of the tool and to identify the key questions that these stakeholder groups have, before building the TFS. As each group describes the problem, the differences become apparent, as well as the interconnectedness of economic, environmental and social factors affecting tourism. Importantly, a systems approach can achieve group or team learning about a problem, and learning is imperative for managing a complex system (Lee 2001).

There are many steps that need to be undertaken to ensure community and agency learning (Lee 2001):

- making sure that the community (as well as the researchers) feel they're doing something that really matters
- helping individuals to enhance their view of the regional systems and its future prospects and their capacity to create a future

- helping individuals become more aware of underlying knowledge base that currently exists, of the base that's required for monitoring development and of the need for quantitative appraisal of development strategies
- helping individuals inquire about each other's assumptions and biases in a non-confrontational manner
- helping individuals realise that there is no ONE answer to the problems of the region or its development options and no one person who can encapsulate the regional interactions sufficiently well to identify the solution – the solution lies in the process of exploring the future.

The process of building TFS involves 7 steps (Walker *et al.* 1999):

- Understanding stakeholder views – how do the various stakeholders view positive and negative impacts of tourism? Through workshops and interviews, this knowledge and understanding of aspects of the tourism system was harnessed. This in itself leads to learning about the tourism system by the development team, but also about systems thinking by the stakeholders.
- Developing the concept – conceptualising a holistic view of tourism and identifying key factors of economic, environmental, social and policy nature, and how they interact with each other.
- Developing a simulation model – the concept must be translated into a simulation model in a manner that reflects the dynamic and spatial character of the processes and captures systems characteristics, such as lag times and threshold behaviour.
- Data integration – A geographic information base and tourism database for the region has to be developed.
- Building a model interface – A user interface to the simulation model has to be developed. It should allow users to manipulate input data and develop scenarios, and easily graph the simulation results.
- Establishing causal tracing – Techniques, such as causal tracing, are developed which help the user to explain the simulation outcomes.
- Develop a learning environment – Procedures are developed to teach stakeholders how to apply the TFS. The TFS is customized for particular tourism operators.

The TFS is not a predictive model in the traditional modelling sense and cannot give precise forecasts. The

model does take trends and relationships and extrapolates them through time and explores future trends. It is merely a guide to decision making. These elements are essential when using futures models. "It is an unfortunate failing of most people that we would like to believe that by entering a few figures into a computer model that we could solve the complex economic, environmental and social problems that confront us" (Lee 2001).

Benefits of a TFS for a local tourism industry include:

- Recognition of the value of tourism
- Understanding of tourism as a system
- Estimating expansion of employment
- Regional survey instruments for gathering data

- Participation in the formulation of a locally specific TFS and a sense of ownership of the data and simulator mechanisms
- Training or key local stakeholders in the use TFS
- Identification of peaks and troughs in relation to human resources
- Tourism product packaging and linkage systems

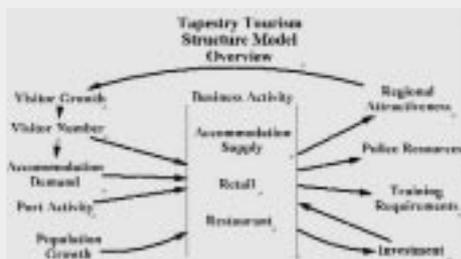
The TFS has been applied to the Tapestry region in Australia (see Box 43), through a project led by Dr Diane Lee (The CRC for Sustainable Tourism), working in collaboration with CSIRO's Dr Paul Walker.

Box 43: Application of the TFS to the Tapestry region

The Tapestry region is located in South Western Australia and is bound by white sandy beaches and mangroves swarming with bird life, and hinterlands, which offer colourful orchards and beautiful forests. Cultural attractions include a vibrant winery industry.

In this region the model looks at how growth in population and visitor numbers to the Tapestry region and the Southwest might affect a range of assets and activities in the Tapestry region. The model takes a broad view of visitor activity, including business and port activity, day-trippers as well as tourist visitors. It also aims to include the wide range of impacts of visitor activities. The model considered the direct impact of spending patterns of visitors in the various sectors of the economy, the employment impacts and training requirements, investment in accommodation infrastructure, and implications for policing (Figure 5). The model structure will be revised and refined in response to community input.

Figure 5: Tapestry tourism structure model (Lee 2001)



The Tapestry TFS model consists of:

- A computer "flight-simulator" which encapsulates tourism as a system, which enables strategies to be evaluated and compared and can be used to help community learning about potential outcomes from adopting strategies; and
- A sustainable data process and data base on tourism and related activities.

Using the Model

Driving the model are assumptions about key model parameters such as growth rates for tourist number and population. These are called game variables. While they are set to predicted values they are designed to be modified by the user. Simple calculators link the activity and spending patterns of different market segments to:

- Hotel occupancy rates;
- Restaurant spending; and
- Spending in other tourism related sectors including retail, attractions and tours.

In turn spending in the different sectors are linked to:

- Investment in accommodation and restaurant infrastructure; and
- Employment by skills type and in turn to the implications of training for employment.

The Tapestry TFS model can:

- help individuals to see tourism from a systems perspective;
- help individuals become more aware of underlying knowledge base that currently exists and required for monitoring development; and for identifying how these data can be used in decision making;
- helping individuals see how their area of interest (sectoral view), and changes that they propose in that area, may adversely impact on other sectors view; and
- help individuals to realise that there is no ONE answer to the problems of the region – the solution lies in the process of exploring the future.

8.4 Geographic Information Systems (GIS) and Tourism

Another tool in predictive modeling to assist in understanding tourism's impact and interaction with the environment and community is the spatially based Geographical Information System (GIS). A GIS is a computer-based system for the collection, management, analysis and presentation of geographic (spatial) data. Geographic data is any data that is 'mappable'. Thus in addition to the 'traditional' geographic data (soils, climate, topography, vegetation, etc.) it also includes a wide range of other 'geographies' (addresses of people, road/transportation networks, flow of pollutants, etc.).

A GIS can function at several levels:

- *Display.* At its simplest a GIS is able to display a given data as a map e.g. distribution of towns in a given region or the number of visitors to various tourism regions.
- *Data Integration.* A GIS can integrate data and display the results as a map e.g. a map showing towns, road network, boundaries of regional tourism associations and the location of Visitor Information Centres. Such integration can be very simple or complex as the user has an unrestricted ability to select and display various data 'layers'.
- *GIS Tools.* Various geographic calculations are possible. Thus instead of mapping 'raw' distributions, densities can be calculated and displayed. Similarly, a map can be produced which maps the origins of visitors to an attraction – the map can also display 'distance zones' or 'travel time zones' around the attraction.
- *Modelling.* All of the above functions can be put together to create spatial models e.g. degrees of fire risk in a national park. Various 'what if' type calculations are possible e.g. risks in summer under windy conditions and high visitor presence. Similarly, as part of an environmental management plan models of 'most disturbance' and 'least disturbance' can be developed to locate walking tracks through a World Heritage area.

GIS is a powerful tool for analysing spatial data and responding to management problems. GIS has high relevance for tourism, as the tourism system is essentially a spatial system, involving exchange of consumers between geographic regions (Leiper 1995). It is the movement of tourists from host regions to destination regions, which is at the core of many environmental, social, and cultural issues arising from tourism. Tourism

(T-GIS) has immense potential for improving destination and enterprise management practices. T-GIS may be used to help in both promotion and the decision making process of planners and policy makers (McAdam 1999). T-GIS, and its associated data analysis techniques, may improve modelling and forecasting of patterns of tourist movements and their associated impacts. Another example of T-GIS is the American Travel Survey (Bureau of Transportation Statistics, c2000). It provides a spatial analysis of visitor movements between regions within the United States of America. Research is required to extend this type of model to sub-regional movements.

Other areas of study into T-GIS development have been chiefly associated with the geographic allocation of promotional budgets, positioning of tourism bureaus and information offices (Bertazzon 1997). Areas of conflict between tourism development and environmental preservation could also adopt T-GIS to identify appropriate forms of development, nationally, or on a regional scale (Bertazzon 1997). GIS itself is being transformed by the development of online applications. Surprisingly few applications have been developed specifically for the tourism industries.

The use of GIS in decision-making is a major area of research – particularly with regard to environmental management applications. GIS offers the possibility of linking different resources spatially (allocation of management resources to spatially isolated units needs a good comprehension of the distances involved and many resources are themselves interlinked), but also allows linkages and interdependencies between mapping layers to be incorporated, something that cannot be done on a series of paper maps. GIS provides a tool for spatial presentation of the data, which is vital for interpreting ecological and social values, and for linking them to aspects of the landscape, their spatial linkages to each other, to infrastructure, and centres of habitation etc., but also provides the interactive link for the decision-support system that is envisaged.

8.4.1 Use of GIS for Identifying Tourism Environmental, Social, and Cultural 'Hotspots'

Environmental assets valuable to tourism are vital to the development and continuation of a sustainable tourism industry. An environmental asset may be clearly recognised by the industry as being of direct value (such as scenic places), but some of these assets may be of indirect value (such as the maintenance of a wetland environment for nutrient and water disposal from a resort or area of concentrated population, or as a buffer against wind or noise). Whatever the category, these assets need to be managed for their continued health so they maintain their valuable attributes for tourism to be sustainable. If

biological components are involved, management must be responsive to the dynamics of the whole system, and the interactions between the component organisms over space and time.

For tourism to be sustainable, the interaction between tourism activity and the environmental, social and economic structures of a destination needs to be managed appropriately and effectively to maintain destination quality while maximising tourism activity. Poorly managed activity can lead to increased stresses on natural and built environments and social and cultural characteristics of these spaces. There are currently few tools for tourism managers to assist them deal with the range of issues affecting sustainable tourism at areas of greatest concentration ('hotspots') of either tourism or a fragile asset. Hotspots may exist around issues regarding the natural or built environment, or the social and cultural values associated with those environments. Such 'hotspots' can be identified using Geographic Information System technologies, and these technologies could be used to help make and monitor management decisions.

The CRC for Sustainable Tourism is presently developing a GIS framework for the identification (description), monitoring and management of hotspots relating to tourism destinations. The monitoring framework will enable rapid response to stresses on the natural, built, cultural, and social environments at destination, and even sub-destination level (eg. the grounds of a resort or immediate environment surrounding a specific product or activity). Learning from application of the model in a variety of cases will improve knowledge for tourism planners about the consequences of management approaches and decisions. Enterprise and destination capacity to profit from tourism development will be

improved by the potential to use the framework to reduce costs of remediation activities through more rapid identification of hotspots.

Specific outcomes/outputs of the project will include: (i) a conceptual model of GIS application to decision making in hotspot monitoring/management; (ii) a prototype GIS application for implementing the model; (iii) a 'guide to use' for the prototype; and (iv) a proposal for research to apply the prototype. The overall benefits of the project will be in increased understanding of the spatial dimensions of the environmental changes associated with tourism, and increased capacity to identify and monitor these changes over time.

For organisations wishing to implement the framework the return on this investment is expected to be significant, with substantial contribution to key issues in tourism management at local and regional levels. Such issues may include: infrastructure management (especially waste management); management of the natural environment through visitor flows; recognition of social and cultural values and the spaces they are attached to. These organizations can expect to recoup costs through using the framework to lower costs of managing these issues, both in the short and long term, and through streamlining processes designed to evaluate management interventions.

An example of a GIS type model has been developed in Australia, by Parks Victoria (project coordinator, Dino Zanon) and the Transport Research Centre at RMIT University (project coordinator, Paris Brunton), and is known as an Interactive Open Space Demand Model (ISOD model) (see Box 44).

Box 44: Interactive Open Space Demand Model (IOSD model)

The development of the IOSD model was initiated to assist in making investment decisions in the provision of regional open space opportunities across Melbourne. The IOSD model is in the form of an Excel spreadsheet gravity model, with the outputs taken over to a MapInfo interface to generate geographical maps. The model operates in two modes – “equity” mode where relative accessibility is calculated for each population centre, and “simulation” mode where actual visitation patterns are simulated. Inputs to the IOSD model are household demographic data aggregated to postal areas to reflect the propensity of population centres to visit parks, and attributes of parks (capacity, location, level of services) that reflect park “attractiveness”. The “gravity” reflects the attraction of people to parks.

In equity mode the IOSD model computes the relative accessibility of all major regional parks in Melbourne to population centres. The maps provide a visual supply and demand image for those population centres, showing relatively under-supplied and over-supplied centres. In simulation mode the IOSD model considers “what if” scenarios such as the addition of proposed parks and infrastructure changes to service levels at existing parks.

The gravity model calculates the number of trips from all postal areas to all parks. As an output, the IOSD model predicts the number of trips from each postal area to each park. It also calculates the accessibility of parks to residents in postal areas. A park’s accessibility can be likened to a population density around the park. Using the analogy of Newton’s Law of Gravity, accessibility for a population centre can be likened to a gravitational pull. The more, larger and closer objects are, the greater their attraction or gravity on a mass. The larger, closer, more and better-served parks are, the more the population centre is supplied by them.

In other words, parks with high accessibility have a much greater chance of being visited by the surrounding population. Park accessibility is a function of the size of the population and its proximity (i.e. distance) to the park. The greater and closer the population, the higher the accessibility of the park and the greater the likely demand for the park in the vicinity.

The Interactive Open Space Demand Model can be used to explore “what-if” scenarios for potential changes to a park. For example, the effects of “improving” a park can be gauged. If the level of service or the capacity of a park is increased, this will increase its attractiveness and is likely to lead to an increase in visits to that park. It will also reduce visitation to nearby parks by “robbing” their visitors – that is, enticing them to a better attraction. In this way the IOSD model behaves as a “simulation” model, predicting future outcomes. An example of an improvement is adding a playground to a park. This will attract more parents with children than nearby parks without a playground. The model calculates the expected increase in visitation given the attractiveness of a playground (Zanon 1996).

The two forms of the IOSD model – simulation mode and equity mode, depending on whether actual visits adjusts gravity – each have their own specific uses and advantages. However, the spread of accessibility varies considerably between the two forms. The high degree of separation given in equity mode means that Parks Victoria must be vigilant about the equitable distribution of open space. The lower accessibility computed by simulation mode suggests that the actual public’s use of parks (i.e. the visiting public) compensates for the poor equitable distribution of parks (shown by accessibility in equity mode). That is, people make up for low accessibility by visiting more distant parks if no parks are in proximity. (Zanon and Brunton 2002)

9. PERFORMANCE MONITORING

Benchmarking will:

- *Demonstrate contribution to protection of local and global environmental quality.*
- *Retain existing customers and attract new ones.*
- *Improve profitability by being less wasteful and more efficient.*
- *Provide a sound basis for environmental reporting to stakeholders.*
- *Attract ethical investment.*
- *Improve business-to-business opportunities and outcomes.*
- *Improve relations with government regulators.*
- *Enhance relations with local communities*
- *Motivate employees.*

9.1 Introduction

Increasingly travel and tourism operations throughout the world will need to focus on improving their environmental performance and strive for sustainable outcomes to achieve environmental, economic, social and cultural improvement at global, national and local levels. In order to drive continuous environmental and social performance in travel and tourism, performance monitoring is essential. This can be achieved by establishing sustainability indicators, together with best practice performance benchmarks for these indicators. Indicators and benchmarks should aim to achieve:

- Reduction in greenhouse gas emissions
- Energy efficiency, conservation and management.
- Air quality protection and noise control.
- Fresh water resource management.
- Wastewater management.
- Waste minimization.
- Improved social and cultural relations.
- Land management.
- Ecosystem conservation and management.

9.1.1 Earth Check™ System

The CRC for Sustainable Tourism has carefully chosen and developed a set of Earth Check™ indicators with their relevant measures for 20 travel and tourism sectors, including destination communities. These indicators in turn provide public and private travel and tourism organisations and communities with a framework to benchmark, monitor and enhance their environmental, economic and social performance. The Earth Check™ system is proprietary to the CRC for Sustainable Tourism with provisional international patent awarded.

The Earth Check™ benchmarking process establishes indicators (e.g. energy consumption, waste production) that measure, assess and monitor the sustainability and performance of a tourism destination or enterprise. The indicators encourage energy efficiency (i.e. reducing energy consumption), resource conservation (i.e. lowering the use of potable water) and waste reduction, which in turn achieves significant savings for travel and tourism, through an integrated and systematic approach. It is accepted that such 'green' management can improve profitability for the travel and tourism industry by being less wasteful and more efficient. Best practice management will also attract ethical investment and improve relations between public and private sectors – i.e. travel and tourism sectors, government regulators and the local community.

Benchmarking with easy to measure indicators provides practical feedback on environmental and social performance. By working toward best practice, businesses and communities demonstrate to stakeholders their responsible commitment to high quality standards of better environmental, social, cultural and economic quality.

9.1.2 Consumer demand for responsible tourism

There is an increased tendency for tourists to select environmentally responsible tourism products and experiences on the basis of their environmental attributes. For example, research has shown 83% of travellers are inclined to support "green travel companies" (Travel Industry of America 1997), and a recent poll in the UK showed 53% of people regard choosing environmentally conscious companies as important when making travel arrangements (Mori 1999). Furthermore, Tearfund research (which surveyed approx. 2000 members of the general public) found that: "Over half would be willing to pay more for their overseas holiday if they were guaranteed that the 'money goes towards preservation of local environment, workers in the destinations are guaranteed good wages and working condition, or money goes to

support a local charity'. Of those who were willing to pay more, the average increase they would accept, was 5% - \$25 on a holiday of \$500. Tourists are not always simply looking for the lowest price: they are willing to pay for principles" (Tearfund Research 2000).

9.2 Performance assessments for whole communities

Benchmarking a community (destination) as a whole aims to assist communities in achieving sustainable tourism in their region. It provides a community with practical feedback on their relative environmental and social performance. The benchmarking of destinations aims to support a community to obtain maximum benefit for their region from their continued commitment to overall enhancement of their environmental, economic and social performance.

Benchmarking a community includes assessing their consumption of resources such as potable water and their production of waste (this includes waste production and resource consumption of visitors). Resource use management in destination communities is an important component of sustainable tourism development and management, in order to try to mitigate any conflicts between the different users (visitors and hosts) of the resources. There must be evidence that resource use patterns are being assessed (eg fuel wood and water) and how this is affecting the local residents.

Another important component of sustainable tourism development and management in any destination is the networks and partnerships between destination authorities, private businesses (beyond the supply chain) and the local community itself, for continuous improvement of a destination's quality and sustainability. There needs to be an indication or assessment that such partnerships exist in the destination and that various stakeholders are part of an integrated management strategy.

For a community to be benchmarked there need to be specific indicators with relevant measures that assess and monitor environmental, social and economic performance/sustainability of the community as a whole. The Earth Check™ indicators used to benchmark a community are listed below in Table 6. The indicators have been selected to benchmark key aspects of performance and with the requirement that a community should be able to provide the necessary information to measure them without incurring excessive extra cost. The table also lists their primary impacts on key environmental and social performance areas.

Table 6: Benchmarking indicators and units of measurements for communities

	ENVIRONMENTAL & SOCIAL PERFORMANCE AREAS								
	GREENHOUSE GASES	ENERGY MANAGEMENT	AIR QUALITY	FRESH WATER RESOURCES	WASTE WATER MANAGEMENT	WASTE MINIMIZATION	SOCIAL & CULTURAL IMPACT	LAND USE MANAGEMENT	ECO-SYSTEM CONSERVATION
Earth Check™ Indicators & Measures									
Sustainability Policy includes Travel & Tourism Policy developed	●	●	●	●	●	●	●	●	●
Energy Consumption: Energy consumption / Person	●	●	●			●			●
Greenhouse Gas (CO ₂): Carbon dioxide (CO ₂) generated / Person	●	●	●			●	●	●	●
Air Quality: • Nitrogen oxides (NO _x) generated / Area • Sulphur dioxide (SO ₂) generated / Area • Particulates (<10 µm) generated / Area		● ● ●	● ● ●	●		●	● ● ●	● ● ●	● ● ●
Water Consumption: Water consumption / Person	●	●		●	●	●		●	
Solid Waste Reduction: Weight of waste / Person	●	●				●			●
Resource Conservation: * • Weight of paper purchased / Employee • Weight of biodegradable pesticides purchased / Total weight of pesticides purchased • Biodegradable cleaning chemicals purchased / Total cleaning chemicals purchased	● ● ●	● ● ●		● ● ●	● ● ●	●		● ● ●	● ● ●
Biodiversity: Habitat conservation area / Total area	●		●	●			●	●	●
Waterways Quality: Samples quality passed / Samples tested	●	●		●	●		●		●
Travel & Tourism: Environmentally accredited operations / Total operations	●	●	●	●	●	●	●	●	●
Optional Indicators & Measures	e.g. value of products purchased locally/Total value of products purchased								
Community Selected Indicator: Measure selected from an Earth Check™ list									
Community Specified Indicator: Agreed measure put forward by the community									

*assessed for the lead agency

9.2.1 Benchmarking indicators (Earth Check™ System)

Sustainability policy

- *The objective* of this indicator is to provide a straightforward written policy that addresses key sustainability issues related to Travel and Tourism. The policy is a community statement on setting objectives and establishing processes to improve local, environmental and social impacts resulting from travel and tourism.
- *Indicator measure*: a policy has been developed and is in place.
- *Environmental and social performance areas* – greenhouse gases, energy management, air quality, fresh water resources, waste water management, waste minimisation, social and cultural impact, land use management, ecosystem conservation.

Energy consumption

- *The objective* of this indicator is to minimise overall energy consumption and encourage greater use from renewable energy sources.
- *Indicator measure*: total energy consumption (GJ) pa / person years pa.
- *Environmental and social performance areas* – greenhouse gases, energy management, air quality, waste minimisation and ecosystem conservation.

Air quality

- *The objective* of this indicator is to improve air quality through reducing local emissions that result from energy consumption in the community.

To reflect the size of the community's region, this impact is assessed in terms of overall area.

- *Indicator measure 1*: total NO_x (Nitrogen oxides) produced by the community (kg) pa / Total community area (ha).
- *Indicator measure 2*: total SO₂ (sulphur dioxide) produced by the community (kg) / total community area (ha).
- *Indicator measure 3*: total PM₁₀ (particulates) produced by the community (kg) pa / total community area (ha).

- *Environmental and social performance areas* –

- *Indicator 1* – energy management, air quality and social and cultural impact..
- *Indicator 2* – energy management, air quality, freshwater resources, waste minimisation, social and cultural impact, land use management and ecosystem conservation.
- *Indicator 3* – energy management, air quality, social and cultural impact, land use management and ecosystem conservation.

Water consumption

- *The objective* of this indicator is to minimise the consumption of water.

Communities consume a significant amount of water for human consumption, recreational facilities, gardens and cleaning. For many communities the overall reduction (from lowering demand and increasing reuse and recycle) will have a significant contribution to the local environment and long-term sustainability.

- *Indicator measure*: total water consumed by the community (kL) pa / Person years pa.
- *Environmental and social performance areas* – Greenhouse gases, energy management, fresh water resources, waste management, waste minimisation, land use management.

Solid waste reduction

- *The objective* of this indicator is to reduce the amount of solid waste produced.

Waste materials sent to the landfill represent a loss of resources, and their replacement will increase greenhouse gases during both their production and transport. The first step for the community should be to look at reducing quantities of materials consumed (including packaging) to then consider reuse, or if not possible, recycle.

- *Indicator measure*: waste landfilled (tonnes) by the community pa / person years pa.
- *Environmental and social performance areas* – greenhouse gases, energy management, waste minimisation, ecosystem conservation.

Resource conservation:

- *The objective* of this indicator is to reduce the consumption of natural resources and the impact on ecosystem biodiversity.

This indicator focuses on the lead agency in the community and assesses its consumption purchasing policy. A major contribution to resource conservation and biodiversity (i.e. through less impact on the balance of the local ecosystem) is an active policy for minimising wasteful practices and careful consumption and purchasing supplies of materials from sources where they have been produced using environmentally sound ingredients and processes.

- *Indicator measure 1:* paper purchased (kg) pa / total employees
- *Indicator measure 2:* biodegradable pesticides purchased (kg) pa / total pesticides (kg) pa
- *Indicator measure 3:* biodegradable cleaning chemicals purchased (kg) pa / total cleaning chemicals purchased (kg) pa.
- *Environmental and social performance areas –*
 - *Indicator 1 –* greenhouse gases, energy management, fresh water resources, waste minimisation and ecosystem conservation
 - *Indicator 2 –* greenhouse gases, energy management, waste water management, land use management and ecosystem conservation
 - *Indicator 3 –* greenhouse gases, energy management, waste water management, land use management and ecosystem conservation

Biodiversity:

- *The objective* of this indicator is to conserve native habitats and biodiversity.

Biodiversity is often lost as a result of habitat destruction, resource depletion and pollution. To try to quantify biodiversity, the indicator relates to the relationship between habitat and biodiversity conservation. The measure is based on the percentage of land set aside for native or regenerated native vegetation and designated for conservation. This provides a comparable quantified indication of the area of native habitat in a community and reflects the measures being taken by the destination to preserve these habitats and their associated biodiversity.

- *Indicator measure:* Native (or regenerated native) vegetation area designated for conservation in the community's region (ha) / Total community area (ha)
- *Environmental and social performance areas –* Greenhouse gases, air quality, fresh water resources, social and cultural impact, land use management, ecosystem conservation.

Waterways Quality:

- *The objective* of this indicator is to improve the quality of surface water, groundwater and aquatic habitats (including the sea).

The degradation of natural water resources occurs as a result of the application of chemicals (e.g. biocides and fertilizers) to the land, and the discharge of effluents and sediments to water bodies. In order to assess the quality of waterways, the indicator is the proportion of all water samples taken in the area and analyzed that pass relevant statutory water standards. This provides an indication of the level of care taken to minimize these impacts on water resources and the subsequent monitoring of performance.

- *Indicator measure:* Samples passing quality standards pa / Total samples tested pa
- *Environmental and social performance areas –* Greenhouse gases, energy management, air quality, fresh water resources, wastewater management, social and cultural impact and ecosystem conservation.

Travel & Tourism

- *The objective* is to assess the contribution that the local Travel & Tourism industry is making to protect the community's environment, culture and resources.

The level of commitment made by the local industry to the community's environment and culture can be reflected through the involvement of individual Travel & Tourism operations in credible environmental accreditation schemes.

- *Indicator measure:* Number of environmentally accredited Travel & Tourism operators / Total number of Travel & Tourism operators with business addresses in the community
- *Environmental and social performance areas –* Greenhouse gases, energy management, air quality, fresh water resources, waste water management, waste minimisation, social and cultural impact, land use management and ecosystem conservation.

Optional indicators

Community Selected Indicator

- *The objective* is positive commitment to the local environment, society and economy.

The indicator should be relevant to the community and its environmental and/or social impact and may be community or locality specific and should reflect a commitment to improving local issues.

- *Indicator measures:* examples of indicators that can be selected are listed below.

- Renewable energy consumption pa / Total energy consumption pa

- Renewable energy production within community pa / Total energy consumption pa

- Value of consumable products purchased produced locally (within community) pa / Total value of consumable products purchased pa

Community Specified Indicator

- *The objective* is positive commitment to the local environment, society and economy

- *Indicator measures:* the community can specify an indicator that does not appear in the list associated with the Community Selected Indicator. This indicator can be in addition to, or instead of, a Community Selected Indicator, but it must be relevant to the community and its environmental impact and worthy of promotion.

Box 45: Benchmarking a destination community

Background

In October 2000 the Douglas Shire Council signed an agreement with the Australian Cooperative Research Centre for Sustainable Tourism (CRC), and the Queensland Environmental Protection Agency (EPA). This collaborative partnership was designed to facilitate ecologically sustainable environmental and business best practice with an emphasis on the travel and tourism industry.

Douglas Shire Council is committed to ensuring that their community develops in an environmentally and socially sustainable manner. Their contribution and commitment to this is reflected in their ongoing pursuit to develop and implement innovative environmental improvements and best practice standards and through their successful encouragement of local community involvement in the Douglas Shire region. This case study describes the Benchmarking achievements of Douglas Shire Council and against the Earth Check™ Benchmarking Indicator for Communities.

Benchmarking Performance Criteria

Environmental and Social Policy

Douglas Shire Council is developing a Sustainability Strategy, which is focused on environmental and social policy. This written commitment aims to address sustainability issues in the Shire. The Strategy provides the framework for Douglas Shire Sustainable Futures, which is the umbrella for a suite of projects designed to improve the economic, social and environmental performance within the Douglas Shire.

Energy

Douglas Shire Council has attempted to minimize the overall consumption of energy for the Shire whilst promoting greater use of renewable energy resources through the highlighting the following initiatives:

- A Domestic Remote Area Power Scheme (DRAPS) subsidy for residents unable to access mains electricity. These systems consist of photovoltaic panels, batteries and a back up diesel generator.
- Residents are being given incentives to introduce solar hot water systems through rebate grants. These systems contribute around 40% of the average domestic energy consumption.
- It is estimated that 367 350 kWh of electricity used North of the Daintree River within Douglas Shire is created from renewable sources of energy. (*Source: Daintree Futures Study, 2000 cited in Report on Douglas Shire Baseline Data, August 2001*)
- Further incentives for energy efficient buildings are due to be introduced into the new planning scheme being prepared for the Shire.

Douglas Shire Council's consumption of electricity per capita is well below the national average, and exceeds GREEN GLOBE Best Practice Level

Douglas Shire Council is rated above Best Practice Level in their water consumption.

The University of Queensland and the Centre for Integrated Environmental Protection at Griffith University (sponsored by CRC for Sustainable Tourism) are conducting a research pilot project at the Port Douglas sewerage treatment plant into tertiary treatment of saline wastewater. The ability to treat marine sewerage is an Australian first and is world best environmental practice.

Douglas Shire Council recycles effluent from Port Douglas Sewerage Plant to irrigate two golf courses in the town. This reuse figure is one of the highest in Australia

The air quality in the Douglas Shire Council exceeds GREEN GLOBE Best Practice Levels.

- The Mossman Central Sugar Mill produces renewable energy as a by-product of the cane crushing process, and 326 MWh was exported to the national grid during the 2000 crushing season.

Water Consumption

- Ultra-filtration systems are planned for the Mossman Gorge Community, Whyanbeel Weir and Daintree Reservoir and are expected to be in operation by June 2002. Drinking water quality is likely to be significantly improved once these are operational.
- Douglas Shire Council requires all new rural residential properties to install 20,000 litre rainwater tanks to ensure self-sufficiency in drinking water.
- Further work is being undertaken by Council to enhance its potable water management.

Waterways Quality

- This indicator includes the quality of surface water, groundwater and aquatic habitats (including the sea) in the Douglas Shire. The Douglas Shire Council acknowledges the need for an integrated and reliable long-term water quality monitoring program and ongoing improvements to water management.
- 84% of water related tests passed relevant guidelines in the Douglas Shire.
- The Douglas Shire Council is developing a Soil and Stormwater quality manual, which will promote best practice soil and water quality management for development sites and construction activities, to improve sedimentation and runoff from these sites.

Solid and Liquid Waste

- Douglas Shire Council actively encourages a reduction in the quantity of solid wastes being generated through approaches such as: avoiding excess packaging, reuse packaging where possible, recycling waste where possible and committing waste to landfill only as a last resort.
- An integrated waste management project coming into operation in 2002 will provide best practice waste management and aims to reduce landfill by up to 65%.
- Drummaster is another federal initiative Douglas Shire Council has become involved in which encourages the recycling of agricultural chemical containers and bulk buying of chemicals. At present Douglas Shire Council offers recycling of oil, tyres and grease trap waste.
- Douglas Shire Council recycles effluent from Port Douglas Sewerage plant to irrigate local golf courses.

Air Quality and Noise Control

- Douglas Shire Council participates in the Cities for Climate Protection (CCP) programme, which measures energy consumption and Greenhouse Gas emissions for the DSC and the broader Shire community. This programme also bases itself on continual improvement.
- The Shire's aims to lower Greenhouse Gas emissions through their sustainable farming practices, including the green harvesting of sugar cane rather than burning off.
- As a part of the Greenhouse Gas Abatement Project, 3000 hectares of planting within the Shire is required for carbon sequestration. This aspect is likely to be a significant and positive indicator for the Shire in the future.
- A proposal to fit cane mill stacks with scrubbers is expected to reduce emissions from the mill by up to 90%

Resource Conservation

- Douglas Shire Council encourages best practice resource conservation measures and internal cultural change towards greater eco-efficiency. Douglas Shire Council has adopted practices that demonstrate best practice, such as: electronic minutes and agendas for meetings, use of internal email instead of paper message pads, encouraging employees to avoid unnecessary printing and to reuse old documents for scrap paper.



Social Commitment

- Douglas Shire Council acknowledges the economic effects of tourism on the local economy and therefore emphasis is placed on the support of local goods and services ensuring the economic benefits remain within the local region and benefit the local region.

Biodiversity

- There are currently 47 conservation agreements with landowners in the Douglas Shire, which ensure that the property is managed to provide habitat in high value bio-diversity areas.
- Vegetation management laws and tree planting buyback schemes have seen a net gain of 5 ha of conserved lands and 19,000 trees.

Earth Check™ Supplementary Indicators for Douglas Shire Council

Renewable Energy Consumption and Production

- The Douglas Shire Council, along with its residents and corporations, acknowledges the benefits of renewable energy production and aim to develop and maintain use of these alternative energy systems within the Shire

Southern Cassowary Conservation

- Southern Cassowary Conservation has been identified as a Community Specified Indicator for the Douglas Shire. The Douglas Shire is committed to protection and conservation of the Cassowary through initiatives such as risk identification and management strategies in order to overcome threats posed by human encroachment and feral animals. Douglas Shire Council is pro-active, along with other local organizations and groups, to preserve the Cassowary population. Some of these actions include: installation of interpretative signage, speed bumps and rumble strips to prevent fatalities; developing measures to prevent domestic and feral animals introducing disease into the population.

12% of the Travel and Tourism Operators in the Douglas Shire Council have environmental performance accreditation. Generally, 10% participation is regarded as an excellent outcome. Additionally, Douglas Shire contains 6.5% of all Australian accredited eco-tourism operators.

78% of the land within the Douglas Shire region is protected which exceeds the national average and is well above GREEN GLOBE Best Practice Level.

9.3 Benchmarking individual enterprises

Benchmarking individual enterprises in all the different travel and tourism sectors is important, as it provides practical feedback on their environmental and social performance, and demonstrates to stakeholders their responsible commitment to high standards. The aim of benchmarking each individual enterprise is to provide businesses with the maximum benefit for their continued commitment to overall enhancement of their environmental, social and economic performance.

Similarly to benchmarking communities (destinations), benchmarking the travel and tourism sectors includes assessing individual enterprises of their consumption of resources, such as potable water and their production of waste. The Earth Check™ System offers benchmarking for 19 travel and tourism sectors.

1. accommodation;
2. aerial cable ways;
3. administration;
4. airline;
5. airport;
6. bus company;
7. car hire;
8. community;
9. convention centre;
10. cruise vessels;
11. exhibition hall;
12. farm stay;
13. golf course;
14. marina;
15. railways;
16. restaurant;
17. tour companies;
18. (tour operators);
19. trailer park and
20. vineyard.

For each of these sectors (except 8 – discussed earlier – and 17 – who's indicators are a little different) to be benchmarked, the Earth Check™ System has developed benchmarking indicators and their measures (Table 7). Note that the table gives an example of the accommodation sector. For the different sectors the indicators are similar, however, the units of measurements change depending on the sector (e.g. for cruise vessels the unit of measurement is based on a Transport Unit, which is related to revenue passenger kilometres travelled (RPK)). This table also lists the sector's primary impacts on key environmental and social performance areas. The tour operators sector (e.g. 4WD tours, guided bus tours, boating operations) uses the same indicators but these are made up of various sectors i.e. bus company, accommodation etc. as appropriate to the particular services provided by the tour operator.

Tour companies (larger integrated operations that wholesale other companies products and/or operate their own accommodation, transport and retail services) have different sets of indicators and these are present in (Table 8).

Table 7: Benchmarking indicators and their units of measurement for accommodation

	ENVIRONMENTAL & SOCIAL PERFORMANCE AREAS								
	GREENHOUSE GASES	ENERGY MANAGEMENT	AIR QUALITY	FRESH WATER RESOURCES	WASTE WATER MANAGEMENT	WASTE MINIMIZATION	SOCIAL & CULTURAL IMPACT	LAND USE MANAGEMENT	ECO-SYSTEM CONSERVATION
Benchmarking (Earth Check™) Indicators & Measures									
Sustainability Policy <i>Policy in place</i>	●	●	●	●	●	●	●	●	●
Energy Consumption: <i>Energy consumed / Guest night or area under roof</i>	●	●	●			●			●
Potable Water Consumption: <i>Water consumed / Guest night or area under roof</i>	●	●		●	●	●		●	
Solid Waste Production: <i>Volume of waste / Guest night or area under roof</i>	●	●				●			●
Social Commitment: <i>Employees living within 20 km / Total employees</i>	●	●	●				●	●	
Resource Conservation: <i>Ecolabel products purchased / Products purchased</i>	●	●	●		●	●	●	●	●
Cleaning Chemicals used: <i>Biodegradables used / Total chemicals used</i>	●	●		●	●	●			●
Optional Indicators & Measures									
Operation Selected Indicator: <i>Measure selected from a Earth Check™ list</i>									
Operation Specified Indicator: <i>Agreed measure put forward by the operation</i>									e.g. value of products purchased locally / Total value of products purchased

9.3.1 Benchmarking indicators (Earth Check™ System)

Sustainability Policy

- *The objective* is to produce a clear and straightforward written policy that addresses key sustainability issues.

The Sustainability Policy is an operation’s statement with respect to its assessment, control and continual improvement of environmental and social impacts.

- *Indicator measure:* A Sustainability Policy has been produced and endorsed by the operation.
- *Environmental and social performance areas* – greenhouse gases, energy management, air quality, freshwater resources, waste water management, waste minimisation, social and cultural impact, land use management, ecosystem conservation.

Energy Consumption

- *The objective* of this indicator is to minimize overall energy consumption.

Significant levels of energy are consumed by travel and tourism sectors. An overall reduction in energy consumed will have a positive impact on operational costs and can have major environmental benefits, primarily through conservation of natural resources and lowering associated greenhouse gas emissions.

- *Indicator measure:* Total energy consumption (GJ) pa / Guest nights pa or Area under roof (m2)
- *Environmental and social performance areas* – greenhouse gases, energy management, air quality, waste minimisation, ecosystem conservation.

Potable Water Consumption

- *The objective* of this indicator is to minimize consumption of potable water.

Many Travel & Tourism operations are located in regions where access to fresh water is a concern. Actions leading to an overall reduction in water usage (from lowering demand and/or increasing reuse and recycle) will be a significant contribution to the local environment and the long-term sustainability of the operation.

- *Indicator measure:* Water consumed (kL) pa / Guest nights pa or Area under roof (m²)
- *Environmental and social performance areas* – greenhouse gases, energy management, freshwater resources, wastewater management, waste minimisation, land use management.

Solid Waste Production

- *The objective* is to reduce the amount of solid waste generated.

One of the first steps for an enterprise to take should be to look to reducing their quantities of materials consumed (including packaging), to then consider reuse, or if not possible, recycle, as waste materials represent a loss of resources and increased greenhouse gas.

- *Indicator measure:* Volume of waste landfilled (m³) pa / Guest nights pa or Area under roof (m²)
- *Environmental and social performance areas* – greenhouse gases, energy management, waste minimisation, ecosystem conservation.

Social Commitment

- *The objective* is to develop and maintain positive, productive and sustainable contributions to the local community.

Social commitment by tourism enterprises (sectors) is a key issue in achieving sustainability. It is important that local traditions and customs are respected and that local goods and services are purchased where possible. To encourage and monitor local employment, and minimise environmental impacts, the indicator is the number of owners, managers and/or employees that have a primary address close to where they are based within the operation is used.

- *Indicator measure:* Employees with their primary address within 20 km of the operation / Total employees

- *Environmental and social performance areas* – greenhouse gases, energy management, air quality, social and cultural impact, land use management.

Resource Conservation

- *The objective* of this indicator is to reduce consumption of natural resources and the impact on ecosystem biodiversity.

A major contribution to resource conservation and biodiversity (which can be through lesser impact on the balance of the local ecosystem) is by purchasing supplies of materials from sources using environmentally sound ingredients, i.e. the type of paper used by the operation (e.g. for promotional material, stationery, toilets etc.). A strategy of internal reuse and recycle where possible should be adopted, together with the use of products proven to be environmentally friendly (such as those carrying credible ecolabels). For paper, ecolabels are likely to signify avoidance of chlorine-based bleaches, use of biodegradable inks and dyes, and use of wood from sustainable plantations.

- *Indicator measure:* Ecolabel paper purchased (kg) pa / Total paper purchased (kg) pa
- *Environmental and social performance areas* – greenhouse gases, energy management, air quality, waste water management, waste minimisation, social and cultural impact, land use management, ecosystem conservation.

Cleaning Chemicals Used

- *The objective* is to reduce chemicals discharged into the environment.

Cleaning chemicals are potential source of contamination of natural water bodies in terms of toxicity and disturbance of the natural balance of ecosystems (e.g. phosphates from detergents are known to contribute to eutrophication). An increased use of ecolabeled biodegradable cleaning products would be a significant step towards overall reduction in chemical contamination of the environment, along with an overall reduction in the gross amount of chemicals consumed per annum.

- *Indicator Measure:* Biodegradable cleaning chemicals used (kg) pa / Total cleaning chemicals used (kg) pa

- *Environmental and social performance areas* – greenhouse gases, energy management, freshwater resources, wastewater management, waste minimisation, ecosystem conservation.

Optional indicators

Operation Selected Indicator

- *The objective* is positive commitment to the local environment, society and economy.

Examples of possible indicators that can be selected are listed below:

- *Indicator measures:* Operation Selected Indicator measures:
 - CO₂ sequestered (tonnes) pa / Total CO₂ generated (tonnes) pa
 - Renewable energy consumption pa / Total energy consumption pa
 - Number of environmentally accredited operators and suppliers dealt with pa / Total number of operators and suppliers dealt with pa
 - Monetary contributions made to sponsor conservation projects pa / Net turnover of operation pa
 - Area used for habitat conservation (ha) / Total property area (ha)
 - Value of consumable products purchased produced locally (within country) pa / Total value of consumable products purchased pa
 - Monetary contributions made to sponsor local community activities pa / Net turnover of operation pa

Operation Specified Indicator

- *The objective* is positive commitment to the local environment, society and economy.

The operation can specify an indicator that does not appear in the list associated with the Operation Selected Indicator. This should be considered particularly relevant to its operation and its environmental impact. It should reflect the operation’s commitment to improving local issues (e.g. water quality, endangered species, habitat preservation, cultural heritage, community development etc.). This indicator can be in addition to, or instead of, an Operation Selected Indicator.

Box 46: Benchmarking Sheraton, Auckland

The following indicators apply to annual Earth Check™ benchmarking of Accommodation in the GREEN GLOBE programme.

- Sustainability policy: Policy in place
- Energy consumption: Energy consumed /guest night or area under roof
- Potable water consumption: Water consumed /guest night or area under roof
- Solid waste production: Volume of waste/ guest night or area under roof
- Social commitment: Employees living within 20 kms / total employees
- Resource conservation: Ecolabel products purchased / products purchased
- Cleaning chemicals used: Biodegradables used / total chemicals used

The benchmarks (confidential to individual company)

1. Sustainability policy:	In Place
2. Energy consumption:	Below Baseline
	Above Baseline
	Best Practice
3. Potable water consumption:	Below Baseline
	Above Baseline
	Best Practice
4. Solid waste production:	Below Baseline
	Above Baseline
	Best Practice
5. Social commitment:	Below Baseline
	Above Baseline
	Best Practice
6. Resource Conservation:	Below Baseline
	Above Baseline
	Best Practice
7. Cleaning chemicals used:	Below Baseline
	Above Baseline
	Best Practice
8. CEO Endorsement of information:	In Place

Table 8: Benchmarking Indicators and measures for tour companies

	ENVIRONMENTAL & SOCIAL PERFORMANCE AREAS								
	GREENHOUSE GASES	ENERGY MANAGEMENT	AIR QUALITY	FRESH WATER RESOURCES	WASTE WATER MANAGEMENT	WASTE MINIMIZATION	SOCIAL & CULTURAL IMPACT	LAND USE MANAGEMENT	ECO-SYSTEM CONSERVATION
Benchmarking (Earth Check™) Indicators & Measures									
Sustainability Policy <i>Policy in place</i>	●	●	●	●	●	●	●	●	●
Subsidiary Operations: <i>Number of operations certified / Total number of operations</i>	●	●	●	●	●	●	●	●	●
Travel & Tourism Product Purchased: <i>Value of certified Travel & Tourism product purchased / Value of all Travel & Tourism product purchased</i>	●	●	●	●	●	●	●	●	●
Social Commitment: <i>Value of contribution to social and environmental projects in destinations / Gross turnover</i>							●		
Resource Conservation: <i>Ecolabel paper purchased / Paper purchased</i>	●	●	●		●	●	●	●	●
Optional Indicators & Measures									
Operation Selected Indicator: <i>Measure selected from a Earth Check™ list</i>									
Operation Specified Indicator: <i>Agreed measure put forward by the operation</i>									

10. PERFORMANCE IMPROVEMENT

In Chapter 3 the impacts on the environment from activities within the travel and tourism industry were discussed and several case studies were presented to show how, in specific situations, these impacts could be reduced. While these case studies show what can be achieved, it is evident that appropriately designed integrated systems are required to ensure continuous environmental performance improvement throughout the travel and tourism industry. The Earth Check™ system is one such approach that incorporates the continuous monitoring of a travel and tourism sector's environmental performance with an environmental management system (EMS). Adoption of the ISO 14001 standard for accreditation or the Enviro-Mark methodology for EMS development are also means for achieving continuous improvement.

10.1 Environmental management systems (EMS)

An environmental management system (EMS) can be viewed as the combination of all the things that an organization has and does so that its impact on the environment can be reduced. It provides the means by which an organization can identify, monitor and manage environmental impact and risk. An EMS is defined in the ISO 14001 standard as "the part of the overall management system that includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy." (AS/NZ ISO 14001:1996: 2). Thus an EMS is seen as the organising framework that provides the effective direction for an organisation's environmental activities. This framework itself must be continually monitored and periodically reviewed to ensure appropriate response to changing internal and external factors.

An EMS must be supported by documentation, but the extent of this documentation does not have to be excessive. What is important is that the EMS serves the needs of the organization whether it is a small business or a large corporation. The EMS would include the organisation's commitment to continual environmental improvement, knowledge of the regulatory requirements, knowledge of the impacts of the firm's activities on the environment, statements of intended environmental outcomes, resources to be deployed to achieve those outcomes, monitoring of results, training of staff at all levels and mechanisms for improving the system in response to feedback on the performance.

Thus, an EMS is an overarching management tool with specific, characteristic features which help an organization incorporate environmental care into all aspects of its operations, management and decision making processes. By promoting the efficient use of resources and waste prevention, and stressing continuous improvement, an effective EMS can simultaneously improve the environmental performance and reduce the operating costs of a business.

Typically an Environmental Management System is prepared as a planning statement for a company, which identifies a number of improvement actions that have been placed in a priority list. Certification is linked to the quality of the plan and demonstrated performance against these tasks. Depending on the nature of the company and its operations, the EMS could be a relatively simple document or a more complex statement.

Planning and implementing an EMS is based on the following actions:

1. An introduction, with description of the purpose of the EMS and the company's environmental policy
2. Undertake an initial environmental review.
3. Identify the principle environmental issues along the value chain of a business activity that need to be addressed by the company.
4. The key issues (such as green house gases) would be analysed. Environmental improvement targets and goals would be set along with a description of actions that need to be taken. These actions would normally be placed in a priority order. They would be budgeted for as part of the company's routine budget.
5. Implementation plans and procedures would be developed. This would include a staff training and development section to help company staff to implement actions prescribed by the EMS. It would also include a section dealing with "working with the local community" to help achieve environmental improvements and community benefits.
6. A check would be made for any corrective actions.
7. The EMS would then be implemented.
8. Implementation progress would be regularly monitored.

9. Results of the monitoring will be communicated to ensure there is continuous improvement.
10. Company environmental issues are re-evaluated and the key issues prioritised.
11. Steps 1 to 9 are repeated.

The Environmental Management System paves a continual improvement pathway in the environmental performance of a business activity.

10.2 Application to sustainable travel and tourism

Though EMS has not been traditionally applied to travel and tourism it is a suitable vehicle to enhance the environmental performance of all travel and tourism sectors. Earth Check™ has implemented this strategy in its certification process ensuring that an EMS is in place before a company can be certified under the Earth Check™ system.

To ensure ease of compilation of an EMS for the tourism sector CRC for Sustainable Tourism is currently working with New Zealand Landcare Research who are presently developing and supporting the Enviro-Mark EMS business standard.

Enviro-Mark is a simple route to developing an EMS that can stand alone or underpin accreditation to ISO14001 or Green Globe 21. It is a new internet-based business standard for in-house development of Health, Safety and Environmental (HSE) management. It is considerably simpler, more flexible and easier to manage than the ISO14001 standard. Enviro-Mark was originally developed in England and is now operating in several countries. It has been adapted for New Zealand conditions and legislation by Landcare Research.

Enviro-Mark has been developed by business for business. As a management system, it offers the following benefits:

- Straightforward step-by-step procedures and guidelines available through the internet. It is suitable both as an entry-level tool and for those heading for ISO14001 or higher.
- Five different levels of certification, so businesses can work through the successive levels at their own pace and stop at whichever is the most appropriate for their needs.
- Company and brand differentiation reflecting HSE quality assurance.

- Demonstrated compliance with health, safety and environmental legislation and, at advanced levels, commitment to move beyond compliance.
- A signal of HSE progress to regulators such as regional, district and city councils and OSH.
- Minimal requirements for developing in-house documentation at the first three levels.
- Plain English interpretations of and updates to HSE-related legislation immediately accessible to users on the Enviro-Mark web site.
- Indicates readiness for accreditation to the ISO14001 environmental standard and a lead-in to the Green Globe 21 standard (tourism industry), or the Responsible Care' standard (chemical manufacture and supply industries).

Enviro-Mark certification offers businesses the following additional benefits:

- Practical help along the route to obtaining discounts on ACC premiums.
- The potential for preferred supplier status with major purchasers.
- Improved risk management and a likely reduction in waste generation and disposal costs.

The key benefit of the Enviro-Mark certification process is that it is an easy, step-by-step pathway to gaining objective evidence of your accomplishments in HSE management:

- Level 1: **ENVIRO-MARK NZ™ BRONZE** – Compliance with the most commonly applicable HSE legislation
- Level 2: **ENVIRO-MARK NZ™ SILVER** – In-house HSE policy based on environmental impacts assessment
- Level 3: **ENVIRO-MARK NZ™ GOLD** – Monitoring of objectives to achieve continuous improvement
- Level 4: **ENVIRO-MARK NZ™ PLATINUM** – Control of organisation's activities with operational documentation
- Level 5: **ENVIRO-MARK NZ™ DIAMOND** – Continuous improvement driven by an internal audit programme

The Enviro-Mark business standard is marketed and supported in New Zealand by Landcare Research, the nationally-licensed certification authority. As an example current clients include: Wellington Regional Council (Parks and Forests, Flood Protection), Timaru District Council, Formway Furniture, Fletcher Building Steel Group's CSP Galvanising, Chaucer Press, Heinz Wattie's, Tait Electronics and Environment Canterbury (Enviro-Mark 2001).

10.2.1 Incorporation of the Enviro-Mark system into Earth Check™ benchmarking

The CRC for Sustainable Tourism is currently working with NZ Landcare Research to incorporate ENVIRO-MARK into the Earth Check™ system. The Enviro-Mark system complements the Earth Check™ System. Companies undergoing Enviro-Mark accreditation are led along a simple web based route, which leads to the development of an EMS, which is audited annually. One of Earth Check™ essential requirements is the development, implementation and maintenance of a documented EMS (which includes social impacts). Enviro-Mark can comply with 31 out of the 41 criteria listed in the Earth Check™ system. The remaining ten, which do not currently comply will be worked into the Enviro-Mark system allowing this system to not only be useful to customers wishing to register with Enviro-Mark but also to those looking to be benchmarked or certified using the Earth Check™ system.

11. PERFORMANCE REPORTING

A crucial component of achieving sustainability in destinations is reporting on progress. For communities that make up a destination, the best means is by using State of the Environment Reports. Individual enterprises that provide services in the destinations should undertake triple bottom line reporting.

11.1 State of the environment reporting

An environmental performance reporting system provides the information needed to assess whether the overall quality of the environment is improving or deteriorating, assisting in identifying environmental problems and coordinating the appropriate response.

Environmental performance reporting has developed in parallel with the concept of Environmental Sustainable Development (ESD). Both recognise the need for industry, governments and community to make decisions that lead to environmentally and socially sustainable outcomes, acknowledging the interconnection between environmental, economic and social objectives (Thomas 1997).

Today, state of the environment reporting (SoER) is a widely used and recognised process to quantify the current state of the environment. It is based on the scientific assessment of pressures and conditions of the environment, and reviews the performance of current responses and identifies actions to meet future goals. SoER aims toward ESD (or its equivalent), and is often a major component of Local Agenda 21 programs.

More specifically, the purpose and objectives of SoER are to (Environment Australia 2001):

- Provide accurate, timely and accessible information on the condition and prospects of the community's environment;
- Increase public understanding of these issues;
- Continue the development of national environmental indicators, and report on these indicators;
- Provide an early warning of potential problems; and
- Report on the effectiveness of policies and programs designed to respond to environmental change, including progress toward achieving environmental standards and targets.

The process of reporting is continually evolving. SoER changes to meet the needs of the users, as new technology enables information to become readily available and as knowledge of the environment improves.

SoER is now common in many countries and is endorsed by organisations such as the Organisation for Economic Cooperation & Development (OECD). However there is considerable diversity in reporting styles and methods between and within countries, making international comparisons and benchmarking difficult. Most SoER being conducted in the world focuses at the national level not the local or regional level (Thomas 1997).

The national SoE report is the major mechanism in which resource management and environmental issues are comprehensively reported and analysed on scales that transcend State and regional boundaries.

The most successful SoERs at the local level use extensive consultation with the local community. Increased ownership of the process and resulting report can be achieved by encouraging active participation and collaboration by contributing groups.

11.2 Triple bottom line reporting

A key element to building sustainable societies is credible and consistent information on an enterprise's economic, environmental and social performance – *the triple bottom line*.

Communities, investors, governments, and businesses need reliable information to effectively address the sustainable development challenges of the 21st century.

Triple-bottom line (TBL) reporting is a concept developed by John Elkington (UK) in 1997, and concerns *all* aspects of an organisation's performance, not merely the meeting of financial targets (EcoSteps 2001; NZ Government 2001). At the core of the TBL philosophy is an acknowledgement that corporations have impacts on society and the environment, as well as financially on its stakeholders. Such impacts may be positive or negative, and may be exerted directly by the organisation itself, or by way of the organisation's influence upon others.

By adopting the TBL philosophy an organisation takes on the three core areas: economic prosperity, environmental quality, and social justice (NZ Government 2001).

The notion of reporting against the three components (or 'bottom lines') of economic, environmental, and social performance is directly tied to the concept and goal of sustainable development (EcoSteps 2001). TBL reporting, if properly implemented, is a mechanism that conveys a corporation's values and principles, and will provide information to enable others to assess how sustainable an organisation's or a community's performance and operations are (EcoSteps 2001; NZ Government 2001).

The triple bottom-line reporting includes both measures to reduce negative environmental impacts and measures to improve positive environmental impacts. Commonly, the former include measures to minimise resource, water and energy consumption, the volume and toxicity of wastes generated, and damage and disturbance to plant and animal species and habitat. The latter include direct and indirect conservation measures such as land offsets and contributions to environment groups, project and research (CRC for Sustainable Tourism 2002).

The perspective taken is that for an organisation to be sustainable it must be financially secure (as evidenced through such measures as profitability), it must minimise (or ideally eliminate) its negative environmental impacts; and, it must act in conformity with societal expectations. These three factors are obviously highly inter-related (EcoSteps 2001).

TBL reporting is a mechanism that is transforming corporate reporting practices and is finding increasing and widespread international acceptance within the corporate community (EcoSteps 2001).

12. IMPLEMENTING THE TRIPLE P OF PERFORMANCE

The triple **P** of performance:

- **Performance monitoring** – Earth Check™ benchmarking
- **Performance improvement** – GG certification of EMS
- **Performance reporting** – GG performance assessments

Having developed tools to assist travel and tourism enterprises and communities to monitor, improve and report their Performance, it is important that this is actually put to use and implemented. One powerful means of doing this is through the Green Globe sustainability, benchmarking, certification and improvement system.

12.1 Green Globe 21

In 1993, the WTTC developed and launched a tourism specific sustainability program entitled Green Globe. Green Globe is a global environmental benchmarking, certification and improvement system for sustainable travel and tourism and requires organisations to meet specified Performance requirements relevant to their operations. In 1999, Green Globe became *Green Globe 21 (GG21)*, as it was apparent that the Green Globe program needed additional rigour. It was decided to offer a certification process for travel and tourism organisations that would demonstrate its commitment to Agenda 21. Green Globe Asia Pacific was established and together with the Cooperative Research Centre for Sustainable Tourism a more rigorous program for benchmarking travel and tourism was developed.

Today GG21 is a powerful tool in achieving the triple **P** of Performance and allows enterprises and destinations to gain recognition for these sustainability achievements.

12.1.1 The Green Globe 21 system

GG21 is the only worldwide program for sustainable travel and tourism that certifies companies and destinations against generic standards. The GG21 standard is based around 5 sections (CRC for Sustainable Tourism 2000):

- *Section 1 – Environmental and Social Sustainability Policy.* This section of the standard seeks to obtain the organisations commitment to the concept of environmental and social sustainability through the development of a written policy.

- *Section 2 – Regulatory framework.* This section of the standard requires the identification of relevant environmental, public and occupational health and safety, hygiene, employment and other legislation applicable to the organisations operations.
- *Section 3 – Environmental and Social Sustainability Performance.* This section of the standard specifies the areas in which environmental and social sustainability performance must be demonstrated.
- *Section 4 – Environmental Management System.* This section of the standard outlines the framework for an EMS that will enable delivery of the performance outcomes in the areas specified in Section 3.
- *Section 5 – Stakeholder Consultation and Communication.* This section of the standard specifies the requirements for stakeholder consultation and communication.

The GG21 standard provides Travel & Tourism operations with a framework for achieving annual improvement in one or more of 13 key environmental and social performance areas. These areas are based on Agenda 21.

Key Environmental and Social Performance areas include:

- Reducing greenhouse gas emissions
- Energy efficiency, conservation and management
- Air quality protection and noise control
- Management of fresh water resources
- Ecosystem conservation and management
- Land use planning and management
- Waste water management
- Waste minimisation, reuse and recycling
- Poverty reduction

- Promoting social equity
- Raising standards of living
- Local participation
- Sensitivity to culture and customs

12.1.2 Certification process

The certification process of GG21 encompasses the triple **P** of performance. In order to become certified with Green Globe, there are 3 stages to go through (Figure 6).

Figure 6: The 3 stages of Green Globe 21 certification process



1. Affiliate

Companies and communities register with GG21. They receive information on the Green Globe process, improving sustainability, reducing costs, enhancing green market appeal, use of GG21 Affiliate flag

2. Benchmarking

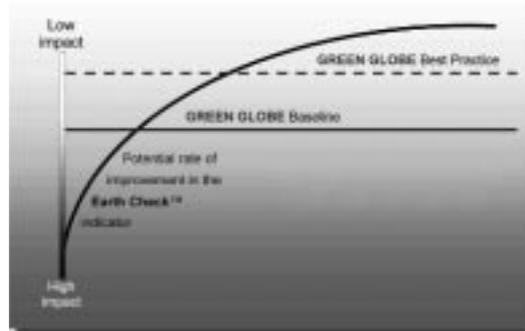
Operations are required to benchmark their sustainability through a benchmarking assessment. This establishes an operation's current standing, the nature and significance of their impacts, and determines an appropriate level of action to deal with these issues. Specifically it involves an operation to collect and supply annual measures of standard indicators for each key performance area. GG21 uses Earth Check™ indicators to measure and benchmark key aspects of performance. Benchmarking (Earth Check™) Indicators have been carefully researched and

chosen for GG21 by the CRC for Sustainable Tourism to benchmark sustainability performance. These have been produced for a wide range of Travel & Tourism sectors.

Then a performance assessment report is produced, which in the future will include a *Reporting Index* (RI) (see Figure 8), that indicates the operation's or destination's current standing. This is an important report, identifying how well an operation is performing from an environmental and social perspective, based on the measurement of specific indicators.

A successful report signifies that, all indicator measures are maintained above the baseline level, a level that reflects the operation's or destination's responsible attitude towards maintaining and improving high environmentally and socially sustainable performance (Figure 7). If an indicator's measure is above the GG21 baseline, but below GG21 best practice (see Figure 7), the operation will be encouraged to make realistic annual improvements in that indicator. Once successfully benchmarked, the operation has permission to use the GG21 logo and to receive a benchmarked certificate.

Figure 7: Benchmarking of sustainability performance against an Earth Check™ indicator (STTI 2001)

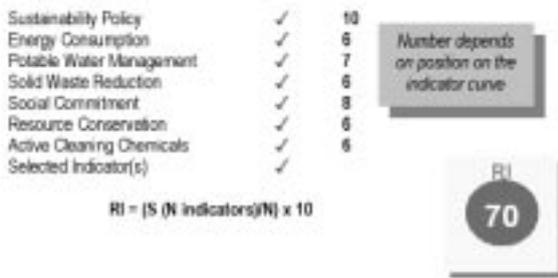


Examples of Earth Check™ Indicators

Example 1:
Sector: Hotels and Accommodation
Key Performance Area: Energy efficiency, conservation and management
Earth Check™ Indicator: total energy consumption (GJ) pa / Guest nights pa or Area under roof (m²).

Example 2:
Sector: Hotels and Accommodation
Key Performance Area: Management of fresh water resources
Earth Check™ Indicator: water consumed (kL) pa / Guest nights pa or Area under roof (m²).

Figure 8: Green Globe Reporting Index (RI)



There are major benefits for companies and destinations to certify with GG21. They can demonstrate improved environmental performance to the community, regulators, shareholders and employees, and also to investors who are increasingly looking for ethical standards. They can reduce operational costs and gain a competitive market edge with consumers (83% of travellers are inclined to support 'green travel companies' (Travel Industry of America, 1997). GG21 recognises that the 'market-pull' factor will be crucial to success and is consequently establishing consumer-based on-line marketing and e-commerce systems (CRC for Sustainable Tourism 2000).

3. Certification

Operations that seek certification, commit to working towards the GG21 Best Practice Level and to annual independent assessment (audit) of progress. Specifically, an operation is required to have undertaken the benchmarking process and has been successfully benchmarked. This means the operation has:

- achieved above baseline benchmarking assessment;
- satisfied all of the requirements of the GG21 standard; and
- undertaken an on-site audit by an accredited third-party assessor to verify its claims.



This then allows for the operation to complete the certification process. Certification is linked to the quality of the environmental management plan and demonstrated performance against these tasks. Once successfully benchmarked and certified the operation receives the license to use the GG21 logo with distinctive tick; premier promotion by GG21 and is eligible for GG21 awards.

Box 47: Green Globe certified company - Melia Bali Villas and spa report

Background

Melia Bali Villas and Spa Resort has been an advocate for environmentally conscious practices for many years. Melia Bali believes that preservation of the environment is a very high priority to the long term success of a hotel or business. When implementing initiatives, Melia Bali attempts to use creativity and innovation in their environmental planning.

Nestled amongst exotic tropical surroundings and beautiful manicured gardens on the fringes of the resort beach of Nusa Dua, is the luxurious resort of Melia Bali. Melia Bali offers guests the ultimate in accommodation with opulently appointed guestrooms furnished in traditional Balinese style. Each of the 388 superior rooms, 110 split level suites and 2 executive suites have private balconies and terraces from which the magnificent gardens can be viewed. Guests to Melia Bali can indulge in a range of food and beverage services with their variety of specialty restaurants and bars offering international and Asian cuisine. Melia Bali's entertainment and recreational programme provides an array of activities and pursuits to suit all ages from water sports to cabarets to the indulgence of traditional Balinese massage. Melia Bali provides a sanctuary of serenity and beauty for the utmost in relaxation for their guests. Melia Bali has an active program of environmental management and participating in Balinese cultural pursuits.

GREEN GLOBE CATEGORY: *Company*

GREEN GLOBE SECTOR: *Accommodation*

Certified Performance criteria

Environmental and social policy

Melia Bali Villa and Spa Resort is guided by several sources when implementing its Environmental Management System. The strongest influence has been the Environmental Protection Manual developed by the Sol Melia group in 1995. This manual provides clear direction regarding objectives and priority issues. Meli Bali's environmental policy has an emphasis on items such as purchase policies, employment policies and energy conservation procedures.

Energy

• Energy data consumption data is monitored and reviewed on a daily and weekly basis. Monthly reviews are then carried out and targets are set based on these figures. An Energy Saving Checklist is completed on a daily basis.

• The installation of flow meters will assist the kitchen department to participate in energy conservation.. This will allow accurate measurements of consumption of LPG in the hotel.

• Installation of new washers and dryers with the current overhaul of the Chicago Flatwork ironer will contribute to the reduction consumption of this energy source.

Water consumption

• Melia Bali uses treated wastewater from the sewerage treatment plant of the Bali Tourism and Development Corporation to irrigate all gardens and landscaped areas.

• Developments are being undertaken to incorporate its own sewerage treatment plant – the first phase of development has been completed with the installation of a water storage tank in 1999. Further regulatory approval and guidelines must be met before additional developments can be implemented.

• Melia Bali uses approaches to reduce water consumption through the following actions:
– Active encouragement for guests to participate in in-house environmental programs;
– Replacement of old and inefficient machinery to reduce energy and resource consumption;
– Conduct preventative maintenance on all faucets to prevent leaking and dripping taps;
– Regular maintenance of lawn sprinklers;
– Stickers are located around the hotel encouraging guests to minimize water consumption.

Waste water management

• The regulatory body responsible for the Nusa Dua land, PT PPB, provides treatment of wastewater from all companies within the area. The wastewater is processed using a biodegradable system and is then reused as irrigation water within the region. Regular analysis of the treated water is conducted very two months by PT PPB in association with the Department of Health. These results are made publicly available.

• Watering is used during periods when there is the least amount of evaporation.

Waste minimisation, reuse and recycling

• Office paper is reused for as message paper and for photocopying

• Unused paper and flyers are used as internal notepads

• Newspapers are retained for packaging of breakable items

• Restaurant menus are printed on recycled paper

Average consumption of electricity by Melia Bali in 2000 was 58 kWh/ sq. metre, compared to the government benchmark of 165 kWh/sq.metre, which is well below the prescribed allowance.

Almost two-thirds of the hotel area is preserved as a "green area" and open space of gardens.

- Plastic bottles and containers are collected and returned to the supplier or manufacturer
- Guest amenities bottles are returned also
- Dispensers are used in the hotel to reduce the quantity of packaging
- Linen and towels are reused for dusters and cleaning cloths
- Uniforms and sheets are donated to charity

Solid and liquid waste

- Melia Bali utilizes the municipal sewerage scheme, and purchases treated grey water for re-use on its gardens

Air quality and noise control

- Noise and air quality impacts are minimized

Resource conservation

- A transition has been made to the swimming pool filters from a chlorine system to 'salt' filtration.
- Melia Bali uses "environmentally friendly" paper in all sales kit folders that are provided to tour operators. Products such as string and bamboo are also used in the production of the folders.

Social commitment

- Melia Bali contributes to social improvement through local employment opportunities
- Health Assistance.
- Social Services.
- Cultural enrichment through education and opportunities for guests to experience the rich Balinese culture.
- Involvement with government programs that sponsors employment opportunities for local residents who are interested in the hotel industry.
- Partnerships with hospitality schools to provide a practical work environment for students to conduct apprenticeships.
- The resort is also involved in and supports a school for physically and mentally challenged children through improving facilities , teaching materials and social activities.

Land-use planning

- The Fly Project (or native bird rehabilitation), organic garden and nursery at Melia Bali are important examples of conservation of the environment and consideration to land-use planning.

- The hotel building has been designed and planned so that the natural environment is a focal point and its features are enhanced and maximized.
- Machinery is positioned in areas that minimize disruption to guests and the natural surroundings.

Ecosystem conservation and management

- Melia Bali has established a project called the "Fly Project". It is designed to preserve the diverse bird life of Bali. The vision is to provide medical care and rehabilitation to sick and injured birds native to Bali. Birds in need of rehabilitation are brought to an outdoor enclosed environment where they are nurtured and cared for until they have strength enough to be released back into their native environment.
- Melia Bali has been innovative in establishing the first organic garden in the Nusa Dua area. A variety of vegetables and fruit are grown without the use of chemical pesticides or fertilizers. This produce is used in the restaurant for catering to vegetarians.
- The use of pesticides and herbicides are limited to being a last resort where there is no other alternative. Weeds are controlled organically by use of algae, for example.
- Biodegradable or low phosphate surfactant products are used in the laundry.
- Melia Bali prides itself on its contribution to preserving the environment and wildlife. They strive to ensure indigenous flora and fauna mature and thrive for visitors and residents to appreciate and enjoy.

Additional Notes:

- The development of a new department within the hotel strengthens Melia Bali's commitment to the environment. The department established is the Safety and Environment Department and it is responsible for gardens, energy and water conservation, freshwater and wastewater management, beach preservation, natural flower and fauna preservation, wildlife preservation, waste management, hazardous material management and a variety of other duties. The provision of guidelines are protected in an Environmental Policy document, based on legislation and regulation which is directed at achieving objectives and aims. (Green Globe)

APPENDIX 1: SURVEY METHODOLOGY AND ANALYSIS

A. Survey methodology

1. Aim of research

The objectives of the survey instrument include:

1. To audit what is occurring in each APEC economy with regard to sustainable tourism;
 - Government response and position on Agenda 21
 - How does this flow onto tourism (government response and position on sustainable tourism)
 - Does public and private collaboration exist in sustainable tourism? Where does it exist?
2. To retrieve best practise examples (case studies) from APEC member economies;
 - These examples should reflect policies of member economies on the use of natural and cultural resources, public/private partnerships for sustainable tourism, promotion and marketing, etc...
 - The aim is to obtain a framework (good cross section) of what is happening at the moment; who is involved and in what.
3. To explore APEC economies' environmental management policy; socio-economic policy; and sustainable tourism strategies in national, provincial and local regions
 - What existing policies there are i.e. environmental management, which can enhance sustainable tourism
 - Find out the general understanding of private and public roles in sustainable tourism

2. Sample profile

All APEC economies were approached with the survey instrument. The contact points for this survey were APEC TWG contact points (1 to 2 people for each economy). The response rate was 95% – of the 21 economies 20 responded to the survey instrument.

3. Survey design

Surveys were sent via email and postal mail to each APEC member economy (In September 2001), with a covering letter explaining the background to the project and questionnaire. Follow ups were conducted using phone, fax, postal mail and email, to promote survey response.

The survey instrument asked the respondents to provide simple response and in some cases best practice case studies on various key areas important to sustainable tourism and public/private partnerships. Close-ended and open-ended responses were used throughout the survey. Close-ended questions require the respondent to select his/her response from predetermined answers, which are based on what needed to be measured, enabling rigorous statistical analysis. However a survey based purely on such questions runs the risk of missing crucial components in the study, due to reliance solely on preconceptions. As a result the survey instrument also contains open-ended questions. They permit the respondent to provide opportunities to effectively express their viewpoints.

4. Methods for data analysis

The main technique used is known as descriptive statistics and the specific tool applied was a frequency distribution. Such distributions are presented as a table of each possible answer given and the number or percentage of people who gave particular responses. This allows the identification of those responses most supported by people (highest frequency). Cross tabulations were also used for some responses to display the association between responses.

5. Summary of findings

Frequency tables are to be found in Appendix 1, section C.

1. APEC TWG Survey results

According to the surveys, 15 APEC economies (75%) have a peak tourism industry association. Of these 15 peak tourism organisations only 4 have developed a set of sustainable development principles for the travel and tourism industry.

2. APEC TWG Survey results

19 APEC economies (95%) suggested they have national, provincial or local planning regulations in place to control the location of and type of tourist development

3. APEC TWG Survey results

According to the survey results, in 17 (85%) APEC economies tourism developments are required to undertake an environmental impact assessment.

4. APEC TWG Survey results

According to the surveys, 19 (95%) APEC economies have national/provincial policies in place for establishing parks etc to conserve biodiversity.

5. APEC TWG Survey results

According to the survey results, 15 (75%) APEC economies have policies/strategies in place for community participation in tourism development and management.

6. APEC TWG Survey results

According to the surveys, 11 (55%) of APEC economies suggested they have policies and strategies in place to control the impact of tourism and tourists on religion, culture and heritage of the local population.

7. APEC TWG Survey Results

According to the surveys, conducted by the Cooperative Research Centre for Sustainable Tourism, 16 APEC member economies (80%) have a National Tourism Strategy/Plan in place. Of those 16 economies, it was found that:

- All include sustainable tourism principles in their strategies (90% of total);
- 12 (60%) economies have the strategy included at the provincial/state level; and
- 13 (65%) have the strategy included at the regional/local level.

8. APEC TWG Survey results

17 (85%) of APEC economies suggested that protected areas are managed for tourist use.

9. APEC TWG Survey Results

According to the surveys 17 (85%) of the APEC economies suggested that they promote sustainable tourism principles to the local tourism industry, their citizens and to tourists.

10. APEC TWG Survey Results

According to the surveys, 13 (65%) of APEC economies perceive their country's reputation as a sustainable tourism destination as a competitive advantage in the international market.

11. APEC TWG Survey Results

The following information suggests how important APEC economies perceive their country's 'image', which it promotes to international markets as a destination (ranked in terms of importance):

Low	5%
Low-medium	5%
Medium	30%
Medium-high	45%
High	10%

12. APEC TWG Survey Results

The following information suggests how important APEC economies perceive their country's 'reputation' as a sustainable tourism destination to their major markets (ranked in terms of importance):

Medium	30%
Medium-high	30%
High	40%

13. APEC TWG Survey Results

12 (60%) of the APEC economies suggested that they have industry self-regulation schemes for best practice management in travel and tourism.

14. APEC TWG Survey results:

According to the surveys, the extent to which APEC economies have codes or principles for sustainable tourism (for development of tourism policy and practice) are:

Low	3 (15%)
Low-medium	1(5%)
Medium	5 (25%)
Medium-high	8 (40%)
High	1 (5%)

B. Survey instrument

1. Covering letter

Recently, the CRC for Sustainable Tourism Pty Ltd was appointed as a consultant to APEC TWG, to research public/private partnership within APEC member economies, for sustainable tourism. One of our key requirements for this project is to conduct a survey with the APEC economies, in order to obtain primary data on public and private partnership. The aim of this task is to help mitigate problems that exist due to the fragmentation between the public and private sectors, and to work towards maximising the opportunities that exist through collaboration of the two sectors to achieve sustainable tourism. The results of this project will be presented as an interim report to APEC TWG 05/2001T October 31, then published as an APEC report in June 2002 and circulated widely to APEC economies.

To assist APEC member economies to move towards a successful (economically, socially, culturally and environmentally) travel and tourism industry, the contribution of your member economy to this project, is very important. The project is confined to a strict timeline, and requires your response within 4 weeks, if we are to produce an interim report presentation for the TWG meeting in November 2001.

The survey instrument urges you to provide simple responses and in some cases to provide best practise case studies relating to the question in the survey. The best practise examples you provide are of great importance, as they will be used as case studies to illustrate the principle in the report. We will work with you to best present the case studies that we have selected from all the examples we receive.

As well as having sent out this survey to you via e-mail, it is also available as a hard copy sent via mail, at you request.

Due to our budget, we are constrained to using only English and unfortunately cannot provide translated copies of this survey instrument to you. Therefore, we also request that the surveys and best practise examples are provided to us in English. We would like to apologise for any inconvenience this may cause you.

We would like to thank you for your time and effort put into this survey and hopefully the final publication will be of great help in improving the sustainable practise of your economy's tourism industry.

Yours sincerely,



Prof Terry de Lacy
Project Leader
Chief Executive

B. Survey instrument

Country: _____

INSTRUCTIONS ON HOW TO FILL OUT THE SURVEY

Please read carefully and answer as required. TICK either yes OR no, where required. If possible please provide case studies (best practice examples), where requested. This is VERY IMPORTANT, as the best contributions will be used in the final publication. It will be clearly marked where case studies are required.

Attach these case studies as a separate document from the survey instrument and mark clearly the question it refers to. Some questions may not be very relevant to your economy or it is difficult to get full information on the question. It is more important for the survey to get an overall picture of sustainable tourism activities in your economy then getting all the details. So please don't worry if you can't answer ALL the questions.

INSTRUCTIONS ON HOW TO RETURN THE SURVEY

If you are returning this survey via **E-MAIL**, please send to: marion@crctourism.com.au

If you are returning this survey via **POSTAL MAIL**, please send to:

National Centre for Tourism
320 Adelaide Street
Brisbane, QLD, 4000
Australia

For any queries, please contact Ms Marion Battig on:

Telephone: +61 7 3229 2337

Fax: +61 7 3229 1188

E-mail: marion@crctourism.com.au

SECTION A Tourism structures and background to sustainable tourism

The aim of this section is to gather information on public and private sector roles in tourism in your economy. We are particularly interested in their roles in achieving sustainability in your tourism industry.

Public sector

Q1.

Does your national government have:

- a. A Ministry with responsibility for all aspects of tourism?

YES	NO
-----	----

- b. A Ministry with a mixed portfolio, one of which includes tourism?

YES	NO
-----	----

- c. Separate Ministries that are responsible for tourism related matters of destination marketing, policy formulation, licensing requirements, tourism planning?

YES	NO
-----	----

- d. A statutory Board, establishing law, responsible for all or particular sectors of tourism?

YES	NO
-----	----

- e. A non-statutory Board that has limited or no legal powers (e.g. a primary focus on marketing)?

YES	NO
-----	----

- f. A national tourism strategy or plan, which outlines the policy for developing tourism in your economy?

YES	NO
-----	----

If no, go directly to question 6.

Q2.

Who administers or is responsible for implementing the national tourism strategy or plan?

Briefly explain in the box provided:

--

Q3.

Does this national strategy or plan include sustainable tourism principles?

Briefly explain in the box provided:

--

If possible, can you please provide a document or references (website) of this strategy.

Q4.

Does the national tourism strategy or plan provide guidelines for the development of tourism at the provincial or state level?

YES	NO
-----	----

Briefly explain in the box provided:

--

Q5.

Does the national tourism strategy or plan provide guidelines in the development of tourism at the regional or local level?

YES	NO
-----	----

Briefly explain in the box provided:

--

Q6.

Does your economy have a national tourism organization that has responsibilities for tourism, which is separate from a national government department?

YES	NO
-----	----

If yes, what is the name of that national tourism organization?

Private sector

Q7.
Does your economy have a peak tourism industry organization/association?

YES	NO
-----	----

If no, go directly to question 10.

Q8.
What is the peak tourism industry organization/association called?

If possible, can you please provide references (website) of this tourism industry organization/association.

Q9.
What are the key functions of this peak tourism industry organization/association?

Briefly explain in the box provided:

Public/private partnerships

Q10.
Does your economy have any form of joint government/industry partnership to assist in the management and marketing of your economy's tourism?

YES	NO
-----	----

If yes, briefly describe the extent to which the industry and government work together on joint projects:

If possible, can you please provide specific examples of these projects.

SECTION B Background to Agenda 21 and sustainable development

The following section examines your economy's policies or strategies with regard to Agenda 21 and other sustainable development principles. Agenda 21 was adopted in 1992 at the UNCED Summit meeting by 182 governments. It represents an international consensus and a comprehensive program of necessary actions in order to move towards a global goal of truly environmentally, socially and economically sustainable development. Since the travel and tourism industry is one of the world's largest industry, and natural and cultural resources are at the core of its business, it has the potential and responsibility to encourage sustainable development in the countries and communities in which it operates.

Q11.
Has your economy developed a national Agenda 21 strategy (which encompasses Ecologically Sustainable Development – ESD) or other ways of implementing sustainable development principles?

Briefly explain in the box provided:

If possible, can you please provide a document or references (website) of this strategy.

Q12.
Has your peak tourism industry organisation/association developed a set of sustainable development principles for the tourism industry in your economy?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such principles.

Q13.
To what extent have codes or principles for sustainable tourism (e.g. APEC & PATA) been implemented by the tourism industry in your economy?

Please indicate below on a scale of 1-5 (1 being the lowest) the level of implementation (underline ONE number only)

1 2 3 4 5

Briefly explain in the box provided:

SECTION C Policy settings for sustainable tourism

This section would like to find out about your policy settings that enhance sustainable tourism.

Q14.
Does your economy have national, provincial or local planning regulations in place to control the location of, and type of tourism development?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such regulations.

Q15.
Are major tourism developments required to undertake an environmental impact assessment?

Briefly explain in the box provided:

Q16.
Does your economy have industry self-regulation schemes (e.g. codes of conduct, accreditation schemes) in place for best practise environmental management in the tourism industry?

Please outline below what schemes exist:

If possible, can you please provide example(s) or references (website) of such schemes.

Q17.
Does your economy have policies or strategies in place for community participation in tourism development and management (e.g. in tourism development application approval, employment, revenue sharing)?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such strategies.

SECTION D Background to resource use

This section looks at the use, conservation and protection of natural and cultural resources for tourism in your economy.

Q18.
Does your economy have strategies in place (e.g. user pays principles; water pricing strategies) for the efficient use, conservation and protection of resources (energy, water, waste etc), to help minimise tourism's environmental impacts)?

Please outline below what schemes exist:

If possible, can you please provide example(s) or references (website) of such schemes.

Q19.
Does your economy have national or provincial policies and strategies in place for establishing national parks, nature reserves or other protected areas to conserve your economy's biodiversity (e.g. flora and fauna)?

YES	NO
-----	----

If no, go directly to question 23.

If yes, briefly explain in the box provided:

If possible, can you please provide a document or references (website) of this strategy/legislation.

Q20.
Are these protected areas managed for tourist use?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website).

Q21.
What strategies are used to ensure that tourism is managed sustainably in protected areas?

Briefly explain in the box provided:

If possible, can you please provide examples or references (website) of these strategies.

Q22.
Can you give any examples of public/private collaboration in protected area management?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website).

Q23.
Are there planning policies and strategies in place to control the impact of tourism and tourists on religion, culture and heritage of your local communities?

Briefly explain in the box provided:

If possible, can you please provide examples or references (website) of these strategies.

Q24.
Can you give any examples of public/private collaboration in tourism use of cultural heritage areas (e.g. heritage cities, sacred sites, monuments, heritage buildings etc.)?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of this collaboration.

SECTION E: Promotion and marketing of sustainable tourism

Q25.
Does your economy promote sustainable tourism principles to:

a. The local tourism industry?

YES	NO
-----	----

b. Citizens of your economy?

YES	NO
-----	----

c. Tourists?

YES	NO
-----	----

If possible, can you please provide example(s) for each category or reference (website) to examples.

Q26.
Does your national tourism organization consult with your government agencies responsible for heritage management (e.g. natural, cultural and heritage sites) before including images of those protected areas or sites in destination marketing materials (e.g. brochures, posters, websites etc.)?

Briefly explain in the box provided:

Q27.
How do you rate your country/destination in terms of the "image" it projects to international markets as a destination that delivers responsible and sustainable tourism?

Please indicate below how your economy rates on a scale of 1-5 (1 being the lowest) (underline ONE number only)

1 2 3 4 5

Q28.
How important do you perceive the reputation of your economy as a 'sustainable tourism destination' is to your major markets?

Please indicate below how important you rate this reputation of your economy on a scale of 1-5 (1 being the lowest) (underline ONE number only)

1 2 3 4 5

Q29.
Do you see your economy's reputation as a 'sustainable tourism destination' as a competitive advantage in the international market place?

YES	NO
-----	----

Q30.
Can you nominate a country/destination that, in your opinion, best represents sustainable tourism principles?

Briefly explain in the box provided:

Q31.
Do you have any evidence from within your economy that tourists would be prepared to pay extra for tourism products that promote and deliver environmentally friendly products?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of this.

SECTION F Benchmarking of sustainable tourism

Q32.
Can you give some examples of benchmarking (setting standards for) the sustainability of tourism operators (hotels, tour operators etc.) in your economy?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such benchmarking.

Q33.
Can you give examples of benchmarking (setting standards for) the sustainability of tourism destinations (e.g. resort areas, heritage cities, mountain areas etc.) in your economy?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such benchmarking.

Section F: Training, education and capacity building

Q34.
What type of environmental, heritage or cultural management training and education does your economy have for tourism executives, tour operators, guides etc.?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of training and education.

Q35.
What type of sustainable tourism training courses does your economy have for managers of natural or cultural areas/sites?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such training courses.

Q36.
What examples are there in your economy, of tourism and hospitality courses that contain principles and practises of sustainable development in their curriculum?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such courses.

Section G: Research, extension and technology transfer

Q37.
What examples are there of research programs on sustainable tourism in your economy?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such research programs.

Q38.
Does your economy have collaborative public/private research partnerships in sustainable tourism?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website) of such research partnerships.

Q39.
What examples are there in your economy of technology transfer activities that pass on research findings, information and knowledge about sustainable practices to tourism operators?

Briefly explain in the box provided:

If possible, can you please provide example(s) or references (website).

C. Frequency tables of survey results

Q1a. Ministry with responsibility for tourism

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	11	55.0	55.0	55.0
	NO	9	45.0	45.0	100.0
	TOTAL	20	100.0	100.0	
MISSING	SYSTEM				
	TOTAL				

Q1b. Ministry with a mixed portfolio including tourism

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	10	50.0	55.6	55.6
	NO	8	40.0	44.4	100.0
	TOTAL	18	90.0	100.0	
MISSING	SYSTEM	2	10.0		
	TOTAL	20	100.0		

Q1c. Separate ministries responsible for tourism related matters

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	2	10.0	11.1	11.1
	NO	16	80.0	88.9	100.0
	TOTAL	18	90.0	100.0	
MISSING	SYSTEM	2	10.0		
	TOTAL	20	100.0		

Q1d. Statutory board

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	8	40.0	50.0	50.0
	NO	8	40.0	50.0	100.0
	TOTAL	16	80.0	100.0	
MISSING	SYSTEM	4	20.0		
	TOTAL	20	100.0		

Q1e. Non-statutory board

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	6	30.0	37.5	37.5
	NO	10	50.0	62.5	100.0
	TOTAL	16	80.0	100.0	
MISSING	SYSTEM	4	20.0		
	TOTAL	20	100.0		

Q1f. National Tourism Strategy

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	16	80.0	84.2	84.2
	NO	3	15.0	15.8	100.0
	TOTAL	19	95.0	100.0	
MISSING	SYSTEM	1	5.0		
	TOTAL	20	100.0		

Q3. Does this strategy include sustainable tourism principles

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	18	90.0	100.0	55.0
	NO	2	10.0		
MISSING	SYSTEM				
	TOTAL	20	100.0		

Q4. Is the national tourism strategy included at the provincial/state level

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	12	60.0	70.6	70.6
	NO	5	25.0	29.4	100.0
	TOTAL	17	85.0	100.0	
MISSING	SYSTEM	3	15.0		
	TOTAL	20	100.0		

Q5.
Is the national tourism strategy included at the regional/local level

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	13	65.0	76.5	76.5
	NO	4	20.0	23.5	100.0
	TOTAL	17	85.0	100.0	
MISSING	SYSTEM	3	15.0		
	TOTAL	20	100.0		

Q6.
Does economy have national tourism organisation separate from national government department

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	11	55.0	55.0	55.0
	NO	9	45.0	45.0	100.0
	TOTAL	20	100.0	100.0	

Q7.
Does country have peak tourism association

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	15	75.0	78.9	78.9
	NO	4	20.0	21.1	100.0
	TOTAL	19	95.0	100.0	
MISSING	SYSTEM	1	5.0		
	TOTAL	20	100.0		

Q10.
Does economy have some form of joint government/industry partnership

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	13	65.0	76.5	76.5
	NO	4	20.0	23.5	100.0
	TOTAL	17	85.0	100.0	
MISSING	SYSTEM	3	15.0		
	TOTAL	20	100.0		

Q12.
Has peak tourism industry organisation/association developed a set of sustainable development principles for the tourism industry in your economy

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	4	20.0	30.8	30.8
	NO	9	45.0	69.2	100.0
	TOTAL	13	65.0	100.0	
MISSING	SYSTEM	7	35.0		
	TOTAL	20	100.0		

Q13.
To what extent do codes or principles on sustainable tourism impact on development of tourism policy and practise

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	LOW	3	15.0	16.7	16.7
	LOW-MED	1	5.0	5.6	22.2
	MED	5	25.0	27.8	50.0
	MED-HIGH	8	40.0	44.4	94.4
	HIGH	1	5.0	5.6	100.0
	TOTAL	18	90.0	100.0	
MISSING	SYSTEM	2	10.0		
	TOTAL	20	100.0		

Q14.
Does economy have national, provincial or local planning regulations in place to control the location of & type of tourist development

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	19	95.0	95.0	95.0
	NO	1	5.0	5.0	100.0
	TOTAL	20	100.0	100.0	

Q15.
Major tourism developments required to undertake an environmental impact assessment

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	17	85.0	85.0	85.0
	NO	3	15.0	15.0	100.0
	TOTAL	20	100.0	100.0	

Q16.
Does country have industry self-regulation schemes for best practice management in tourism industry

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	12	60.0	63.2	63.2
	NO	7	35.0	36.8	100.0
	TOTAL	19	95.0	100.0	
MISSING	SYSTEM	1	5.0		
	TOTAL	20	100.0		

Q17.
Does country have policies/strategies in place for community participation in tourism development & management

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	15	75.0	75.0	75.0
	NO	5	25.0	25.0	100.0
	TOTAL	20	100.0	100.0	

Q18.
Does country have economic strategies to help minimise tourism's negative environmental impacts

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	14	70.0	77.8	77.8
	NO	4	20.0	22.2	100.0
	TOTAL	18	90.0	100.0	
MISSING	SYSTEM	2	10.0		
	TOTAL	20	100.0		

Q19.
Does country have national/provincial policies in place for establishing parks etc to conserve biodiversity

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	19	95.0	100.0	100.0
MISSING	NO	1	5.0		
	TOTAL	20	100.0		

Q20.
Are these protected areas managed for tourist use?

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	17	85.0	89.5	89.5
	NO	2	10.0	10.5	100.0
	TOTAL	19	95.0	100.0	
MISSING	SYSTEM	1	5.0		
	TOTAL	20	100.0		

Q23.
Policies & strategies in place to control impact of tourism & tourists on religion, culture & heritage of local communities

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	11	55.0	61.1	61.1
	NO	7	35.0	38.9	100.0
	TOTAL	18	90.0	100.0	
MISSING	SYSTEM	2	10.0		
	TOTAL	20	100.0		

Q24.
Examples of private/public collaboration in tourism use of cultural heritage areas

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	11	55.0	78.6	78.6
	NO	3	15.0	21.4	100.0
	TOTAL	14	70.0	100.0	
MISSING	SYSTEM	6	30.0		
	TOTAL	20	100.0		

Q25a.
Promote and market sustainable tourism principles to local tourism industry

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	17	85.0	85.0	85.0
	NO	3	15.0	15.0	100.0
	TOTAL	20	100.0	100.0	

Q25b.
Promote and market sustainable tourism principles to citizens of your country

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	17	85.0	85.0	85.0
	NO	3	15.0	15.0	100.0
TOTAL		20	100.0	100.0	

Q25c.
Promote and market sustainable tourism principles to tourists

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	17	85.0	85.0	85.0
	NO	3	15.0	15.0	100.0
TOTAL		20	100.0	100.0	

Q26.
National tourism organisation consult with government agencies responsible for heritage management

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	14	70.0	82.4	82.4
	NO	3	15.0	17.6	100.0
	TOTAL	17	85.0	100.0	
MISSING	SYSTEM	3	15.0		
	TOTAL	20	100.0		

Q27.
Rate country/destination in terms of "image" it promotes to international markets as a destination

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	LOW	1	5.0	5.3	5.3
	LOW-MED	1	5.0	5.3	10.5
	MED	6	30.0	31.6	42.1
	MED-HIGH	9	45.0	47.4	89.5
	HIGH	2	10.0	10.6	100.0
	TOTAL	19	95.0	100.0	
MISSING	SYSTEM	1	5.0		
	TOTAL	20	100.0		

Q28.
How important do you perceive the reputation of your country as a 'sustainable tourism destination' is to your major markets

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	MED	6	30.0	30.0	30.0
	MED-HIGH	6	30.0	30.0	60.0
	HIGH	8	40.0	40.0	100.0
	TOTAL	20	100.0	100.0	

Q29.
Do you see your economy's reputation as a 'sustainable tourism destination' as a competitive advantage in international market

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	13	65.0	86.7	86.7
	NO	2	10.0	13.3	100.0
	TOTAL	20	100.0		

Q33.
Examples of benchmarking for the sustainability of tourism destinations in your economy

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	9	45.0	52.9	52.9
	NO	8	40.0	47.1	100.0
	TOTAL	17	85.0	100.0	
MISSING	SYSTEM	3	15.0		
	TOTAL	20	100.0		

Q38.
Does country have collaborative public/private research partnerships in sustainable tourism

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	YES	11	55.0	61.1	61.1
	NO	7	35.0	38.9	100.0
	TOTAL	18	90.0	100.0	
MISSING	SYSTEM	2	10.0		
	TOTAL	20	100.0		

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ISBN 1 876685 89 1

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