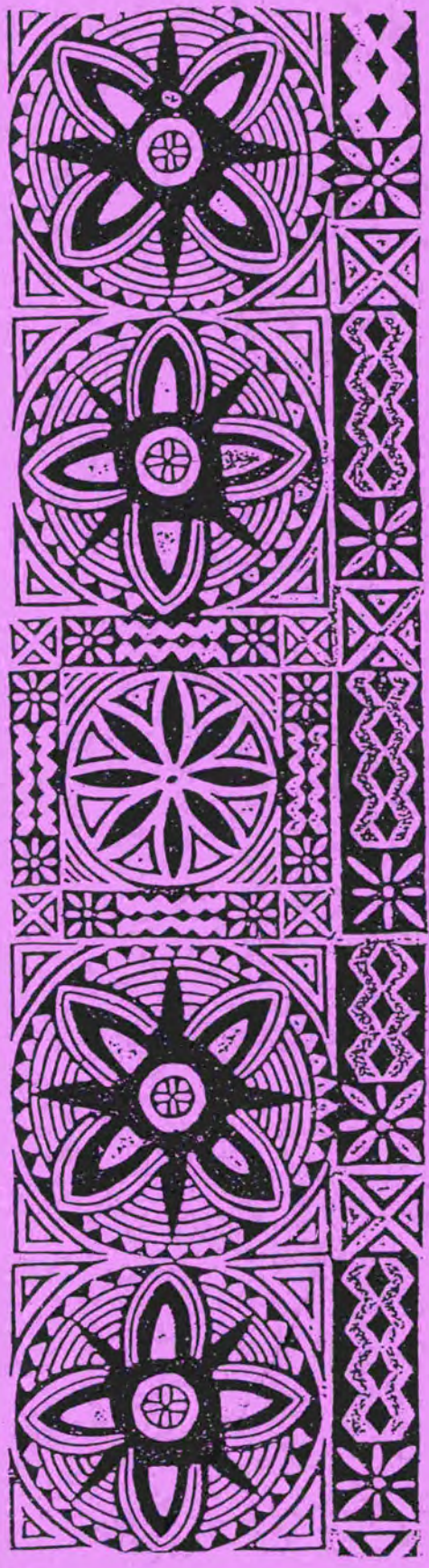

South Pacific Regional Environment Programme

Regional Environment Technical Assistance (RETA) 5403

Strengthening Environment Management Capabilities in Pacific Island Developing Countries

Kingdom of Tonga

Review of Environmental Law

by Mere Pulea

1992

With assistance from the Asian Development Bank, IUCN - The World Conservation Union and the Australian Centre for Environmental Law

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IUCN
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ACEL
AUSTRALIAN CENTRE FOR ENVIRONMENTAL LAW

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FOREWORD

This Review of Environmental Law in the Kingdom of Tonga has been implemented as an important component of the Regional Environment Technical Assistance (RETA) Project. The RETA project has been developed to address environmental issues in a number of Pacific countries. It has been funded by the Asian Development Bank and carried out with technical assistance from IUCN - the World Conservation Union. The RETA project is an important regional initiative, which reflects the need for careful management of the Pacific environment.

Pacific Islanders have lived in close harmony with their island environments for thousands of years and are well aware of its importance to their way of life. Pacific peoples face the complex challenge, in common with many other countries of the world, of integrating economic development with the need to protect the environment. This is the primary aim of sustainable development, and must be addressed if the Pacific way of life is to survive.

The introduction of appropriate legislation represents one important means by which sustainable development can be achieved in the Pacific. A fundamental first step is the identification and review of existing environmental legislation in each Pacific country.

The Review of Environmental Law of the Kingdom of Tonga contained in this publication is indeed timely. It has identified the principal laws relating to the environment and to natural resource management. These laws have then been reviewed in terms of their effectiveness in addressing the major environmental issues existing in the country. The research has had a particular focus on the development of practical recommendations that build on the findings of the Review.

This Legal Review is an important step along the road to improved environmental management in the Pacific region. It is important to build on this base in order to ensure that environmental law reflects the unique needs and circumstances of each Pacific country. It is also important that this law reflects, and where appropriate, incorporates, customary laws and practices that relate to environment protection.

The Review forms part of a series of five Legal Reviews; the other countries reviewed are the Federated States of Micronesia, the Republic of the Marshall Islands, the Cook Islands and Solomon Islands.

This and the other four Legal Reviews have been supported by the Environmental Law Centre of IUCN - the World Conservation Union. I would like to thank the Centre for its financial and technical assistance. I would also like to pay tribute to Ms Mere Pulea, who prepared this Review and the Review for the Cook Islands. In addition, the work of Ms Elizabeth Harding, who prepared the Reviews of Environmental Law in the Republic of the Marshall Islands and in the Federated States of Micronesia, and Professor Ben Boer, who prepared the Review of Environmental Law in Solomon Islands, and who was responsible for coordinating and editing the five Reviews, should be recognised here.

Vili A Fuavao
Director
South Pacific Regional Environment Programme

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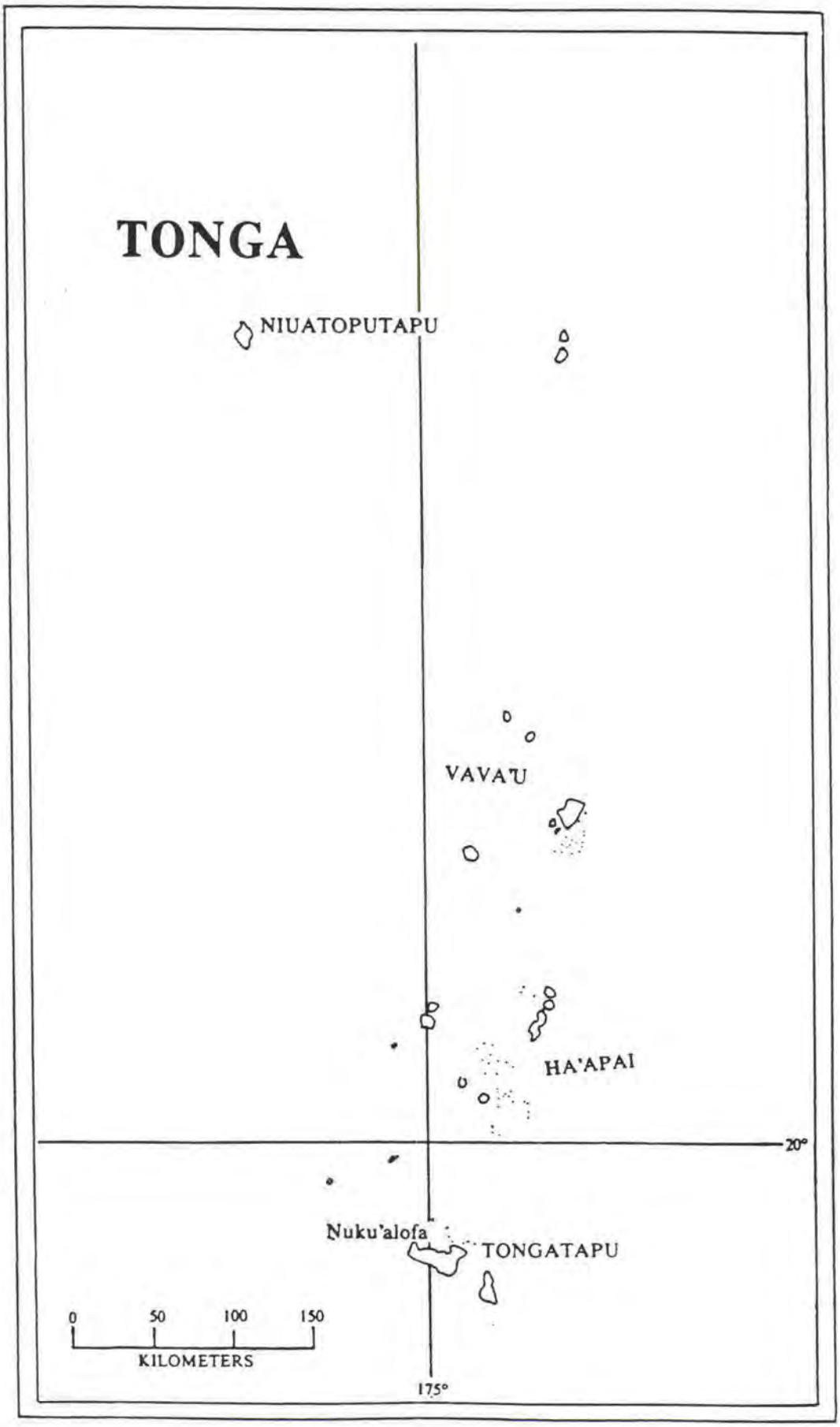
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Contents

PRINCIPAL SUGGESTIONS AND RECOMMENDATIONS

CHAPTER FOUR

Physical Planning and Assessment

1. It is recommended that an independent assessment be made of the proposed *Land Use, Natural Resources and Environment Planning Bill* to identify and segregate those elements of the Bill that are currently unacceptable and to propose alternative measures to achieve the aims and purposes of the Bill.

2. As the *Land Use, Natural Resources and Environmental Planning Bill* contains provisions for EIAs, it is recommended that, in the interim, EIA Guidelines be developed to secure the integration of environmental measures in the decision making process for projects. It is further recommended that the Guidelines be implemented by the Environmental Planning Section until the status of the proposed is determined.

CHAPTER FIVE

Agriculture

3. It is suggested that environmental factors should be taken into account during inspections carried out in connection with applications for an agricultural leases.

4. It is suggested the Pesticides Act, reviewed in detail by David Lunn, be again reviewed by the Government with a view to implementation. The suggestions made by Lunn to improve the legislation are supported.

5. It is recommended that all existing laws regulating agricultural activities be reviewed:

   (a) to ensure environmental protective measures e.g. soil conservation, are made an integral part of the agricultural system;

   (b) to ensure that old Acts are brought into line with new policies on the environment.

CHAPTER SIX

Forestry

6. It is recommended that nature reserves be considered as a separate category within the forest system and that the *Forests Act* be amended accordingly.

7. It is suggested that clear distinctions be made in the *Forests Act* between those categories of forests that are reserved for economic and commercial reasons and those forests where timber harvesting is prohibited for environmental and conservation reasons.

8. It is recommended that EIA provisions be included within the *Forests Act*.

9. It is recommended that regulations be enacted under the *Forests Act* and in particular those measures that relate to forest conservation and protection, and fire prevention and control.

CHAPTER SEVEN

Fisheries

10. It is recommended that the protection of whales under the repealed Whaling Industry Act be incorporated in the proposed *Fisheries Regulations*. It is further recommended that consideration be given to a stand-alone legislation to protect marine mammals such as a *Marine Mammal Protection Act*.

11. It is suggested that legislative mechanisms be considered to regulate whale watching.

12. It is recommended that specific protection be considered for turtles in the *Fisheries Regulations*.

13. It is recommended that the prohibition with respect to fish fences, fish traps and trawling in the protected areas be not overlooked in the *Fisheries Regulations*.

CHAPTER EIGHT

Mines and Minerals

14. It is recommended that the *Minerals Act 1949* be reviewed for the purpose of enacting amendments to incorporate environmental controls, such as a requirement for EIAs.

15. It is recommended that the recommendations made in the *Environmental Management Plan for Tonga* (ESCAP, 1990) with regard to exhausted quarries be given consideration with a view to implementation.

CHAPTER NINE

Water Supply and Water Quality

16. It is recommended that legislation be considered to clearly detail the responsibilities of the Ministry of Land, Surveys and Natural Resources to control and protect water resources.

17. It is suggested that the recommendations made in the *Tonga Water Supply Master Plan* to improve the present institutional arrangements and to amend the legislation should be considered with a view to implementation.

CHAPTER TEN

Waste Management and Pollution

18. It is recommended that categories of waste be specifically defined e.g abandoned motor vehicles, wrecks, hazardous wastes with stringent controls imposed over disposal facilities such as sludge dykes and dumping grounds.

19. It is recommended that the *Public Health (Dumping Grounds) Regulations* be amended to include the requirement for an environmental impact assessment to be carried out before a dumping site is declared and that restoration measures be made a specific requirement when a disposal site is declared closed.

20. It is recommended that consideration be given to the enactment of a *Hazardous Materials Act.*

21. It is recommended that Regulations to the *Public Health Act* be expanded to include more control with regard to securing the waste disposal sites from animals and unauthorised human intrusions.

22. It is recommended that the traffic regulations be amended to include the control of emissions from vehicle exhaust outlets.

23. It is recommended that the *Marine Pollution Bill* be given urgent consideration with a view to implementation.

24. It is recommended that an Act specifically dealing with litter be considered. Littering in public places such as streets, public grounds, shopping areas and other public places should be made an offence.

CHAPTER ELEVEN

Biodiversity Conservation

25. It is recommended that consideration be given to enacting regulations authorised by the Act.

26. It is recommended that entrance fees for Parks and Reserves recommended in the 1990 *Report on Environmental Management for the Kingdom of Tonga* be considered.

27. It is recommended that a continuing public education programme on Parks and Reserves and the participation of landowners in the management of Parks and Reserves be considered.

28. It is recommended that further legal opinion be sought with a view to the possible redrafting of section 11 of the *Parks and Reserves Act.*

CHAPTER TWELVE

Wildlife Conservation

29. It is recommended that the list of protected birds be updated.

30. It is recommended that consideration be given for the Kingdom of Tonga to become a party to the *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).*

31. It is recommended that the penalty system under the Act be revised and strengthened and that imprisonment on conviction be made part of the penalty system.

32. It is recommended that the title and substance of the *Birds and Fish Preservation Act* be amended to include animals.

CHAPTER THIRTEEN

National Heritage

33. There should be a separate *Protection of Antiquities and Artifacts Act*, and an *Historic Places Protection Act*. Alternatively, a separate comprehensive *Heritage Protection Act* should be considered, which would cover all categories such as antiquities, artefacts, sites of special cultural and spiritual significance and historic places.

34. There should be greater protection for archaeological sites. Provision needs to be made for the protection of all archaeological sites as a primary objective of the legislation. While archaeological examination and excavation must also be provided for, the legislation must set out clear guidelines. A register of archaeological sites should also be established.

35. The inclusion of heritage protection in planning legislation should "dovetail" with any existing or future heritage protection legislation.

It should be noted that in the Environmental Management Plan for the Kingdom of Tonga at page 165 it is recorded that the Preservation of Objects of Archaeological Interests Act was reviewed by Spennermann (1987) and judged inadequate. Recommendations were made to amend the Act to strengthen its effectiveness. However it was not possible to obtain a copy of that report and recommendations during the course of this Review.

ACKNOWLEDGEMENTS

This Review would not have been possible without the advice of a number of resource persons in the various Ministries and Departments. In addition, the advice and assistance of Professor Ben Boer, Corrs Chambers Westgarth Professor of Environmental Law, University of Sydney and Team Leader of the RETA Legal Reviews, my colleague, Mr. Warren Sisarich, lawyer, New Zealand Department of the Environment and his contributions particularly to the chapters on land, fisheries, protected areas and wildlife protection, are gratefully acknowledged. The assistance and support of the Environmental Planning Section, Ministry of Land, Surveys and Natural Resources for coordinating the project is also gratefully acknowledged. I alone am responsible for the deficiencies in this Review.

CHAPTER ONE

1. Introduction

This Legal Review of Environmental Law in the Kingdom of Tonga was carried out in Tonga from 7 to 22 April, 1992. The Review is part of the Regional Environmental Technical Assistance (RETA) project which is designed to strengthen environmental management capabilities in the Pacific developing countries. RETA has been coordinated by the South Pacific Regional Environment Programme. It has been largely funded by the Asian Development Bank (ADB). Other inputs to the RETA project came from the World Conservation Union (IUCN) and the East West Centre. This Legal Review has been funded by the World Conservation and coordinated through its Environmental Law Centre in Germany. In Tonga, the project was coordinated by the Ministry of Land, Surveys and Natural Resources.

The purpose of this Review is to collate information and summarize the current legal provisions regarded as environmental law within the Laws of Tonga, to discuss key environmental issues, to propose alternatives, and to make recommendations to enhance the environmental provisions where gaps are found.

Environmental law in Tonga is not codified in one single comprehensive statute, perhaps mainly due to the slow pace of development of the law in this area. However, there have been various proposals to improve the environmental provisions by a number of pieces of legislation. Environmental provisions are found scattered through a range of legislation such as that providing for public health, land, fisheries and water. The oldest source is the public health laws. The changing nature of environmental law and the scale of environmental problems have presented particular challenges and difficulties - one being that of costs, particularly technical and scientific.

This Review is essentially concerned with law. A broad definition of environmental law has been chosen which includes law concerned with the physical environment and natural resources and those laws which facilitate the sustainable development of natural resources. The public health laws which address nuisances and direct threats to health are considered to be no longer adequate to protect the environment. A distinct body of law recognised as 'environmental' is emerging to protect not only human health but the very systems which sustain life and to address the needs of future generations.

1.1 Sustainable Development

Achievement of sustainable development requires the implementation of a range of legal strategies which update the current body of law. Law has the capacity to promote the maintenance of ecological processes of life support systems, the sustainable utilization of species and the preservation of genetic diversity. The report of the World Commission on Environment and Development, *Our Common Future* (WCED 1987, also known as the Brundtland Report) defines sustainable development as:

> development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (WCED 1987:43).

A legal framework for implementing environment and development policies should provide a balance between the needs of conservation of the environment and the demand for economic and social development.

It is, therefore, clearly important that an assessment of existing legislation be made to evaluate the adequacies and inadequacies of current legal provisions before positive environmental policies can be formulated and conservation and natural resource laws can be strengthened in line with current awareness and knowledge of environmental issues and

international environmental strategies. The Review also highlights the problems and the country's capacity to implement the existing and future developments of its environmental laws.

1.2 Sources of Information

A number of reports have been relied on to provide information, notably the Environmental Management Plan for the Kingdom of Tonga (ESCAP 1990) which outlines current environmental problems and proposes possible solutions. Interviews carried out with personnel of the various Departments and Ministries supplement the information found in the Environmental Management Plan and other papers and reports mentioned in this Review. Recommendations have been made to the effect that environmental concerns be reflected in Tonga's current legislative framework. The implementation of environmental protection measures is not only confined to legal mechanisms. For example, environmental conditions imposed as part of a leasing and licensing system has for example enormous potential and needs to be kept in view.

Tonga's five yearly Development Plans outline the national development, social and environmental objectives to be pursued and achieved through each Plan period. For example, the *Sixth Development Plan* (1991-1995) sets out the Government's objectives with regard to natural resources as follows:

- to improve the pattern of land allocation among competing uses or activities such as settlement, agriculture, mineral resources exploitation, industry and tourism;

- to safeguard the natural resources and heritage of the Kingdom, preserve the social and cultural functions that relate to the environment, and enhance the contribution of natural resources to economic and social progress;

- improve the management of natural resources in order to attain optimum levels of exploitation, and allow sustainable development (page75).

Environmental policies, and the awareness of the need to balance these with economic development, have emerged through several avenues. Most notably, Tonga's significant contributions to, and active participation in, international and regional environmental fora and the establishment of the Environmental Planning Section within the Ministry of Land, Surveys and Natural Resources. A number of sectoral studies on environmental issues carried out by nationals as well as personnel from other organisations (e.g. SPREP) have contributed significantly to an understanding of national environmental issues. Solutions proposed in such studies often require Government-administered programmes to ensure that the environmental initiatives are carried out effectively.

1.3 Scope of the Review

Within the scope of this Review, laws which are regarded as part of environmental law include:

- natural resource legislation (forestry, fisheries, mining and water);

- laws affecting the various aspects of planning and development; and

- those laws which provide for the protection of national heritage and wildlife.

A section on land tenure has been included in this Review to provide some understanding of its inter-relationship with laws designed to protect and conserve the environment.

As already mentioned, environmental legal provisions are scattered throughout a range of legislation and administered by a number of Ministries and Departments. The Environmental Planning Section located within the Ministry of Land, Surveys and Natural Resources is regarded as the leading institution in environmental matters. The Ministry requires the Section administer its environmental programme jointly with other Departments which have legal sectoral environmental responsibilities as part of their function. The shared environmental responsibilities depends upon a cooperative relationship, there being no legal obligations for these various Departments to consult with the Environmental Planning Section, or with one another, on environmental matters. In some areas there are overlapping responsibilities such as those found relating to water. The Water Supply Master Plan Project 1991 is an important initiative to alleviate the overlapping responsibilities and provide a more effective system of environmental controls to protect this most important resource.

1.4 Proposed Bill

The *Land Use, Natural Resource and Environment Planning Bill*, proposed through the Ministry of Land, Surveys and Natural Resources has been designed to put in place a framework for land use planning to regulate proposed new developments. The Bill has been revised more than once and is awaiting further review.

Conceptually, sustainable development, land use planning, and economic and social development need not be viewed as being in conflict. The end result is to enhance the quality of life, allow for orderly development and safeguard the environment. *Agenda 21*, adopted at the 1992 United Nations Conference on Environment and Development (UNCED), seeks to ensure the integration of economic, social and environmental considerations in decision making not only at all levels but also in all ministries (page 92). Governments are also urged, in cooperation with international organisations where appropriate, to:

> adopt a national strategy for sustainable development based on, inter alia, the implementation of decisions taken at the Conference, particularly in respect to *Agenda 21*. This strategy should build upon and harmonize the various sectoral economic, social and environmental policies and plans that are operating in the country. The experience gained through existing planning exercises such as national reports for the Conference, national conservation strategies and environment action plans should be fully used and incorporated into a country-driven sustainable development strategy. (page 94)

Any land use planning must take into account public interest factors, such as the allocation of good agricultural land for food production, the setting aside and zoning of land for housing development, industry, transport systems and for safeguarding environmentally sensitive areas, wildlife habitat and nature reserves. Development without proper planning controls may not only result in damage to the environment and the destruction of fragile ecosystems but could also lead to the kinds of haphazard development where for example, noxious trades are found in residential areas or close to lagoons - in both cases, resulting in unacceptable conditions for the population in the area. The importance of economic growth and its dependence on all kinds of development must be carefully balanced with environmental protection strategies.

The proposed Bill provides a framework for development planning which aims to prevent the making of arbitrary land use decisions. Any proposal to develop land or change its uses must be considered within the guidelines set by Government and the law. The proposed Bill includes "Planning Schemes" as a key component. Planning Schemes, in

defined areas, must take into account land uses and the characteristics of the area as a whole and provide guidelines for future development in that area. Details are provided in the Bill for the preparation of planning schemes. Part VI of the Bill provides for Development Applications and the detailed information required for Environmental Impact Assessment (EIA). Procedures are also set out for objections by persons whose rights are affected by any proposed development and other matters that must be taken into account in assessing an application. Further requirements for environmental protection can be brought into effect by way of Regulations contained in Part V of the Bill.

The proposed Bill is fundamentally sound and, with suitable amendments, will provide a framework to satisfactorily regulate development. Provisions in the Bill will ensure efficient land use and the enhancement of the environment brought about by the preservation of amenities, historic buildings, sites and landscapes as part of the national heritage. The proposed Bill is one way to ensure that the legal system assists in the protection, conservation and preservation of the environment.

CHAPTER TWO

CONSTITUTIONAL AND ADMINISTRATIVE STRUCTURE

Constitutional and Administrative Structure

2.1 Introduction

Tonga is the only remaining Kingdom in the Pacific. The prescribes a Constitutional Government under His Majesty King Taufa'ahau Tupou IV his heirs and successors (clause 31). The Government is divided into three bodies:

1. The King, Privy Council and Cabinet (Ministry)
2. The Legislative Assembly
3. The Judiciary" (clause 30).

The King appoints the Privy Council to assist him in the discharge of his important functions. The Privy Council is composed of the Cabinet, Governors and any others the King sees fit to call to the Council (clause 50). The Cabinet, or Ministers of the King, consists of the Prime Minister, Minister of Foreign Affairs, Minister of Lands, the Minister of Police and any other Ministers appointed by His Majesty. It is the King's prerogative to appoint Ministers and their office is held at the King's pleasure or for such time as specified in their commissions. A Minister may hold two or more offices (clause 51). There are two Governors appointed in the Kingdom - the Governor of Ha'apai and the Governor of Vava'u. Governors are appointed by the King with the consent of the Cabinet. The Governors hold office at the King's pleasure, and by virtue of their office, hold seats in the Legislative Assembly (clause 54).

2.2 Legislative Assembly

The Legislative Assembly is composed of the Privy Councillors and Cabinet Ministers, who sit as nobles, the representatives of the nobles and representatives of the people (clause 59). The Legislative Assembly determines how both classes of representatives are apportioned in various districts (clause 60). The representatives of the people are chosen by ballot, and anyone who is qualified to be an elector may be chosen as a representative, except those against whom a Court Order for the payment of debt is in force on the day the nomination papers are submitted to the Returning Officer (clause 65), or those convicted of a criminal offence punishable by a minimum of two years imprisonment, unless pardoned by the King (clause 23).

There are nine noble representatives to the Legislative Assembly, elected by the nobles, but any person who is insane, an imbecile or is disabled by criminal convictions (unless pardoned by the King) is not qualified to vote or be elected as a member of the Legislative Assembly (clause 23). By-elections are authorised by the Constitution on the death or resignation of a representative of the nobles or of the people (clause 76).

The Constitution makes a number of restrictions for those who can qualify to vote for the position of people's representative. Under clause 64, every Tongan subject who is male or female, aged 21 years or more (but is not a noble) and who pays taxes, can read and write and is not insane or an imbecile and is not disabled under clause twenty-three (i.e. convicted of a criminal offence punishable by a minimum of two years imprisonment) and on the day of the election is not further disabled by summons for debts, is qualified to vote.

Elections for all representatives of the nobles and the people are held once every three years, but the King at his pleasure may dissolve the Legislative Assembly before the expiry of three years and command that new elections be held (clause 77).

2.3 Judicial System

The Constitution provides for the establishment of the Judiciary. The judicial power of the Kingdom is vested in the Court of Appeal, the Supreme Court, the Magistrate's Court and the Land Court (clause 84). The Court of Appeal consists of the Chief Justice of Tonga and other judges appointed by the King with the consent of the Privy Council (clause 85). The Supreme Court consists of the Chief Justice and other judges sitting, with or without a jury. The appointment of the Chief Justice and other judges is made by the King with the support of the Privy Council (clause 86). The Supreme Court has jurisdiction in all cases in Law and Equity arising under the Constitution and the Laws of Tonga (except indictable offences where the accused elects to be tried by jury, and in cases concerning titles to land which are determined by a Land Court and subject to an appeal to the Privy Council) and all matters concerning Treaties with Foreign States and Ministers and Consuls and in all cases affecting Public Ministers and Consuls and all Maritime Cases (clause 90).

Appeals from the Supreme Court lie to the Court of Appeal (clauses 91 and 92) but a judge is prohibited by the Constitution to sit or adjudicate upon an appeal from any decision he or she may have given (clause 94). The *Court of Appeal Act* gives the Court of Appeal exclusive power and jurisdiction to hear and determine any appeal from the Supreme Court.

2.4 The power to make laws

The power to enact laws lies with the King and the Legislative Assembly, with the representatives of the nobles and the people sitting as one House. When the Legislative Assembly has agreed upon any Bill which has been read and voted for three times by a majority of the members, it is then presented to the King for his sanction and signature and becomes law upon publication (clause 56). The King can withhold his sanction to any law passed by the Legislative Assembly and the Constitution then prohibits the Legislative Assembly from discussing that particular law until the following session (clause 68). Laws concerning the King, the Royal Family, the titles and inheritance of nobles can only be discussed and voted upon by nobles of the Legislative Assembly. Any Bill relating to these matters must be passed three times by a majority of the nobles before it is submitted to the King for his sanction (clause 67).

The Constitution stipulates that "to avoid confusion in the making of laws, every law must embrace one subject at a time which must be expressed by its title (clause 81). A law remains in force until repealed by the Legislative Assembly. Where laws are found to be at variance with the Constitution, the Chief Justice is authorized to suspend any such law passed by the Legislative Assembly or the Privy Council until the next sitting of the Legislative Assembly (clause 82). When important and difficult matters arise, the judges are required to give opinions when requested to so by the King, the Cabinet or the Legislative Assembly (clause 93).

The Governors of Ha'apai and Vava'u do not have power to make laws but they are responsible for the enforcement of law in their Districts (clause 55).

Under the *Government Act 1903*, as amended, the King in Council is the highest executive authority in the Kingdom and the Prime Minister is responsible for carrying out the resolutions of the Privy Council (s 2). No laws can be passed or any important matter decided upon in the Privy Council unless there are 3 or more members presiding with the King (s 3). The King and the Privy Council may between the meetings of the Legislative Assembly, pass Ordinances:

(a) enacting regulations between meetings of the Legislative Assembly;

(b) suspending until the next meeting of the Assembly, any law at the request of the Chief Justice;

(c) giving effect to any Treaty arrangement made by Tonga with foreign countries (s 7).

The *Government Act* also provides for District Officers to make regulations for the governing of village plantations and other necessary matters relating to the welfare of the people of the village but the regulations will not become law until sanctioned by the Cabinet and confirmed by the signature of the Prime Minister (s 26). Any noble or chief holding a hereditary estate is authorised to make regulations for the people who reside on the hereditary estate of the noble or chief but the regulations must be given to the District Officer of the towns in that hereditary estate and the regulations will not become law until sanctioned by the Cabinet and confirmed by the Prime Minister (s 27).

2.5 Administrative Responsibility for Environmental Matters

2.5.1 Ministry of Lands, Survey and Natural Resources

The Ministry of Lands, Survey and Natural Resources is the main environmental policy-making body and works in close cooperation with a range of Ministries such as Health, Agriculture, Forestry, Fisheries and Central Planning.

Responsibility for environmental matters is concentrated in the Environmental Planning Section in the Ministry of Land, Surveys and Natural Resources. The Section, staffed by 5 members and 10 casual labourers, is headed by an Ecologist and Environmentalist. The 10 casual labourers assist the 2 appointed Park Rangers in the general maintenance of existing parks and reserves and the implementation of other field projects.

2.5.2 Other Government Ministries

Environmental responsibilities also lie with other Government Ministries such as the Ministry of Agriculture and Forestry (MAF). "Agriculture has always been the principal sector of the Kingdom's economy (and) it is the primary source of livelihood for over two thirds of the population" (*Sixth Development Plan* page 117). MAF is responsible for the exploitation and conservation of natural resources through the various Divisions of:

- Livestock, where the main area of responsibility is to improve nutrition through improved quality of livestock;

- Research, which concentrates on promoting appropriate crop and animal production technology with specific emphasis on biological and pest control programmes, the production of disease-free planting materials and the propagation of viable tree crop species; and

- Quarantine and Quality Management, which concentrates on the prevention of the introduction of plant pests or diseases from abroad and the quarantine or disinfection treatments for commodities (*Sixth Development Plan* page 119).

The Ministry has responsibility for providing agricultural extension services in areas outside of Nuku'alofa.

Most forest activity in Tonga is associated with agriculture. The objectives for forestry outlined in *Sixth Development Plan* are to promote balanced land use, emphasising the importance of trees for soil and water conservation, wood production, shelter and for other purposes (page 153). Although Tonga has a limited forest cover, there has been a long term commitment to establish an exotic plantation forest on the island of 'Eua. The Tokomololo Nursery in Tongatapu produces seedlings for domestic use by farmers, schools, churches and private individuals. The *Forests Act 1961* enables the King in

Council to declare forest reserves or reserve areas. Activities within forest reserves are regulated by the Minister for Agriculture and Forestry.

The Ministry of Fisheries, created in 1990 as a separate Ministry from the Ministry of Agriculture and Forests, has responsibility for the conservation, management and development of fisheries. The use of destructive fishing methods is regulated by a new *Fisheries Act*.

The Ministry of Health is responsible for public health, the management and control of sanitation and solid waste disposal, and together with the Village Water Committees, the monitoring of rural water supplies and water quality.

2.5.3 Inter-departmental Environment Committee

The Inter-departmental Environmental Committee (IDEC) was established during the Fifth Development Plan period (1985-90). The Ministries and Departments involved in IDEC are Lands, Survey and Natural Resources (Chairman); Health; Foreign Affairs; Agriculture; Forest; Fisheries; Public Works; Labour, Commerce and Industries; Central Planning and the Tonga Visitors Bureau.

To resolve some of Tonga's growing environmental concerns, IDEC was entrusted with the preparation of a comprehensive Environmental Management Plan with support from ESCAP. The Report published in 1990 describes the current environmental problems and proposes solutions. That Report has been relied on extensively for this Legal Review. IDEC has also been actively involved in making recommendations to Government as a result of the review of several proposals to import toxic and hazardous waste into Tonga.

CHAPTER THREE

LAND TENURE AND LAND USE

3.1 Introduction

The Kingdom of Tonga consists of 171 islands divided into three major island groups, the northern group (Vava'u/Niuas), the central group (Ha'apai) and the southern group (Tongatapu/'Eua). The islands, scattered in a broken chain over 362,500 square kilometres of sea, have a total land area of approximately seven hundred square kilometres.

The total population recorded in the 1986 census was 94,535 with an average annual growth rate of 0.49% during the period 1976-1986. The sharp decline in the rate of population growth since 1966 (1.51%) is largely due to the combined influence of lesser natural increase and heavy emigration (*Sixth Development Plan* page 61). Without this emigration the population would be far greater than stated above. However, emigration is expected to decline with general economic recession elsewhere. This will have far-reaching implications when considering the scarcity of land resources to support the population and for the conservation of resources for future use.

Fakalata points out that, "the pattern of distribution of population within the major island groups has also dramatically changed during the last four decades when people started to migrate to Tongatapu Island in the southern group for higher education" (Fakalata, page 1). Land, particularly in Tongatapu, is becoming increasingly scarce and land allocation in some environmentally sensitive areas such as mangrove swamps and lagoon areas is not uncommon. As this trend is not likely to change, a regime for environmental conservation, encompassing not only pollution control but also land use planning and the exploitation of natural resources on a sustainable basis, becomes imperative. As the issue of land allocation is central to the very existence of the population in small island states, the land tenure system has important implications for environmental management of natural resources. This chapter only provides a brief background of Tonga's land tenure system and land use.

3.2 Land Tenure

> The system of land tenure which has existed in the Kingdom of Tonga since the late nineteenth century differs in many respects from those of other parts of the South Pacific, its two most distinctive features being that land rights are granted solely to individuals, and that every taxpayer (that is, every male Tongan aged sixteen years and over) is entitled to eight and one-quarter acres of agricultural land and a small town allotment to build his house (Maude, et al, page 114).

This type of land tenure is unique in the Pacific and can be distinguished from other tenure systems where the control of land in such countries as Fiji, Cook Islands, and Vanuatu lie in the hands of the family or the community rather than the individual, as in Tonga.

Maude and Sevele (Maude, et al, page 115) state that the evidence available on traditional land tenure in pre-contact times is inadequate and sometimes conflicting and that much research remains to be done. They have however, summarised the development of the present land tenure system in an article titled "Tonga, Equality Overtaking Privilege" (Maude, et al, pages 118-119) and it is useful here to refer to their work. They state that while the exact nature of the traditional tenure system remains uncertain, the development of the present system, particularly as it exists in law, can be traced more reliably. The first major change in land tenure came in 1850 when George Tupou was finally established as the ruler of Tonga. The King claimed all land by right of conquest and in 1852 he told a meeting of the leading chiefs that 'No person has any title to lands in

these islands except by grant from the Government' (Amos 1852). The sale of land to foreigners was forbidden, but leasing was permitted under government control. By 1872, or perhaps earlier, this prohibition was extended to cover sales of land to Tongans. Thus since 1852 all land had legally belonged to the King and any unoccupied land also came under the control of the Crown.

Between 1875 and 1882, King George Tupou appointed a number of chiefs and matapules as virtual landlords of the districts where they lived and, in most cases, had traditional control. The King gave them power to lease land to their people and, with the approval of Cabinet, to foreigners. Some chiefs, however, were not granted estates and many areas remained under the control of the King. By the end of 1882, hereditary estates had been granted to thirty-six titleholders, thirty of them nobles, and six matapules who although given estates were not made nobles. Also, in 1882, each male Tongan of taxpaying age was granted a town allotment and a garden or 'tax' allotment by the holder of the estate on which he lived. Tax allotments of eight and one quarter (8.25) acres became hereditary in the male line. Thus by 1882, the basic principles of the present land tenure system had been established and major changes to the law concerning land since then have been few.

3.3 The Constitution

Part III of the Constitution deals with "The Land" and basically reaffirms the principles of land holdings established earlier. Clause 104 declares that "all land in Tonga is the property of the King and he may, at pleasure, grant to the nobles and titular chiefs or matapules one or more estates to become their hereditary estates". The Clause goes on to further declare:

> that it shall not be lawful for anyone at any time hereafter whether he be King or any one of the Chiefs or the people of this country to sell any land whatever in the Kingdom of Tonga but they may lease it only in accordance with this Constitution, and mortgage it in accordance with the *Land Act*. And this declaration shall become a covenant binding on the King and Chiefs of this Kingdom for themselves and their heirs and successors for ever.

"Land" is defined in the *Interpretation Act 1903*, as amended, to include "the hereditary estates of nobles and matabules, tax and town allotments, leaseholds and interests in lands of every description. The Royal Estates are not included within this definition.

There are several types of estates: Royal Estates belonging to the King; Royal Family Estates held jointly by the Royal Family; Hereditary Estates belonging to the nobles and a few matabules; and Government Estates under the direct control of the Minister of Lands. About sixty per cent of the population live on hereditary estates (Maude, et al, page 121).

3.4 The Royal Estates

Under the Constitution:

> The lands of the King and the property of the King are his to dispose of as he pleases. The Government shall not touch them nor shall they be liable for any Government debt. But the houses built for him by the Government and any inheritance which may be given to him as King shall descend to his successors as the property and inheritance of the Royal line" (Clause 48). The *Royal Estates Act 1927* as amended, provides for the distribution of estates amongst the members of the Royal Family.

Under section 10 of the *Land Act*, all lands other than those described in Schedule 1 are Crown land. The lands described in Schedule II are the Royal Estates for the use of the Sovereign and lands described in Schedule III are the Royal Family Estates. A life interest

in lands described in Schedule III may only be granted to a person appointed by the Sovereign (s 10(1)). The Sovereign may also grant leases, for projects of general public interest and benefit, of any land described in Schedule II and III (s 10(2)).

3.5 Hereditary Estates

All land is the property of the King, thus he may, at pleasure, grant to nobles and titular chiefs or matabules one or more estates to become their hereditary estates. Any land granted as a hereditary estate under the *Land Act* must descend to the lawful heirs of the grantee provided that the successor has not been convicted of an indictable offence, unless he or she has been pardoned. Insanity or being an imbecile will also adversely affect the rights of a successor under the *Land Act* (s 30). A holder of a hereditary estate will also lose title to land if convicted of an indictable offence or if he or she has been certified by a Medical Officer to be insane or an imbecile (s 37). On the death, conviction or certification of a holder, the Act requires the name of the successor to be gazetted. Within 6 months of the publication or, where the lawful successor is a minor, within 6 months after the date he or she attains the age of 21 years, the successor will be required to appear before His Majesty in the Privy Council and take the Oath of Allegiance (s 38).

Strict rules apply to determine successors to hereditary estates. A successor may inherit if born in wedlock and not declared insane. The inheritance descends to the issue of the deceased holder 'ad infinitum'. Males are preferred over females with succession passing through the eldest male heir. If there is no heir to succeed to the title and the estate, the estate reverts to the Crown as Crown land until such time as the King makes a grant of title and estates (s 41). The King may grant, with the consent of the Privy Council, hereditary estates from Crown lands to Tongan subjects who are holders of hereditary estates or who may be granted at any time by Royal Letters Patent, a title of honour (s 11).

3.6 Tax and Town Allotments

The *Land Act 1903*, as amended, states that all land of the Kingdom is the property of the Crown (s 3) and the interest of the holder in any hereditary estate, tax allotment or town allotment is a life interest which is subject to prescribed conditions (s 4). Every estate (tofia) and allotment (api) is hereditary according to the prescribed rules of succession (s 5). Every male Tongan subject by birth is entitled to a grant, by the Minister for Lands, of 3.3387 ha as a tax allotment and an area not exceeding 1618.7 square metres as a town allotment (s 7).

The Minister for Lands is the representative of the Crown in all matters concerning the land in the Kingdom (s 19(1)) and Section 19(2) imposes a duty upon the Minister to grant allotments to Tongan subjects duly entitled by law. This raises an interesting legal point in view of the right of every male Tongan, in terms of section 7, to an allotment, and the fact that there is a shortage of land available for allotments

A noble may grant to every Tongan subject making application for a grant of a tax allotment on his or her hereditary estate an area of land containing four hectares as follows:

(a) an area of 3.3387 hectares as a tax allotment;

(b) an area of 7000 square metres as a town allotment (s 47).

The *Land Act* prevents a person from holding two lots of tax or town allotment (s 48), and it is unlawful for grants to be made in excess of the sizes of allotments specified (s 49).

Strict rules also apply for the granting of allotments from hereditary estates. Under section 50 of the *Land Act*:

(a) land for allotments will only be granted from land allocated from allotted lands from the hereditary estate of the noble in which the applicant is a resident;

(b) where no land is available in the estate, then the land can be taken from another estate owned by the noble or matapule;

(c) but if no land is available in any of the noble's hereditary estates, the allotment can be taken out of the estate of any other noble who is willing to give an allotment;

(d). if no land is available under rule (c) then an allotment may be made available from Crown Land.

3.7 Subdivision of Town Allotments

A town allotment may be subdivided where it is in excess of 1618.7 square meters in area. The holder may apply to the Minister for Lands requesting him or her to subdivide the allotment between such sons, grandsons, brothers or nephews who are over the age of 16 years. The Minister is prohibited by the Act to grant an allotment of less than 752 square meters in area (s 51(a)). Where the holder of an allotment has no relatives, he or she may apply to the Minister for permission to surrender a part of the allotment that is in excess of the statutory area (s 51(b)).

3.8 Subdivision of Tax Allotments

The Minister for Lands, with Cabinet approval, may arrange for the subdivision of land into rectangular tax allotments. If a holder of a tax allotment is deprived of the whole or part of his allotment by the subdivision, he or she will be entitled to receive other land in lieu as well as the produce of the coconut trees growing on the subdivided land, for a period of 6 years (s 53).

Every male Tongan who has been granted a tax allotment is required to plant 200 hundred coconut trees in rows, the trees to be 9 meters apart or 4.5 meters apart in rows 18 meters distant from each other. The holder is under a duty to carefully attend to the coconut trees and keep the allotment reasonably clean and free from weeds. The holder is liable to a fine of $50 if convicted for neglect of this duty (s 74).

3.9 Teachers' Allotment

The *Land Act* makes provision for the Minister for Education to apply to the Minister for Lands to make provision for the allotment of 3387 hectares of land for the use of the Head Teacher of any Government Primary School who is a male Tongan subject. Land may be provided from Crown Land or from a hereditary estate. Any allotments granted from Crown land are registered as teachers allotments are held by the teacher's during their term of office and thereafter by his or her successors and on the failure of successors will revert to the Crown. But where a teacher's allotment is taken from a hereditary estate, the Minister for Lands will lease the estate from the owner at a nominal rental for a period of 99 years to be held by the Minister for the use of the teacher and his or her successors, and on the failure of successors or on the expiration of the lease, the land will revert to the

- an allotment holder to exchange allotments for an unallocated town or tax allotment on the same hereditary estate or on another hereditary estate of the same noble or matapule; or

- an allotment holder to exchange allotments on Crown land for an unallocated town or tax allotment on Crown land (s 55).

3.11 Surrender of Allotments

The *Land Act* permits a holder to surrender a town or tax allotment or any part thereof to an heir but the approval of Cabinet must be obtained first. Where there are no heirs, any allotment on Crown land or a hereditary estate will revert to the Crown or the holder of the estate respectively (s 54).

3.12 Leases

Clause 105 of the Constitution deals with the terms of leases in the following way:

> The Cabinet shall determine the terms for which leases shall be granted but no lease shall be granted for any longer period than 99 years without the consent of His Majesty in Council and the Cabinet shall determine the amount of rent for all Government lands.

His Majesty in Privy Council must approve the form of deed used in respect of which leases, transfer, and permits are to be made (Clause 106). Religious bodies may be granted leases of any town site provided they have not less than 30 members (Clause 108). The Clause also provides that the lands are not to be subject to any encumbrances without the prior consent of Cabinet. Lands leased in contravention of this Clause revert to the Crown.

The *Land Act* permits, under section 56, the registered holder of a town or tax allotment to grant a lease over the whole or part of his or her town or tax allotment provided that the consent of Cabinet is obtained and that: the holder is not a widow holding the tax or town allotment of her deceased husband, or the Head teacher of a Government Primary School holding a tax allotment (Teachers' Allotment); and the lease does not exceed a period of 20 years and no mortgage is in force with respect to the allotment.

During the period of the lease of the tax allotment, the lessee is responsible for the planting and upkeep of the allotment. Any failure to do so will result in the automatic forfeiture of the lease but the lessee will continue to remain liable for the rental until the expiry of the original term of the lease (62).

3.13 Tongan Leases

No lease can be granted except with the consent of Cabinet, and consent will not be granted to a lease by a widow of the land of her deceased husband (s 89). But any Tongan of full age who does not hold a tax allotment may apply to the Minister for Lands for a lease of a parcel of bush land. The Minister is required to submit the application to Cabinet, which may authorise the Minister to grant the lease on such terms and conditions and at such rent as deemed fit (s 90). The Minister is also required under the Act to furnish the name of the applicant and the particulars of the land leased to the Director of Agriculture and Forests and request the Director to inspect the land and report on:

- the state of cultivation of the land proposed to be leased; or

- the state of cultivation of the statutory allotment, or both as required by the Minister (s 94).

The Report is submitted to Cabinet by the Minister and if Cabinet is satisfied that the applicant has the ability and character to comply with the requirements of planting, will consent to a Tongan lease being issued by the Minister (s 95). A lease may be granted for up to 50 years and may be renewed depending on the rent and the methods of cultivation employed (s 92).

3.14 Land for Public Purposes

The Minister for Lands, with the consent of Cabinet, may reserve portions of Crown land as may be required for roads, public ways, commons, cemeteries, school sites, playgrounds, public health purposes and for use by Government Departments or for other public purposes and may also grant a lease of land to trustees to be used as a cemetery for Europeans (s 138). The King may also with the consent of Privy Council call upon any holder to give up possession of land held by him provided the land is required for public purposes. In all cases where land is resumed, compensation is payable for crops and buildings on leased land. The Minister may grant the holder another piece of land to replace the land resumed and/or pay compensation (s 141).

3.15 Conclusion

This chapter has outlined the main statutory provisions relating to land tenure and land use. There are a number of papers and reports that set out the history of land use in Tonga and how the tenure system came to be incorporated into the Constitution. The Environment Management Plan 1990 for the Kingdom of Tonga has a useful summary in Chapter 2 at page 10.

Two land-related problems that are becoming increasing apparent with the scarcity of land, particularly in Tongatapu, are that environmentally sensitive areas such as mangrove swamps and lagoon areas are being reclaimed to provide allotments. In addition, tax allotments are being subdivided to provide for town allotments. Both of these "encroachments", although an inevitable development, could have far-reaching and negative environmental consequences for existing land resources if precautions are not taken to minimise their impacts.

CHAPTER FOUR

PHYSICAL PLANNING AND ASSESSMENT

4.1 Introduction

One of the main features of planning for towns and the countryside is the development plan made by the local planning authority, which sets out the strategy for development of an area. 'Development' is widely defined. It includes changes of land use as well as physical development requiring planning permission from a local planning authority before being carried out. Planning permission effectively gives a right to develop (in accordance with the terms of the permission). Application procedures require planning permission from the local planning authority, and consultations with other bodies such as Public Health, the Water Board etc usually take place. The local planning authority then decides on grounds of planning policy, national development plans and policies set by Government before granting or refusing permission. In some countries, certain areas, especially those used for industry, are classified as 'noxious' because of odour and strong smells. These areas are zoned and set apart from residential areas. If permission is granted by the local planning authority for such development, it may be subject to stringent conditions.

Tonga does not have a single piece of legislation which addresses physical or environmental planning. However, it does have a number of laws which incorporate controls over the use of land as well as the design and form of the built environment. Although land use laws do not directly address environmental protection, there are some environmental provisions which effectively provide for environmental protection. The range of laws that address land use have a broader role in bringing about economic and social development. The continued expansion of the agricultural and commercial sectors and the increase in population of Tongatapu, as a result of drift from the outer islands, has put added pressures on land capacity. This have major implications for the physical planning, land use and amenities, and the location and design of new developments.

In this chapter, all laws which control and regulate the use of land and the built environment (i.e. all structures), address permissibility of development, change the existing uses of land, and laws relating to the development of buildings will be considered within the framework of planning legislation. This broad interpretation may be disputed, but it is accepted in countries where there are constraints in the structure of the land holding units and there are both legal and customary restrictions to an interference with private property rights. In Tonga, the 'api holder's rights in tax and town 'apis to develop his or her land is only constrained by those provisions for agriculture found in *Village Regulations* and the *Town Regulations Act*, the *Public Health Act* and the *Minerals Act*.

It can, however, be argued that in those countries that do not have direct environmental planning legislation, the complexity of the land tenure system and the sensitive nature of land matters allows for some form of planning to be brought into effect through provisions in unrelated legislation to indirectly bring about positive land use planning.

A *Land Use, Natural Resources and Environmental Planning Bill* was first drafted in 1982 by the Department of Lands, Survey and Natural Resources and the Bill has been revised a number of times. The Bill is awaiting an independent review before consideration is given for its resubmission to Parliament. Brief comments on the Bill are made at the end of this chapter.

4.2 Policies on Development

In land use planning it is just as important to understand the prevailing policies in relation to land use development as it is to understand the relevant law.

A description of the land tenure system and land use in chapter 2 described the land tenure system and usage, and many matters of detail were included. This chapter will concentrate only on those provisions that relate to the character and use of the land. Policies to generate development are an important aspect with regard to land use planning.

Pro-development economic policies and one of the national objectives for the *Sixth Development Plan* (1991-95), aim to achieve sustainable economic growth conducive to a higher, per capita income. The *Sixth Development Plan* provides that:

> Unless there is real and sustainable economic growth, it would be difficult to achieve other objectives such as a higher standard of living, and more equitable distribution of income and increased employment. It is noted that the objective of higher economic growth may conflict with certain other objectives (e.g. protection of natural resources). However it is conceded that economic growth is a precondition for the other economic objectives (page 1).

The *Sixth Development Plan* makes the observation that the objective for "higher economic growth could conflict with other objectives". This is contrary to the concept of sustainable development. The integration of economic and environmental development at the policy, planning and management levels is described in chapter 8 of *Agenda 21* and the international community, in adopting *Agenda 21*, is urged to ensure their effect within the framework of development.

The economic development strategy for the Plan period is to generate economic growth and employment opportunities with special emphasis on the export and tourism sectors. During the Plan period, the Government will review its existing policies to ensure that economic growth is not unduly constrained (page 3). In addition, the Government will place special emphasis on the provision of law and order and the protection of the environment (page 4).

4.3 Statutory Background

Land use is central to economic development in Tonga and environmental issues in connection with land use have become a vital concern, with increasing competition for land and the migration of people from the outer islands to Tongatapu.

There are a number of statutes which regulate and control land use and development. The power to impose conditions relating to environmental protection is also capable of creating some form of control over activities relating to land use. Land use planning is of importance in many areas of the environment particularly for pollution control and the siting of waste disposal, industry and small businesses.

As noted previously, the *Land Act 1903* as amended, makes provision for every male over the age of 16 years to be allocated 2 pieces of land: a tax allotment (api) of 3.3 ha and a town allotment (api) of 0.2 ha. The Minister of Lands is the representative of the Crown in all matters concerning land and has power:

* to grant allotments to Tongans entitled under law;
* grant leases and permits with the consent of Cabinet, but the consent of His Majesty in Council is required if the lease or renewals exceeds 99 years;
* issue permits for foreigners to reside on the premises of a Tongan subject;
* act as Registrar General of all land titles;

* authorize all surveys and order the opening of all new roads but not close any roads without the permission of Cabinet (s 19).

The Minister also has the power to define the holdings and boundaries of every landholder (s 23) and direct that a survey be made of the boundaries (s 24, s 25).

4.4 Tax and Town Allotments

Any land use planning law must recognize the land tenure system and current practices for the allocation of land. Where there are complex land tenure systems existing there is sometimes an absence of a single, comprehensive land use planning legislation but this does not mean that there is a complete absence of legal provisions that regulate land use. There is also a presumption in complex land tenure systems that landowners will voluntarily exercise control over their own development.

As noted in chapter 3, all land is ultimately the property of the Crown but it is divided between the King's hereditary estates, the Royal Family's hereditary estates, the hereditary estates of the Nobles and Matapules, and Government land. The two last categories are subdivided into allotments for the population. The unique system of land tenure, developed at a time when there was enough land perceived for male Tongans reaching the age of 16 years to be entitled to one town and one tax allotment, and customary land settlement practices found in Tonga today do "not conform to the generally accepted zoning principles of town and country planning" (*Sixth Development Plan* page 76). With population pressure in Tongatapu and the unavailability of good land, environmentally sensitive areas such as mangrove swamps and marshland have been allocated for residential use or assigned as allotments. Due to the lack of management and planning, the low-lying areas adjacent to the urban centres are being reclaimed for housing. Severe drainage problems result in substandard sanitary and living conditions.

Various recommendations have been made by the Inter- Departmental Environmental Committee (IDEC) for planned land development with a strong recommendation that land use planning be implemented. IDEC perceives that improved land management will also result from better assessment of the capacity of land to support various activities and future trends in the demand for land.

Although there are no land use planning laws in place in Tonga, nor formal national land use planning policies, some flexible land use planning policies in place are inferred. This is particularly so at the sectoral level within the Ministry of Lands, Survey and Natural Resources where there is a presumption in favour of development. For example:

* in June 1990, responding to a request made by the Government of Tonga to the South Pacific Regional Environment Programme (SPREP), a preliminary study was carried out by SPREP and the East-West Centre, Hawaii on the establishment of a suburban satellite market to be located in Tofoa, Tongatapu.

* also in 1989/90, at the request of the Government of Tonga, the Government of Australia through the Australian International Development Assistance Bureau (AIDAB) the consulting firms of Riedel & Byrne Consulting Engineers Pty Ltd in association with PPK Consultants were selected to undertake the Management Plans for the Fanga'uta Lagoon system and the low-lying areas in Tongatapu. This major study considers the environmental impacts of industrial development, land reclamation, mangrove destruction and urbanization of low-lying, swampy land around the lagoon. (*Sixth Development Plan* page 80,81).

4.5 Commercial Development

As the economy cannot rely solely on agricultural development and cottage (handicraft) industries, export industries have been developed in Tonga. With the decline of the copra industry (coconut oil, soaps and desiccated coconut) a number of industrial activities were encouraged. These included the manufacturing of paint, building materials such as concrete blocks, roofing iron, nails, furniture, woollen knitwear, leather garments, footwear, and spectacle accessories.

Development licences granted under the *Industrial Development Incentives Act 1978* totalled 380 up to 1990. For manufacturing and service industries there were 283 with and 97 for tourism prime facilities. Some enterprises have been issued with more than one development licence for expansion purposes (*Sixth Development Plan* page 165). The Small Industries Centre at Ma'ufanga, Tongatapu (1980) has greatly facilitated the establishment of manufacturing enterprises. Initially developed over a 12 acre area, the industrial estate has been expanded by 8 acres during the Fifth Development Plan period. At the end of 1989, 24 enterprises of various types and sizes were operating at the Centre. Plans for a second Small Industries Centre at Popua, Tongatapu covering an area of 50 acres have been initiated. A Small Industries Centre was also developed in Vava'u with an area of 8 acres during Fifth Development Plan. In September 1990, two factory buildings had been completed as part of the first phase of this project. These industrial estates have been developed with loan funds and technical assistance from the Asian Development Bank. (*Sixth Development Plan* pages 165, 166).

The land area approved by the Ministry for Lands for the establishment of the Small Industries Centre is designated solely for the different categories of industrial enterprises. Whilst no formal land use planning and zoning legislation exists, the area designated through administrative decisions can be viewed as an enterprise zone scheme where the *Industrial Development Incentive Act* offers fiscal and administrative advantages for those involved as well as automatic planning permission.

4.6 Planning and Building Control

The power to control the use and development of land and buildings within a two mile radius of a Post Office in urban areas is vested in the Cabinet and the Medical Officer for Health, under the *Public Health (Building) Regulations*. The Regulations only apply to principal towns and within a radius of 2 miles from the Post Offices of Nukualofa, Pangai (Ha'api) or Neiafu (Vava'u) (rule 2). Any site within these areas used for building purposes is subject to the permission of Cabinet and the approval of the Medical Officer of Health (rule 4). The plans and material used for any building is also subject to the approval of the Medical Officer but buildings of Tongan native materials within the scope of section 6(3)) of the *Town Regulations Act 1903* are exempted from these requirements. (rules 4 and 5).

The *Public Health (Building) Regulations* prohibit buildings to be erected immediately in front of any other building or in such a way as to prevent light and fresh air from entering another building (rule 6). The height limit of a building depends on the presence or absence of other buildings in the neighbourhood and the height limits are determined solely by the Medical Officer of Health (rule 9). The number of buildings that can be built on any one site depends on the area of land available, the circumstances surrounding that particular piece of land, and is subject to the approval of the Cabinet (rule 7). Sufficient space must be allowed behind each building for latrines and other conveniences without constituting a nuisance to neighbouring buildings (rule 8).

Anyone who erects a building in contravention of the *Public Health (Building) Regulations* is liable on conviction to a maximum fine of $40 and a daily maximum penalty of $4 for any continuation of the offences and, in default of payment, up to a maximum period of three months imprisonment (rule 10).

Under the *Town Regulations Act 1903* it is mandatory for every male Tongan reaching the age of 21 years to build a dwelling house on his allotment. The house may be built of either Tongan or non-Tongan materials. Where native materials are used the house must not be less than 3 meters in length and must be constructed of coconut or pandanus wood and roof with sugar cane leaves, coconut leaves, timber or iron and the walls to be constructed with reeds, coconut leaves timber or iron. Only in Niutoputapu is the building of fau permitted. Anyone who is found during an annual inspection to have neglected to build himself a house can be liable on conviction to a fine of up to $10 (s 6).

Legislation designed to manage and protect Tonga's natural and cultural resources may be considered as part of planning law. The most commonly used legal test is given by Lord Scarman in *Great Portland Estates Ltd. v Westminster CC* [1984] 3 All ER 744 who suggested that town planning covers anything that 'relates to the character of the use of land' (Ball & Bell page 164). Protected area legislation may have, in the past, been considered as an overlay to the traditional planning legislation, but it should now be regarded as an integral part of it.

The *Parks and Reserves Act 1976* establishes an Authority to protect, manage and develop natural areas in the Kingdom. According to the Act

> Every park subject to any conditions and restrictions which the Authority may impose shall be administered for the benefit and enjoyment of the people of Tonga. Every reserve, subject to any conditions and restrictions which the Authority may impose, shall be administered for the protection, preservation and maintenance of any valuable feature of such reserve and activities therein and entry thereto shall be strictly in accordance with any restrictions and conditions.

Details of the *Parks and Reserves Act* are dealt with in Chapter 11.

4.7 Environmental Impact Assessment (EIA)

Existing laws regulating such activities as mining, waste disposal, agriculture, buildings, roadworks, airport construction, wharves and piers describe and permit the various projects carried out by Government and the private sector. However, the actual, cumulative or potential impacts of these projects on the environment is given little attention. There are, and have been, few legal requirements for environmental impact assessment, except in limited circumstances, to protect the environment.

The impact upon the environment brought about by development projects is usually felt far beyond the sites of the project, but the nature and magnitude varies considerably from one project to another. One way of ensuring protection of the environment is special attention to be given to environmental factors to require prior to granting permission for projects.

The responsibility for environmental impact assessment (EIA) generally lies with the government Ministry responsible for the environment. The procedure for EIA is either set out in law or in guidelines produced by the responsible Ministry. As EIA is an integral part of the project development process, both the government and developers in the private sector will be required to take into consideration the impact on the environment the proposed project is likely to have before permission is granted to implement the project. Environmental controls to minimize the degradation of the environment are also required to be precisely prescribed.

In Tonga, there is currently no legislative support for EIAs conducted through the Land and Environmental Planning Section in the Ministry for Lands, Surveys and Natural Resources (MLS&NR). An EIA policy which has been in place since 1985, however,

enables the Central Planning Department to pass on all development proposals for assessment by the Environmental Planning Section in the MLS&NR. The Environment Planning Section may either call on outside expertise or conduct the assessment with local or in house experts. In practice, not all projects have been submitted for an EIA and this highlights the need for the policy to be backed by legislation. Provision is made in the draft *Land Use, Natural Resource and Environmental Planning Act 1990* (s 31) for EIAs to be conducted before any consideration is given to Development Applications.

In the absence of any legislation, it is suggested that EIA guidelines could be developed and issued by the Environmental Planning Section as an interim measure, to enforce consistent compliance with the EIA policy until the status of the proposed *Land Use, Natural Resources and Environmental Planning Act* is determined. (**See Recommendation 1**)

4.8 Controls over the Littoral Zone

The *Land Act 1936* makes provision for control over development within the littoral zone. Under section 22(1)(e) of the Act, the King, with the consent of Privy Council, may make regulations to regulate the cutting and taking of timber, sand, stone, metals and materials from Crown land or any holding.

Under section 113 of the *Land Act*, the foreshore is the property of the Crown and the Minister for Lands may, with the consent of Cabinet, grant permits to erect stores, wharves or jetties on it, to reside on any portion of it or grant a lease for these purposes. The Minister, with the consent of Cabinet and subject to the payment of a royalty, can grant permission to cut and remove stone from the foreshore so long as this is not part of any harbour (s 114).

The *Land Act* defines the foreshore "as the land adjacent to the sea alternately covered and left dry by the ordinary flow and ebb of the tides and all areas adjoining thereunto lying within 15.24 metres of the high water mark of ordinary tides" (s 2).

The control of other types of coastal developments can be found in the *Tourist Act 1976* as amended, where the Minister responsible for tourism is empowered to license, regulate and control accommodation, restaurants and other tourist facilities (s 6(j)). "Tourist Facility" is defined to include beach operator, boat hirer, entertainment or sporting complex and any other attraction or facility used by tourists (s 2).

4.9 Proposed Land Use, Natural Resource and Environment Planning Bill

This proposed Bill has had a number of revisions. For planning purposes the Bill incorporates provision for the establishment of a planning authority with extensive responsibilities for the preparation of planning schemes for town and district areas. In addition, regional, maritime and national planning schemes may also be developed. The whole planning process enables orderly and desirable development to take place with controls applied through a permit process. This Bill requires an independent assessment to determine the problems associated with particular sections, and to assist the Ministry for Land, Surveys and Natural Resources to redraft those portions of the Bill which lack the required support. Time constraints during this Legal Review prevent the undertaking of a detailed review of this Bill. This proposed Bill is commented on in the introduction to this Review. An independent assessment of the Bill is recommended (**see Recommendation 2**)

4.10 Recommendations for Chapter Four

1. It is recommended that an independent assessment be made of the proposed *Land Use, Natural Resources and Environment Planning Bill* to identify and

segregate those elements of the Bill that are currently unacceptable and to propose alternative measures to achieve the aims and purposes of the Bill.

2. As the *Land Use, Natural Resources and Environmental Planning Bill* contains provisions for EIAs, it is recommended that, in the interim, EIA Guidelines be developed to secure the integration of environmental measures in the decision making process for projects. It is further recommended that the Guidelines be implemented by the Environmental Planning Section until the status of the proposed is determined.

CHAPTER FIVE

AGRICULTURE

5.1 Introduction

Tonga's *Sixth Development Plan* (1991-1995) states that agriculture has always been the principal sector of the Kingdom's economy and it is the primary source of livelihood of over two thirds of the population.

According to Fakalata (Fakalata, page 21) the degree of independence on agriculture in Tonga varies greatly within the island groups. In Tongatapu it is relatively heavy, in the main island (Vava'u), Lifuka and Foa Islands (Ha'apai) and 'Eua it is moderate, while in the rest of the islands, which are small and remote, subsistence agriculture is practised. "But there are no more pure subsistence farmers or purely commercial farmers except for a small minority in the remote islands of the Kingdom where access to market is limited" (*Sixth Development Plan*, 118)). As farming land becomes scarce due to increases in population "farmers have also learnt to better plan and manage the integration of commercial production with household requirements" (*Sixth Development Plan*, 118).

5.2 Land tenure and resources

The primary feature of the Tongan agricultural landscape is the division of agricultural land into tax (garden) apis (allotment) of about 3.3 hectares (8.25 acres) and most land allocated for the two tenure categories from the hereditary estates of the nobility or matapule, or from Government land. A town api not exceeding 0.2 hectares (two fifths of an acre) is also part of the entitlement of every male Tongan. Titles to the apis are assigned by the Minister of Lands, Surveys and Natural Resources and then becomes hereditary passing from father to son. A person can only have 1 town and 1 tax api. In 1976, 65% of eligible people did not have a tax api. Since that time 14, 000 new males have become eligible which would probably raise the number of eligible people without a tax api to above 74%. Those without legally allocated tax apis have access to the land of relatives and friends, or lease land from the nobles or Government. With increases in population and the movement of population from the other islands to Tongatapu the available land for agricultural purposes is scarce: land division has resulted in smaller, more scattered and increasingly inefficient lots. Farmers are starting to practise intercropping extensively and intensively to maximise production from small land holdings" (Haniteli). The 750 square kilometres of land area in Tonga is described by Halavatau and Asghar (Halavatau and Asghar, pages 41-47) as generally fertile and combined with a favourable climate provides the potential for a highly agricultural sector. Except for Vavau, Niuafoou, Niuatoputapu, Tafahi, Eua, Kao and Tofua, the land is either flat or gently undulating. While topography does not restrict cultivation, poor drainage is a problem in some areas and some of the soils in Haapai Group are sandy in nature.

5.3 Statutory background

There is no single comprehensive piece of legislation which regulates agricultural activities in Tonga. There are, however, a number of specialized pieces of legislation (discussed later in this chapter) which have evolved over the years for example the *Noxious Weed Act 1903*, the *Copra Act 1926*, the *Animal Diseases Act 1979* and the *Plant Quarantine Act 1981* provide for and regulate specific activities relating to agriculture. Viewed together, this group of legislation provides a reasonably comprehensive regulatory programme to protect and advance the objectives of agriculture.

With the increased importance attached to environmental concerns there have been considerable advances towards sustainable agricultural practices since the inception of these existing laws. The *Sixth Development Plan* stresses the adoption of preventive

measures to avoid environmental damage due to agricultural activities. Support for research into such topics as mapping agro-ecological zones, soil erosion, utilization of marginal lands, water quality, integrated pest management, maintenance of germ-plasm and tissue culture for genetic conservation, and the effects of pesticide use and residues on the environment (*Sixth Development Plan*:130), demonstrates the Government's interest to strengthen programmes to improve environmental protection in the agricultural sector. Such development would imply considerable changes to the existing laws, but for the present time no significant legal changes are envisaged.

5.4 Agricultural Lease

The encouragement given to Tongan citizens to develop agriculture for the domestic and export market is possible through the leasehold system. Leases may be granted, by the Minister of Lands and with consent of Cabinet, to any person who is a Tongan subject of full age who does not hold a tax allotment, but a lease will not be granted to a widow if the land is of her deceased husband (ss 89,90).

On receipt of a lease application the Minister is required to give to the Director of Agriculture the name of the applicant the particulars of the land held and the land proposed to be leased by the applicant. An inspection will be carried out as to the state of cultivation of the land proposed to be leased and/or the state of cultivation of the statutory allotment (s 94). What is not clear is whether the inspection includes environmental assessments and, in cases where environmental degradation has been discovered, whether measures are imposed by the inspection team to mitigate environmental damage. The loss of essential ecosystems and the physical alteration to the environment brought about by agricultural activities poses a challenge to Government's stewardship responsibilities and it is suggested that environmental considerations be included as an integral part of the inspection framework (**see Recommendation 3**).

At the conclusion of the inspection, a report of the Director and the application is submitted to Cabinet by the Minister. If the Cabinet is satisfied as to the ability and character of the applicant to comply with section 74 of the *Land Act*, which relates to planting, a lease will be granted (s 95). As the leasing decision is discretionary, the opportunity exists for the inclusion of environmental protective conditions as part of the lease.

A registered holder of a town and tax allotment may grant a lease over the whole or part of his or her town or tax allotment (s 56) provided the lessee is not: a widow holding a tax or town allotment of her deceased husband; a head teacher of a Government primary school holding a Teachers allotment under section 52 of the *Land Act*; the lease does not exceed 20 years; and no mortgage is in force in respect of the allotments (s 56).

The maximum number of allotments a person is entitled to lease is 20 tax allotments and 10 town allotments. Leases are issued by the Ministry for Land, Surveys and Natural Resources but leases for agricultural or residential purposes may also be arranged privately between 2 individuals, or between and an individual with little or no land and a noble. A lease may also be bought and the financial arrangements will be determined by the lessor. The costs involved in obtaining a lease nowadays could be quite prohibitive due mainly to the scarcity and the pressures to obtain suitable land. The leasehold system provides the opportunity to secure land which could eventually be inherited by the lessee's sons. Leases may be issued for a maximum period of 99 years (Tukia, pers. com 13/4/92).

In addition to the controls exercised through the *Land Act*, the District Officers are required to carry out a 6 monthly inspection under the *District and Town Officers Act* to assess whether the provisions of section 15 (which prevent an alien from residing on a holding without a proper permit or lease agreement); section 16 (which makes it unlawful for any Tongan subject to make any mortgage agreement pledging or selling his growing crops of coconuts, yams or other produce); and section 74 of the *Land Act* have been

complied with (sch.II(2(1)) (which requires any male Tongan on being granted a tax allotment to grow 200 coconut trees within one year of the grant).

5.5 Import of plants and animals

The *Plant Quarantine Act 1981*, as amended, provides that the Minister can prohibit by regulations the import generally or specifically of any plant, plant material, plant pest, soil, insects or garbage from any place specified (s 15). Authorization can be given to a limited entry of plants from foreign countries provided the plants are grown under post-entry quarantine or under the supervision of the Ministry for Agriculture to determine whether the plants are infected with pests not discernible at port-of-entry inspection (s 16). It is illegal for anyone to import plants from outside Tonga without a permit and, unless the plants are accompanied by a Phytosanitary Certificate, special conditions may be prescribed (s 17).

The importation of plants and plant material is only authorized through ports designated by notice where the facilities are available for the treatment of plants (s 23). On arrival in Tonga, an inspector finding the plant and material contaminated with pests or unauthorised material may require it to be re-exported under conditions he or she may specify, or prescribe treatment to eliminate the contamination prior to release from plant quarantine jurisdiction, or dispose of it in a manner prescribed (s 18). Plants cannot be moved or diverted to a secondary designation in Tonga unless examined or subjected to treatment prescribed by the inspector (s 19).

Living culture or organisms including parasites, predators, arachnids, molluscs, insects, nemotodes, fungus, bacterium, virus, plant parasitic organism, mycoplasma, honeybee or plant pests cannot be imported without a written permit issued by the Minister in advance of the importation and in compliance with conditions imposed in the permit (s 33). The importation of noxious weeds and the movement of such weeds within Tonga is also subject to the same controls (s 34).

The *Plant Quarantine Act* establishes procedures for importers to comply with when considering importation, and a duty is imposed on importers, customs agents and the Harbour Master to notify the Minister of the intended arrival or arrival of the regulated articles (s 27). The regulated articles must not be taken from the control of the Customs and Harbour Master until the inspector notifies the Customs and Harbour Master that the importation has met the requirements of the regulations and conditions imposed (s 28). Control is also imposed through the postal services by a duty imposed on the Customs and Postal Services that the Director of Agriculture to be notified if any regulated article is received by mail (s 29).

On arrival of the regulated material in the Kingdom, the Inspector may set a time limit by which customs and the importer must carry out treatment of the regulated article. On the expiry of the time limit, the article may be destroyed at the importer's expense (s 30) or the Inspector may quarantine, dispose of or destroy the plant and materials (i.e. soil and other material imported together with the plant) (s 31).

The Act makes provision for domestic quarantine control to be imposed and prohibits the importation or movement within the Kingdom of any plant, material, pest, soil or contaminated article declared by the Minister to be quarantined, or the movement of such articles from an infected area to a non-infected area without Ministerial authorization (s 36). Where the Minister has determined that any land conveyance or article is infected or infested, a written notice will be given to the owner who is required forthwith to control, eradicate or prevent the dissemination of pests and comply with the notice (s 37(1)), but where the owner cannot be found or fails or refuses to comply with the requirements ordered, the inspector is authorized by the Act to carry out the work specified, at the expense of the owner (s 37(2)).

Should any area be found to be infested, emergency regulations may be issued by notice in the Gazette to be effective for a maximum period of 6 months, but this period may be revoked or extended (s 38(1)). In addition, the Minister may take any necessary action to prevent the establishment or spread of specific plant pests (s 38(2)).

The *Diseases of Plants Regulations 1964* made under section 45 of the *Plant Quarantine Act* provides strict controls over the importation of trees, shrubs, plants or cuttings. A certificate signed by an Agricultural officer is necessary as any importation without a valid certificate can be seized and destroyed. Trees or plants can only be imported through designated ports (rule 5).

The *Noxious Weeds Act 1903*, as amended, empowers the Minister for Agriculture and Forests with the consent of the Privy Council, to proclaim from time to time any plant to be a noxious weed within the whole or any part of Tonga (s 3). Any owner or occupier who fails to eradicate weeds declared to be noxious is liable to a fine of up to $250 (s 4)

The *Rhinoceros Beetle Act 1912* as amended, empowers the Prime Minister with the consent of Cabinet, to declare any insect to be a pest and that any place be a prohibited place (s 2). Any person introducing into Tonga live beetles or any other pest or plant knowing it to be infected by beetles is liable to a maximum fine of up to $60 and in default to up to a maximum of 2 years imprisonment (s 3).

Coconut products (copra, coconut oil, desiccated coconut, copra meal, whole green and dry nuts) represented 52% of agricultural exports at the beginning of the Fifth Development Plan period (1985-1990). By 1990 the export of coconut products fell to 24% due to the general fall in the copra export market. But despite this, coconut products continue to be an important part of agricultural products, particularly for the domestic market.

The *Copra Act 1926* as amended, regulates the making and sale of copra and makes it an offence for any person who:

* makes copra from nuts which have not fallen naturally from the trees or from nuts which have begun to sprout or from immature nuts; or
* buys, sells or otherwise deals with any copra which has not been cut into pieces not larger than one-eight of the nut; or
* dries or cuts out any copra on the bare ground or grass; or
* permits copra in the process of drying to be exposed to rain; or
* stores partly dried green or wet copra in sacks or heaps; or
* buys or sells damaged copra; or
* covers copra in the process of drying to exclude the free circulation of air; or
* pounds or rams green copra when in sacks (s 3).

It is also an offence for any person without the consent of Cabinet to attempt to ship copra which has been stored in Tonga for a period of 6 months or more. A person upon conviction, can be liable to a fine of up to $250 and in default to 3 months imprisonment (s 8).

5.6 Importation of Animals

A variety of risks must be considered when importing animals from outside the country. These risks include the possibility of diseases which could adversely affect both the animal and human population. The *Animal Diseases Act 1979* provides for the control of animal diseases.

The Minister of Agriculture is empowered to declare, by notice in the Gazette, any land under the Minister's control or, with the consent of the Minister of Lands, any land of the Crown, a quarantine ground for the detention of imported animals. No one is permitted to remove any animal from such grounds without the consent of the Minister (s 4). Animals or any animal products may only be imported through designated ports (s 5). The importation of animals or any animal products, packing material, fittings or fodder requires a written permit from the Director of Agriculture and the Director may impose any conditions considered necessary to ensure the control or prevention of diseases (s 6).

Section 7 of the Act sets out the list of animals including eggs, semen and carcases which cannot be imported without the prior approval of Cabinet. The Act also imposes a duty on owners, charterers, agents and captains of vessels and aircraft to prevent any animals from being landed without the permission of an Inspector (s 8). The illegal importation of any animal, manure, fodder, fittings or animal products carries the risk of seizure by an Inspector and destruction and/or fumigation to prevent any likely diseases from spreading (s 10). A duty is also imposed on officers of the Post Office and the Customs Department to prevent the introduction of diseases from animals and animal by-products and compels them to exercise their powers under the *Post Office Act* and the *Customs and Excise Act* respectively (s 12).

Considerable damage can be caused to soil and vegetation by the activities of unpenned cattle, pigs and goats. The *Pounds and Animals Act 1903*, as amended, allows the owner or occupier of any cleared or cultivated land to claim compensation for damage caused by the trespass of cattle from the owner or the person who is in control of the trespassing cattle (s 17). It is an offence for an owner to neglect to enclose cattle within a fence (s 16). Where a pig is found at large on a roadway or on public property the Act permits a constable or other police officer to kill it (s 18).

5.7 Pesticides

Of all the items regulated by the Ministry for Agriculture and Forests, pesticides are unusual in that the same toxic properties which make them valuable commodities as pesticides frequently pose potential threats to humans and the environment. Pesticides manufactured in or imported into Tonga face a number of restrictions under the *Pesticides Act 1976*, as amended.

> No pesticides may be manufactured in or imported into or used, offered for sale, sold or distributed in the Kingdom of Tonga unless such pesticides have been registered with the Registrar in terms of this Act (s 4).

The Director of Agriculture and Forests is designated as the Registrar of pesticides under the Act. The Registrar is required to keep a Register of Pesticides in which the trade names, chemical names, percentage of active ingredients or acid equivalents, the name and place of business of the manufacturer and the importer are to be recorded and given a number (s 3). An application to register a pesticide must include the name and address of the importer and manufacturer or distributor, the brand name of the pesticide, percentage of active chemical ingredient, nature of formulation, intended use and rates of application, the proposed label to be used on the pesticide container and any other information required by the Registrar (s 5).

The Registrar has discretionary power to register the pesticide, with or without conditions, or refuse the registration. Where a pesticide has been registered, no change in the approved label or formulation can be made without the written approval of the Registrar (s 6). After registration, the Registrar is required to publish the pesticide together with its brand name, chemical identity of the active ingredients, name of the manufacturers, importers and registered number in the Gazette (s 7).

Registration of a pesticide can remain in force until such time as the Registrar directs its cancellation (s 8). Anyone contravening the *Pesticides Act* or any regulations made under it can be guilty of an offence and have their registration cancelled. The penalty for such an offence is a fine up to $100 and/or confined to imprisonment for one year (s 11).

Fakalata states that there is an assumption that pest problems both insects and weeds are less with minimal agricultural exploitation on small and remote islands where the natural diversity and balance is maintained. However, where there is commercially-oriented agriculture, with the introduction of new crop varieties, pest problems are more common. Fakalata cautions that frequent pesticide applications could cause pest control problems on crops such as bananas, water melons and cabbages, and this could be followed by phases of crisis, disaster and the collapse of the control system, as experienced with some other commercial crops.

The Crop Protection Section of the Vaini Government Research Station regularly conducts pesticide trials to evaluate the efficiency of new or alternative pesticides. It also evaluates the naturally occurring biological controls and the introduction of new control organisms from abroad.

The *Pesticides Act* was reviewed in 1989 by FAO Consultant David Lunn. In his Review Lunn states that a Pesticides Registration Committee was set up in 1981 and the Act was amended to improve it. However, the 1988 revision of the Laws of Tonga does not appear to include a specific power to establish such a committee. The Minister for Agriculture and Forests is given power under section 12 of the Act to make regulations, and it is possible that this provision may have been used to establish a committee for the purpose of carrying out the provisions of the Act. Lunn further states that a new Pesticides Registration Committee was established in May 1989 consisting of:

* The Director of Agriculture (Registrar);
* Head of Research, (MAFF) (Deputy Registrar);
* Environmental Division Officer of the Ministry for Land, Surveys and Natural Resources;
* Medical Officer, Ministry for Health;
* A growers representative;
* A representative of pesticide importers/retailers;
* An entomologist (MAFF);
* A plant pathologist (MAFF);
* An analytical chemist (MAFF).

Lunn concludes that the legislation is no longer appropriate for the effective regulation of pesticides under the conditions that exist in Tonga. In particular, he points out that:

- there is a lack of legislative power to establish the Pesticides Registration Committee as a decision making body;

- the current definition of pesticide excludes plant growth regulators and other products used to modify or affect plant growth and development and includes all bactericides, including household disinfectants (for which the current legislation is inappropriate);

- although there are specific mandatory data requirements for registration and labelling, and while these may be appropriate for many of the pesticides that were in general use they do not provide sufficient flexibility to cope with the range of pesticides now available (or likely to be used in the future);

- there is no ability to regulate such post-registration activities as the storage, transport, distribution, sale and advertising of pesticides.

Lunn offers detailed suggestions to deal with these problems in his "Report on a Mission to Evaluate and Assess the Pesticide Registration and Control Scheme in the Kingdom of Tonga" (21 October 1989) (**see Recommendation 4**).

5.8 Conclusion

There are at least 10 pieces of legislation and regulations which address agricultural activities. These statutes control and regulate different sections of the agricultural environment. There are a number of individual issues relating to agriculture which are dealt with by separate legislation, such as pesticides. Although much of the detailed law is found in regulations, the process of assembling a coherent body of environmental provisions in the agricultural sector for this Review has been a difficult one. One of the gaps noted in the Review is the lack of specific legal provisions for soil conservation, although in practice the Ministry for Agriculture and Forests do offer advice in this area. The real question is whether the scale of environmental problems confronting the agricultural sector can be adequately addressed by environmental law. The *Sixth Development Plan* has flagged a number of issues which could provide new directions for the development of law (**see Recommendation 5**).

5.9 Recommendations for Chapter Five

3. It is suggested that environmental factors should be taken into account during inspections carried out in connection with applications for an agricultural leases.

4. It is suggested the Pesticides Act, reviewed in detail by David Lunn, be again reviewed by the Government with a view to implementation. The suggestions made by Lunn to improve the legislation are supported.

5. It is recommended that all existing laws regulating agricultural activities be reviewed:

   (a) to ensure environmental protective measures e.g. soil conservation, are made an integral part of the agricultural system;

   (b) to ensure that old Acts are brought into line with new policies on the environment.

CHAPTER SIX

FORESTRY

6.1 Introduction

Tonga has a limited forest cover. Wood resources comprise natural hardwood forest, an exotic plantation forest and trees grown through agroforestry schemes. Although a systematic inventory of Tonga's remaining natural forest is yet to be carried out, it is estimated that this area is around 4,000 hectares, a large part found on 'Eua (Forest Reserve). Small primary forests still exist at Toloa in Tongatapu, the eastern ridges and cliffs of 'Eua and on the steep slopes and hill tops of Vava'u. About 350 ha of forest outside the crater of Tofua are considered exploitable. The islands of Tafahi and Kao have cloud forests on steep slopes and other sizable natural forests are found on Niuatoputapu and Late (*Sixth Development Plan*:154/5) in areas that are generally inaccessible for harvesting purposes.

Extensive cultivation and the need for firewood and building materials are largely responsible for the dwindling of this resource. The objectives outlined in the *Sixth Development Plan* (1991-95) to encourage the planting of trees on 'api lots with a view to creating high value timber resources and sources for fuelwood, proposes to reverse this trend. The Tokomololo Nursery produces a variety of tree seedlings which are sold to individuals or given free of charge to churches and schools to encourage this trend. The 'Eua Forest Farm remains the prime focus of forestry development and the natural forest on southeast 'Eua has been promoted for years as a national park.

> Mangrove forests are restricted to sheltered lagoon coastlines and are limited in size and of mediocre quality. Nevertheless, in addition to their extremely important biological role they are locally important as sources of firewood, house poles and dyes for tapa cloth. (UNCED Report 1992)

6.2 Statutory Background

The *Forests Act No. 7 of 1961* provides for the setting aside of areas as 'forest areas' or reserved areas, the control and regulation of such areas as well as the regulation of forest produce and other related matters.

6.3 Forest Reserves

The King in Council may declare any unalienated land to be a forest reserve or reserved area (s 3). The power is also extended to the revocation of such areas by declaration (s 5). The Minister, with the consent of Cabinet, may make regulations to:

(a) protect, control and manage forest reserves;

(b) foster and encourage growth of forest produce;

and to prohibit and regulate:

(c) the felling, burning, or removing of any forest produce;

(d) camping, building of huts or livestock enclosures;

(e) the depasturing of livestock;

(f) the cultivation of land;

(g) the entering of the forest reserve;

(h) the killing and taking of animals, birds, insects, fish or any eggs or spawns;

(i) any act that is likely to cause fire;

(j) or prescribe fees and royalties for the felling of trees or the collecting and removing of any forest produce;

(k) grant licences and permits for forest produce;

(l) prescribe conditions for licences to take, sell or export forest produce; or

(m) prescribe for licence holders to render returns of forest produce received;

(n) establish nurseries;

(o) provide for survey and demarcation from forest reserve and reserved areas; or

(p) appoint and control forest guards (s 4).

The *Forest Produce Regulations 1979* appear to be the only regulations made under the Act.

6.4 Licences

The Minister, with the consent of Cabinet, may authorize the Director of Agriculture and Forests to issue licences for:

- the exclusive rights to take forest produce; or
- exclusive rights to purchase such produce; and
- the right to take or purchase forest produce free of fee or royalty or at a reduced fee or royalty. The licence may contain any general or special conditions as the Minister thinks fit (s 6(1)). Every licence issued must specifically state the area of land and the type of forest produce covered by the licence (s 6(2)).

Although it was not possible during the course of the Review to ascertain the types of conditions imposed in licences, the limited nature of the forest cover could dictate a sustainable use approach to avoid over-exploitation.

6.5 Town and Village Forest Areas

A District Officer may, with the approval of the Minister of Agriculture and Forests, demarcate unalienated land in a village as a forest area. Such demarcations must be registered with the Department of Agriculture and Forests (s 7). The Minister may prescribe that village forest areas be governed by regulations designed to protect, control and manage forest produce (s 8).

6.6 Offences

Forests are protected by a range of offences and prohibitions which vary depending on the degree of protection granted.

Under section 9 of the Act, a forest officer or police officer has the right to interrogate any person found in possession of any forest produce within a forest reserve or reserved area (s

9(a)) and to seize and detain the property (s 9(c)(d)). An officer may demand the production of a licence, permit or pass from any person if there is suspicion that his or her actions are contravening the Act (s 9(b)). Offences are also created if any person receives or is found in possession of forest produce (s 10(d)), or counterfeits or alters any pass issued by the forest officer (s 10(c)).

If a person is convicted of an offence against the *Forest Act*, the Court may, in addition to any lawful penalty, assess the value of damage or injury to the forest produce and order payment accordingly. The Court may further order the restitution of any forest produce unlawfully removed the payment of the value of the produce, the forfeiture or disposal of the forest produce, the cancellation or suspension of any licence, permit or pass; or order the demolition and removal of any building, enclosure, hut, stable, cowshed or structure built in contravention of the Act; or order the destruction, uprooting, removal of any crops grown in contravention of the Act (s 11). Anyone found guilty of an offence under the Act can be fined a maximum sum of $50 and/or sentenced to a term of up to 12 months imprisonment (s 14).

Under the *Forest Produce Regulations 1979* anyone who wishes to export forest produce must apply for approval from the Director of Agriculture and Forests (rule 2) but the approval is subject to conditions and directions imposed by the Minister (rule 4). Anyone who exports forest produce without the approvals set out in the regulations, makes a false statement, or breaches the conditions of the approval, is liable upon conviction, to a maximum fine of $50 and/or up to 12 months imprisonment (rule 6). The Regulations do not apply to wood carvings, handicrafts, shooks or to the export of bananas and other crops and other semi-processed or processed forms of logs, stems or roots (rule 8).

6.7 Forest Principles

The exploitation and depletion of some of the world's forests, particularly the natural rain forests of South America, and the adverse effects this has had on related natural resources such as water sources and natural wildlife habitats, has captured world attention. To correct this trend and attempt to reach global consensus on the management, conservation and sustainable development of all types of forests at the United Nations Conference of Environment and Development in Brazil in 1992 produced a statement of *Forest Principles*. The Principles apply to all types of forests, both natural and planned, in all regions and climatic zones. The preambular paragraph below sets the context in which forest issues should be considered:

> Forestry issues and opportunities should be examined in a holistic and balanced manner within the overall context of environment and development, taking into consideration the multiple functions and uses of forests, including traditional uses, and the likely economic and social stress when these uses are constrained or restricted, as well as the potential for development that sustainable forest management can offer (*Forest Principles,* Preamble, (c).

This statement reflects an awareness of a country's economic needs but stresses that these needs must be accommodated with increased environmental awareness.

6.8 Comments

1. The *Forest Act* establishes Forest Reserves and Reserved Areas. These areas are protected by a range of prohibited offences. Section 4 of the Act sets out the activities that are prohibited. However, under section 4, some activities can be authorised by permit. Reserved Forests or Forest Areas are essentially established and reserved for future and present productive use. Forest Reserves and Forest Areas established for this purpose must be distinguished from Nature Forest Reserves. The *Forest Act* does not appear to prescribe for the establishment of

Nature Reserves as a separate category within the forest system. Nature reserves are protected from commercial use and stricter controls are applied to maintain and conserve the natural systems, fauna and flora of the reserve.

Section 4 of the *Parks and Reserves Act 1977* is wide enough to include nature reserves in forest areas under the following provision:

> The Authority may from time to time, with the consent of Privy Council by Notice declare any area of land or sea to be a park or reserve...

However, it is still considered necessary for management purposes, that this category of forest be reflected within the framework of the *Forest Act* and that the *Forest Act* be amended accordingly (**see Recommendation 6**). The two broad categories of forests, i.e. those that are considered for economic and commercial reasons and those where timber harvesting is prohibited for environmental and conservation reasons should equally be key but separate components in forestry legislation (**see Recommendation 7**).

It is also recommended that EIA provisions be included within the forestry laws (**see Recommendation 8**).

2. Section 4 of the *Forest Act* provides for the Minister, with the consent of Cabinet, to make regulations in a number of specific and important areas. One such area provides for the prohibition and control of fire. As one of the principal causes of deforestation is fire, particularly during the dryer periods, it is suggested that specific regulations embodying fire preventive measures be considered under subsections (c) and (i) (**see Recommendation 9**).

6.9 Recommendations for Chapter Six

6. It is recommended that nature reserves be considered as a separate category within the forest system and that the *Forests Act* be amended accordingly.

7. It is suggested that clear distinctions be made in the *Forests Act* between those categories of forests that are reserved for economic and commercial reasons and those forests where timber harvesting is prohibited for environmental and conservation reasons.

8. It is recommended that EIA provisions be included within the *Forests Act*.

9. It is recommended that regulations be enacted under the *Forests Act* and in particular those measures that relate to forest conservation and protection, and fire prevention and control.

CHAPTER SEVEN

FISHERIES

7.1 Introduction

Tonga's *Sixth Development Plan* describes fishing activities as among the "sectors of the economy demonstrating the highest growth potential" (*Sixth Development Plan*:135). A large proportion of the population, particularly in the outer islands, is dependent on fisheries as its main source of livelihood. Tonga is still to declare its Exclusive Economic Zone (EEZ) and when this does occur, approximately 700,000 sq. kilometres of ocean will be brought under its national jurisdiction (*Sixth Development Plan*:135). The declaration of the EEZ will not only make a significant impact on the national economy but also on the laws relating to the management of marine resources. Appropriate and adequate laws and scientific research would need to ensure the sustainable management of marine resources. Chapter 17 of *Agenda 21* is devoted to the protection of the marine environment and its resources. Those provisions have significant implications for the role of law in confronting the challenges of managing marine resources on a sustainable basis.

7.2 Statutory Background

The *Fisheries Act 1989* (No. 18 of 1989) is a new Act. It repeals the *Fisheries Regulation Act 1923*, the *Fisheries Protection Act 1973* and the *Whaling Industry Act 1935*. It received the Royal Assent on 18 October 1989 and came into force on that date. The title describes it as an Act "To provide for the Management and Development of Fisheries in Tonga and Other Matters Incidental Thereto".

A new Ministry for Fisheries was established in February 1991. Previously, Fisheries was part of the Ministry for Agriculture, Fisheries and Forestry. The Prime Minister is the new Minister of Fisheries and there is now a full-time Director of Fisheries. Previously the Director of Agriculture was the Director of Fisheries in terms of the definition section of the *Fisheries Act 1989*. The new Director is the person who in terms of the definition in the same Act is "such other Director as may have executive responsibility for fisheries matters.

The Environmental Management Plan for the Kingdom of Tonga (ESCAP 1990) provides much detail on fisheries resources in Tonga and sets out the role of environmental management for fisheries as follows:

* Provide and maximise a sustainable yield of a wide variety of marine foods for the people of Tonga;

* Prevent damage to marine habitats, and subsequent lowering of productivity, by destructive fishing techniques, overharvesting, pollution, siltation, pests and diseases;

* Develop commercially valuable export products from marine creatures on a sustainable basis; and

* Restore areas of species which have been damaged or overharvested (page 41).

The new 1989 *Fisheries Act* brought significant changes into effect to manage fisheries resources within the above framework. The laws dating back to 1923 under the *Fisheries Regulation Act* contained archaic provisions irrelevant to present day needs, and contained little protection for the environment. This chapter focuses only on those aspects of the *Fisheries Act* which relate to fisheries conservation and those aspects of the *Whaling*

Industry Act which provide protection for whales. The *Whaling Industry Act* has been repealed but will be discussed in this chapter for comparative purposes.

7.3 Fisheries Conservation Management and Development

Section 3(1) of the *Fisheries Act 1989* requires the Director to progressively prepare and keep under review plans for the conservation, management and development of fisheries in the fisheries waters. Fisheries waters are defined as the territorial waters of the Kingdom, internal waters including lagoons and such other waters over which the Kingdom of Tonga from time to time claims sovereign rights or jurisdiction with respect to the marine living resources by legislative enactment or by Royal Proclamation.

Under the definition section of Part I of the Act "fish" is defined to mean

> ....any aquatic animal whether piscine or not and includes any mollusc, crustacean, coral (living or dead), sponge, holothurian (beche-de-mer) or other echinoderm, and turtle, and their young and eggs.

7.4 Management Plans

Any fishery plans prepared by the Department of Fisheries must indicate the present state of exploitation of the fishery, the objectives to be achieved in its management and development, the management, licensing and development of measures to be applied, the statistical and other information to be gathered about the fishery and the amount of fishing, if any, to be allowed to foreign fishing vessels (s 3(2)). In the preparation and review of each fishery plan, the Director is required to consult with any local government authority and with local fishermen concerned (s 3(3)). Each fishery plan and each review must be submitted to the Minister for approval (s 3(4)).

The legal requirements for the management of fisheries indicates the necessity for biological and statistical information before any assessment of the state of exploitation of the fishery is possible. It is expected that conservation measures, the protection of endangered species and the zoning of special sensitive areas would be included in fishery plans, though it was not possible to obtain sufficient information at the time of the Review to assess the degree of compliance with the particular sections of the Act described above. The Act is a new piece of legislation and it is anticipated that guidelines detailing the Ministry's interpretation of fishery plans will be developed and standards established to guide those involved in both domestic and commercial fishing.

7.5 Licensing of Vessels

Local fishing vessel licences are only valid for the areas endorsed on the licence. The fisheries, methods of fishing, type and quantity of fishing gear will also be endorsed on the licence (s 6(1)). A fishing vessel licence can however be refused on any of the following grounds:

(a) that it is necessary to do so in order to give effect to any licensing programme specified in a fishery plan, or in the case of a fishery not previously exploited, where the Registrar believes that it would be detrimental to the proper management of fisheries to issue a licence to exploit that fishery.

(b) that the Registrar has reason to believe, in view of previous convictions for fisheries offences, that the applicant will not comply with the conditions of the licence.

(c) that the vessel does not comply with the laws and regulations on safety.

(d) such other grounds as are specified in this Act or any regulations made under this Act (s 5(4)).

Where a local fishing vessel is used in contravention of any condition of the local fishing licence, the master, owner and charterer of that vessel is each guilty of an offence and will be liable upon conviction to a fine not exceeding $500 (s 5(5)).

Regulations may be made by the Minister to prescribe different classes of local fishing vessel and the areas or distances from shore within which each class of fishing vessel may operate (s 6(2)).

7.6 Local Committees

The Act empowers the Registrar, under the direction of the Minister, to establish local committees from professional fishermen of the fisheries concerned, to consult and advise him or her regarding the number of fishing vessels to be allowed to fish in certain areas or fisheries and the allocation of licences (s 7). The involvement of Local Committees is intended to facilitate a process for shared information between Government and the local community, and to assist in the resolution of problems likely to arise over the resources. It also provides the opportunity for licences to be withheld until environmental factors have been taken into consideration.

7.7 Commercial Sport Fishing

A valid commercial Sport Fishing Vessel Licence is necessary before any fishing vessel can be used for reward or hire for the purposes of sport fishing in the fishery waters. But an application for a licence for a local fishing vessel may be refused for the same reasons as outlined for the issue of a local fishing vessel licence (s 8).

7.8 Foreign Fishing

Section 10 of the Act enables the Kingdom of Tonga to enter into bilateral or multilateral access agreements or arrangements providing for the allocation of fishing rights. Any rights allocated must not exceed the total resources or the amount of fishing allowed for the appropriate category of foreign fishing vessels under the fishery plan (s 10(2)). Any agreement or arrangements made must include provisions establishing the responsibility of the foreign party to take all measures to ensure compliance by its vessels with the terms and conditions of the agreement and the laws in force relating to fishing in the fishery waters (s 10(3)).

The Act does not permit the use of foreign fishing vessels for fishing or related activities, except for marine research or survey operations if authorized (by the Minister), without:

* a valid foreign fishing vessel licence;
* a commercial sports fishing vessel licence; or
* a valid foreign fishing vessel licence issued under a multilateral agreement or arrangement (s 11(1)).

The Minister is empowered by the Act to issue a foreign fishing vessel licence under a bilateral agreement and authorize the vessel to be used in the area of the fisheries waters for fishing and related activities as specified in the licence (s 11(3)). However, no foreign vessel will be issued with a licence unless there is in force with the Government of the flag state of the vessel or with an association representing the foreign vessel owners or charterers of which the owner or charterer is a member, an access agreement or arrangement to which the Kingdom is a party (s 11(4)). If a foreign fishing vessel fishes in contravention of the licence provisions, the master, owner and charterer is each liable to a fine of up to $500,000. If the terms of the licence are breached, the master, owner and charterer will each be guilty of an offence and be liable to a fine not exceeding $250,000.

7.9 Marine Scientific Research

Section 14 relates to marine scientific research operations and enables the Minister "On the submission of a satisfactory research plan to authorize any vessel or person to undertake marine scientific research and survey operations in the fisheries waters and may in granting such authorization exempt such vessel from the requirements of any fisheries management and conservation measures that may be prescribed".

The Minister may impose conditions on any authorization such as allowing scientific observers or other personnel designated by the Minister on board the vessel. Copies of all data and information generated by the research or survey must be submitted to the Principal Fisheries Officer, together with results and conclusions. No results of such a survey are to be published or made known internationally without the prior written agreement of the Minister. There is a penalty provision prescribing a fine of $10,000 on conviction.

7.10 Fishing Licences

Every fishing licence may be subject to general and special conditions (s 15(1)). The Minister may, by Order published in the Gazette, specify general conditions additional to those prescribed to which all fishing licences must be subject including conditions relating to open and closed seasons, prohibited fishing areas, minimum mesh sizes and minimum species sizes (s 15(2)).

The Registrar or, in the case of a foreign fishing vessel, the Minister, may attach to any fishing licence such special conditions as he or she may think fit relating to:

(a) the type and method of fishing;

(b) the area in which such fishing is authorized;

(c) the target species and amount of fish authorized (s 15(3)).

Section 15(4) empowers the Registrar or the Minister, where he or she is satisfied that if it is expedient for the proper management of fisheries in the fisheries waters, to vary or delete any special conditions attached to any fishing licence. The licence holder must be notified of any such change.

Licences are valid for 12 months unless earlier cancelled or suspended, except that local fishing vessels may obtain a licence for 5 years (s 17).

Section 18 provides for cancellation and suspension of foreign fishing licences. One of the grounds for doing so is: "....in order to give effect to any licensing programme specified in the fisheries plan". Another reason for cancellation is where the terms of the licence have been breached or the vessel used in contravention of the Act. Any person aggrieved by the refusal of the Registrar to issue or renew a licence in respect of a local fishing vessel or the cancellation or suspension of a licence may appeal to the Minister within 30 days (s 20).

7.11 Prohibited Fishing Methods

Under section 21 of the Fisheries Act any person who:

- permits uses or attempts to use any explosive, poison or noxious substances to kill, stun, disable or catch fish; or

- carries, possesses or is in control of explosives, poisons or noxious substances to take fish;

is liable on conviction to a fine not exceeding $1,000 and/or up to 2 years imprisonment.

7.12 Prohibited Fishing Gear

It is an offence for anyone within the area of the fisheries waters to use or have on board any fishing vessel prohibited gear or to indicate an intention to use any fishing gear that does not conform to the prescribed standard. A person convicted of any of these offences is liable on conviction to a fine of up to $50,000 (s 23).

7.13 Reserved Fishing Areas

Section 22(1) provides that the Minister may, by order published in the Gazette, declare any area of the fisheries waters to be a reserved area for subsistence fishing operations and may specify the types of vessels allowed to fish that area and the fishing methods that may be used.

A person who fishes in an area in contravention of any order is liable on conviction to a fine of up to $50,000.

The remaining sections in this part of the Act deal with the establishment of fish processing plants (s 24), leasing of areas of land, lagoons foreshore and seabed for aquaculture (s 25), the export and import of live fish (s 26), controls over the export of fish and fish products (s 27), and statistics to be provided to the Registrar by people engaged in fishing. There is a penalty of up to $10,000 for those who fail to provide statistics as required (s 28). The Minister may with Cabinet consent, make regulations prohibiting or restricting the export from Tonga of any prescribed species, type or size of fish or other aquatic organism where action is required to protect the supply of fish for the domestic market or in the interests of proper management of a fishery (s 27). It must be noted that under s 26(1) of the *Fisheries Act*: "No person shall import or export or attempt to import or export, any live fish into or from Tonga without the permission in writing of the Director (of Fisheries). In the absence of any permission from the Director the licence to export fish would be invalid.

7.14 Powers of Authorized Officers

Part VI of the *Fisheries Act* deals with the powers of authorized officers. The Minister may, by notice in the Gazette, designate any Government officer to be an authorised officer for the purposes of the *Fisheries Act* (s 29). The Officers are given wide-ranging powers which include the power to search foreign and local fishing vessels, or aircraft within the fisheries limit suspected of illegally transporting fish or fish products. Where an authorised officer believes that an offence has been committed, he or she may, without a warrant, enter and search any premises, take samples of fish found in any vessel, vehicle, aircraft or premises or seize any vessel, gear, equipment, stores and cargo, vehicle, aircraft, hovercraft or any explosives, poison or noxious substances used in the commission of an offence (s 30).

The Minister may also appoint authorized observers (s 37(1)). For the purposes of multilateral or bilateral agreements or arrangements entered into by the Government of Tonga the observers are required to perform such duties as are required under these agreements. The master and crew of fishing vessels are required to immediately comply with every lawful instruction or direction given by the observer and facilitate safe boarding and inspection of the vessel, its fishing gear, equipment, records, fish and fish products (s 38(1)). Upon failure to comply with the instructions of the observer or using any resistance or delaying tactics, a person can be liable to a maximum $500 fine and/or twelve months imprisonment (s 38(3)).

7.15 Regulations

Section 59(1) of the *Fisheries Act* contains a general regulation making power "not inconsistent with the Act for the implementation of its purposes and provisions". The Minister is empowered under section 59(2)) "without limiting the generality of subsection (1) to make regulations for all or any of the following". Among those relevant to this Review are:

(a) the licensing, regulation and management of any particular fishery;

(b) prescribing fisheries management and conservation measures, including prescribed mesh sizes, gear standards, minimum and maximum species sizes, closed seasons, closed areas, prohibited methods of fishing gear and schemes for limiting entry into all or any specified fisheries;

(c) prohibiting fishing for whales and other marine mammals;

(d) providing for the registration and licensing of fishing gear and other fishing appliances;

(e) regulating or prohibiting the use of underwater breathing apparatus;

(f) regulating or prohibiting the use of spear guns or other similar devices;

(g) providing for the licensing and control of fish aggregating devices;

(h) regulating:

  (i) the taking of corals and shells;

  (ii) the setting of fish fences;

  (iii) the taking of aquarium fish;

  (iv) aquaculture operations;

  (v) the creation of offences for failure to comply with any regulation made under this section and the provision of a fine not exceeding $10,000.

7.16 Protection of Whales

The *Whaling Industry Act* (Acts No. 12 1935, No. 10 1979, No. 10 1988) was repealed by the *Fisheries Act 1989*. The only direct reference to whales in the new *Fisheries Act* is in the regulation-making power where section 59, subsection (2) provides:

> Without limiting the generality of subsection (1) the Minister may in such regulations provide for all or any of the following:
>
> (d) prohibiting fishing for whales or other marine mammals.

However it is helpful to consider the previous legislation to see what, if any, protection for whales has been lost.

There is no whaling industry in Tonga today. The *Environment Management Plan for the Kingdom of Tonga*, Chapter 11 para 3.4.5. at page 150, notes:

> Humpback whales migrate through Tonga each August and September. There are not many of them. They frequent the inner areas of Southern Island of Vava'u and West Coast of Vava'u and Hunga. Yachts sometimes approach and sit and watch the whales. There have been no reports of people harassing the whales and the activities seem to be rewarding for visitors.

In view of the interest of whale watching, some consideration may be given to this aspect as a potential tourist attraction. In New Zealand, a fast-growing "whale watching industry" has developed at Kaikoura at the top of the South Island, a popular migratory spot for whales. Only recently, regulations governing whale watching were promulgated. The emphasis on conservation and the welfare of the whales is paramount. The regulations are made pursuant to the *Mammals Protection Act*.

Section 2 of the *Whaling Industry Act* provided:

> the wounding, capture, taking or killing of whales of all species is prohibited unless approved by the Privy Council in accordance with Section 3.

Section 3:

> His Majesty in Council may make regulations in respect of any exceptions to the prohibition of capture, taking or killing of any species of whales.

The 1988 revised addition of the Laws of Tonga noted that "no such regulations have been made as at 31.12.1988". It was not possible to ascertain whether any regulations were subsequently made.

Section 4 of the Act provided that:

> every person who commits an offence against this Act is liable to a fine not exceeding $500 for every whale affected or imprisonment not exceeding 2 years.

7.17 Conclusion

1. It appears that the limited protection of whales previously afforded by the *Whaling Industry Act* has been lost. While there is some potential protection in regulations that may be made under the regulations to the *Fisheries Act 1989*, those regulations can only be made with respect to prohibiting fishing for whales. It would seem that some wider protection is required. The importance of conservation measures in respect of whales and marine mammals generally is such that legislation capable of standing alone is warranted to ensure that the proper protection and conservation of these species is ensured. It is suggested that a *Marine Mammals Protection Act* which not only sets up prohibition against the capture, taking, killing, etc of whales but also puts prohibitions in place concerning parts and derivatives of whales, teeth and other parts which are sought after would be appropriate legislation at this time. Suitable prohibitions need to be in place to ensure that whales are not endangered by people seeking to profit from these parts (**see Recommendation 10**).

2. In addition, it might be necessary to have some legislative mechanism in place to regulate whale watching especially as tourism in Tonga increases. As noted above, whale watching has become a thriving industry in different parts of the world and to protect the mammals it has been necessary to frame strict regulations regulating the activity. This could be included in the suggested Act (**see Recommendation 11**).

3. The *Fisheries Act* is a well-drafted comprehensive piece of legislation which has been structured to deal with most conservation or environmental concerns that may arise. It has the potential to be a very important part of Tonga's environmental strategy as environmental conditions can be enhanced through the permit, approval, consultation and inspection processes to complement those provisions found in the *Fisheries Act*.

4. To date, no fisheries regulations have been declared but there is a draft set of regulations in circulation. Perusal of the draft regulations indicate that there are no regulations that replace the protection offered to whales under the *Whaling Industry Act*, or the protection offered to turtles under provisions of the *Birds and Fish Preservation Act*, now repealed by the *Birds and Fish Preservation (Amendment) Act 1989* (**see Recommendation 12**).

5. In addition, the prohibition in respect of fish fences, fish traps and trawling in the protected area (e.g. the Fanga 'uta and Fanga Kakau), repealed as a result of the coming into force of the *Fisheries Act*, is not dealt with. The scope of the *Fisheries Act* and the regulation-making power is wide enough to deal with all of these concerns and it is suggested that these matters not be overlooked. The protection previously afforded by Section 7(IV) of the *Birds and Fish Preservation Act* which deals with the prohibition of erecting fish fences or fishing for commercial purposes in protected areas has disappeared with the passage of the *Birds and Fish Preservation (Amendment) Act 1989* and had apparently been overlooked in the new draft Fisheries Regulations. The attention of the Fisheries Department was drawn to this matter during the period of the Review. It is understood that the Regulations are expected to be in the near future (**see Recommendation 13**).

7.18 Recommendations for Chapter Seven

10. It is recommended that the protection of whales under the repealed Whaling Industry Act be incorporated in the proposed *Fisheries Regulations*. It is further recommended that consideration be given to a stand-alone legislation to protect marine mammals such as a *Marine Mammal Protection Act*.

11. It is suggested that legislative mechanisms be considered to regulate whale watching.

12. It is recommended that specific protection be considered for turtles in the *Fisheries Regulations*.

13. It is recommended that the prohibition with respect to fish fences, fish traps and trawling in the protected areas be not overlooked in the *Fisheries Regulations*.

CHAPTER EIGHT

MINING AND MINERALS

8.1 Introduction

There are at present no known commercial deposits of valuable minerals in Tonga, nor is there any proven hydrocarbon resource. Oil exploration however commenced in the late 1960s in Tongatapu and although no viable commercial quantities have been found to date, interest in oil exploration continues to remain active.

8.2 Statutory Background

The *Minerals Act 1949* begins with the premise that all minerals are deemed to be the property of the Crown and that the Crown has the right at all times to "to search, dig for and carry away all such minerals of every description" (s 3).

Where minerals are found in land other than Crown land, the Minister of Lands is required under section 7 of the Act to pay the landowners such royalties and compensation as are determined by His Majesty in Council. Royalties refer to payments received by the owner of land from a person licensed or, in this case, the Crown, to take minerals from it. Compensation is the term used for a payment made for loss or damage to a person's property resulting from the exploitation of minerals.

Licences and leases under the *Minerals Act* are restricted to Tongan and British subjects and to Tongan companies or to a British company registered in some part of the British Commonwealth. The management personnel and a percentage of local staff are also restricted to Tongan and British subjects as His Majesty in Council may prescribe (s 13(1).

Government servants are prohibited from acquiring or holding any rights directly or indirectly under any exploration licence, prospecting licence or mining lease, and any licence, lease or document purporting to confer any such right or interest on any such person is null and void. Exceptions however exist where a person temporarily employed by the Government of Tonga may with the permission of His Majesty in Council, retain rights and interests acquired prior to accepting Government employment (s 14).

8.3 Exploration Licences

His Majesty in Council may grant to any person or company an exploration licence which gives the right to enter upon any land and to explore and geologically examine its surface and below its surface to a depth of up to fifty feet, in such manner as His Majesty in Council thinks fit, and subject to any regulations made under the Act. The licensee is required to pay compensation to the landowners (including the Crown) for all injuries suffered by them to any land surface or crops under cultivation affected by the exploration. The licensee is required at all times to indemnify the Government from all actions, suits, claims and demands by owners or lessees with respect to injuries, related costs and expenses (s 5).

8.4 Prospecting Licenses

The Minister of Lands, with the consent of His Majesty in Council, may grant a prospecting licence to any person or company for the right to enter any land within the Kingdom (including Crown land) to mine, bore, quarry, dig, search for, win and work all or any material as His Majesty in Council thinks appropriate. The licensee must provide for the payment of royalties as prescribed by the Minister of Lands and for compensation for damage done to property (s 6).

8.5 Mining Leases

On the expiration of the prospecting licence, the Minister of Lands may, with the consent of His Majesty in Council, grant to the licensee or any other person or company, a mining lease to mine for the minerals which have been the subject of the prospecting licence (s 8).

Land required for the working of the borings, diggings or any other work connected with the mine may be leased from the Minister of Lands for the same period as that of the mining lease. Leases for such areas of land require the consent of His Majesty in Council. The landowner's consent is not material to the granting of such leases but the lessee is required to pay surface rent to the Minister of Lands who will in turn compensate the landowners in the manner provided for the payment of rents under the *Land Act* (s 9).

When the lessee under the mining lease wants to occupy the surface of land above or adjacent to the area of the mine, he or she has the same rights of compulsory acquisition as those of the Crown conferred under Part VIII of the *Land Act* but subject to the following modifications:

(a) the lessee cannot compulsorily acquire any greater interest than a lease for the unexpired portion of the mining lease and provided such land is necessary for the work in connection with the mines; and

(b) in assessing compensation, all loss or damage caused by the owner or lessee in the severance of land, destruction of crops or improvements must be taken into account (s 10).

The Minister of Lands is also required under section 11 of the Act to pay any owner (not the Crown) any rent or royalty accruing from the mining lease as determined from time to time by His Majesty in Council.

8.6 Inspection

Any Government officer authorized by the Minister of Lands or any Police officer may enter any land subject to prospecting and mining operations or which is subject to any lease or licence granted under the Act and inspect any prospecting, mining operations or works connected with it (s 15).

8.7 Penalties

Unless penalties are otherwise provided for, a person in breach of the provisions of the Act or regulations or who disobeys a lawful order of the Minister of Lands or his Deputy, is liable on summary conviction to a fine not exceeding $100 and/or up to a maximum period of 3 months imprisonment (s 16). Regulations made under the Act may impose penalties for any breach or for any disobedience of a lawful order of the Minister of Lands or any authorised person. A maximum fine of $200 and/or imprisonment for up to a 12 months and the cancellation of the lease or licence granted under the Act can be imposed (s 19(1)).

8.8 Petroleum Mining

The *Petroleum Mining Act 1969*, as amended, prohibits the exploration or mining for petroleum on any land except "by virtue of an exploration licence or a petroleum agreement issued or entered into in accordance with the provisions of this Act" (s 3(1)). Anyone acting in contravention of this section commits an offence and on conviction is liable to a fine of up to $5,000 and/or up to 2 years imprisonment (s 3(2)). Any person wishing to explore, prospect or mine for petroleum may apply for an exploration licence or a petroleum agreement with respect to any area of land. The application may be approved or refused by His Majesty in Council (s 4).

8.9 Exploration Licence and Petroleum Agreements

His Majesty in Council may issue an exploration licence with respect to the whole or any part of an area of land provided that a petroleum agreement has not been entered into with respect to the same area of land. His Majesty is not prevented from issuing more than one exploration licence with respect to the same area of land (s 7(1)). An exploration licence is issued for an initial period of 2 years and thereafter may be extended from time to time provided there is evidence that the licensee has carried out exploration work of a reasonable scale (s 7(3)). The licensee may also at any time apply to His Majesty in Council for a petroleum agreement with respect to the whole or any part of the agreement covered by the exploration licence. Upon issue of the agreement, the Government of Tonga will not be held liable to pay compensation to licensees (s 7(4)). Although a petroleum agreement cannot be issued for an area in excess of 2,000 square miles (s 8(2)), His Majesty in Council may enter into a single petroleum agreement in excess of this figure (s 9).

8.10 Regulations

His Majesty in Council may make, vary, alter, amend, revoke or cancel regulations. The major environmental theme in these regulations is to require petroleum companies to reduce pollutants associated with exploration and production activities. Thus regulations may be made to prevent fires in areas where oil mining is being carried out (s 12(1)(iv), and to establish safety areas around any petroleum reserve installations erected on the seabed. However, no safety area around petroleum mining installations erected on off-shore land may exceed 500 meters in radius (s 12(1)(v)). Regulations for the general safety, health, working conditions and welfare of persons engaged in oil mining, whether on-shore or off-shore, may also be made (s 12(1)(vi)).

8.11 Environmental Provisions

The *Petroleum Mining Regulations* (G.S. 107/85) have a number of significant environmental conditions that prevent or minimize pollution and require the reduction of waste associated with petroleum exploration and production. Petroleum is defined by the *Petroleum Act* to mean :

(a) any naturally occurring hydrocarbons, whether in gaseous, liquid or solid state but excluding coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation;

(b) any naturally occurring mixture of hydrocarbons, whether in gaseous, liquid or solid state;

(c) any naturally occurring mixture of one or more hydrocarbons, whether in gaseous, liquid or solid state, and one or more of the following that is to say, hydrogen sulphide, nitrogen, helium and carbon dioxide and includes any petroleum as defined by (a), (b) or (c) of this definition that has been returned to its natural reservoir (s 2).

The Regulations require any company exploring for petroleum to adopt all practical precautions to prevent pollution of the high seas or coastal waters by oil, mud or other fluid or substances which might contaminate the sea water or shoreline or which might cause harm or destruction of marine life. In the event that pollution occurs as a result of the exploration, the Company is required to take all specified measures in its petroleum agreement to remove the pollution and minimize the damage to the environment (rule 29).

A Company is also required to drain all waste oil, salt water and refuse from tanks, gasholders, boreholes and wells into proper receptacles which must be constructed and maintained for that purpose (rule 38).

The model *Petroleum Agreement* appended to the *Petroleum Mining Act*, made pursuant to section 8(2) of the Act, contains provisions for preventing and minimizing the effects of pollution. Under the Agreement a Company is required to undertake to adequately compensate those persons injured or those persons whose property has been affected by pollution occurring as a result of explorations, and to adopt the measures stipulated by the Government of Tonga to prevent or reduce the effects of pollution (rule 32).

The *Petroleum Act 1959* as amended, regulates and controls the carriage and storage of petroleum for the domestic market as well as for ships carrying petroleum passing through or anchored in port.

Petroleum is defined under this Act to mean:

> any oil, liquid or spirit derived wholly or in part from any petroleum, shale, coal, peat, bitumen or any similar substance but does not include any oil ordinarily used for lubricating purposes or having a flash-point above 95 degrees Celsius (s 2).

No petroleum can be imported or exported except from or at a harbour declared under section 2 of the *Harbours Act* or at such places as appointed by His Majesty in Council (s 3). The master of any vessel carrying petroleum as cargo or the vessel's agent is required to notify the harbour master and supply all information required by the harbour master with respect to petroleum (s 5). Depending on the information supplied and the circumstances existing in the harbour, the harbour master may order the vessel to anchor within or outside the limits of the port (s 6). The storage of petroleum within the Kingdom must comply with the requirements laid down in the Act and any regulations made under it (s 7).

The major emphasis of the detailed *Petroleum Regulations* is on the safety aspects of carriage, loading and unloading of petroleum and storage. The potential for accidental discharges to the surface water, fire, marine pollution, fumes and other air pollutants is significantly greater during the loading and unloading phases. The regulations specify that no petroleum may be conveyed, loaded or unloaded on, into or from any vessel in tanks or packages unless contained in tanks or packages from which petroleum cannot escape in the form of liquid or vapour (rule 8). To prevent the likelihood of environmental contamination and pollution, regulation 6 provides that:

> no petroleum or ballast water or water mixed with any petroleum shall be permitted to escape from or be discharged from any vessel into an inland or tidal water, and no liquid of any kind shall be discharged into any inland or tidal water from bilges, tanks or other spaces which have contained any petroleum unless such tanks or spaces have been cleaned of petroleum, or such liquid has been freed from petroleum by means of a separating apparatus.

The regulations also require due precautions to be taken to prevent fires and explosions (rule 4).

8.12 Sand Mining and Limestone Quarrying

Sand and limestone quarries at present constitute the only minerals of commercial value in Tonga. Sand is surface-mined from beaches in large quantities for use as an aggregate for cement, road seals and for covering graves.

The *Environmental Management Plan for the Kingdom of Tonga* (ESCAP 1990 page 27-35) states that the environmental impact of the present sand mining from beaches is perfectly obvious as many of the popular beaches have been stripped of sand down to beach rock. On Tongatapu and Vava'u most of the sand is mined by the Ministry of Lands, Survey and Natural Resources and then sold to the public. A great deal of sand is also taken by private individuals despite a law forbidding this. The removal of sand by individuals is difficult to control.

Under section 22(1)(e) of the *Land Act*, the King, with the consent of the Privy Council, may make regulations regulating the removal of sand, stone, metal and materials on and from any Crown land or any holding. The *Land (Removal of Sand) Regulations 1936* prohibits the taking or the removal of sand from the foreshore within the limits of the harbour, from Crown land or any other holding without a written permit signed by the Minster of Lands (rules 2 and 3). Any person taking sand or allowing sand to be removed from such places without a permit is liable on conviction to a fine of up to $100 and, in default, to up to 3 months imprisonment (rule 4).

Limestone rock is used for road construction and maintenance. Sand aggregate is used for cement and home and building construction. Quarrying is carried out by digging, blasting and ripping the foraminiferal and fossil coral from hillsides. Currently there are 12 limestone quarries on Tongatapu, of which one Government quarry is exhausted. Of the 6 quarries in Vava'u, one (Oloua) is abandoned and another (Talau) is nearly exhausted. Although limestone rock is mined on all the major islands, the Land (Quarry) Regulations (G.S. 3/85) prohibit the use of a tax allotment as a quarry and further prohibits the quarrying and removal of stone of any description from a tax allotment. A person can be liable on conviction of up to a $100 fine (rules 1-4).

8.13 Conclusion

1. The *Minerals Act*, although not praised by environmentalists, is considered by mining authorities to be good mining law by mining industry standards. The inadequacy of environmental provisions in this legislation may be due to the fact that it dates back to 1949. Since then, perceptions and technology have changed considerably. The effect of mining activities on natural resources has become an important consideration. Damage assessments, soil restoration provisions, protective measures to prevent or reduce pollution from mining wastes and Environmental Impact Assessments are now recognised as key components of a modern mining legislative framework. It is therefore suggested that these aspects be considered in any further amendments to the *Minerals Act* **(see Recommendation 14)**.

2. The *Environmental Management Plan for the Kingdom of Tonga* (ESCAP, 1990) suggests solutions for exhausted quarries that "with a little forethought, the quarries could be carved in such a way that the end product, after limestone is removed, would be of use to the community as, for example, an industrial site, sports area, amphitheatre or boat harbour" (page 30). These suggestions are fully supported **(see Recommendation 15)**.

8.14 Recommendations for Chapter Eight

Mines and Minerals

14. It is recommended that the *Minerals Act 1949* be reviewed for the purpose of enacting amendments to incorporate environmental controls, such as a requirement for EIAs.

15. It is recommended that the recommendations made in the *Environmental Management Plan for Tonga* (ESCAP, 1990) with regard to exhausted quarries be given consideration with a view to implementation.

CHAPTER NINE

WATER SUPPLY AND WATER QUALITY

9.1 Introduction

Tonga's *Sixth Development Plan* points out that freshwater resources are limited in supply and during the Planned period the demand for water could be so high that the resource "might cease to be sustained by natural recharging" (page 284). A number of problems identified in the *Sixth Development Plan* include the following:

* damage to freshwater lenses by over-pumping of wells causing salt water intrusion and the over-exploitation of thin lenses in some islands which has resulted in the pumping of saline water for domestic use;

* existing water regulations are poorly enforced. The regulations have failed to protect national water resources against possible depletion; and

* the legislation allows only minimal control of water pollution and does not set standards for the construction and protection of wells and sanitary facilities (page 248/249).

Fresh water supplies in Tonga are mainly from ground water lenses with the exception of 'Eua and Niuatoputapu where the freshwater supply is obtained from spring outflows on top of impervious rocks (Faka'osi 15 April 92) and in Tofua and Niuafo'ou where fresh water sources are found in lakes in volcanic craters. The main fresh water source in some of the smaller islands is through roof catchment of rain water.

9.2 Institutional Structure

Water supplies in Tonga are managed by three distinct authorities, the Department of Public Health, Ministry for Health (MOH), the Hydrogeology section of the Ministry for Lands, Survey and Natural Resources (MLS&NR), and the Tonga Water Board (TWB). The MOH is responsible for the water supplies in rural areas in conjunction with the Village Water Committees in each village. The Tonga Water Board is responsible for water supplies in the 4 urban areas of Nuku'alofa, Pangai-Hihifo, 'Eua and Neiafu; and the Hydrogeology section of the MLS&NR is responsible mainly for managing the ground water resources by controlling the drilling of wells, the rate of water pumped from underground water lenses and monitoring, testing and maintaining the quality of the water.

9.3 Statutory Background

9.3.1 Urban Water Supply

The four urban water systems (Nuku'alofa, Neiafu, 'Eua, Pangai and Hihifo), which serve about a third of the population, are regulated and controlled by the Tonga Water Board. In the capital, Nuku'alofa the industrial and institutional facilities account for some 20% of the estimated 5.5 million litres of water produced per day, though a study conducted in Tonga estimates that about 27% of the daily output is lost in the mains. The Tonga Water Board has purchased leakage detection equipment to resolve this problem (*Sixth Development Plan*, pages 246-247).

9.3.2 Tonga Water Board

The Tonga Water Board established as a body corporate under the *Water Board Act 1966* by an Order in Council passed on 22 December 1966 (s 3). The Board consists of not less

than 7 nor more than 15 members, chaired by a Minister appointed by Cabinet (s 4). The quorum for Board businesses consists of:

(a) the Chairman or Deputy Chairman;

(b) the Director of Health or his nominee (being a medical officer);

(c) the Manager of the Board;

(d) the Water Engineer of the Board; and

(e) such number of other members to constitute a majority.

The Act does not directly specify the powers of the Tonga Water Board but provides for them by reference to the *Electric Power Board Act*. Section 26 of the *Water Board Act* provides that:

> the power, authority, rights, duties and obligations conferred or imposed on the *Electric Power Board Act*...shall with such adaptations or modifications as are necessary or convenient to render those powers, authority, rights, duties and obligations applicable and appropriate in relation to the production, control, management and distribution of water supply throughout the Kingdom, devolve upon the Board.

The regulation and control of water supplies are detailed in the *Water Supply Regulations*. Anyone wishing to obtain a supply of water must apply to the Tonga Water Board enclosing not less than 50% of the estimated cost for the connection (rules 3 and 4). Water is not supplied unless it is metered except where the Tonga Water Board otherwise directs (rule 6(1)). The Tonga Water Board is also responsible for the erection and maintenance of fountains, baths and washing places for public use and fire hydrants on or near streets (rule 11). The selling of water supplied by the Tonga Water Board is prohibited except with the Board's authority (rule 18(1)), and the wasting of water is also prohibited (rule 18(2)). Anyone convicted under regulation 18 (i.e for selling water without authorisation or for wasting water) is liable to a maximum fine of $20 and a further fine of $10 for each day the offence continues (rule 18(3)). The unlawful use of water through diversions or takings, creates an offence, and anyone convicted is liable to a fine of $20 a day for every day the offence is committed (rule 19).

Anyone who bathes or washes any animal, animal skin, clothes or any other thing in the waterworks or allows sewage or drains to run into the waterworks, permits livestock in any catchment area, or allows any water works to be fouled or polluted or made unsafe or dangerous for human consumption, commits an offence and is liable to a maximum fine of $100 and/or a maximum term of imprisonment of 2 years (rule 20).

The Regulations give the Director of Health, in the interest of public health, power to:

* inspect the waterworks;

* inspect the records, works and laboratory equipment of the Board;

* examine and test any water in or from the waterworks; and

* recommend the replacement of equipment and materials used in the waterworks, the alteration of laboratory procedures, the addition of water treatment plants and anything in relation to waterworks which affects the health of the public (rule 26(1)).

In the event that recommendations of the Director of Health is not carried out by the Tonga Water Board, the Director is obliged to report the matter to the Principal Board of Health (now the Minister of Health) and any direction made by the Minister "shall be conclusive and final and shall be carried out" (rule 26(2)). Any failure to comply with the direction is an offence and a maximum fine of $100, or a maximum term of 2 years imprisonment can be imposed (rule 26(3)).

9.4 Public Water Supply - Rural Areas

Under the *Public Health Act 1913*, as amended, the ownership of all public water supplies is vested in His Majesty in Council and management and control is vested in the Principal Board (s 37). Every public water cement tank erected must have one or more partitions and emptying taps to facilitate cleaning (s 38). Every public cement tank is to be cleaned at least once a year and at any other time as ordered by the Medical Officer, Sanitary Inspector or District Officer (s 42). Anyone who wilfully damages any part of a public water supply will be liable to a fine of up to $20 and, in default, to three months imprisonment and, in addition, the cost of repairing the damage done can be ordered to be paid (s 40).

Where there are private tanks and wells, a duty is imposed on the District Board to inspect, make orders and give directions with regard to them (s 44). The digging, sinking or construction of any well requires the written permission of the District Board which may impose conditions regarding the work to be undertaken (s 45(1)). The occupier or owner of the land must completely board-over the well to the satisfaction of the District Board (s 45(2)), in order to prevent pollution, and animals and humans falling into the well.

The siting of latrines is also important because of the potential problems associated with the contamination of ground water lenses through seepage of waste. The District Board is empowered under section 32 of the *Public Health Act* to approve patterns and types of latrines for any dwelling house, shop, workshop, factory, school or place of public entertainment.

The MLS&NR has responsibility for the protection of natural resources through its Environment Planning Section and this includes the protection of water resources through the Hydrogeology Section though there is no currently no law for this role. The other Ministries having a role with respect to water resources are the Ministry of Agriculture with interests in irrigation and the Ministry of Works which owns and operates the only well digging rig in Tonga (**see Recommendation 16**).

9.5 Tonga Water Supply Master Plan

A *Tonga Water Supply Master Plan* was prepared in August 1991, by PPK Consultants Pty Ltd. in association with Riedel & Byrne Pty Ltd. The Plan reviews the responsibilities and capabilities of organisations involved in the development and operation of water supplies and the management of water resources. The Plan not only provides an extensive analysis of the existing water legislation and the responsibilities of various agencies and Government Ministries dealing with water but also makes recommendations to strengthen and improve the present institutional arrangements and to amend the legislation accordingly. The Plan provides as follows:

> Some areas relevant to the institutional aspects of the study which require legislation are to:
>
> * clarify the roles of relevant bodies; especially of the Ministry of Health, Tonga Water Board and the VWCs and to implement the changes to administration and management of the village water systems as proposed in the Report. This will involve the legislative means by which villages may become part of the Tonga Water

Board operation or may remain under the operation of the VWC. In either case, the role of MOH in the technical support of reticulated village systems is to be transferred to the Tonga Water Board, on a commercial basis. MOH's role will continue to be the agency responsible for monitoring the health aspects of water quality. It will also have a role in assisting VWCs with all aspects of water supply in non-reticulated village systems.

* ensure that relevant water resources and supply data are collected and that water resources development planning be undertaken. This applies, in varying aspects, to the Tonga Water Board, Ministry of Health, Ministry of Land, Surveys and Natural Resources and other bodies.

* give the MLS&NR the responsibility and power to control the use of the water resource (page 32/33).

According to para 4.6 in the Master Plan, a separate report on legislation has been prepared as part of the Master Plan study (**see Recommendation 17**). Reference is also made in the Plan to recommendations made for legislative changes in an FAO Report by Wilkinson in 1985. It was not possible to obtain either of these reports during the period of this Review.

9.6 Recommendations for Chapter Nine

Water Supply and Water Quality

16. It is recommended that legislation be considered to clearly detail the responsibilities of the Ministry of Land, Surveys and Natural Resources to control and protect water resources.

17. It is suggested that the recommendations made in the *Tonga Water Supply Master Plan* to improve the present institutional arrangements and to amend the legislation should be considered with a view to implementation.

CHAPTER TEN

WASTE MANAGEMENT AND POLLUTION

10.1 Introduction

The *Environmental Management Plan for the Kingdom of Tonga* (ESCAP 1990) states that municipal dumps in Tongatapu and Vava'u are located in mangrove swamps and that there is no inventory of hazardous materials which might be dumped into the mangroves and that there are no controls of any sort. Paint residues, pesticide containers, batteries containing lead, plastics of all descriptions and all by-products of industrial activities and urban wastes are disposed of in the dumps (page 139). Leachates and other toxic substances such as pesticides applied by the Health Department on the Popua (Nuku'alofa) dump flow towards Fanga'uta Lagoon thereby contaminating the area. In some areas, rubbish is thrown into the sea and onto the foreshores. The dump in Nuku'alofa is frequently burning and the resultant fumes and smoke, containing a wide range of carcinogenic substances, cover urban residential areas (page 140). The Management Plan highlights the difficulties in dealing with an unending stream of municipal rubbish.

The management and control of wastes is primarily the responsibility of Government, but both the public sector and industry have an important role to play in waste management. The role of Government is defined through a framework of legislative and institutional controls.

10.2 Solid Waste

The Ministry for Health is in charge of municipal solid waste management, including waste pick-up, dumping and maintenance of the dump site. There are no regulations to regulate what should or should not be deposited in the dumps (page 142).

The *Garbage Act 1949* as amended, defines garbage to include household refuse, empty cans, rubbish, trade refuse and waste, but not night-soil (s 2). Section 8 of the Act requires every owner or occupier of a premises to keep garbage cans covered, clean, in good repair and easily accessible to the garbage collector. Garbage from premises must be deposited in garbage cans and not deposited on roadways, vacant land, foreshore, streams or creeks (s 11).

The *Public Health (Refuse Dumping Ground) Regulations* define "refuse" to mean any rubbish, offal or waste matter (rule 2). Under the Regulations, the Minister of Health, with the consent of Cabinet, can from time to time declare certain areas or places to be dumping grounds for refuse (rule 3). Dumping grounds must be declared as far away as possible from villages and towns and the boundaries and location of the dumping grounds must be clearly indicated in a notice published in the Gazette (rule 4). The regulations do not specifically require an environmental assessment to be done before the declaration is made for any site (**see Recommendations 18 and 19**).

Part V of the *Public Health Act 1913*, as amended, provides some remedies for a host of environmental problems under the law of public nuisance. A public nuisance is a situation that interferes with a public right; the Act describes the effect of conduct that gives rise to the creation or maintenance of the nuisance. The Medical Officer or Sanitary Inspector is empowered under the Act, for reasons of public health and safety, to abate the nuisance either through direct action or through resort to the courts for an order compelling the person who created or maintains the nuisance, to abate it.

If it appears to a Medical Officer or Sanitary Inspector that:

* any premises, pool, tank, cistern, drain, gutter, privy, urinal, cesspool, dung-pit, refuse receptacle or animal are kept in such a state to be a nuisance or dangerous to health; or that any accumulation or deposit on any premises, or that any dwelling is so overcrowded to be dangerous and injurious to health, a notice must be served on the owner or occupier of the premises to abate the nuisance. If the owner or occupier is clearly not at fault, then notice may be served on the person responsible for the nuisance but if such person cannot be found, the Medical Officer or Sanitary Inspector may abate the nuisance at Government's expense (s 33).

Should a person served with an abatement notice fail to comply with it, a magistrate may fine him or her $10 or impose a 2 months prison sentence in default (s 34(1)). The magistrate is given further powers by section 34 of the Act to require the defendant to abate the nuisance within a specified time or to execute any necessary work to prevent the recurrence of the nuisance (s 34(2)). For non-compliance with a magistrate's order, the offender will be further liable to a fine of $1 per day for the period of default. The Board of Health is also empowered by the Act to abate the nuisance and by way of proceedings in the Magistrate's Court may recover any expenses incurred from the offender (s 35).

A Medical Officer or Sanitary Inspector also has the power to serve an abatement notice on the District Officer should any accumulation, deposit, rank-growing bush, or standing water, considered dangerous to health be found in any town, common or public land situated within or close to any town, and further found to be dangerous to health. The notice may require the nuisance to be abated within a specified time. On the service of an abatement notice, the District Officer is required to summon forthwith a fono (meeting) of the taxpayers to apportion work to be done at appointed times. Any District Officer failing or refusing to comply with the requirements of an abatement notice is liable to a $20 fine and 3 months imprisonment in default. Any taxpayer who, without proper excuse refuses or neglects to comply with the work allotted to him or her, will be liable to a $10 fine and 2 months imprisonment in default (s 36).

10.3 Hazardous Waste

According to the Environmental Management Plan for the Kingdom of Tonga (ESCAP, 1990), pesticide containers present a major danger as some of the plastic drums are used for catching and holding rain water. Veterinary and hospital drugs, chemicals, fabric dyes, old paint, asbestos, photochemicals and other hazardous wastes common to Tonga need to be carefully disposed of and especially regulated. One of the problems encountered during the Review was the lack of specific data on the disposal of hazardous waste and there appears to be no specific regulation dealing with the disposal of this material. The Environmental Management Plan deals with this specific matter and recommends the establishment of a *Hazardous Materials Act* (page 142) (**see Recommendation 20**).

10.4 Sanitation

One of the most significant hazardous waste issues in countries constrained by shortage of land is the location of sanitary disposal sites near the centre of population, as these sites pose the potential for serious incidents.

The Environmental Management Plan states that all sewage in Tonga is disposed of by latrines (wet or dry) or septic tanks. This includes wastes from public toilets, hotels and public buildings, industrial sites and households. In Nuku'alofa about 70% of the households use septic tank soil absorption systems for disposal, 20% use pour-flush latrines and 10% use pit latrines. Sludge is collected by pump trucks provided by the department of Works and placed in small dyke enclosures at a site east of Nuku'alofa (page 124). The dykes are poorly secured. Under section 32 of the *Public Health Act* the District Board is required to approve the patterns or types and the number of latrines that are to be erected for schools, entertainment areas, factories, dwelling houses, shops and

other buildings. The Hydrogeology Section of the Ministry of Lands, Surveys and Natural Resources has responsibility for the management and protection of ground water resources. Thus any approval given by the District Board for the construction of latrines is subject to the advice of the Hydrogeological Section's assessment of the ground water location in the area.

A study undertaken by Lloyd and Belz on sanitation and reclamation in Nuku'alofa makes the following observations:

> The main objective of any sanitation is the sanitary disposal of human wastes in such a way as to remove it from human contact and thereby interrupting the faecal-oral route of disease transmission. One of the important components of this is the protection of the environment and especially the ground water supplies from pollution caused by improper disposal (Lloyd and Belz).

The Sanitary Superintendence Regulations made pursuant to section 50 of the *Public Health Act* prohibit the deposit of human faeces on the surface of any ground, or in any other place than in a latrine, or septic tank or any other device for the reception of night-soil approved by the Principal Board of Health. This regulation will not be breached if a person is not within easy distance of a sanitary convenience, and deposits human faeces in a place at least 100 yards from any human habitation, highway, path, well, stream bed, cistern or place frequented by human beings (rule 18).

Because of the serious risks to health and the environment posed by minimally controlled sanitary disposal sites, it is suggested the regulations be expanded to include more control with regards to securing the waste disposal sites from animal and unauthorized human intrusions (**see Recommendation 21**).

10.5 Pollution

Air pollution from motor vehicles in Tonga is not strictly controlled. It is suggested that regulations be made to include control of emissions from motor vehicles (**see Recommendation 22**).

In relation to water pollution, in the past insufficient focus has been afforded to the different types of pollution in the waterways and the effect of pollution on the marine and coastal resources. In recent years there has been a dramatic response in some countries to protecting the marine environment from human activities and from the disposal of industrial, chemical and sanitary wastes. The discharge of toxic pollutants and refuse from land or ships is just one area where legislation has intervened to prohibit or restrict the disposal of wastes into the marine environment.

The *Harbours Act 1903*, as amended, makes it an offence for any person to build a wharf, stage, jetty, landing place into the harbour or deposit rubbish, stones, earth or timber into the harbour without the permission in writing of the Controller of Customs (s 27). Anyone who throws rubbish, ballast, earth or refuse into the harbour without the permission of the Harbour Master can be liable on conviction to a fine of $20 or one months imprisonment in default. In addition, the Harbour Master can order the offender to remove the rubbish, ballast, earth or refuse form the harbour. Upon failure to comply with the order, the Harbour Master may perform the task at the expense of the offender (s 17). The use of explosives such as dynamite within the limits of any harbour is prohibited except with the permission of the Harbour Master (s 15).

The *Continental Shelf Act 1970* makes provision for the protection, exploration and exploitation of the continental shelf and to prevent pollution resulting from such works. Under section 7(1) of the Act, if any oil or mixture is discharged or escapes into the sea from:

(a) a pipe-line; or

(b) (otherwise than from a ship) as a result of any operations for the exploitation of the sea bed and subsoil or the exploitation of their natural resources in a designated area

the owner of the pipeline or the operator will be guilty of an offence. This section applies to crude oil, fuel oil, lubricating oil, heavy diesel oil or any other oil as defined by the Prime Minister "having regard to the persistent character of that oil and the likelihood that it would cause pollution if discharged or allowed to escape into the sea."

10.6 Draft Marine Pollution Bill

A comprehensive *Marine Pollution Bill* for Tonga, to prevent the actual release or threat of hazardous substances such as oil and other pollutants, sewage and other waste matters into the marine environment, was drafted by M.C. Mitchell in 1992. This well-structured Bill would meet Tonga's international obligations under the following Conventions:

* *Convention for the Prevention of Pollution from Ships, 1973*

* *Convention on the Protection of the Natural Resources and Environment of the South Pacific Region, 1986*

* any Annexes, Appendices Addenda and any Protocols, to the above-mentioned Conventions and

* any other international agreement for the prevention of marine pollution or the protection of the marine environment.

"Pollutant" is defined in the Bill to mean any substance, or any substance that is a part of a class of substance, or any form of energy, declared by the Minister to be a pollutant and includes any water contaminated by any such substance or form of energy and may also include untreated ballast water, mixtures of pollutant with water or any other substance or form of energy (s 2).

Part II of the Bill deals with the prevention of pollution into and outside of Tongan waters. Part II makes illegal the discharge of oil or pollutants into Tongan waters from any ship, place or land as a result of operation or exploration of the seabed and subsoil. Offences will be committed by those responsible for the discharge or escape. The Master or Owner of a ship will also be liable for the discharge or escape of any oil or pollutants from a Tongan ship outside Tongan waters and the Bill creates offences for the discharge of garbage and sewage from ships and platforms into the marine environment.

Special defences can be invoked if the discharge of oil, pollutants, sewage and garbage was for the purpose of securing the safety of the ship, platform or structure at sea or for saving life at sea.

The Bill authorizes the use of equipment to prevent and deal with pollution and the establishment of reception facilities for ships using ports to discharge or deposit oil residues, pollutants, garbage and sewage into such facilities.

The Bill makes it an offence to store radioactive or hazardous wastes and a person can be fined on conviction of up to a $100,000. A further offence is created by dumping or incinerating without a permit. Guidelines are set out in the Bill for the issue of permits and the dumping and incineration of wastes and other matters.

Part IV of the Bill sets out the powers of the Minister to deal with marine casualties and powers to make regulations to deal with the more detailed aspects of marine pollution (**see Recommendation 23**).

10.7 Litter

There is no specific law to control or regulate the disposal of litter in public places such as on streets and in shopping areas except for those provisions on litter found in the *Parks and Reserves Act*: see chapter 11; (**see Recommendation 24**).

10.8 Recommendations for Chapter Ten

18. It is recommended that categories of waste be specifically defined e.g abandoned motor vehicles, wrecks, hazardous wastes with stringent controls imposed over disposal facilities such as sludge dykes and dumping grounds.

19. It is recommended that the *Public Health (Dumping Grounds) Regulations* be amended to include the requirement for an environmental impact assessment to be carried out before a dumping site is declared and that restoration measures be made a specific requirement when a disposal site is declared closed.

20. It is recommended that consideration be given to the enactment of a *Hazardous Materials Act*.

21. It is recommended that Regulations to the *Public Health Act* be expanded to include more control with regard to securing the waste disposal sites from animal and unauthorised human intrusions.

22. It is recommended that the traffic regulations be amended to include the control of emissions from vehicle exhaust outlets.

23. It is recommended that the *Marine Pollution Bill* be given urgent consideration with a view to implementation.

24. It is recommended that an Act specifically dealing with litter be considered. Littering in public places such as streets, public grounds, shopping areas and other public places should be made an offence.

CHAPTER ELEVEN

BIODIVERSITY CONSERVATION

11.1 Introduction

Biodiversity conservation is one of the most difficult environmental issues facing small Island States as often it poses choices between environmental protection and economic development, and conflict between landowner rights and the government's growing role in its stewardship responsibilities. The global *Convention on Biological Diversity*, which was open for signature at the United Nations Conference on Environment and Development in Brazil in 1992, provides a framework to ensure national and international action to conserve biological resources and to curb the destruction of ecosystems, biological species and habitats. Biological conservation includes all species of animals and plants and the ecosystems of which they are a part. The *World Conservation Strategy* (IUCN:1980) specifies the following three objectives for the conservation of living resources:

* to maintain essential ecological processes and life-support systems;
* to preserve genetic diversity; and
* to ensure the sustainable utilization of species and ecosystems.

One important way to achieve the conservation of living resources is through the establishment of protected areas. A protected area could be created as a Reserve, Sanctuary or some other unit where visits by the public are restricted and forms of human activities such as camping and fishing are prohibited. Conservation of living resources could also be achieved by the establishment of National Parks. However, National Parks differ from Reserves and Sanctuaries in the important respect that they are open to visits by the public for recreation and educational purposes.

11.2 Statutory Background

The *Parks and Reserves Act* ({Acts Nos. 11 of 1976 & 20 of 1988} Cap. 89, 1988 Revised Edition of the Laws of Tonga) is described as

> An Act to provide for the Establishment of a Park and Reserves Authority and for the Establishment, Preservation and Administration of Parks and Reserves.

It can be noted at the outset that the Act provides for the setting up of both Land and Marine Parks and Reserves, or a combination of the two. This Act may be described as perhaps potentially one of the most important pieces of environmental legislation presently enacted in the Kingdom of Tonga.

11.3 Parks and Reserves Authority

The Act provides for the setting up of a Parks and Reserves Authority whose members and numbers may be appointed and determined from time to time by the Privy Council. In the interim,

> the Minister of Lands shall be the Authority and he shall do all things under and pursuant to this Act in the name and on behalf of the Authority (s 3(2)).

At the present time, a Parks and Reserves Authority has not been established in terms of section 3 (1) and the Minister of Lands is therefore the "Authority" in terms of section 3(2).

11.4 Types of Protected Areas

Part III of the Act sets out the three types of protected areas that may be established, namely parks, land reserves and marine reserves.

Section 7 contains a general statement about parks: that they shall be administered for the benefit and enjoyment of the people of Tonga and that there shall be freedom of entry and recreation therein by all patrons.

Section 8 deals with land reserves and states they shall be administered for the protection, preservation and maintenance of any valuable feature of such reserves. Entry and restrictions are to be strictly in accordance with any conditions and restrictions the Authority may impose.

Section 9 deals with marine reserves: "Every marine reserve shall be administered for the protection, preservation and control of any aquatic form of life and any organic matter therein."

Section 10 requires every reserve to be clearly demarcated and fenced and the plan of the same to be posted on a notice board erected on a vantage point in the reserve. This section appears to relate to land reserves as opposed to marine reserves. Marine reserves however should also be clearly demarcated to show the public the area within which the marine reserve falls.

Under section 4(1), the Authority may from time to time, with the consent of the Privy Council, by Notice, declare any area of land or sea to be a park or reserve and in the same manner declare any park or reserve to cease to be such. All declarations made must be published in the Gazette together with the name of the Park or Reserve, a plan or map of the area both as to its own specifications and in respect of its location. The Act also requires that any Park or Reserve must be registered and recorded in accordance with the provisions of the *Land Act* (s 4(2)).

11.5 Regulations

The Act authorizes the Authority (at present the Minister) to make regulations:

(a) prescribing conditions and restrictions the Authority considers necessary for the protection, preservation and maintenance of natural, historic, scientific or other valuable features of any Park or Reserve;

(b) prescribing fees and charges for admission..;

(c) providing for employment of patrons for any purpose which the Authority may consider necessary..;

(d) providing such other matters as are contemplated by or necessary for giving full effect to this Act and for its due administration (s 5).

To date no such regulations appear to have been made and it is recommended that consideration be given for Regulations to be made under the Act (**see Recommendation 25**).

Section 6 sets out the powers of the Authority. Apart from powers to erect signs, fences, buildings etc, to enter into agreements and to do other miscellaneous things, the Authority has the power to "issue warnings and notices, either to the public at large or to any persons or class of persons, in any manner it may deem fit" (para. (e)).

In respect of section 6(c) it is therefore open to the Minister as the Authority to issue warnings and notices to an individual person in any manner the Authority may deem fit". In view of perceived problems in formally charging people using the offence provisions, this particular provision may be extremely useful in devising a system of dealing with people who breach the provisions of the Act, without actually charging them with an offence. This provision coupled with the powers in the preceding paragraph to "appoint any person either permanently or temporarily for any purpose which the Authority may consider necessary" could enable "honorary ranger" type appointments i.e. appointing local people in the area as honorary rangers. They would have responsibility for the area. Such persons could be provided with some form of warrant and could be authorized to issue warnings pursuant to section 6(e) in the name of the Minister, notifying any offender that any further breach of the law may result in a prosecution. This could be a cost-effective measure for policing parks and reserves especially those that are isolated and difficult for the Minister's staff to visit on a regular basis.

This particular issue and other related issues are addressed in the *Environmental Management for the Kingdom of Tonga* at Chapter 12 para 2.8 page 163. They are worth referring to here.

> 2.8.1: In the past, funding for park development was based on Western concepts of parks and reserves. The bigger the park the better. Parks were developed for wildlife or for tourism. People who happened to be in the vicinity were either transplanted or told the area was off-limits. Repeated experience throughout the Pacific has shown that this technique only works if enough manpower and funds are available to patrol the park constantly and levy high fines or prison terms against offenders.
>
> 2.8.2: Previous park and reserve designations in Tonga have been difficult because of a lack of funds and personnel. This is much less of a problem if the community is willing to assist in park development. A park after all, begins by designation of an area as special and then taking steps to delineate and manage the resource. In many cases the community work can be done on a voluntary basis (the Boy Scouts of Vava'u have routinely made and maintained trails on Mount Talau at no Government expense).
>
> 2.8.3: There is no format at present for the involvement of the public with the parks and reserves programme from either an educational or active participation standpoint. Consequently there is no means by which any of the potential participants can become involved with park development.

The plan also recommends entrance fees for Parks and Reserves (**see Recommendation 26**).

This Review supports the comments made and the conclusions drawn in the *Report on Environmental Management for the Kingdom of Tonga* and recommends that consideration be given to the involvement of the community, particularly landowners, in the protection and management of Parks and Reserves.

In passing, it can be noted that one of the powers of the Authority under section 6(a) is "to erect signs, markings, notices and fences". The wording of signs as well as the postings of the conditions of entry is quite important. For example, in a marine reserve it should be made quite clear that fishing, among other things, is not permitted. Under section 9, the Act requires that "every marine reserve shall be administered for the protection, preservation and control of any aquatic form of life and any organic or inorganic matter therein".

11.6 Offences

Under section 11 of the *Parks and Reserves Act*

> every person who without the authorization of the Authority" commits an offence if he or she:
>
> (a) alters damages, destroys, removes or in any way interferes with any feature whether organic or inorganic in any reserve or park....." shall be liable upon conviction to a fine not exceeding $500 or to imprisonment to a term of not exceeding 3 months or both.

11.7 Marine Reserves

Accordingly therefore, it is illegal, amongst other things, to fish in a marine reserve. One of the main rationales of a marine reserve is in fact to protect, preserve and conserve marine life in its various forms. Thus there appears to be an oversight that the notice at Ha'atafu Beach Reserve makes no mention of the prohibition against fishing in the reserve. However, during the course of the Review it was understood that in all marine reserves, the prohibition against taking any marine life, (fish, shellfish, etc) is honoured in the breach, and that people generally are either unaware of the prohibition or choose to ignore it. It is not possible to comment as to whether this is a general or specific problem relating only to particular beach reserves. If the problem relates to all marine reserves it would defeat the whole purpose of a marine reserve. A widespread public education programme is necessary to properly inform people of what they can and cannot do in a marine reserve (**see Recommendation 27**).

These matters were commented on in the *Environmental Management Plan for the Kingdom of Tonga*, Chapter 12 para 2.1.1. to 2.1.3. The observations in that Report confirm the views expressed in this Review. It is understood that a small island nation is not without its difficulties in this area of marine conservation as there are all types of pressures both traditional and otherwise, that make marine conservation difficult. A deep commitment to the concept of marine reserves is therefore required on the part of administrators if marine reserves are to be successful.

Bill Ballantine, writing on marine reserves in the *Leigh Laboratory Bulletin No. 25*, paints a picture of the pressures on its marine environment faced by a tropical island nation. Coral reefs are commonly mined for building material or lime, dynamite fishing and poison fishing are common, siltation from run-off is accelerating owing to deforestation, raw sewage discharges increase and the collection of shells of living and dead molluscs is stripping many areas. He further points out that in a few areas, attempts have been made to set up coastal and marine parks, especially where there is an active and economically valuable tourist trade. It is difficult to get local cooperation and, if this is achieved, poaching from the outside is still a serious problem. Tourism itself, despite being the economic justification for the "reserve", generates more people, a luxury market for fish and souvenirs, more sewage, more land clearance and even reclamations.

In the same publication, the accepted rationale for a marine reserve is summarised as follows:

> The reasons for marine reserves are the same as on land:
>
> Aesthetic and moral: we have a duty to preserve good examples for the future of what still exists. No amount of money or regret can replace extinct species, habitat or ecosystems. The other reasons given for the establishment of marine reserves are recreational, educational, research and management trials.

11.8 Other Offences

Section 11(a) of the *Parks and Reserves Act* has been considered earlier. Other offences are provided for as set out below.

Section 11(b) relates to damaging or destroying property or growth in the Reserve or Park. Section 11(c) deals with depositing rubbish or litter. Section 11(d) deals with obstructing, interfering or disobeying any instructions of any persons authorized by the Authority in any park or reserve in the execution of their duty. Section 11(e) relates to offences against the Act or any regulations.

It is suggested that further legal opinion be sought on section 11 with a view to redrafting so that anyone who does any of the things listed in (a) to (d) "commits an offence against this Act". As section 11 is presently drafted, no offence is created in the way the section has been worded. The section simply states that "every person who without the authorization of the Authority wilfully does any of the following acts, namely (a)....(e) shall be liable upon conviction". These words do not appear to create an offence. The word "or" at the end of paragraph (d) and the letter "(e)" should be deleted so that the words simply follow on. The use of the word "wilfully" could also make it very difficult to secure a conviction.

As far as it could be ascertained during the course of the Review, no individual has been prosecuted under this provision, although there does not appear to be any reason why a prosecution would not follow if a person is found to be committing an offence. In view of the reservations expressed about the provision as it is presently drafted, a legal opinion should be sought on the need to have the section amended (**see Recommendation 28**).

11.9 Rubbish and Litter

A final matter relates to the problems of rubbish and litter in parks and reserves. Section 11(c) makes it an offence to "deposit, throw or leave any rubbish or anything in a park or reserve except in a place or receptacle provided for the purpose". Most public areas in Tonga however suffer from a litter problem. Part of the problem is that offenders are not easily detected and it is difficult to bring a successful prosecution against an offender (the particular difficulties of section 11 aside). Public education is an important weapon in dealing with this problem and whilst programmes have been launched in the past to deal with it, it seems that continual public reminders are necessary. A scheme used successfully overseas involves schools "adopting a park" and making the tidiness of that park their particular responsibility. The same scheme has also been used in respect of beaches.

Finally, section 12 deals with prosecutions and provides that all prosecutions for offences against this Act and any regulations made thereunder shall be made by the Police, the Fisheries Division of the Government (in respect of marine reserves only), or the Authority itself, in the Magistrates Court for the district in which the offence is committed.

11.10 Declaration of Parks and Reserves

In 1979, five areas were declared parks and reserves in accordance with the provisions of the Act.

They are set out in the subsidiary legislation following the Act and are as follows:

(1) Hakau Mama'o Reef Reserve (includes both the island and the reef);

(2) Pangai Motu Reef Reserve (includes both the island and the reef);

(3) Monuafe Island Park and Reef Reserve (includes both the island and the reef);

(4) Ha'atafu Beach Reserve (a beach and reef reserve only);

(5) Malinoa Island Park and Reef Reserve (includes both the island and the reef);

In the *Environmental Management Plan for the Kingdom of Tonga*, Chapter 12 at para 1.0, the role of parks and reserves and protected areas in Environmental Management is stated as being:

> 1.0.1. to prevent depletion or extinction of valuable species of wildlife or wildlife communities and enrich and improve production of land and marine resources;
>
> 1.0.2. to protect areas or items of importance for the Tongan cultural heritage and provide the people of Tonga and visitors with places of recreational educational and scientific importance.

There follows a survey of existing parks and reserves and proposed parks and reserves.

In addition to the five parks and reserves formerly declared as protected areas under the *Parks and Reserves Act*, there are other areas that have been set aside. They include:

(1) The Ha'amonga Trilithon Historic Park. This was announced by His Majesty The King in 1972 but the 19 hectare area has not yet been gazetted;

(2) The Fanga'uta lagoon and Fangakakau lagoon - set aside in 1974;

(3) The Muihopohoponga (Niutoua) Beaches - set aside in 1972 in conjunction with the Trilithon - this proposed beach reserve extends 2 kilometres from the Ha'amonga Trilithon Historic Park south-east along the coast to Muihopohoponga point.

There are 17 other protected areas that have not been formally declared or gazetted. They rely basically on the protection that the *Preservation of Objects of Archaeological Interest Act* provides. As noted, when dealing with that legislation any protection is largely by implication. It would be desirable to formally declare the areas a park or reserve under the provisions of the *Parks and Reserves Act*. Those areas are:

(1) Captain Cook's landing place
(2) Fa'onelua Gardens (Nuku'alofa)
(3) Fatukovuna (Lapaha)
(4) Mounu Reef Giant Clam Sanctuary (Nuku'alofa 1986)
(5) Falevai Giant Clam Sanctuary (Vava'u 1988)
(6) Hala Paini
(7) Haveluliku
(8) Haveluloto Foreshore
(9) Hule Fortification
(10) Mala'e' 'A Tuli and Forest Reserve
(11) 'Otu Langi
(12) Ha'atafu Mission Landing Site
(13) Mt. Zion (Kolomotu'a)
(14) Pangai Si'i
(15) Site of First Sacrament
(16) Vaomapa Terrestrial Park
(17) Vuna Road and Norfolk Pine Tree Reserve.

Nine additional areas have been proposed as protected areas, and they are:

(1) 'Eua Terrestrial Park (4180 hectares)
(2) Volcanic Islands Reserves (to protect bio-diversity in Kao, Late, Niuafo'ou Tofua Islands)
(3) 'Ata Island
(4) Coral Gardens (Vava'u)
(5) Kanokupolu Historic Park
(6) Langi Mu'a Historic Park
(7) Mt. Talau Terrestrial Park (Vava'u)
(8) Pouono Historic Park
(9) Swallows Cave (Vava'u)

It should be noted that there is provision for creating forest reserves under the *Forest Act*. Section 3 of that Act provides that the King in Council may declare any unalienated land to be a forest reserve or a reserved area.

11.11 Recommendations for Chapter Eleven

Biodiversity Conservation

25. It is recommended that consideration be given to enacting regulations authorised by the Act.

26. It is recommended that entrance fees for Parks and Reserves recommended in the 1990 *Report on Environmental Management for the Kingdom of Tonga* be considered.

27. It is recommended that a continuing public education programme on Parks and Reserves and the participation of landowners in the management of Parks and Reserves be considered.

28. It is recommended that further legal opinion be sought with a view to the possible redrafting of section 11 of the *Parks and Reserves Act*.

CHAPTER TWELVE

WILDLIFE CONSERVATION

12.1 Introduction

The conservation of various species and the establishment of protected areas for the preservation of wildlife are often balanced against commercial development of natural resources and the needs of increasing population. In Tonga, there have been early attempts at wildlife conservation as indicated by legislation passed as far back as 1915 (the *Birds and Fish Preservation Act* (Act Nos. 1 of 1915, 13 of 1916, 13 of 1934, 24 of 1974, 21 of 1988, 46 of 1988) Cap. 125 Revised Edition of the Laws of Tonga). In 1990, the Report on the Environmental Plan for the Kingdom of Tonga makes the observation that "there is little knowledge about rare or endangered birds" in the Kingdom of Tonga. "The megapode populations are certainly very low, being endangered by cats, dogs and pigs". This section examines the extent to which the current law permits or requires protection of wildlife species and habitats.

12.2 Statutory Background

Prior to the coming into force of the *Fisheries Act 1989* on the 18th of October 1989 the *Birds and Fish Preservation Act* was described as "an Act to make provision for the Preservation Of Wild Birds And Fish". The *Birds and Fish Preservation (Amendment) Act 1989* which came into force the same day as the *Fisheries Act 1989* has however, deleted the words "and fish". Thus, the various references throughout the Act and Schedules relating to fish are repealed or deleted.

The title to this Act does not indicate the extent of the provisions of the Act. Not only does the Act protect birds but it also sets up protected areas.

Note also needs to be taken that the references in the 1988 version of the Act to the "3rd Schedule" were amended in 1989 by providing for the deletion of the words "3rd Schedule" wherever they appeared by replacing them with the words "2nd Schedule". (s 3 {IX} 20 of 1989).

A further important Amendment made in the *Birds and Fish Preservation (Amendment) Act 1989* is the repeal of the Second Schedule to the Act. The Second Schedule contained a list of protected turtles which were protected for the periods set out in the Schedule. It would appear that the intention was to transfer that protection to regulations made under the *Fisheries Act 1989*. There is power to make regulations that would have the effect of protecting particular species under that Act. For example, s 59(2)(a) enables regulations to be made relating to the "regulation and management of any particular fishery". It was however not possible to establish during the Review whether any regulation has been made to replace the protection afforded turtles in the *Birds and Fish Preservation Act*.

The definition section of the *Birds and Fish Preservation Act*, section 2, contains the following definitions:

> "Protected area" means any area comprising land, and water, or land and water as is specified in the 2nd schedule hereto. (That definition was inserted by Act 24 of 1974)

The 2nd schedule/Protected Area states "the following area is hereby declared to be a protected area: All and whole of the lagoon in Tongatapu known as Fanga'uta and Fanga Kakau, being the area lying to the South of a straight line drawn from Niutao to the Northmost point of Nukunuku Motu and including the Straits known as Holeva and all mangrove and foreshore".

Section 6 of the Act provides as follows:

> the areas specified in the 2nd Schedule to this Act is hereby declared to be a protected area; and the Prime Minister may by Order with the consent of the Privy Council amend the 2nd Schedule. (Amended by Act of 1989)

Section 7 sets out the prohibitions within the protected areas under the Act and provides:

> no person may within a protected area and without the prior consent in writing of the Prime Minister:-
>
> (i) discharge or cause to be discharged into the protected area any effluent, noxious liquid or substance;
>
> (ii) erect any harbour, wharf, pier, jetty or other building works temporary or permanent works;
>
> (iii) cut, damage, remove or destroy any mangrove;
>
> (iv) erect any fish fence, set any fish trap, or trawl for fish (including shell fish) or engage in fishing for commercial purposes (note: this subparagraph was repealed by the *Birds and Fish Preservation (Amendment) Act 1989*);
>
> (v) carry out any drilling or dredging operations.

As noted above, the provisions relating to fishing have been repealed, presumably now to be dealt with in the *Fisheries Act 1989*. The definition of "Fisheries Waters" in that Act includes lagoons. There is provision in Section 22 of the Act for the Minister, by Order published in the Gazette, to declare any area of the fisheries waters to be a reserved fishing area for subsistence fishing operations. However, it was not possible during the Review to establish whether any such Gazette Orders have been made with respect to the area protected by the Second Schedule. (The Order may specify the types or classes of vessel that may be allowed to fish in such areas and the methods of fishing that may be used.) Further, it appears that the previous protection afforded by the provision of Section 7(iv) relating to fishing in protected areas for commercial purposes and the setting up of fish fences and traps in such areas, now repealed, has been lost.

Under the *Fisheries Act 1989*, section 59 empowers the Minister to make regulations, among other things, prescribing fisheries management and conservation measures including mesh sizes, gear standards, minimum and maximum species sizes, closed seasons, closed areas, prohibited methods of fishing gear and schemes for limiting entry into all or only specified fisheries (s 59(2)(c)), and regulating the setting up of fishing fences (s 59(2)(p)(ii)). These regulatory powers are sufficiently wide to provide for protection in the lagoon.

12.3 Protection of Birds

The Act, as the title suggests, also deals with the protection of birds. "Protected bird" is defined to "include all such birds whether imported into, or indigenous to, the Kingdom, and the eggs and progeny of any such birds as are mentioned in Schedule 1 hereto". There are 11 birds listed in the schedule all but two of which, the Land Bird and the Wild Pigeon, have year-round protection. The two others are protected from 1st May to 31st January in each year (**see Recommendation 29**).

Section 3 of the *Birds and Fish Preservation Act* provides that:

> Any person who shall wilfully kill, shoot, capture, take or destroy any protected bird at any time within the period set opposite their respective names in the First Schedule or shall use any means whatever within the said respective periods for the purpose of killing, shooting, capturing, taking or destroying any protected bird or fish shall be liable for every such offence to a penalty not exceeding $20 or in default of payment to imprisonment with hard labour for a period not exceeding 2 months.

There is a proviso to this section which enables the Minister of Agriculture and Forests, with the consent of Cabinet, to permit any person to collect specimens subject to such conditions as he or she may impose on any or all protected birds.

Section 5 of the Act creates a further offence. It provides that if any person within the periods mentioned in the First Schedule should

> catch, buy, sell, offer or expose for sale or knowingly have in his or her possession or under his or her control any protected bird, he shall be liable to a fine not exceeding $50 and in default of payment to imprisonment for a period not exceeding 6 months and the bird, and any boat, net, gear and equipment used in connection with the catching of the bird may be forfeited to the Crown and be disposed of in such manner as the Prime Minister thinks fit.

The final provision relating to the protection of birds is Section 8, which provides:

> 8(1) whenever any police officer or fisheries officer (being a person duly authorised in writing by the Prime Minister to act as such) suspects upon reasonable grounds that any person has committed an offence against this Act, he may inspect and search any baggage, package, vessel or vehicle belonging to such person or in his possession or control, and if there is found as a consequence of such search any protected bird appearing to have been obtained in contravention of this Act the same may be seized and taken before the Court.
>
> 8(2) Any police officer may enter upon any land for the purpose of carrying out the provisions of the Act or for preventing or detecting offences hereunder."

12.4 *Convention on International Trade in Endangered Species*

It is appropriate to mention at this point the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES). Tonga is not a party to this Convention and as a result does not share in the major benefits which the member nations enjoy.

The Convention is designed to govern trade in endangered, threatened or exploited species. A specimen includes any animal or plant whether alive or dead and any recognisable part or derivative. The various species are graded according to whether they are endangered, threatened or exploited by trade. Trade is defined to mean export, import, re-export or introduction from the sea. The Convention is therefore concerned with the regulation of the trade in species across national boarders.

The aim of the Convention is to protect species which are endangered, threatened or exploited by trade, and therefore, domestic legislation which reflects the Contracting Party's responsibilities under the Convention should be designed to give effect to that aim.

Domestic legislation giving effect to the Convention does not necessarily set out to protect indigenous species within the country itself. It is possible that rare indigenous or local species do not feature in the CITES schedules, especially if they are not threatened by trade.

There is a procedure set out in the Convention whereby the species of a member country can be included in the Schedule or Appendix to the Convention.

There are also provisions in the Convention that relate to specimens bred in captivity. Those provisions can be of considerable benefit to member nations where legitimate breeding programmes are being undertaken.

There is such a programme being undertaken in Tonga at the Bird Park. If Tonga was a member of CITES it would considerably facilitate the legitimate movement of birds and eggs produced in captivity. That in turn would ensure the continued survival of rare and endangered species. It should be noted that the Convention applies to both fauna and flora and that if Tonga were to become a party to the Convention it would be required to regulate the present tourist trade in items made from black coral as they appear in the schedule of species threatened by trade (**see Recommendation 30**).

12.5 Conclusion

The Environmental Management Plan for the Kingdom of Tonga makes the recommendation that it would be advisable to update the list of protected birds and include animals in the title of the *Birds and Fish Preservation Act*. This recommendation is supported. In addition, it seems that the present penalties under the Act are very low. Bird smuggling is a very lucrative trade and some rare birds fetch as much as US$20,000 on the international market. Because of the high monetary value of rare and endangered bird species on the international market, highly organised international smuggling rings are active in most countries. Tonga with its many islands and valuable bird species would be an attractive target for such international bird smugglers. For that reason alone the penalties require drastic revision, and there should be provision for imprisonment on conviction. At present, imprisonment only arises in default of payment of a fine (**see Recommendation 31**).

The value which the Kingdom of Tonga places on its rare and endangered bird species and animals should be clearly reflected in strong legislative provisions that are designed to deter would be smugglers from endeavouring to smuggle birds out of the Kingdom. In addition, the legislation should also protect other endangered wildlife in the same way (**see Recommendation 32**).

12.6 Recommendations

Wildlife Conservation

29. It is recommended that the list of protected birds be updated.

30. It is recommended that consideration be given for the Kingdom of Tonga to become a party to the *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*.

31. It is recommended that the penalty system under the Act be revised and strengthened and that imprisonment on conviction be made part of the penalty system.

32. It is recommended that the title and substance of the *Birds and Fish Preservation Act* be amended to include animals.

CHAPTER THIRTEEN

NATIONAL HERITAGE

13.1 Introduction

Legislation providing for the protection of the nation's heritage for present and future generations is usually broadly defined. It could include the natural environment such as special habitats or areas with special scenic features, historic sites or elements of the built environment such as historic or architecturally significant buildings. The preservation of these features could be achieved by specific heritage legislation or through other legislation such as land use planning or other resource-based legislation such as laws providing for forestry and agriculture and building legislation, where specific measures are written into them to ensure that consideration is given to heritage values.

13.2 Statutory Background

Preservation of Objects of Archaeological Interest Act (Act No. 15 of 1969) Cap. 90 1988 Revised Edition Laws of Tonga

The long title to this Act describes it as "an Act to Provide for the Preservation of Objects of Archaeological Interest".

The term "Objects of Archaeological interest" is defined in section 2 to mean

> any structure, erection, memorial, tumulus, cairn, place of internment, pit dwelling, trench, fortification, irrigation work, mound, excavation, cave, rock, rock drawing, painting, sculpture, inscription, monolith, or any remains thereof, fossil remains of man or animals or plants or any bed or beds containing such fossil remains thereof, or any object (or any remains thereof) which is or are of archaeological, palaeontological, anthropological, ethnological, prehistoric, or historic interest.

The definition section also includes the site where any of the above was discovered or exists and where necessary, any adjoining land and the means of access to any site.

Under section 3, no one is permitted, by means of evacuation or surface operation, to search for any object of archaeological interest unless authorized by a permit issued by the Committee with the approval of the landholder and Cabinet.

"Committee" is defined to mean "the Committee on Tongan Traditions appointed by His Majesty the King in Council by Notice Published in Gazette No. 14 of 1954 and any successors thereto duly appointed from time to time" (s 2).

The Committee, before issuing a permit must satisfy itself that the applicant is competent both by training and experience to carry out an exploration or excavation in accordance with the most recent scientific methods, and may, in its discretion, require to be satisfied that the applicant has the support, financial or otherwise, of an archaeological or scientific society or institution of good repute (s 3(2)). The Act also requires the applicant to publish a report within 2 years of completing the archaeological excavation and provide the Committee with 2 copies of any such report (s 3(3)).

The Committee is further empowered under section 4 to impose conditions on any permit it issues to protect the site or any object "from injury, removal or dispersion, or may authorize excavation and removal of any such object to a place within the Kingdom.....". Upon any discovery of objects of archaeological interest, it is mandatory that the Committee be notified of the discovery "without delay" (s 5). Furthermore, the section

requires that any person who discovers any object of archaeological interest, whether pursuant to a permit or not, must without delay notify the Committee of the site and circumstances of the discovery and may be required to deliver the object to the Committee. Any person who fails to comply is guilty of an offence and shall be liable to a fine of $200 or a term of imprisonment not exceeding 3 years or to both.

13.3 Removal and Inspection

Section 6 provides that no object of archaeological interest may be removed from the Kingdom of Tonga unless any such removal has been authorized by a permit issued by the Committee with the approval of Cabinet. The Committee may issue a conditional permit for removal for scientific examination or display purposes. An application for removal must be made in writing to the Committee at least 30 days before the date of the proposed removal. The Committee may require an inspection to be made of the object and that it be sealed before removal through a customs port of entry. The Committee is empowered to inspect and to order cessation of work (s 7). A fine of $200 or imprisonment may be imposed on a person who fails to comply.

13.4 Offences

Section 8 is a general offence provision which provides for a fine of $100 and/or imprisonment not exceeding 6 months where no other penalty is provided.

13.5 Regulations

Section 9 is a general regulation making power. The Act also contains a Schedule prescribing two forms: "Form A - Permit to Search and Remove" and "Form B - Permit to Remove".

13.6 Comments

It was not possible during the period of the Review to ascertain when the Committee last sat, and no regulations appear to have been made under the Act. While the term "objects of archaeological interest", is widely defined and includes "..... any object (or any remains thereof) which is or are of archaeological, ethnological, prehistoric, or historic interest" the emphasis of the legislation is on objects of archaeological interest and archaeological sites. As a consequence, culturally important artifacts or antiquities are not necessarily covered by this legislation. These items can form an extremely important part of a nation's cultural heritage and it is imperative that some legislative protection is in place to ensure that these cultural treasures are not lost.

13.7 Trade

It can be noted in passing that in Nuku'alofa there are vendors stalls catering mainly to tourists and selling items of black coral, shells, carved bone etc. However there are also on display, artifacts and antiquities such as pre-European adzes, axeheads and whalebone weapons with traditional carving. These are not reproductions produced for the tourist trade but are genuine early artifacts for sale to tourists and therefore destined to leave the country. The vendors sell them as early artifacts and will also give a history of where they have been found.

This trade has not gone unnoticed. Concern expressed by a local expert in the 1992 January/February issue of *'Eva* in the Tonga Tourism News Column is quite significant. Archaeologist Sosefo Fietangata Havea warned "there is a danger of rare Tongan artifacts being sold to tourists".

In view of the very high prices that artifacts from the Pacific region fetch in international markets, legislators should not be oblivious to the need for effective laws and prohibitions

which will ensure that these artifacts are not easily removed. While certain cultural items are listed in the Second Schedule of the *Customs and Excise Act* as prohibited exports, that list is by no means exhaustive and does not apply to all artifacts and antiquities. **(See Recommendation 33)**

13.8 Legislation

Legislation to protect artifacts and antiquities need not be complex, and should not be difficult to draft. In the interim, steps need to be taken to make vendors aware of the importance of the artifacts, to ensure that the artifacts remain in the country. At present, while they may not be committing an offence in selling the article, they may commit an offence under section 5(2) of the Act if it can be shown that they originally discovered the object.

At the same time, the Customs Department should be made aware that while these particular artifacts are not prohibited and restricted exports under Part II of the Second Schedule of the *Customs and Excise Act*, (which contains a list of specific items of Tongan culture which may not be exported), it could be argued that they fall within the definition of "objects of archaeological interest" and therefore fall within the prohibition of section 6(1) of the *Preservation of Objects of Archaeological Interest Act* relating to removal from the Kingdom.

13.9 Archaeological Sites

As far as the *Preservation of Objects of Archaeological Interest Act* is concerned, it should be noted that Tonga is rich in archaeological sites and that there is an ongoing need to ensure that these sites are protected.

There is however no provision in the present Act for the recognition, preservation or protection of archaeological sites as such. The need to protect sites is implied in that a permit is required before an excavation or surface operation can take place. However there should be a clear declaration in the legislation that archaeological sites are to be protected. When the *Preservation of Objects of Archaeological Interest Act* is closely analysed, it reveals very few protection mechanisms and may be described more as an Act designed to permit archaeological investigation and removal of objects.

It is suggested that the Act be strengthened by placing the emphasis and thrust on preservation of archaeological sites. It would also be useful to provide for a register of archaeological sites to ensure that they are identified and protected, especially those which may be less well known or important. Some of the more important sites are protected by means of other legislation, such as the *Parks and Reserves Act*, or by *Royal Declaration*. An example of the latter is the Ha'amonga Trilithon Historic Reserve established in 1972 under a *Royal Declaration* **(see Recommendation 34)**.

13.10 Historic Buildings and Sites

Another aspect of heritage protection that is lacking is the protection of historic buildings and sites. While there may be some incidental protection for these places under the *Preservation of Objects of Archaeological Interests Act 1969* there would be many important historic buildings or sites that are not protected. Historic buildings and historic sites require their own heritage protection legislation and there should be some means of identifying and registering such places. Any planning legislation would also need to make provision to ensure their protection. That protection should extend to places which have special significance from a spiritual or cultural point of view.

In an editorial comment in the 1991 October/November issue of *'Eva*, Pesi Fonua said, ".....Other important buildings have disappeared before our eyes in the last few years, not least of which was the Royal Chapel". He further adds:

It is only natural to start thinking of important buildings when you start talking about a museum and it appears in Nuku'alofa that there are not many historic buildings left. With regard to Tongan architecture, there are none left and the oldest buildings are those that were built in Colonial times, i.e. a Victorian style in the late 1800s or early 1900s. The few that come to mind that are still being maintained and occupied include the Royal Palace, the Tongan Legislative Assembly Building and the British Residency.

13.11 Draft Land Use, Natural Resource and Environmental Planning Bill

It is interesting to note that the draft *Land Use, Natural Resource and Environmental Planning Bill* (1990 Version) has various provisions which relate to the protection of historic places and sites.

Section 26 of that draft Bill has a regulation-making power which, among other things, provides as follows:

> 26: The Minister and the Authority with the consent of the Privy Council may, from time to time, make regulations consistent with the provisions of Section 2 of this Act providing for all or any of the following:
>
> (a) rehabilitation of exploited areas, preservation or conservation of any land, marine area, object or building having historic, scientific, architectural, archaeological or other value, interest or appeal;
>
> (b) control of layout, design, construction, maintenance and demolition of buildings.

In addition, in Schedule II of the Bill, among the "Matters for Town Planning Schemes" are: The Preservation and/or Conservation of:

> (a) the amenities and facilities in the town;
>
> (b) any coral reef, tree, bush, mangrove swamp or other plant or landscape of scientific wildlife or historic interest, or of visual appeal; and
>
> (c) any buildings, objects and areas of architectural, archaeological, historic, scientific or other interest, or of any visual appeal.

It is noted that in Schedule IV of the Bill under the heading "Matters for Regional Planning Schemes", that while various matters such as "Social", "Economic", "Natural Resources and Environment", "Cultural Facilities and Amenities" are provided for, matters relating directly to places or sites of historic importance or significance are not specifically mentioned (c.f. Schedule IV, 9{a}). It is clear that historic places or sites could easily be included. Under Schedule V "Matters for Maritime Planning Schemes" among the matters that may be included are:

> 2. The preservation and/or conservation of
>
> (b) structures, objects and areas of historic or other interest, or of visual appeal.

In both Schedule VI "Matters for a National Planning Scheme" and Schedule VII "Matters for Environmental Assessment", there are provisions that could include historic places and historic sites.

The above provisions in the draft Bill would certainly prove useful in putting in place some form of heritage protection in relation to historic places and sites, including sites having special cultural or spiritual significance.

The Bill has been in draft form for a number of years now. It is a Bill which does not seem to have found favour and acceptance, perhaps because of its size and complexity, and, for that reason may be considered an inappropriate system of planning and resource management. The fact that such legislation would be breaking new ground, dealing with land usage which of necessity will impose restraints upon landowners would probably be an additional reason for a certain amount of legislative reluctance. It should however be pointed out that while the proposed Bill deals with land, the underlying system of land usage is not at risk.

At present, there are no land use planning statutes in Tonga. While some incidental statutory and non-statutory administrative constraints exist, they cannot be said to be significant. In reality, such legislation by its very nature must necessarily be detailed and reasonably comprehensive. The drafters of the latest version have kept the provisions reasonably straightforward, and have proposed an administrative structure that seems workable and appropriate. This approach should be pursued, perhaps with some streamlining of its features rather than that some other model should be proposed.

If however, the Bill does not proceed in its present form, then it is important that the heritage protection provisions contained in that draft are not lost sight of and that in addition to an *Environmental Protection Bill*, an *Historic Places Protection Bill* should also be given serious consideration. While in the end result what can be preserved or protected may be limited, it is important that the principle of heritage protection is firmly entrenched in the nation's laws (**see Recommendation 35**).

13.12 Recommendations

National Heritage

33. There should be a separate *Protection of Antiquities and Artifacts Act*, and an *Historic Places Protection Act*. Alternatively, a separate comprehensive *Heritage Protection Act* should be considered, which would cover all categories such as antiquities, artefacts, sites of special cultural and spiritual significance and historic places.

34. There should be greater protection for archaeological sites. Provision needs to be made for the protection of all archaeological sites as a primary objective of the legislation. While archaeological examination and excavation must also be provided for, the legislation must set out clear guidelines. A register of archaeological sites should also be established.

35. The inclusion of heritage protection in planning legislation should "dovetail" with any existing or future heritage protection legislation.

It should be noted that in the Environmental Management Plan for the Kingdom of Tonga at page 165 it is recorded that the Preservation of Objects of Archaeological Interests Act was reviewed by Spennermann (1987) and judged inadequate. Recommendations were made to amend the Act to strengthen its effectiveness. However it was not possible to obtain a copy of that report and recommendations during the course of this Review.

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2. TABLE OF STATUTES AND REGULATIONS OF THE KINGDOM OF TONGA USED IN THIS REVIEW

Animal Diseases Act 1979
Birds and Fish Preservation Act 1934
Constitution of Tonga 1875
Continental Shelf Act 1970
Copra Act 1926
Diseases of Plants Regulations 1964
District and Town Officers Act
Fisheries Act 1989
Forests Act 1961
Forest Produce Regulations 1979
Garbage Act 1949
Government Act 1903
Harbours Act 1903
Industrial Development Incentives Act 1978
Interpretation Act 1903
Land Act 1936
Land (Quarry) Regulations

Land (Removal of Sand) Regulations
Minerals Act 1949
Noxious Weeds Act 1903
Parks and Reserves Act 1976
Pesticides Act 1976
Petroleum Act 1959
Petroleum Mining Act 1969
Petroleum Mining Regulations 1985
Plant Quarantine Act 1981
Preservation of Objects of Archaeological Interest Act 1969
Public Health Act 1913
Rhinoceros Beetle Act 1912
Sanitary Superintendence Regulations
Tourist Act 1976
Town Regulations Act
Water Board Act 1966
Water Supply Regulations
Whaling Industry Act 1935

Note on the Author

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About the Reviews of Environmental Law

The National Environment Management Strategies which have been developed over the past two years in a number of Pacific countries have highlighted a wide range of environmental problems. They have also indicated the urgent need for administrative and legal responses to these problems.

The Reviews of Environmental Law have been carried out as part of the National Environment Management Strategy process. Each of the legal consultants has endeavoured to ensure that there has been broad input from relevant organisations and individuals in the Reviews. This input has been invaluable.

The Reviews indicate that there are many common problems faced by each country, related to the development of adequate legal frameworks for the conservation of the natural and social environment and the proper allocation of natural resources. They clearly indicate that some major initiatives in environmental law are required in each country, both in terms of the need to draft new legislation as well as in the implementation and enforcement of existing legislation. Also clear is the need for environmental legal education initiatives specifically aimed at administrators of the environmental legislation.

Each of the Reviews has made extensive suggestions for reform of the law relating to the environment. With more modern environmental legislation and improved enforcement measures, combined with the initiatives set out in the National Environmental Management Strategies and related documents, the goal of sustainable development will become easier to achieve.

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