Chapter 1

Introduction

1.1 Significance of Research

Tourism is one of the world's major industries and is increasing in importance as a source of substantial employment and of great economic and social benefit to many regions around the world. It accounts for more than 10 per cent of all consumer spending world-wide and contributes over US$3 trillion of global GDP (World Travel & Tourism Council, 1994). The World Tourism Organisation (WTO) forecast that international tourist arrivals will increase at an average rate of 4.2 per cent during the 1990s to reach 627 million by the year 2000, making tourism the world's largest export industry (Commonwealth Department of Tourism, 1993). At present, tourism is Australia's fastest growing industry and ranks as Australia's largest foreign exchange earner. It actually contributes more to the economy than the agricultural sector and approaches the mining sector in significance. It earned $13.2 billion in 1995 and accounts for 12.7 per cent of GDP (Tourism Forecasting Council, 1996).

Given that the natural and cultural environment is the tourist industry's fundamental base, it is not surprising that increasing concern has been expressed about environmental problems associated with tourism and pressure is growing to ensure ecologically sustainable forms of tourism development. Many forms of tourism are seen as contributing to environmental degradation, and therefore self-destructive. Erosion of the resource base, impairment of the built environment and disruption of social fabric of host communities are common indicators of the undesirable impacts which can ensue from the predatory effects of a mass influx of tourists. Unless

potential threats can be identified and eliminated, tourism could compromise the very environment that is attractive to tourists and on which the industry depends. It is obvious that there are dangers in ignoring the use of sound environmental practices in developing tourist industry. These could include deterioration of natural features, public opposition to development and increasing costs of restoration. So the Australian Government considers it essential to plan and operate in ways which seek to conserve the environmental resource base while allowing sustainable growth and development (Ecologically Sustainable Development Working Groups, 1991).

On the international level, the environmental problems in tourism development have been highlighted by the World Tourism Organisation:

> The protection, enhancement and improvement of the various components of man's environment are among the fundamental conditions for harmonious development of tourism. Similarly, rational management of tourism may contribute to a large extent to protecting and developing the physical environment and cultural heritage as well as to improving the quality of man's life.
>
> (Australian Tourist Industry Association, 1990, 2).

The statement by the World Tourism Organisation represents clear support for ecologically sustainable tourism. It is apparent that sustainable development of tourism is intended to reduce the potential conflict created by the complex interaction between the tourism industry, the tourists, the environment, and the communities which host the visitors (Bramwell *et al.*, 1993). Endorsement of sustainability

encourages an understanding of the impacts of tourism on the natural, cultural and human environment. This involves development of reliable methods to assess and monitor the environmental impacts of tourism development (McIntyre, 1993).

Generally, at the planning stage of tourism development, significant environmental impacts can be identified and examined, and measures suggested for their prevention or mitigation. This is normally achieved through the process of environmental impact assessment. The main objective of an environmental impact assessment is:

> to identify risks, minimise adverse impacts and determine environmental acceptability; to achieve environmentally sound proposals through research, management and monitoring; and to manage conflict through the provision of means for effective public participation
>
> (Ecologically Sustainable Development Working Group, 1991, 81).

The evolution of the environmental impact assessment process reflects growing public concern over environmental issues. The process has been improved, and has become an important means of protecting environmental quality as more and more countries have adopted impact assessment by legislation. In Australia, depending on the size of the project, proposed tourism developments are subject to assessment on environmental grounds before approval is given to proceed.

Obviously, if the environmental impact assessment process is implemented effectively and meets its objectives, it should be a very useful technique. However, in

its implementation, some weaknesses can arise. Since it is developers who normally carry out the assessment, this situation can cause inadequate and inaccurate information to be provided for decision making and planning. This appears often to be the case in Australia where, despite the existence of environmental guidelines for tourism development, there is no mechanism for their implementation (Atherton, 1991). Furthermore, as Buckley points, environmental impact assessment:

> operates at the scale of the individual project; it ignores cumulative and interactive effects; it is often treated as a one-off planning hurdle; and its operation feedback mechanisms are generally weak. (Buckley, 1991a, 233)

In Australia, for example, environmental impact assessment for tourism development applies only to proposals for new developments, not to existing operations, nor to many non-environmentally significant proposals which could cumulatively have long-term impacts (Ecologically Sustainable Development Working Group, 1991). With respect to existing operations, the issue of cumulative impact has rarely been examined, and few developments have implemented post-impact assessment or monitoring to determine if the impacts evolved as predicted and planned. This has resulted in inappropriate development and can lead to overdevelopment of tourist areas. Experience has shown that there can be no predictable beginning or end to the identification and management of impacts (Jacobs *et al.*, 1993). It is also frequently difficult to predict how people will behave in an environment changed by tourism development, particularly when the complete range of impacts may only become apparent after considerable time.

It is clear that the current process for environmental impact assessment has shortcomings. It does not provide sufficient information for appropriate decision-making and planning, and cannot meet the requirements of ecologically sustainable development. Moreover, as Buckley (1991a) points out, predictions in environmental impact assessment always contain a degree of uncertainty. This does not mean that projects with uncertain impacts should always be stopped. Rather, effective monitoring and feedback links should be established.

Given the apparent weaknesses of the EIA process, it appears that improved and effective environmental impact assessment relevant to tourism development must extend beyond impact statements to include continued monitoring and revision of possible objectives and operational procedures. In addition to its predictive role, the process must allow for ongoing impact assessment. This continuing management role is particularly important in the case of more complex projects, such as integrated tourist resorts (Jacobs *et al*, 1993). Post-development impact assessment should be as significant as the assessment of anticipated impact, and mandatory impact assessment should be accompanied by mandatory post-development assessment, or environmental auditing (Butler, 1993a). Under these circumstances, an improved monitoring and evaluation approach, which might be termed an environmental auditing process, is called for, and may prove beneficial and effective for identifying and managing the environmental impacts of specific tourism developments.

Although the concept is still relatively new, environmental auditing can be applied in any sort of development. In Australia, it has been applied mainly in manufacturing industry as a method of monitoring the extent to which operations meet the goals and objectives of sustainable development (Australian Manufacturing Council, 1992). As yet, the application of environmental auditing to tourism development appears to be untried. Moreover, there are relatively few examples of its application in the field of tourism elsewhere in the developed world. Criticism regarding environmental impact assessment can also be directed towards environmental audits, thereby explaining the lack of application in the context of tourism development.

In short, the application of environmental audits should be seen as a most important measure in monitoring the environmental performance of tourism development against specific targets. The research being undertaken for this study will help in identifying the most effective procedures for developing and applying environmental audits in the field of Australia tourism, and ensure that future tourism developments observe appropriate environmental safeguards in their establishment and operation. Furthermore, the outcomes of this study will contribute to the enhancement of Australia's growing research reputation in the field of tourism.

1.2 Objectives, Benefits and Outcomes

The principal objective of this research is to establish and develop the principles, conceptual frameworks and implications of environmental audits for sustainable

tourism development, and to provide a better means of balancing environmental protection needs with economic and social concerns.

Specific objectives of the study can be stated as follows:

- to substantiate growing concerns over environmental quality and support for sustainable tourism, and to assess the effectiveness of policy in achieving sustainable tourism development;
- to document the evolutionary changes in environmental management which are taking place in organisational and legislative sectors and the implications of these changes for effectiveness of environmental management policies in the tourism industry;
- to evaluate the experiences of national and international practice regarding environmental audits and exemplify the emerging importance being given to the environmental auditing process in tourism development;
- to determine the nature and characteristics of the environmental auditing process appropriate to tourism operations or development, and identify the objectives and scope of environmental audits for tourist operations and development,
- to develop an effective environmental audit program for tourism including the determination of appropriate performance indicators for sustainable tourism development; and
- to apply and test the established environmental audit program to specific examples of tourism development, in order to demonstrate the general

relevance of the methodology and its contribution to ecologically sustainable tourism development.

Generally, tourism developers are part of the free market system which has profit-making as the prime objective. Considering this situation, environmental auditing is needed even more because it can provide indicators for determining the effectiveness of the development program. It also allows for the detection of any problems resulting from tourism development before these problems become serious, and encourages the adoption of necessary corrective measures.

Thus, the purposes for implementing an environmental auditing process for sustainable tourism development are to:

- increase the overall level of environmental awareness in the tourist industry;
- assist tourist industry management in improving environmental standards through "benchmarking" against proven performances;
- identify opportunities to reinforce positive environmental impacts; and
- accelerate the achievement of the Best Practice Environmental Management in the tourism industry, endorsed by tourist operators and regulatory agencies, and supported by the community.

As the environmental auditing process for sustainable tourism development achieves success in meeting its objectives, some significant benefits should emerge. These include:

- confidence by tourism management of increased managerial effectiveness;

- promotion of the tourist industry's reputation in the community and among regulatory authorities;
- confirmation to the community that management places a high priority on environmental protection;
- confirmation to tourism management that all environmental risks are properly controlled; and
- identification of deficiencies in management systems and implementation of corrective actions.

The result of this research will be submitted to tourism industry management, relevant government agencies, and environmental authorities and communities in order to:

- enhance the reputation of sustainable tourism development;
- highlight the principles of environmental auditing in tourism development;
- develop a means for evaluation of environmental performance in tourism development;
- improve the means of environmental impact assessment;
- increase understanding of the environmental auditing process among tourism development; and
- demonstrate the importance of the environmental auditing process for sustainable tourism development.

1.3 Nature and Extent of the Research

It has been acknowledged above that there have been few attempts to apply environmental audits to tourism development (Butler, 1993a). This research is an

attempt to rectify this situation and to develop effective environmental auditing procedures in the field of Australian tourism. The strengths and weakness of existing approaches for monitoring and assessing the environmental performance of tourism development will therefore be identified.

The research base in the thesis is derived from existing studies, consultation, field data collection and analysis. The focus will be on the beach resort as a distinct type or example of tourism development. In this context, it must be emphasised that the application of the established environmental auditing process to a specific tourist operation must take into account the characteristics of that operation, the objectives of the auditing program and other operation-specific factors, and the availability of relevant data.

In this research, once the framework of the environmental auditing process is determined, it will be tested in the field. It should be noted that considerable attention to face-to-face interviews and consultation is required in order to seek co-operation from tourism management and ensure the established Environmental Auditing Process (EAP) is accepted and effective. This is most important, because if willingness and co-operation from tourist management are lacking or inadequate, the environmental auditing process will be difficult to implement and its results probably unsatisfactory or less useful.

1.4 Definitions

In order to avoid any confusion about the definitions of some terms, some detailed various definitions of terms are discussed in the thesis. Important terms referred to are explained below.

As used in the thesis, **Environment** refers to:

> all aspects of the surroundings of human beings, whether affecting human beings as individuals or in social groups.
> (Commonwealth Environment Protection: Impact of Proposals Act, 1974, 1)

Since the concept of environmental auditing is still relatively new and has been described as "the challenge of the 1990s" (Edwards, 1992), there are many interpretations of exactly what it is meant by the term. As used in the thesis, **Environmental Auditing** refers to:

> a process comprising of a systematic, documented, regular and objective evaluation of the environmental performance of any aspect of a tourism organisation including structure, management, equipment, facilities and products with the aim of protecting the environment by: (a) facilitating management control of environmental practice; (b) assessing compliance with environmental policies and any regulatory requirements; and (c) minimising the negative environmental impact.

Environmental Impact refers to

> the positive as well as negative aspects of a tourism organisation's environmental performance. It usually covers physical, biological, economic, social or cultural aspects as well as cumulative effects.

Environmental Impact Assessment refers to:

> an analytical procedure for predicting and evaluating the environmental impact of proposed development programs and projects, terminating with a written report (environmental impact statement or environmental effects statement) to prescribe environmental safeguards; and a legally defined administrative procedure to involve major interest groups in the decision-making process, inform the public and resolve potential conflicts caused by multiple uses of the community's resources.
>
> (James *et al.*, 1988, 6)

Regulation refers to:

> the imposition by governments, government agencies, and/or regional authorities of legally binding requirements on the conduct of business, normally with penalties for non-compliance.
>
> (World Travel & Tourism Council, 1993, 44)

Self-regulation refers to:

> the introduction and adaptation of business practices to meet environmental criteria, with self-imposed targets and monitoring systems, possibly enforced by membership of trade associations.
>
> (World Travel & Tourism Council, 1993, 44)

Tourism refers to:

> the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes.
>
> (World Travel & Tourism Council, 1993, 6)

The definition of **Sustainable Development in the Context of Tourism** is:

> Tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and well-being of other activities and processes
>
> (Butler, 1993b, 29).

Specifically, the definition of **Sustainable Tourism** is:

> tourism which is in a form which can maintain its viability in an area for an indefinite period of time.

(Butler, 1993b, 29)

The term, **Resort,** refers to:

> purpose-built tourist facilities on the one relatively self-contained site, and offering accommodation, food, shopping outlets, and opportunities for recreation and entertainment.

1.5 Structures of the Thesis

The thesis contains eight chapters, plus Appendices and a Bibliography.

Chapter 1 highlights the significance and objectives of the research, and outlines the nature, extent and structure of the thesis. In order to avoid any confusion about the definitions of terms used in the thesis, these are explained in this chapter.

Chapter 2 first presents a brief background to environmental auditing for tourism development. It focuses on key concepts such as environmental impact assessment, environmental auditing and sustainable tourism development and the relationship between these concepts.

Chapter 3 briefly discusses the environmental performance of tourism development, focuses on the analysis of the impacts of tourism on the environment and the monitoring and evaluation of environmental performance.

Chapter 4 discusses the major issues relating to environmental management for tourism development. It focuses on analysing organisational structures and examines the roles of regulation and self-regulation.

Chapter 5 defines the objectives of establishing an environmental auditing program for tourism. The principles or guidelines are advanced which have direct application to the development of such a process for tourism organisations. The chapter also discusses the benefits to be expected from the application of environmental auditing process. It further outlines a conceptual framework of an environmental management performance auditing (EMPA) program for tourism organisation which incorporates the identified objectives and principles.

Chapter 6 clearly details the procedures of a developed framework for an environmental performance auditing program for beach resorts in Australia. It aims to facilitate the implementation by a resort of a structured, flexible and recognised approach to the management and improvement of its environmental performance. It illustrates that environmental management performance auditing (EMPA) is characterised by a well-defined and planned structure, careful, methodological investigations and strong emphasis on identifying the key environmental issues and areas and reporting to the resort management.

Chapter 7 describes the application of EMPA in case studies, and introduces the sampled beach resorts in New South Wales and Queensland. The specific

characteristics of the sampled resorts are described. The chapter details the analysis of the established EMPA process applied in the sampled resorts.

Chapter 8 presents the broad conclusions derived from the preceding discussions. It also examines the overall findings of the study, then presents the prospects and problems concerning further study in environmental auditing for sustainable tourism development in Australia and elsewhere. Some limitations are also identified.

Chapter 2

Environmental Audits for Tourism Development

2.1 Introduction

Tourism, along with most business and industry, has recently been subjected to increased environmental scrutiny. In Australia, tourism, as the fastest growing industry and the largest earner of foreign exchange, continues to expand in economic significance, at the same time, it is important that the environmental base for tourism be preserved. The tourism industry, the community and governments at all levels recognise the importance of the natural and cultural environment, and of working together to ensure that the environmental resources on which tourism depends are managed in an ecologically sustainable way.

In Australia, much tourism activity in the future will be focused on national parks and environmentally sensitive areas (Commonwealth Department of Tourism, 1993). This will certainly intensify the pressure on environmental resources and the ability to manage those resources, in particular, along the coast where the increased number of tourists is likely to strain areas that are relatively fragile and sensitive. Of course, coastal areas have already been significantly developed for tourism. They are therefore likely to face pressures to expand and upgrade their tourist-related infrastructure. This situation requires the Australian tourism industry to assume a greater level of responsibility and an awareness and understanding of environmental values associated with tourist expectations.

Therefore, sound environmental management will play a fundamental role in determining and maintaining the competitive advantage of the tourism industry in the future. In meeting the requirements of the public, the community and government and the goals of sustainable development, the tourism industry must adopt the best practice environmental management and promote the "greening" of the industry (Pigram and Ding, 1994). This is because, in a more environmentally aware world, green or sustainable tourism not only offers new experiences and opportunities, but also makes economic good sense in terms of reduced damage to the environment, thereby ensuring lower operating costs. Such sustainable tourism can be achieved through "best practice environmental management", which combines (1) changes in management practices, (2) employee, visitor and community participation, (3) the adoption of new technologies, and (4) emphasis on recycling, reuse and recovery.

Environmental auditing is a part of such management. It involves an assessment and monitoring of aspects of environmental management. It is therefore a key element in the environmental management system. To be an effective tool, environmental auditing needs to be undertaken within the context of an environmental management program which helps ensure effective systems for managing environmental problems (NSW Environment Protection Authority, 1993).

This chapter presents a brief background to environmental auditing for tourism development. It concentrates on the discussion of key concepts such as environmental impact assessment, environmental auditing, sustainable tourism development and the relationship between these concepts.

2.2 Evolution of Environmental Audits

2.2.1 Environmental Management Systems

In the last two decades, many environmental issues and incidents have not only increased public concern for better environmental management, but governments have also responded with the introduction of more environmental legislation. While the notion of formalising an environmental audit is not yet widespread, and it is a relatively new and still evolving field, the roots of the idea are well established. From the beginning of the 1970s, many companies noticed the increased public concern for, and government requirements in, environmental issues. They therefore realised the importance of environmental management systems and started to adopt and implement their own internal environmental management programs. As environmental auditing began to receive growing and more widespread attention within the private sector, it also became the subject of some interest among the regulators (Greeno *et al.*, 1985). This interest in environmental auditing within the private and public sectors continues to grow. It has led to various organisations across the world developing standards and voluntary accreditation schemes for environmental management systems.

An environmental management system, according to the British Standards Institute's definition, is:

> That part of the overall management system which determines the environmental policy, and which includes the organisational structures, responsibilities, practices, procedures, processes and resources for implementing that policy.

(British Standards Institute, 1992:5)

The purposes of an environmental management system are to:

- assure compliance with local, regional, national and international environmental laws and regulations;
- establish and promulgate internal policies and procedures needed to achieve an organisation's environmental objectives;
- identify and manage company risk resulting from environmental risks; and
- identify the level of resources and staffs appropriate to the organisation's environmental risks and objectives, ensuring their availability when and where needed.

(International Chamber of Commerce, 1991:6)

An environmental management system provides a structured and comprehensive management process for ensuring the improvement of environmental performance of an organisation. Generally, an environmental management system consists of the following interrelated functions: (see Table 2.1)

From Table 2.1, it is obvious that environmental auditing is a key element in environmental management in that it is a method for providing feedback to management about particular problem areas and corrective actions, and about overall environmental performance.

Table 2.1: Elements of a Sound Environmental Management System

Planning	Organising	Implementing	Controlling
Policies and procedures	Management organisation	Compliance management	Management information systems
Regulatory tracking and influence on regulatory departments	Reporting level and line responsibility	Risk assessment and risk management	Environmental auditing
Planning process		Project/program environmental review	
		Issue-specific environmental programs	

- **Planning.** This provides the framework for setting goals and objectives, developing strategies for their achievement, allocating resources to carry out those strategies, and establishing policies. Planning establishes the overall direction for the company's environmental programs.
- **Organising.** This involves establishing the organisational structure, delineating roles, responsibilities, and authority, and specifying accountability for accomplishing the work, organising creates the basis for effectively directing and coordinating the allocated resources.
- **Implementing.** This provides the initiating mechanisms for producing the work effort, including motivating, delegating, and setting priorities. Implementing determines the company's environmental performance results.
- **Controlling.** This involves the framework for measuring results, acknowledging performance, diagnosing problems, taking corrective action, and purposely seeking ways to learn from past mistakes, thereby creating improvements in the system. Controlling keeps the company on track relative to its environmental goals and objectives.

(Source: International Chamber of Commerce, 1991: 7).

2.2.2 Environmental Impact Assessment

Environmental resources form the basis of tourist activities and, with tourism development, the significant environmental impacts should be identified and

examined, and measures suggested for the prevention or mitigation of adverse consequences. This is normally achieved through the process of environmental impact assessment (EIA).

The definition and principal objectives of EIA have been stated in the Chapter 1. Buckley (1991a) proposed some distinct purposes for EIA. These are to:

- identify environmental issues;
- predict environmental impacts;
- inform the public;
- enable government assessment;
- demonstrate proponent competence;
- make environmental protection commitments;
- assist in plant and process design;
- assist in setting lease conditions and discharges standards; and
- provide a basis for ongoing environmental management.

(Buckley, 1991a: 181-182)

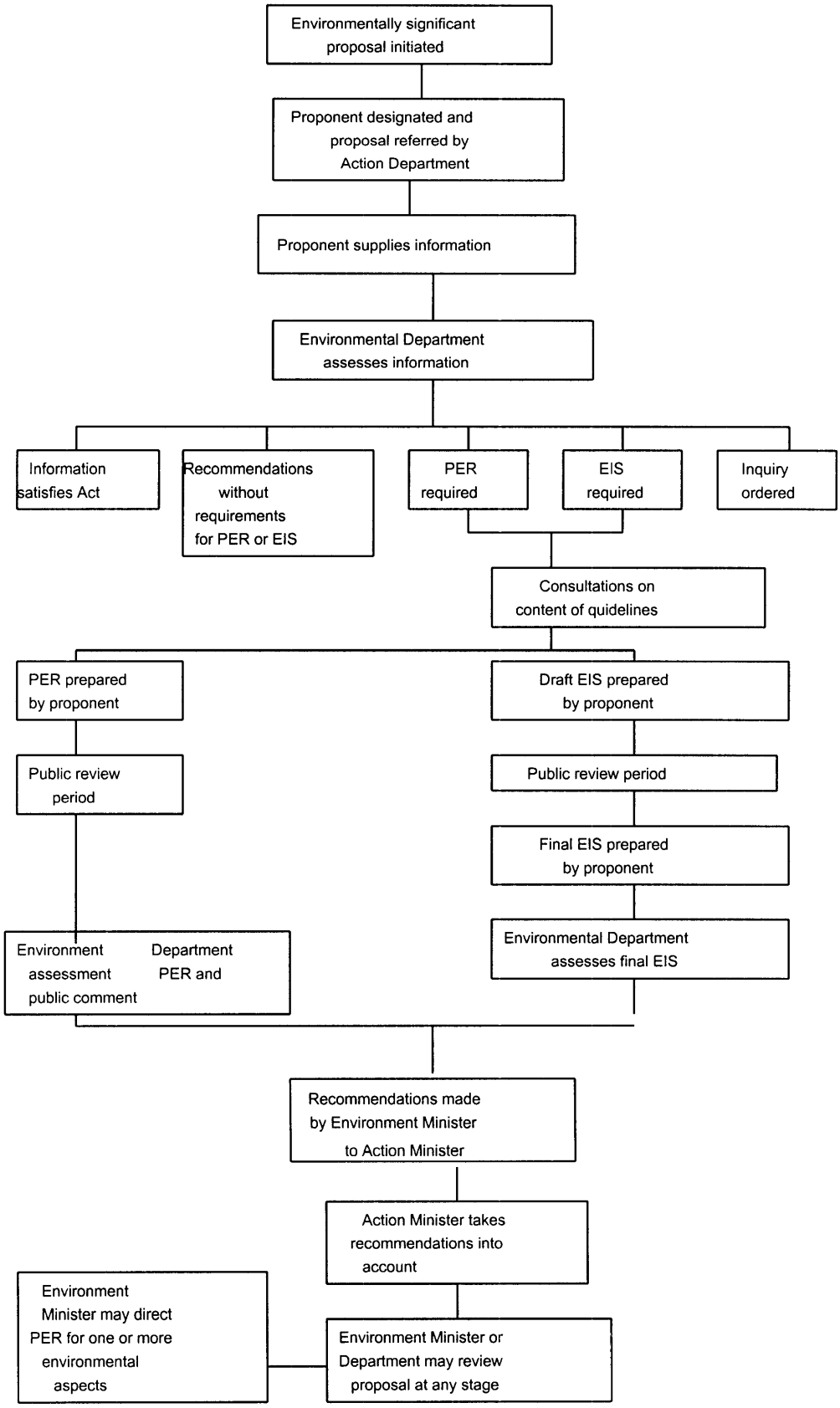
Different governments have given particular emphasis to one or other of these functions at different times.

The origins of environmental impact assessment studies can be dated back to 1864 when Marsh published one of the world's earliest statements concerning the character and extent of changes to the natural environment due to human activities (Munro *et al.*, 1991). He not only traced the causes of different environmental impacts, but also

suggested protective and mitigative measures and stated the need for more careful development practices. Since then, numerous publications have appeared which present rationales, methods and techniques for assessment. Many early studies addressed environmental problems from a relatively narrow, site specific, single discipline point of view and limited their attention to the impacts on the natural environment. Most recent studies have taken a wide and comprehensive perspective. The scope of impact assessment has thus gradually broadened to encompass a range of social and economic concerns (Mathieson and Wall, 1982).

Environmental impact assessment began as a reflection of a growing public concern over environmental issues. As a result, in the United States in 1969, the National Environmental Policy Act was introduced. This was the first legislation in the world which addressed environmental impact assessment. As the assessment process has been improved and become an important means of protecting the environment, more and more countries have adopted EIA by legislation. In Australia, in 1974, the Commonwealth Government enacted legislation to ensure that appropriate attention was given to the environmental aspects of development (the Environment Protection (Impact of Proposals) Act, 1974). This legislation, together with associated administrative procedures, covers all Commonwealth decisions which may impact on the environment. Environmental Impact Assessment procedures under this legislation are set out in Figure 2.1.

Figure 2.1 Environmental Impact Assessment Procedure In Australia



(Source: Martyn *et al.*, 1990)

Despite this Commonwealth initiative, it must be emphasised that most environmental impact assessment in Australia is undertaken at State and Local Government level under different legislation and regulation. Only those situations where development takes place on Commonwealth land or where Commonwealth approval is required for overseas funding, fall within the Commonwealth context. The detailed discussion about the role of Commonwealth, State and Local governments will be in Chapter 4.

In the context of tourism, development projects are receiving greater scrutiny than ever before. Even though a sound environmental planning approach has been applied to prepare a project plan, an EIA is still needed to ensure and demonstrate that no serious problems will be generated by the development (Inskeep, 1991). Based on the environment protection legislation, an EIA can provide a detailed assessment of the physical, social and economic impacts of a proposed tourist project in order to identify any problems which should be resolved through modification of the project. Inskeep (1991) proposed a sample evaluation matrix which can be applied either generally to the area or to a specific tourism project in the area (see Table 2.2).

Detailed discussion on the environmental impacts of tourism follows in Chapter 3.

Table 2.2 Sample Evaluation of Tourism for Environmental Impact Assessment

Type of Impact	Evaluation of Impact				
	No impact	Minor Impact	Moderate Impact	Serious Impact	Comments
Air Quality					
Surface Water Quality					
Groundwater Quality					
Road Traffic					
Noise Levels					
Solid Waste Disposal system					
Archaeological and Historic Sites					
Visual Amenity					
Natural Vegatetation					
Wild Animal Life .Ground Animal .Birds and Insect					

(Source: Inskeep, 1991:354)

If the environmental impact assessment process is implemented effectively and meets its objectives, it should be a very useful environmental management tool. However, in its implementation, there are some weaknesses relevant to tourism development. The following problems have been highlighted:

1. Lack of a Feedback Mechanism

Under current existing environmental impact assessment processes, there is no means or mechanism to examine and assess the effectiveness of an individual EIAs so as to identify ways of improving the utility and efficiency of future assessments (Bailey *et al.*, 1992, Atherton , 1991). In the EIA process, there is a lack of follow-up or feedback mechanisms which seek to compare the predictions of an Environmental Impact Statement (EIS) with the actual environmental impact of a development.

In 1988, Buckley observed:

> Rarely do EISs (Environmental Impact Statement) prescribe what is to be done if their predictions are not fulfilled. In fact, it is rare even for the results of monitoring programs to be checked back against the original impact predictions in any systematic way.
> (Buckley, 1988:211)

Buckley (1988) states that the weakest link in the EIA process is the feedback link: the monitoring of actual impacts; the comparison of these impacts to predicted impacts; and the modification of operations to reduce impacts which prove to be more severe that predicted. Buckley (1990a) further states that until recently, the EIA was viewed and treated by both developers and approval authorities as a "once-off, highly project-specific hurdle" (Buckley, 1990a: 207).

Further criticisms of the EIA process related to specific tourism projects are made by Butler (1993a) who states:

> In recent years, in many countries, tourism developments have become subject to impact assessments before permission is given for construction. Few developments, however, have been subjected to post-impact assessment or monitoring to determine if the impacts generated were what were forecast and planned. ..., It may prove more beneficial and effective to conduct specific *post hoc* impact assessments of specific developments rather than general impact studies at a regional or community scale.
>
> (Butler, 1993a:135)

The problem is also raised by Australian Tourist Industry Association (1990), Atherton (1991) and Goodall (1992).

2. Accuracy Problem

The current knowledge of environmental science is insufficient to allow EISs to be fully accurate, and the technology of EIA is not well developed. In Australia, there is no clear consensus on how impacts can be predicted (Parliament of the Commonwealth of Australia, 1991). Therefore, it is difficult to make reliable and precise predictions about environmental impacts. When Buckley (1989) first analysed the precision in environmental impact prediction, he concluded that a large percentage of EIS predictions are in fact wrong; some 57 per cent of predictions proved to be less severe, while 43 per cent of predictions proved to be more severe than indicated.

In addition, for tourism development, there is often little or no information on the economic and social impacts of proposals. As Butler points out, " the inclusion of human (social) impacts in assessment processes did not take place in most jurisdictions for a number of years after environmental impact assessment had become accepted" (Butler, 1993a: 137). Until recently, economic and social impact assessment was not always included in environmental impact assessment It is also frequently difficult to predict how people will behave in an environment changed by tourism development.

Another critical problem which affects the accuracy and reliability of EIA is the fact that most EIAs are prepared by consultants acting on behalf of developers. This situation inevitably influences the EIS document in favour of the development. (Body, *et al*, 1990; Woodhead, 1990; and Parliament of the Commonwealth of Australia, 1991).

So it can be concluded, as Buckley (1991a) states, that predictions in environmental impact assessment always contain a degree of uncertainty. In this sense, the current EIA procedures are not working satisfactorily.

3. Absence of Cumulative Impact Assessment

Generally, most EIA procedures focus on a specific project or the site of a proposal. "Rarely, if ever, are projects evaluated not only for their specific impact, but also for the cumulative impacts which will occur" (Butler, 1993a: 148). This has led to serious

concerns being expressed by decision-makers about cumulative impacts, and, in some cases, to criticism of the usefulness of the EISs in the decision making process. However, it should be noted that it is often difficult to assess the likely cumulative impact, as James *et al* (1988) state:

> Cumulative assessment has not been clearly defined, and effective assessment methods have been lacking. Deficiencies are most apparent where economic activities already exist within a region and where several projects are proposed simultaneously. Impacts which may appear to be minor for each individual project combine to produce a significant effect on a regional or national scale.
>
> (James *et al.,* 1988:7)

In the case of tourism, Butler (1993a) states:

> This is particularly critical and yet there appear to be no specific references in the tourism literature to cumulative impacts.
>
> (Butler, 1993a:148)

4. The Problem in Monitoring

Adequate and effective monitoring is essential for implementing environmental impact assessment. Effective monitoring can ensure that environmental standards are being met. Monitoring is crucial to ongoing environmental management and to assessing the cumulative impacts of tourism development. It can also reveal whether the impacts of a development are as predicted and acceptable, and it can detect problems for investigation and resolution (Inskeep, 1987). Unfortunately, mechanisms

for monitoring the EIA process have not been established satisfactorily. Furthermore, because of the absence of baseline data and fundamental scientific research, there is often a lack of understanding of the complexities of the environment and, consequently, problems of accuracy in environmental impact statements (Buckley, 1991; Morris, 1987). Specifically in the context of tourism, the fragmented characteristics of the tourism industry make the establishment of monitoring programs very difficult. The present level of understanding of the complex tourist environment is insufficient and incomplete and it is not therefore possible to specify detailed indicators in monitoring programs applicable to the tourism industry.

Another important aspect of monitoring is that it appears there is little or no detailed information on the social impact of tourism development. More generally, the lack of monitoring data may be attributed to a reluctance on the part of developers to invest in the establishment of environmental monitoring program (Buckley, 1991). Additionally, there are certainly no universally acceptable indicators for monitoring and assessing the environmental impact of tourism development, as Butler (1993a) points out:

> There may be ignorance of what should be monitored as well as what impacts should be identified and how they should be characterised. Furthermore, it may be extremely difficult to ascribe correctly the recorded changes solely or even partly to the specific development.
>
> (Butler, 1993a:150).

The problems are also addressed by Alberti *et al.* who state:

> First, environmental monitoring systems are designed to meet specific regulatory purposes. They reflect the often fragmented approach of the regulations themselves. Secondly, monitoring data gathered by different agencies in different periods using different methods are not comparable over time. Moreover, raw data are often too complex to relate to poor or good conditions. Likewise, fluctuations in physical, biological, and chemical variables are very difficult to correlate to environmental trends.
>
> (Alberti *et al.*, 1991:96)

In other words, it is clear that the current EIA process has shortcomings. It does not provide sufficient information for appropriate decision-making and planning, and cannot meet the requirements of sustainable development.

Given the above discussion on the environmental management systems and apparent weaknesses of the environmental impact assessment process, it appears that improved and effective environmental impact assessment relevant to tourism development must extend beyond impact statements to include continual management and revision of possible objectives and operational procedures. This continual management process plays a key role in the environmental management system. It can also overcome the shortcomings of current EIA processes and complements the EIA. This important monitoring and assessment approach can be termed an environmental auditing

process, and should prove more beneficial and effective for identifying and managing the environmental impacts of tourism development.

2.2.3 Environmental Audits

2.2.3.1 Introduction

The practice of environmental auditing first came into being in the early 1970s in the United States. However, it only became widely adopted by industry in the late 1980s. It was originally developed as a tool by large, multinational organisations to ensure compliance with local and national environmental laws and regulations, and with corporate policies and standards, and reflected a response to increasingly stringent environmental legislation in many countries. It was further stimulated by interest groups or individuals who undertook legal action against organisations and, in some cases, individual directors and managers, for their failure to meet statutory requirements.

Since the late 1980s, environmental auditing has become a common management tool in developing countries, and is increasingly being applied across the whole range of industrial and commercial activities, plus government service organisations. Today, interest in environmental auditing continues to grow in both the private and public sectors, and it is expected that it likely to continue to develop and evolve. In Australia, environmental auditing is now common practice in the mining and extractive industries, and the level of its application varies widely.

2.2.3.2 Definition

The concept of environmental auditing is relatively new. Consequently, there are still many interpretations of exactly what is meant by the term. Providing a generic definition for environmental audit is not easy. The concept has developed simultaneously on so many fronts over the last decade that it means different things to different people (Cavendish, 1993). There is therefore no official or universally accepted definition of environmental audit. Not surprisingly, a number of definitions have been published in Australia and overseas.

The earliest definition of environmental auditing which was proposed by Greeno *et al.* (1985) is:

> The process of determining whether all or selected levels of an organisation are in compliance with regulatory requirements and internal policies and standards.
>
> (Greeno et al., 1985:3)

This definition is also accepted by the Australian Chamber of Commerce.

However, a relatively widely accepted definition of environmental auditing is the one published by the International Chamber of Commerce (ICC) which defined environmental auditing as:

> A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organisation,

management and equipment are performing with the aim of helping to safeguard the environment by:

(i) facilitating management control of environmental practices; and

(ii) assessing compliance with company policies which would include meeting regulatory requirements.

(International Chamber of Commerce, 1991:3)

The US Environmental Protection Agency defines the term slightly differently:

Environmental auditing is a systematic, documented, periodic and objective review by regulated entities of facility operations and practices related to meeting environmental requirements. Audits can be designed to accomplished any or all of the following:

- verify compliance with environmental requirements;
- evaluate the effectiveness of environmental management systems already in place; or
- assess risks from regulated and unregulated materials and practices.

(Court, 1992:2)

Buckley (1991b) made a distinction in environmental auditing using two different terms. First, environmental impact audit which may be defined as:

> The systematic checking of actual environmental impacts, as revealed by environmental monitoring data, against predicted impacts as stated in the environmental assessment document.
> (Buckley, 1991b:1)

Another sense defines environmental management audit as a process which examines corporate standards and programs for environmental management, together with associated risks and liabilities (Buckley, 1991a).

Although the definition of environmental auditing differs widely, generally, the environmental auditing process should include three main steps which Buckley refers to as:

> assess - determination of the systems or how it actually is;
> test - comparison of the actual state with predetermined criteria or how it ought to be; and
> attest - certification of the results of this comparison.
> (Buckley, 1991a:122)

In this context, environmental auditing differs from environmental impact assessment in the following aspects:

- it is usually undertaken on a voluntary basis by industry, while environmental impact assessment is mandatory;

- it requires collection and documentation of relevant and sufficient evidence, rather than opinion based primarily on professional judgement (Greeno *et al.*, 1985);
- it focuses on environmental performance, while environmental impact assessment focuses on preconditions of development; and
- it involves a comparison of predicted environmental impacts contained in the environmental impact assessment with the actual impacts which occur. In other words, it is concerned with whether the impact prediction process is performing satisfactorily.

In the context of tourism development, environmental audits are rarely tried and there appear to be few examples of the application of the concept. There are a number of possible reasons for this. As Butler (1993a) points out, one reason is the widespread assumption that the initial assessment will be complete and correct, and thus an environmental auditing process is not necessary. A second reason may relate to the question of responsibility for conducting the environmental auditing process and at what point it should be undertaken. A third reason may be the lack of agreement over the purpose of such a process, and what could be done if the initial environmental impact assessment proved to be incomplete or inaccurate.

Despite this situation, some studies of environmental audits have been undertaken. For example, Butler (1993a) states that, in tourism development, mandatory impact assessment should be accompanied by mandatory post-development audit or assessment. Although Butler did not give specific details of the type of environmental

audit needed in tourism development, he described the environmental audit as post-development impact assessment which is designed to determine how accurate the predictions of tourism-related impacts had been and how successful mitigation measures, if any were taken, had been (Butler, 1993a). In short, Butler sees environmental audits as the comparison of predictive impact with actual impact of tourism.

Goodall (1992) uses the term of "Environmental auditing for tourism", defined as:

> A management tool providing a systematic, regular and objective evaluation of the environmental performance of the (tourism) organisation, its plant, buildings, processes and products.
> (Goodall, 1992:62)

In Goodall's definition, the emphasis is on environmental auditing as a management tool for monitoring the environmental performance of existing tourism activities. and it is more relevant to tourism development. Based on Goodall's and the International Chamber of Commerce's definitions, this study proposed the following definition:

> environmental auditing (EA) can be defined as a process comprising a systematic, documented, regular and objective evaluation of the environmental performance of any aspect of an organisation including structure, management, equipment, facilities and products with the aim of protecting the environment by: (a) facilitating management control of environmental practice; (b) assessing

compliance with environmental policies and any regulatory requirements; and (c) minimising negative environmental impacts.

2.2.3.3 The Need for Environmental Auditing

There are a number of reasons or motivations for conducting an environmental auditing ranging from government regulation to initiatives of industries . The main reasons appear to be:

1. Regulatory Requirements

In recent years, there has been a rapid growth in the nature and number of environmental regulations with which industries must comply. The regulatory environment has become one of ever tightening rules being applied to a wide range of situations and practices. A company may therefore decide to carry out an environmental audit to satisfy itself that it is complying with current and anticipated future legislation. Furthermore, public concern over environmental issues has grown markedly. This has led to increased penalties for poor environmental management, producing an incentive to evaluate corporate environmental performance (Buckley, 1991a). A company may thus decide to carry out an environmental audit to protect its managers from the possibilities of penalties being imposed under stringent environmental legislation. The regulatory agencies may also carry out environmental audits to check back and see how well the legislation, regulations, standards, processes and techniques have worked.

2. Initiatives of Industry

There are compelling reasons for industries to initiate environmental audits. They provide a means of managing pollution prevention and recognising environmental risks, and can be used to develop mechanisms and procedures to minimise these risks. Another purpose may be to promote a good image to the public of being an environmentally responsible organisation, and to ensure that the policies of an organisation are in fact complying with its objectives. It is also possible that an organisation may wish to produce and promote "green" products or services. In this case, it is most important for a tourism organisation which wishes to carry out an environmental audit to ensure that its total operation is environmentally responsible, and that it is not producing "green" products from environmentally damaging processes (Brown *et al.*, 1994)

3. Insurance Requirements

A third reason for carrying out an environmental audit is either to minimise the cost of insurance by providing the insurer with the greatest possible degree of accurate information on the environmental risks, or alternatively to acquire environmental impairment liability insurance. The latter is often very difficult to obtain and very few policies have been written (Buckley, 1991, Brown *et al.,* 1994). However, it is probable that this type of insurance cover will become more common in the future and that more policies will be written to cover third party exposure to environmental accidents.

In short, there are many different reasons for carrying out an environmental audit for different types and levels of organisation. In the context of tourism, the reasons for carrying out an environmental audit will be discussed more fully in Chapter 5.

2.2.3.4 Types of Environmental Audit

There are no universally accepted criteria that can be used to classify various types of environmental audit. Indeed, it is not possible to classify the types of environmental audit without regard to the circumstances in which audits are conducted. In the literature, some types of environmental auditing have been defined (Buckley, 1991c; Tomlinson *et al.,* 1987). For example, Buckley (1991), focusing on the objectives of audits as the basis of classification, produced a classification of thirteen types. While Brown *et al.* (1994) proposed three different kinds of environmental audits according to the entity which is being audited. Dalley (1993), using different terms, proposes six types of environmental audits.

To simplify the above classifications, no matter how the terms are used, environmental audits can be classified the following two main types:

- Environmental management audits which assist management to operate in accordance with sound environmental principles;
- Compliance audits which determine statutory compliance with environmental legislation, regulations, licences, approvals and other requirements.

There is not, of course, much difference between these two types of audits. Depending on the objectives and focus, they may complement each other. For example, a

comprehensive environmental management audit for an organisation may include an audit of compliance as one of a number of factors (Buckley, 1991c).

In the context of tourism development, perhaps the environmental management audit is the most common and relevant type of procedure. In this study, emphasis is therefore given to this type of audit. In this regard, it is significant that environmental management audit is recognised by International Chamber of Commerce (1991), the Australian Manufacturing Council (1992) and the New South Wales Environment Protection Authority (1993). Such an environmental management audit covers the entire range of management procedures for environmental matters. It also includes the detailed monitoring and evaluation of the environmental performance of management, operations and systems against legislation, standards, and policies, as well as the development of corrective action plans for deficiencies arising from the audit findings.

2.2.4 Environmental Audits as an Important Component in an Environmental Management System

Earlier in this chapter, it was stressed that environmental auditing is a key element in an environmental management system, particularly when chosen by management as a method for providing feedback about particular problem areas and overall environmental performance. Used in this way, it can help achieve better levels of environmental management as well as increased efficiency and competitiveness.

In 1993, the New South Wales Environment Protection Authority released a Discussion Paper in which environmental auditing was considered as part of the

environmental management system. The Discussion Paper identified the value of environmental management in wider corporate planning strategies, and the role of environmental auditing within the environmental management system.

Essentially, the Discussion Paper indicated that an environmental audit should be used to assess an organisation's current environmental performance, and options for improved efficiency (NSW Environment Protection Authority, 1993).

As discussed earlier, environmental management is generally viewed as a series of functions such as planning, organising, staffing, directing, and controlling the operations of an organisation. The process of environmental management includes the setting of goals and standards, the developing of planned actions, the monitoring and evaluating of the effects of these actions, the correcting of any existing deviations from the goals, and the identifying of new opportunities for improved future environmental performance. Environmental auditing is designed to examine all aspects of these procedures, so that in this sense, it is clearly an expansion of management's control function. It measures the strengths and weaknesses of the environmental management system in place and points the way to improve overall environmental performance.

In the same way that undertaking an environmental impact assessment is considered good engineering practice for major projects (Budzik, 1992), an environmental auditing program can also be considered good management practice.

Although the principal objective for carrying out an environmental audit maybe to ensure compliance status with applicable regulatory requirements and to reduce environmental risk, there are some other objectives which environmental management may pursue through environmental auditing:

- To increase environmental awareness within the organisation and thereby improve environmental performance;
- To assess the effectiveness of existing management and operational practices and identify opportunities for cost reduction and pollution reduction;
- To improve resource utilisation;
- To avoid "surprises" resulting in unexpected and costly litigation or clean-up requirements; and
- To enhance short- and long -term environmental planning.

(Court, 1992; Budzik, 1992; Brown *et al.*, 1994)

It should be noted that, in the current situation, the majority of environmental audits are and will have been voluntary, not mandatory. That is to say, they will have been initiated by industrial management, not regulatory agencies. This emphases that an environmental audit is really an important part of management's control function applied to the whole management procedures. Because of hightened public expectations and more stringent regulatory requirements, industrial managements are obviously making increased use of environmental auditing programs to enhance their environmental performance.

2.2.5 Environmental Audits in Australia

As discussed earlier, environmental auditing has had a relatively short history, with increasing interest in the 1980s and rapid development in the 1990s. In fact, it has been described as "the challenge of the 1990s" (Edwards, 1992:1). It is a developing technique and many changes can be anticipated in the future with the introduction of new legislation, standards, equipment, processes, and community expectations (Buckley, 1991a; Brown *et al.,* 1994)

In Australia until recently, several industries including those in mining, mineral processing and metal manufacturing have had pollution control and environmental agencies responsible for monitoring and reporting discharges, liaison with regulatory agencies and dealing with complaints from the local community. The focus was on meeting licence conditions rather than integrated environmental management.

As Australian industry is beginning to recognise the importance of environmental factors to its operation, it also recognises the value of internal environmental audits. One representative organisation which saw advantage in the use of environmental audits was the Australian Manufacturing Council (AMC) which, in 1992, launched "The Environmental Challenge: Best Practice Environmental Management (BPEM)" (Australian Manufacturing Council, 1992). In this strategy, environmental auditing has been emphasised as a management tool for verifying environmental compliance and the system in place to manage environmental responsibilities.

However, it should be noted that successful environmental auditing is not easy. Specific guidelines have to be developed for conducting environmental audits in a variety of circumstances. Comprehensive guidelines on how to conduct an extensive range of environmental audits are relatively rare. In Australia, two documented examples of comprehensive guidelines have been developed. The most important one was prepared for the Australian International Development Aid Bureau by Buckley (1991b) which describes 12 audits for aid projects. Earlier, Buckley (1989) undertook the first national audit of environmental impact predictions in Australia. Bailey *et al.* (1990) in Western Australia also developed a framework and database to conduct impact audits. Clearly, there is no universally accepted way to conduct an environmental audit, and the procedure used in industry is dictated by the particular objectives which the audit is intended to achieve.

In Australia, since the late 1980s, environmental auditing has become a common management tool in the mining and extractive industries as a means of monitoring the extent to which companies meet the goals and objectives of sustainable development, although the levels of its applications vary widely (see Table 2.3).

A survey of 1000 major companies in Australia undertaken by Coopers & Lybrand in 1991 also revealed that 39 per cent of companies surveyed had undertaken a recent environmental audit, while a further 53 per cent were considering undertaking one for the first time. These had been performed because of parent company requirements or internal pressure to enhance an image of cleanliness, or on the basis of legal advice (Coopers & Lybrand Consultants, 1991). Australian industry appears to be aware that

environmental auditing - beyond simple compliance with environmental legislation or licence agreements set through environmental impacts assessment process - will be the pattern in the future. Collaborative planning between industry and environmental agencies could increase the efficiency and effectiveness of environmental audit. Given the wide range of definitions of the term, it is not clear exactly how much activity their intentions entailed. However, the interest is evident enough.

Table 2.3 Environmental Audits in Australia

How many:	75% 53%	Of companies in the minerals/chemicals industry. Of companies in the metal goods, engineering and vehicle industry
Why:	35% 22% 14% 12%	Parent company requirement "Clean image" Internal organisation pressure Legal advice.
What for:	100% 79% 79% 70%	Compliance with legislation Monitoring systems and procedures Site Contamination Product use and disposal
By whom:	50% 25% 11% 11%	Combination of external consultants and internal staff Internal staff only External Staff only Staff from another unit within firm
When	85% 11% 79%	Within the last year between 1 and 2 years ago Carried out environmental audits on an ongoing basis.

(Source: Coopers & Lybrand Consultants, 1991.)

In Australia, the NSW Environment Protection Authority is considering the adoption of the environmental auditing. In November 1995, it published a Discussion Paper entitled "Development of a Comprehensive Scheme of Environmental Audits", but there is no specific definition of environmental audit proposed in this Discussion Paper.

As pointed out earlier, the majority of environmental audits undertaken in Australia are voluntary, not mandatory. There have been few statutory audits except in Victoria, which has the provision to require environmental auditing by legislation. However, as the Victorian statutory environmental auditing process is fairly narrow in its application (covering site contamination audits and process audits), it has not found wide acceptance in other states in Australia.

From the government's perspective, regulatory agencies encourage environmental auditing on the understanding that it promotes better environmental performance in the industrial and commercial community and hence achieves goals of sustainable development with less application of government resources they might otherwise be needed. Regulatory agencies may also use environmental auditing to accomplish quasi-statutory ends (at the expense of the entities audited) which it would otherwise have carried out itself, (eg, effectively to extend compliance activities and to provide some additional assurance to the public that the environmental performance of industry is sound) (Court, 1992). Environmental auditing can thus provide a useful source of environmental information to both government and private sector which could assist in environmental management generally.

To the extent that economic instruments become increasingly important in environmental management (Buckley, 1991a; Clarke *et al.,* 1994), environmental auditing could take on some aspects of the role of financial auditing, in that

monitoring data may become the principal criterion for determining charges to be levied.

As public concern about the environment has grown markedly over the last few years, leading to tight legislation on environmental impacts, the provision for environmental audit legislation in Australia is expected to be contained in new legislation prepared for Queensland and South Australia. In Tasmania and New south Wales, similar legislation is under review and policies for audit are being prepared in the Northern Territory and Western Australia (Cavendish, 1993).

Although each State has, or will have, legislation applying to environmental auditing, the legislation does not necessarily cover a wide range of environmental situations, and therefore , the mere provision of environmental auditing cannot guarantee that it will be useful. As Cavendish (1993) points out, governments in Australia currently use environmental audits fairly narrowly and thereby miss the opportunity it offers in managing environmental issues more effectively.

2.3. Sustainable Tourism Development and Environmental Auditing

2.3.1 Evolution of Concern for Sustainable Tourism Development

Since proposed by the World Commission on Environment and Development in 1980, the concept of sustainable development has been accepted universally. It ensures that the use of environmental resources to meet current needs is managed so as not to damage those resources for future use.

> Sustainable development is a process which allows development to take place without degrading or depleting the resources which make the development possible. This is generally achieved either by managing the resources so that they are able to renew themselves at the same rate which they are used, or switching from the use of a slowly regenerating resource to one which regenerates more rapidly. In this way, resources remain able to support future as well as current generations.
>
> (McIntyre, 1993:10)

The concept of sustainable development was first presented as part of the *World Conservation Strategy* in 1980. This defined conservation as "the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations"(IUCN, 1980: 16). The concept was further endorsed and strengthened in 1987 when the World Commission on Environment and Development released *Our Common Future* (the Bruntland Report). The central thrust of the Bruntland report was to promote sustainable development which is designed as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987: 49). The report also made it clear that the world's current pattern of economic growth is not sustainable. It can be seen from this that sustainable development is a broad concept which encompasses economic objectives (e.g. efficiency, prosperity), social objectives (e.g. equity, social justice) and environmental objectives (e.g. sustainable management of natural

resources). It requires the integration of social, environmental and economic factors in decision making at all levels and across all sectors. The way in which the concept is applied will differ between countries, regions and localities depending on the particular conditions and values which exist there.

Sustainable development was further given impetus by the United Nations Conference on Environment and Development (UNCED), or Earth Summit, held in Rio de Janeiro, Brazil in 1992. The Rio Declaration on environment and development sets out 27 principles which provide the context for sustainable development. These represent the bases for implementing Agenda 21, an agreed plan of environmental action for the 1990s and into the 21st century. Agenda 21 is a non-binding document, but it is intended that its implementation will be monitored by the United Nations. Agenda 21 provides a common framework of action for all countries to achieve sustainable development. Each country has a responsibility to translate this framework into action at national and local levels.

The World Conservation Strategy, the Bruntland Report and Agenda 21 made little specific reference to tourism resources and tourism development. However, given that tourism is dependent upon the maintenance of natural and cultural environmental processes for both survival, and its significant importance, the concept of sustainability is of immediate relevance. Clearly, the concept of sustainable development offers some important principles and goals to help make tourism more viable. At the international level, although the development of environmentally sustainable tourism policy has lagged behind other environmental policy areas

(Farrell, 1987), attempts to link conservation and tourism were being forged in the 1970s (Romeril, 1989). The most comprehensive international statement is the World Tourism Organisation's Manila Declaration on tourism in 1980. The Manila Declaration adopted on the goals of tourism, emphasising the importance of both natural and cultural resources in tourism and the need for conservation of these resources for the benefit of both tourism and the residents of tourism areas (WTO, 1980).

Following the Manila Declaration, the Joint Declaration of the World Tourism Organisation (WTO) and United Nations Environment Program (UNEP) formalised interagency co-ordination on tourism and the environment in 1980 (Inskeep, 1991). These documents recognised the importance of sustainable tourism development and proposed some important initiatives for sustainable tourism development. Since then, the concept of sustainable tourism development has been given increasing emphasis internationally. An Action Strategy for Sustainable Tourism Development was formulated by the Tourism Stream of Globe' 90, a sustainable development conference held in Canada in 1990. The sustainable approach for tourism development was further elaborated and actions were taken on fundamental environmental and developmental issues at the global level.

In Australia, a significant initiative was the Commonwealth Government's Ecologically Sustainable Development Working Groups process. Of particular relevance was the Final Report on Tourism in 1991, which outlines the role and structure of the tourism industry in Australia. The environmental, social and cultural

impacts of tourism are analysed and the characteristics of an ecologically sustainable tourism sector are examined. More importantly, the Report developed the ESD principles which apply directly to tourism, reviewed the existing policy, and further developed a range of policy recommendations. It found that, although the current practice in managing tourism had led to a depletion of national resources, tourism could exist on a ecologically sustainable basis in Australia. The production of this report and the initiation of the policy process reflect growing links in segments of the Australian community between the ideas of sustainability and tourism. This association is evidence of concern about the ability to recognise that most tourism in Australia is and will continue to be based on "the very unspoiled nature of Australia's natural features", and that "the industry to a large extent depends on maintenance and proper management" (ATIA, 1989).

The Australian tourism industry itself has also taken steps to ensure that the concept of sustainable development is taken into account. Before the ESD process had reached its culmination in 1989, the Australian Tourism Industry Association (ATIA) established its own environmental committee and launched a Code of Environmental Practice in 1990. The Code marked "the beginning of an education process to demonstrate to the industry that good environmental management equals good general management, and is necessary for the long term viability of the Australian tourism industry" (Australian Tourism Industry Association, 1990). Subsequently, the Australian Tourism Industry Association (ATIA) used the Code as a framework to develop a set of environmental guidelines for tourist developments. There were two factors prompting ATIA to take these steps. First, was concern to maintain a

sustainable industry, and recognising that significant environmental damage would reduce the attraction of tourist sites with a consequent reduction in tourist numbers. Secondly, ATIA considered it should be attempting to maximise the reputation of tourism as an ecologically sustainable and responsible industry. The environmental guidelines are comprehensive and enlightened. Both Code and Guidelines provide the tourism industry with a framework within which sustainable tourism is encouraged.

2.3.2 Definition of Sustainable Tourism Development

Since sustainable tourism development is a relatively recent concept, its definition will undoubtedly continue to evolve in the future. However, as stated above, a number of studies and conferences have examined its definition. The notions put forward in *Our common future* and *Agenda 21* have been used in contributing to the definition of sustainable tourism development. A number of terms which to some extent equate with sustainable tourism, have emerged. These include "alternative tourism" (Pearce, 1989; Smith et al.,1992; Butler, 1990), "green tourism" (Pigram and Ding, 1994), and "ecotourism" (Boo, 1990). Although the names are different, all seek to ensure the "long-term viability and quality of both natural and human resources" (Bramwell and Lane, 1993). In Globe' 90, the idea of sustainable tourism development is thought of as meeting the needs of present tourists and host regions while protecting and enhancing opportunities for the future (Globe' 90, 1990). It also states the goals of sustainable tourism development as:

- To develop greater awareness and understanding of the significant contributions that tourism can make to the environment and the economy;
- To promote equity in development;

- To improve the quality of life of the host community;
- To provide a high quality of experience for the visitors; and
- To maintain the quality of the environment on which the foregoing objectives depend.

(Inskeep, 1991:401).

McIntyre (1993) also proposed a definition for sustainable tourism in which it is defined as a model of economic development that is designed to meet the same goals as outlined in Globe' 90. However, according to Butler (1993b), the definition of sustainable development in the context of tourism is different from sustainable tourism, he goes on to define the latter as:

> ...tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and well-being of other activities and processes.
>
> (Butler, 1993b: 29)

In short, sustainable tourism may thus be defined as tourism "is in a form which can maintain its viability in an area for an indefinite period of time" (Butler, 1993b: 29).

Clearly, Butler's definition is more comprehensive and explicit. It should also be noted that sustainable tourism is a positive approach intended to reduce the tensions and

friction created by the complex interactions between the tourism industry, tourists, the environment and the communities which are host to tourists. As such, it involves working for the long-term viability and equality of both natural and human resources (Bramwell *et al.*, 1993). However, although the definitions are different, they all share the same goal which seeks to ensure that tourism development is sustainable in the long term.

2.3.3 Principles of Sustainable Tourism Development

Although the historical development and definition of sustainable tourism have been discussed, it is important also to understand the implications of the principles of sustainable tourism development in order to implement and achieve sustainability. There have been many publications dealing with the principles of sustainable tourism development which can be applied to tourism at international, national and regional levels. In the international level, Globe' 90 first set out some principles of sustainable tourism development as basic guidelines for the tourism planners which are also endorsed by WTO's (1993) publication "Sustainable tourism development: Guide for Local Planner".

The Bruntland Report's blueprint for sustainable development requires that directions in policy, economics and technology become consistent with resources use and management strategies. Following this point, the Australian Government's ESD Working Groups, in the Final Report on Tourism, present some general principles which apply directly to tourism:

- Improvement in material and non-material well-being

- Intergenerational and intragenerational equity;
- The protection of biological diversity and the maintenance of ecological processes and systems; and
- The global dimension

(ESD Working groups, 1992)

From the above statements, it can be seen that there are some overlaps among these principles, and there are differences of emphasis and priority. However, there is core agreement that sustainable tourism development can fulfil economic, social and aesthetic needs while maintaining cultural integrity and ecological processes. It can thereby provide for today's hosts and guests while protecting and enhancing the same opportunities for the future.

2.3.4 Major Characteristics of Sustainable Tourism Development

The fundamental principles discussed above provide the framework within which the characteristics of sustainable tourism can be identified. Atherton (1993) presents what he sees as some unique challenges and opportunities for sustainable tourism:

- Tourism demand is proportional to the quality of the environment of the destination;
- Tourism is often a more sustainable use of natural resources than more obviously consumptive industries such as mining, logging, hunting and the like;
- Tourism increases the population of the destination and some tourist activities are not sustainable;

- Properly managed, tourism can be a powerful force for the conservation of our natural and cultural heritage;
- Sustainable tourism has become a cult for tourists and destinations alike under the guise of ecotourism.

  (Atherton, 1993:2)

Sustainable tourism calls for the endorsement of forms and scales of development which do not carry the risk of irreversible outcomes and which do not impose unacceptable costs on future generations. Sustainability implies ongoing concern for the maintenance of those environmental qualities which attract and give satisfaction to visitors (Pigram and Ding, 1994). In this sense, in Australia, the ESD Working Group elaborated on the characteristics of sustainable tourism and suggested that tourism will move towards sustainability if it:

- develops in accordance with the wisest use of environmental resources and services at the national, regional and local levels;
- operates within the biophysical limits of natural resource use;
- maintains a full range of recreational, educational and cultural opportunities across generations;
- maintains biodiversity and ecological systems and processes; and
- develops in a manner which does not compromise the capacity of other sectors of the economy to achieve ecological sustainability.

  (ESD Working Groups, 1991:41-42)

It is quite apparent that more and more industry operations, government agencies and communities are recognising the value of sustainable tourism development and are co-operating in efforts to set up environmental guidelines for sustainable tourism development.

2.3.5 Implications of Environmental Auditing for Sustainable Tourism Development

Although the concept of sustainable tourism development is generally accepted, there remain a number of questions. "How it can be implemented, ... What does it entail in practice for tourism firms and organisation? What constitutes good environmental practice by the tourism industry and how can tourism firms and organisations monitor their activities in this context?..., given the loose and fragmental structure of the tourism industry" (Goodall, 1992:61). Pigram and Ding (1994) also raised similar questions and stated "convincing developers and operators of the merits, both environmentally and commercially, of adopting a sustainable approach to tourism can be elusive" (Pigram and Ding, 1994:4)

Fortunately, sustainable management of tourism industry has started to become a process shared between responsible industry and government. From the government aspect, in the *Final Report on Tourism,* the ESD Working Groups stressed the issue of the effectiveness of regulatory instruments in providing environmental protection in the tourism industry. The Report acknowledged the importance of regulatory instruments in stating:

> As a general principle, regulatory controls which are framed in terms of performance criteria are preferable. This is because they provide flexibility for developers and operators to adopt the most cost-effective means to achieve environmental objectives and more readily accommodate technical advances.
>
> (ESD Working Groups, 1991:90)

There is a range of regulatory techniques and procedures which would be applicable to sustainable tourism development. These involve close interplay between law, policy and management. Here, it should be noted that the Australian Government favours tourism industry self-regulation. The Government's overall objective is to minimise regulations impeding industry growth and to create a framework for the development of a productive and efficient industry while still protecting the public interest. Government regulation should only occur where there is a demonstrated need, for example, to ensure safety or environmental protection (Commonwealth Department of Tourism, 1993). The ESD Working Groups also recommended that:

> As part of the development approval and EIA process, a post-development **environmental audit** program be introduced;
>
> .....
>
> Industry codes of environmental practice continue to be developed, implemented and reviewed, and that industry performance in implementing such codes be **audited.**
>
> (ESD Working Groups: 1991:103, 116)

It is clear that environmental auditing has now been recognised as a means of measuring effectiveness of regulation by the government agencies.

There is growing evidence that tourism developers and operators are opting for self-regulation in their efforts to achieve environmentally compatible and ecologically sustainable forms of tourism. As discussed earlier, the Australian Tourism Industry association (ATIA) launched a Code of Environmental Practice and Environmental Guidelines for Tourism Developments for the Australian tourism industry. However, there is no mechanism to ensure that industry performance in implementing the Code and guidelines have been audited. In other words, their effectiveness has not been tested. Therefore, environmental auditing should be essential element of the ongoing monitoring of environmental performance for the tourism industry to achieve the objectives of sustainable development.

In the context of tourism, the principal objectives of environmental auditing are to identify and develop the environmental compliance status of tourist developments and operations, and to provide an effective means of monitoring the sustainable performance of the tourism industry. Environmental auditing provides a useful picture of the environmental status of tourism facility and a ready means for self-regulation of its environmental performance.

2.4. Conclusion

This chapter has provided an introduction of the history of environmental auditing. Attention was focused on key concepts such as environmental impact assessment,

environmental auditing and sustainable tourism development, and the relationship between these concepts. The chapter also provided an outline of the significance of the concept of environmental auditing and sustainable tourism development in Australia. Definitions of environmental auditing and sustainable tourism development were identified, and the implications of environmental auditing for sustainable tourism development in Australia were stressed. The major conclusion drawn in this chapter is that environmental auditing, whether required by regulation or legislation, or initiated by tourism industry, can be a useful environmental management tool to help achieve sustainable tourism development in Australia. Assessment of likely environmental impacts prior to approval of new tourism developments is a necessary and useful procedure. However, environmental auditing is now seen as an important aspect of the ongoing monitoring of the environmental performance. In the following chapter, the interaction of tourism and environment is briefly discussed, and the impacts of tourism as an important component of an environmental auditing program, are further explored.