Environmental
Legislation
Review

Kiribati

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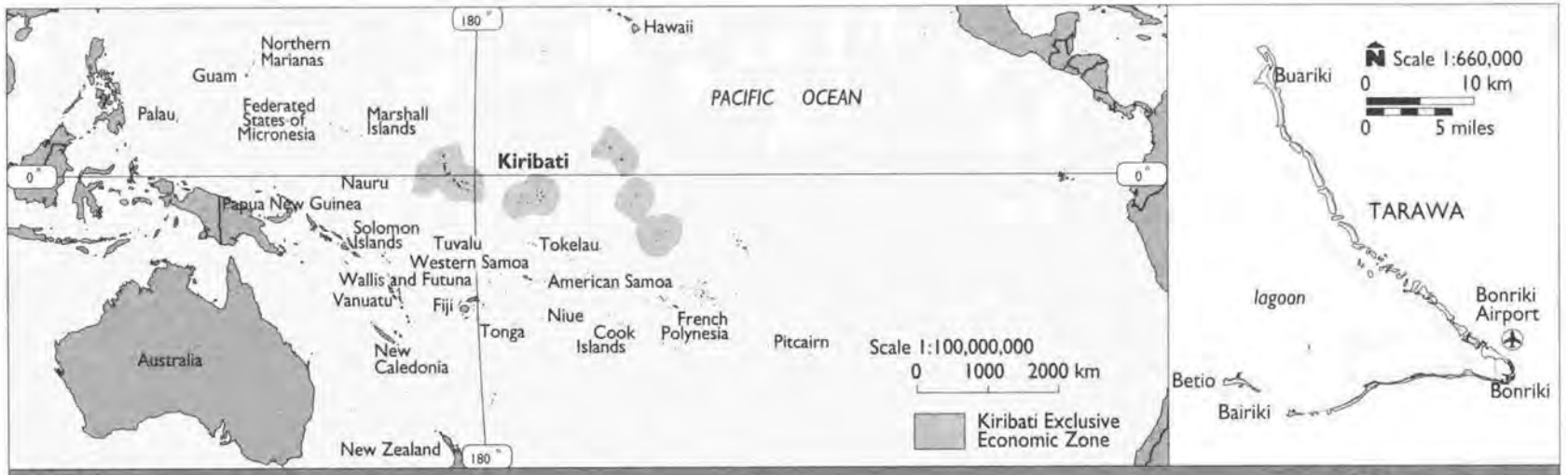

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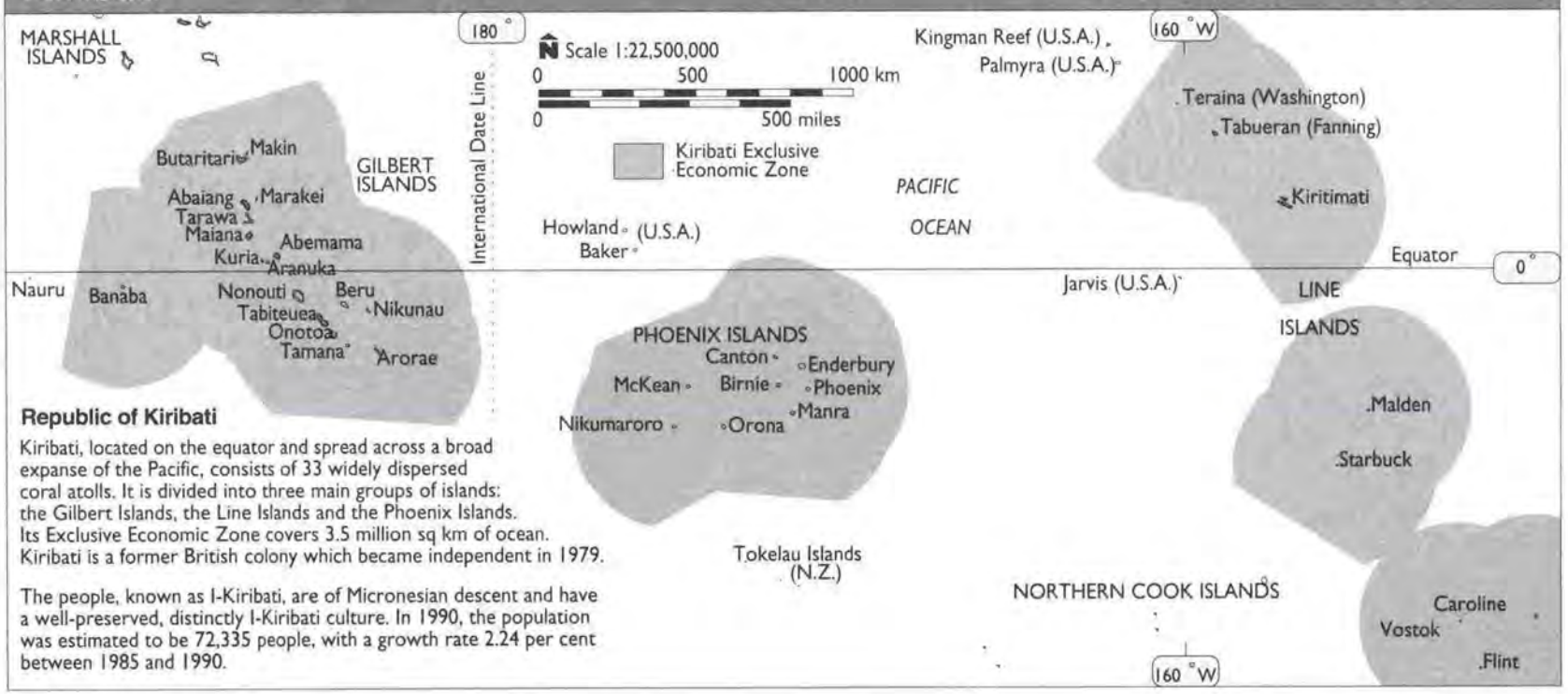

Republic of Kiribati

Kiribati, located on the equator and spread across a broad expanse of the Pacific, consists of 33 widely dispersed coral atolls. It is divided into three main groups of islands: the Gilbert Islands, the Line Islands and the Phoenix Islands. Its Exclusive Economic Zone covers 3.5 million sq km of ocean. Kiribati is a former British colony which became independent in 1979.

The people, known as I-Kiribati, are of Micronesian descent and have a well-preserved, distinctly I-Kiribati culture. In 1990, the population was estimated to be 72,335 people, with a growth rate 2.24 per cent between 1985 and 1990.

Foreword

This Environmental Legislation Review for Kiribati has been produced as an important component of the National Environmental Management Strategies (NEMS) Project. The NEMS Project has been developed to address sustainable environmental development and planning issues in a number of Pacific island countries. It was funded by the United Nations Development Programme (UNDP) and implemented through the South Pacific Regional Environment Programme (SPREP) as part of a broader UNDP assistance project called PMI: Planning and Implementation of Pacific Regional Environment Programme which concentrates on regional and in-country institutional strengthening and training of environmental managers.

Pacific Islanders have lived in close harmony with their island environment for thousands of years and are well aware of its importance to their way of life. Pacific peoples today face the complex challenge, common to 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 laws, taking into account also traditional customary measures aimed at environmental protection. The review also investigates administrative procedures and policy to determine ways of incorporating and strengthening environmental laws within the existing structure in each of the Pacific Island countries associated with this project.

The Environmental Legislation Review of Kiribati looks at laws, administrative procedures and policy in terms of their effectiveness in addressing the major environmental issues existing in Kiribati. The research has had a particular focus on the development of practical recommendations that build on the findings of the review. This review thus represents an important step along the road to improved environmental management and protection of the Pacific region.

This document forms one part of a series of legal reviews undertaken in several Pacific island countries. I would like to thank Ms Mere Pulea and Professor David Farrier for their work in preparing this Environmental Legislation Review.

Vili A. Fuavao
Director
South Pacific Regional Environment Programme

Contents

Acronyms

AMAK	Aia Maea Ainen Kiribati (a non-government organisation for women)
CFCs	Chlorofluorcarbons
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
FFA	Forum Fisheries Agency, Honiara, Solomon Islands
IUCN	International Union for the Conservation of Nature
KTFE	Kiribati Task Force on the Environment
MARPOL	International Convention for the Prevention of Pollution from Ships, London, 1973
NEMS	National Environmental Management Strategy
DP	National Development Plan
PUB	Public Utilities Board
RETA	Regional Environment Technical Assistance
SPREP	South Pacific Regional Environment Programme, Apia, Western Samoa
TUC	Tarawa Urban Council
UNCED	United Nations Conference on Environment and Development
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WHO	United Nations World Health Organization

Glossary

Artisanal fisheries	Local commercial fishery for the local market, using traditional or modified traditional techniques
Avifauna	Variety of bird species found in a region or country
Beretitenti	President
Bwabwai	Giant swamp taro
Bwabai pits	Pits in which giant swamp taro is grown
Kainga	Tribal settlement (clan)
Maneaba ni Maungatabu	House of Parliament
Maneaba sites	Large assembly building sites
Utu	Family, extended family

Chapter authorship

1	**Introduction**	David Farrier and Mere Pulea
2	**Constitutional and administrative arrangements**	David Farrier and Mere Pulea
3	**International environmental conventions**	Mere Pulea
4	**Land tenure**	Mere Pulea
5	**Physical planning and assessment**	Mere Pulea
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7	**Marine zone**	David Farrier
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9	**Mining and minerals**	Mere Pulea
10	**Water: quantity and quality**	David Farrier
11	**Pollution and waste management**	David Farrier
12	**Wildlife conservation**	David Farrier
13	**Protection of national heritage**	Mere Pulea
14	**General conclusions**	David Farrier and Mere Pulea

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Tokia Greig,
Senior Assistant Secretary,
Ministry of Environment and Natural Resources Development.

Michael Takabwebwe,
Attorney General,
Attorney General's Chambers.

Alex Osei-Gayau
Senior State Advocate,
Attorney General's Chambers.

Rameka Takirua,
General Manager,
Public Utilities Board

Riteti Eritama,
Water and Sewerage Engineer,
Public Utilities Board.

Maruia Kamatie,
Senior Fisheries Officer,
Fisheries Division,
Ministry of Environment and Natural Resources Development.

Tawita Teibiria,
Council Clerk,
Tarawa Urban Council.

Tiriata Betero,
Chief Lands Officer,
Lands and Survey Division,
Ministry of Home Affairs and Rural Development.

Taate Toakai,
Council Clerk,
Betio Town Council.

Baurerei Koru,
Planning Officer,
Betio Town Council.

Itintaake Etuati,
Assistant Secretary (Local Government),
Ministry of Home Affairs and Rural Development.

Tererei Abete,
Environmental Co-ordinator,
Ministry of Environment and Natural Resources Development

Taboia Metutera,
Water Engineer,
Public Works Division,
Ministry of Works and Energy.

Tamaetera Teaotai,
Cultural Officer,
Ministry of Education, Science and Technology.

Iaram Tabureka,
Tourism Officer,
Kiribati Visitors Bureau,
Ministry of Transport, Communication and Tourism.

Ritema Betaia,
Deputy Secretary,
Ministry of Finance and Economic Planning.

Dr. Tetaua Taitai,
Secretary,
Ministry of Health, Family Planning and Social Welfare.

Neeri Tiaeke,
Senior Health Inspector,
Ministry of Health, Family Planning and Social Welfare.

Ian Nanjiani,
Veterinary Officer,
Agriculture Division,
Ministry of Environment and Natural Resources Development.

Dr. S.G. Sandhu,
Entomologist, Agriculture Division,
Ministry of Environment and Natural Resources Development.

Paul Jones,
Planner,
Land Use Planning Unit,
Lands and Survey Division,
Ministry of Home Affairs and Rural Development.

Laszlo Erdei,
Chief Engineer,
Public Utilities Board.

Being Yeeting,
Biosystems Analysis.

Wim Kimmerer,
Biosystems Analysis.

Neil Evans,
Senior State Advocate for the Attorney General,
Attorney General's Chambers

Recommendations

1. There is nothing in the Kiribati Constitution which guarantees the citizens of Kiribati a clean environment, or requires that development should be ecologically sustainable. There are, however, no substantial constitutional impediments to the Government seeking to achieve these objectives through legislation.

2. The range of responsibilities which can be conferred on Local Councils is sufficiently broad, but consideration needs to be given to the question of whether Local Councils are being adequately supervised in carrying out their responsibilities.

3. An understanding of the constraints and opportunities arising from the system of land tenure provides a vital background to the development of environmental policy in Kiribati.

4. Even where adequate environmental laws are in place, there is evidence of significant regulatory failure, and strategies need to be developed in order to ensure an adequate level of enforcement.

5. Consideration of environmental impact must become as much a part of Government decision-making processes as social and economic benefit.

6. Environmental impact assessment guidelines should be developed by the Ministry of the Environment and Natural Resources Development so that EIA becomes an integral part of the planning process.

7. The Foreshore and Land Reclamation Ordinance should include a requirement for environmental impact assessment and heritage protection.

8. The planning functions under the *Local Government Act 1984* should be evaluated to clarify their relationship with the Land Planning Ordinance, and particularly the responsibilities of the Central Land Planning Board.

9. The laws regulating agricultural activities should be evaluated with a view to consolidating some of the current statutes in a new statutory framework, such as an Agricultural Act.

10. The current laws on agriculture should be reviewed with a view to including measures for soil conservation and the prevention of erosion and other negative impacts caused by agricultural activities.

11. New laws to regulate the importation and use of pesticides should be developed.

12. The functions of Local Councils should be examined with regard to agriculture, with a view to placing greater environmental responsibilities on them.

13. Environmental impact assessment should be required as an integral part of the decision-making process relating to applications under the Foreshore and Land Reclamation Ordinance for approval to remove sand, coral and rocks from designated foreshore. In light of the threat posed to Kiribati by erosion of its foreshores, consideration should be given to extending the area of foreshore which has been designated under these provisions.

14. Environmental impact assessment should be required as an integral part of the decision-making process relating to applications under the Foreshore and Land Reclamation Ordinance for approval to reclaim land, particularly through the dumping of rubbish.

15. Kiribati's fisheries legislation contains the necessary structural elements for effective management of both inshore, reef and pelagic fisheries. There is clearly a power to make regulations designed to conserve fish and crustacean stocks, either under the Fisheries Ordinance or local bye-laws. The main issues are ones of implementation and enforcement.

16. The nurturing of traditional conservation strategies, the use of regulations which build on to them and the co-option of traditional enforcement machinery is likely to prove the most effective method of ensuring sustainable fishing practices within subsistence and artisanal fisheries, given the enforcement difficulties in this area. The first step is to identify those practices which are sensitive to conservation of fish stocks (or can be made sensitive with some adjustment) and those which actually have a detrimental impact.

17. Environmental impact assessment should be required as an integral part of the decision-making process relating to applications for permits to search for and extract minerals.

18 There are serious problems with regard to allocation of responsibility in the area of water supply and sewerage, particularly in relation to the siting of wells, and provision and siting of toilets. There are a number of authorities with related functions but no adequate provision for co-ordination, and grey areas when it comes to regulatory responsibility. Councils appear to carry most of the responsibility, but there needs to be effective supervision of their activities by central government. Consideration should be given to the appointment of a Public Health Commissioner to be in overall charge of public health and sanitation activities. Government and Council officers would be required to carry out his instructions in relation to the implementation of public health and sanitary provisions.

19. A certificate of adequacy of sanitation facilities should be required from the Department of Health before new houses on South Tarawa can be occupied.

20. Attention needs to be given to the problems associated with illegal occupation of the water reserves on Tarawa. If neither the payment of compensation under the

existing legislation nor outright purchase provide an acceptable political resolution of the problem, steps must be taken to enter into leasing arrangements.

21. Kiribati should develop comprehensive legislation dealing with waste minimisation and the disposal of waste, including hazardous waste.

22. The legal status of the existing waste tips needs to be clarified. Adequate environmental assessment should be mandatory prior to sites being nominated and land should be appropriately zoned under the provisions of the planning legislation.

23. Kiribati should develop comprehensive legislation dealing generally with marine pollution from land-based sources.

24. Kiribati currently has no comprehensive legislation regulating the dumping of waste at sea, imposing liability for the discharge or escape of oil and other pollutants from ships or land into its marine environment or enabling it to take adequate preventive action. As a result, it is not in a position to fulfil any obligations which might arise under the MARPOL, London Dumping, or SPREP Conventions. Currently, Kiribati is only a party to the London Dumping Convention.

25. Apart from the confused position regarding turtles, Kiribati has a range of provisions which, if adequately implemented and enforced, would offer a considerable degree of protection to fauna on land from direct human interference. There is no provision for the protection of fish.

26. Attention needs to be given to developing an adequate definition of the wildlife to be covered by the Wildlife Conservation Ordinance and to ensuring that this is in line with the definitions under the fisheries legislation, considered below. The list of protected birds was compiled some time ago and it would be appropriate at this stage to review it in light of what is now known about the conservation status of different species.

27. In view of the evidence of the scarcity of all turtles, consideration should be given to whether all species should be protected to some degree both on land and in the sea. In light of the major law enforcement problems that exist, however the main compliance initiatives should be through customary controls (where they exist) and education.

28. The issue of law enforcement in response to breaches of the Wildlife Conservation Ordinance needs careful attention. Thought needs to be given to developing alternative strategies to coercion through legislation.

29. The present legislation offers no protection from interference with wildlife habitat by human development. An assessment needs to be made of the extent of threats to habitat and whether this requires the enactment of appropriate provisions

dealing with the assessment of environmental impact and the long-term protection of wildlife habitat.

30. There should be separate and comprehensive heritage protection legislation to cover historic and archaeological sites, sites of special national, cultural and spiritual significance, and historic buildings and monuments. The protection of marine areas that are of national importance for conservation purposes, and areas of outstanding beauty, could also be considered.

31. Consideration should be given to the protection of important artifacts, war and ancient relics that are of national significance.

32. The Land Planning Ordinance should be amended to include environmental impact assessment provisions and heritage protection mechanisms, which should complement specific heritage protection legislation.

33. Local Government Councils should be encouraged to pass bye-laws to protect the nation's heritage.

34. The existing National Heritage Register should be expanded and guidelines developed for evaluating and documenting traditional cultural properties, archaeological and sacred sites, ancient cemeteries, historic buildings, places and relics of national importance. The guidelines could eventually be codified in regulations when new legislation is enacted.

1 Introduction

1.1 Overview

This review of environmental law is part of the South Pacific Regional Environment Programme (SPREP) National Environmental Management Strategy (NEMS) project to strengthen environmental management capabilities in Pacific developing countries. The NEMS project currently encompasses seven Pacific countries, including Kiribati. One component of the NEMS regional programme is to provide an inventory and an assessment of environmental laws and provisions which exist within a country's legal system to enable governments to assess the adequacy of "environmental" legislation and to set the pace for appropriate reforms. This review follows a similar format to those undertaken in other Pacific countries under both the NEMS project and the SPREP Regional Environment Technical Assistance (RETA) Programme.

1.2 Sustainable development

Development and environmental policies are amongst the most difficult issues facing developing Pacific nations today because they often appear to pose choices between economic development and environmental protection. Conflict arises when development is proposed over areas in the natural resources sector that are of cultural value. The fact that most land and fishing grounds are under customary ownership and have potential value for conversion into economic ventures and other uses, makes choices between economic development and environmental conservation and protection even more difficult. The debate over environmental protection within the framework of economic development is relatively recent. The survival of developing countries is dependent on economic development. This is not a new statement. What is new is the promotion of environmental management within development projects to ensure that the utilisation of natural resources is carried out within the philosophy of sustainability.

The International Union for the Conservation of Nature (IUCN) World Conservation Strategy (1980) makes the point that human activities which are progressively reducing the planet's life support system will continue until a new environmental ethic is adopted, human populations stabilised and sustainable modes of development become the rule rather than the exception. For development to be sustainable, it must take account of social and ecological factors as well as economic ones, the living and non-living resource base, and the long-term as well as the short-term advantages and disadvantages of alternative actions (p.1).

Pacific countries, including Kiribati, have refocussed and strengthened their national development policies to include the philosophy of sustainable development. The Kiribati Seventh National Development Plan: 1992-95 (DP7) clearly demonstrates this in the following way (p. 21):

> The maintenance of [Kiribati's] unique environment through protection and judicious utilisation of its scarce resources is extremely important

for sustainable growth and development. It is necessary therefore, to control over-fishing in Kiribati EEZ, protect mangroves and stop soil erosion and pollution of sea. Measures to stop over-fishing in the Pacific are already being undertaken jointly at the regional level.

To realise this objective, it will be desirable to create environmental awareness through appropriate education in schools and through media. Efforts will also be made so that all development activities are in harmony with environmental policies. Possibly, appropriate legislative measures will be initiated to protect the environment and heritage of Kiribati.

At the global level, Kiribati participated in the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. Agenda 21, an action strategy for the next decade generated by UNCED, includes the statements that laws and regulations suited to country specific conditions are among the most important instruments for transforming environment and development policies into action (Agenda 21, 8.13). Agenda 21, chapter 8, sets out the strategies for integrating environment and development at the policy, planning and management levels. There is a continuous need for laws and their implementation to be improved. Laws, cannot however, be solely relied upon for environmental protection, and Kiribati has taken the step in the DP7 of promoting environmental awareness through appropriate education in schools and the media as one objective for the period of the plan.

1.3 Review scope

The law of Kiribati reflects its historical evolution from British colonial administration to independence. The legal framework is made up of:

- the Constitution of Kiribati; this is the supreme law of Kiribati;
- ordinances and Acts enacted in Kiribati and all subsidiary legislation made under them;
- the common law of Kiribati; (derived from the common law of England, including the doctrines of equity) except where it is not consistent with enacted legislation or customary law;
- customary law; the custom and usage of the indigenous people of Kiribati; and
- every applied law; laws inherited from the United Kingdom, including statutes of general application in force in England on 1 January 1961; Orders of Her Majesty in Council; subsidiary legislation made under any of those enactments or Orders in Council that has effect as part of the law of Kiribati (*Laws of Kiribati Act 1989* ss. 4, 5, 6, 7).

In practice, the common law has little to say when it comes to the environmental problems currently faced by Kiribati. It was developed by British judges in a very different social and economic context at a time when environmental issues were narrowly defined in

terms of disputes between neighbouring landholders, and there was very little awareness of the broader public interest at stake. Customary law is clearly very relevant, but the research needed to identify relevant practices was beyond the scope of the present study. Legislation has, therefore, been the primary focus of this review. As in most other countries, Kiribati's environmental law is not found in a single piece of legislation, reflecting the range of problems falling within this broad topic. Instead, the law relating to the environment is scattered throughout a number of pieces of legislation and bye-laws.

For the purpose of this review, environmental law has been defined broadly. It has not been confined to those areas of law which deal with preservation of the environment, both natural and human-made. Laws concerned with the development of natural resources have an equal claim to be included because preservation and development are simply opposite poles on a continuum of possible alternative uses of natural resources. Even where a decision to develop is the likely outcome of the decision-making process, it is crucial that there is legal machinery in place to ensure that environmental factors are taken into account and that the proposal is modified in light of these. Nowadays the demand is that development be sustainable, and the law clearly has an important role to play in achieving this end. Wherever law supervises proposals involving the use or development of natural resources, it falls within the definition of environmental law. Natural resources include not only the traditional categories of minerals, forests and fisheries, but more broadly, the land as a whole, as well as the sea and air. When we pollute the sea or the lens from which we draw our water supply, we are abusing a natural resource. This can have a direct effect on human health. Some of the most pressing environmental problems faced by Kiribati today are also health problems, and the laws dealing with these are covered in detail.

The review tries to put environmental law in Kiribati into a broader context by discussing the law relating to land tenure in some depth. The system of land tenure plays a vital part in determining a country's environmental law. Where, as in Kiribati, interests in native land are zealously guarded by landholders, and there is no tradition of government interference in land tenure and use, environmental law must necessarily rely on different techniques to those adopted in countries where such a tradition does not exist. The discussion of law relating to land tenure should be an important resource for those charged with the task of developing and implementing appropriate environmental policy in Kiribati.

1.4 Role of law

Environmental law, in essence falls into two categories. There is the law addressed to those who want to engage in activities which could harm the environment, or may already be doing so. Frequently, the approach taken involves prohibiting a particular activity unless a prior permission (such as a licence, permit, approval or consent) is obtained from government decision-makers, and the activity is carried out in accordance with the terms of the approval. Traditionally these requirements have been backed up by the criminal law, with its threat of fines, and perhaps even imprisonment.

The second category of environmental law is the law addressed to the government authorities charged with the task of making decisions about whether particular uses of resources or particular development should be permitted, on application from those wishing to carry out an activity. Critical to this are requirements that proposals should be subject to adequate environmental impact assessment (EIA) and that the ultimate decision should pay adequate regard to environmental protection.

Both types of environmental law raise questions of enforcement. As well as hearing criminal prosecutions, the courts have traditionally been prepared to supervise decision-making processes through the common law doctrines of judicial review of administrative action. In relation to both prosecutions and civil proceedings for judicial review however, the courts are crucially dependent upon someone taking the initiative and bringing proceedings before them. In practice, there have historically been significant obstacles standing in the way of legal proceedings being brought, even in countries like Australia and the United Kingdom. This is the case with civil proceedings for judicial review where, in practice, the burden of enforcement has been left to members of the public while, at the same time, the law has sought to make it as difficult as possible to bring proceedings (through doctrines such as "standing to sue"). It is also true, however, of criminal proceedings, where those responsible for enforcing environmental criminal law have traditionally taken the approach that prosecution should be used only as a last resort, after all other methods of persuasion have failed.

1.5 Review process

This review has relied on the five yearly Development Plans produced by the Government of Kiribati, and reports and interviews for information to supplement the statutory provisions. It must be borne in mind that given the short span of the review period, it has not been possible to analyse in depth the effectiveness of any statute or bye-law listed in the review. The description of the contents of the laws and environmental provisions is just the first step. Further research needs to be done by I-Kiribati not only into the effectiveness of environmental provisions in current legislation but also into customary practices that are sensitive to the environment so that they can be reinforced, if necessary, by appropriate legal provisions.

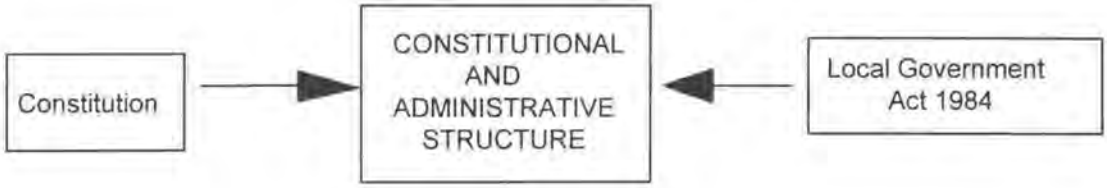
A draft version of this legislation review was circulated for comments within Government ministries, Island Councils, statutory bodies, non-governmental organizations, church groups and individuals directly concerned with the review. From 7 to 10 June 1993, a public workshop on the NEMS project, including discussion of this review, was conducted in Tarawa. Comments received from the workshop have been taken into consideration in revising the review.

The consultants wish to thank the Attorney-General and his staff and the Environment Unit of the Ministry of the Environment and Natural Resources Development and all those resource persons in the various ministries and departments, non-governmental organisations and church groups who assisted with information for this environmental legislative review.

Period of in-country review: 20 to 28 February 1992.

Period of NEMS workshop in Kiribati to finalise the legislative review: 7 to 10 June 1993.

2 *Constitutional and administrative structure*



2.1 Legislation

The power to enact legislation for the peace, order and good government of Kiribati lies in the Legislature, the Maneaba ni Maungatabu. Proposals for legislation are put up to the Maneaba in the form of Bills. Any member of the Maneaba can introduce a Bill (s. 68(1)). Bills become Acts once they have been passed by the Maneaba and received the assent of the Beretitenti (President). But the latter can only withhold his assent on the grounds that the Bill is inconsistent with the provisions of the Constitution (s. 66). Any legislation which is inconsistent with the Constitution is invalid to the extent of the inconsistency (s. 2). Where there is a dispute between the Beretitenti and the Maneaba over the constitutionality of a Bill, the matter must eventually be resolved by the High Court (s. 66).

Legislation frequently gives power to make decisions to Ministers. Ministers are appointed by the Beretitenti from the members of the Maneaba (s. 41). The Beretitenti assigns them their roles, usually responsibility for a department of government. Departments are under the direction and control of Ministers and the supervision of the Secretary to the department, an officer of the public service (s. 47).

Sometimes legislation gives decision-making power to the Beretitenti, on the advice of Cabinet (for example the making of regulations under legislation). Before acting in accordance with Cabinet's advice in these situations, the Beretitenti can refer the matter back for reconsideration (s. 46(2)). The Cabinet consists of the Beretitenti, the Kauoman-ni-Beretitenti (Vice-President), up to eight Ministers and the Attorney-General (s. 40). Cabinet meetings are called by the Beretitenti, who decides on the agenda and generally presides over them (s. 48). If legislation gives sole decision-making power to the Beretitenti, he may act in accordance with his own judgment and does not have to follow Cabinet's advice (s. 46(1)).

2.2 Fundamental rights and freedoms

The Constitution makes it clear that the country's resources belong to the people and their Government. It also states that in implementing the Constitution, the customs and traditions of Kiribati will be cherished and upheld, but it stops short of declaring that they are part of the basic law, as in the Tuvalu Constitution.

Chapter II contains provisions concerned with the protection of fundamental rights and freedoms of the individual. There is a general declaration of the right to life and security of a person, for example, but this is subject to the rights of others and the public interest (s. 3). At first sight it might appear that there is some comfort here for those seeking a guarantee of a clean and healthy environment, but this evaporates on closer examination of the specific provisions which follow this general declaration, for example, the right to life is only a right not to be deprived of life **intentionally** (s. 4).

There is also a general guarantee against deprivation of property without adequate compensation (s. 3). In some jurisdictions, equivalent provisions have been interpreted as requiring payment to landowners, in certain sets of circumstances, for the imposition of land use restrictions designed to protect the environment from insensitive land use practices (for example restrictions on the removal of vegetation). More specific provisions make it clear that this is not the position in Kiribati. It is only in situations where property is compulsorily taken possession of or an interest or right over property is compulsorily acquired that compensation must be paid (s. 8). No interest or right is acquired where the State enacts legislation which simply restricts the use to which the land is being put, except, perhaps, where the restrictions are so great that the expectation is that the owner will set aside land for public purposes (for example a situation where nature conservation requires the land to remain largely undisturbed).

Quite apart from this, there are exceptions to these private property guarantees:

- to allow the carrying out of works of soil conservation or conservation of other natural resources (s. 8(2)(a)(vii));
- to allow the carrying out of agricultural development or improvement works which the owner or occupier has refused to carry out (s. 8(2)(a)(vii));
- where acquisition is reasonably necessary "because the property is injurious to the health of human beings, animals or plants" (s. (2)(a)(v)); and
- to allow prospecting and mining for minerals where there is payment of royalties and compensation for disturbance of surface rights (s. 8(2)(a)(viii)).

The guarantee against deprivation of property without compensation would, however, prevent the Government from taking possession of private land to create a national park if it was not prepared to pay compensation (s. 8(1)(c) or there was no reasonable justification for the hardship caused (s. 8(1)(b)). It would, in addition, have to justify such an action on the grounds that it was necessary or expedient so that the property could be used for a "public purpose". There is no specific reference to "environmental conservation" as in section 14 (see below). Property can, however, be compulsorily purchased for town and country planning purposes (s. 8(1)(a)).

Another provision which at first sight might appear to have the potential to restrict legislation designed to protect the environment by restricting human entry into certain areas, such as nature reserves, is that which guarantees "the right to move freely throughout Kiribati" (s. 14). There is, however, an exception where restrictions on

movement are "reasonably required in the interest of ... environmental conservation or in fulfilment of the international treaty obligations of Kiribati"(s. 14(3)(b)).

2.3 Powers of Local Councils

The existence of Local Government Councils is not guaranteed in the Constitution. The Minister can establish them under the provisions of the *Local Government Act 1984*(s. 3) and at the same time, spell out their precise functions from a long list set out in the Schedule to the Act (s.45(1)). These include:

- controlling plant diseases, weeds and pests;
- controlling methods of husbandry;
- regulating areas and methods of planting and types of crops and trees;
- regulating the keeping of livestock;
- providing for the improvement and control of fishing and related industries;
- regulating the killing of animals, reptiles, birds and fish;
- prohibiting the construction of any new building without Council permission;
- regulating the erection and construction, demolition, conversion, alteration, repair, sanitation and ventilation of public and private buildings and structures;
- providing for building lines and the layout of buildings;
- prescribing conditions for the sites of buildings;
- providing for the demolition of dangerous buildings;
- regulating the making of bwabwai-pits and other excavations;
- regulating advertising structures;
- regulating the use of natural building materials;
- establishing and controlling tree nurseries, forests and woodlands and selling the produce;
- preventing the erosion of land;
- engaging in and promoting land reclamation;
- carrying out sanitary services dealing with rubbish and excreta and prohibiting acts detrimental to the sanitary condition of the area;
- providing a public water supply;
- preventing water pollution;
- regulating the storage of inflammable and offensive materials;
- preventing and removing public nuisances;
- making and maintaining roads, paths, bridges, drains and watercourses;
- regulating the planting or destruction of vegetation along roads or in public places;
- providing that the owners and occupiers of land maintain it, clear it and keep it free of vegetation and rubbish;
- prescribing the conditions under which offensive trades may be carried on; and

- preserving and controlling the removal of any antique artifact.

Apart from this broad list of functions which may be conferred on Councils, the Minister may confer other specific functions. These functions can be conferred on any public officer if there is no Local Council (s. 116(1)).

Councils have the general function of maintaining order and good government within their areas (s. 36(1)) and the *duty* to prevent the commission of offences (s. 37). Legal proceedings could be brought to enforce this duty by someone with standing to bring such an action. If a Council fails to perform any of the functions assigned to it, the Minister, acting on the Cabinet's advice, can make an order directing it to do so, or transfer those functions to another person or body (s. 47).

One of the main ways Councils can seek to perform their functions is by making bye-laws (s. 51). Proposed bye-laws must be advertised widely and discussed at public meetings of persons resident within the area. The Minister can veto or amend them. After giving the Council reasonable notice and considering its representations, the Minister can cancel or amend existing bye-laws and even make completely new ones.

2.4 Administrative responsibility for environmental matters

Administrative responsibility for environmental matters has, until recently, been spread through a number of government departments, local government councils and statutory bodies. With developments following the General and Presidential elections in July 1991, the responsibility for environmental matters is now concentrated within the Environment Unit in the Ministry of the Environment and Natural Resources Development. This is a significant initiative. The Government's reassessment of its priorities has given environmental issues a higher profile which is consistent with its efforts at regional and international levels in finding ways and means to bring about a better balance between development, environmental protection and conservation. The Kiribati and Nauru joint efforts since 1983 at the international forum of the London Dumping Convention meetings to achieve a complete ban on the dumping of all nuclear wastes in the marine environment are historical. Kiribati's insistence on a wider coverage of the convention area to include high seas within the scope of the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP Convention) is also well known.

2.4.1 Environment Unit

The Environment Unit, staffed by an I-Kiribati Coordinator, has wide responsibilities to address Kiribati's concerns at the national, regional and global levels. Over the period of DP7, the Government plans to stimulate national action on environmental concerns, pursue activities within the context of "environmentally sustainable development" (p. 71), and adopt an Environment Action Plan to be prepared by the Kiribati Task Force on the Environment (KTFE). The NEMS will be part of the Environment Action Plan (p. 71). Kiribati has already instituted a National Environmental Management Strategy, with external and regional assistance to the Environment Unit provided through SPREP.

There is recognition by Government that the implementation of environmental policies and actions can only be carried out with strong institutional support with skilled and technically trained personnel. To achieve this objective "it is envisaged that the Environment Unit will be expanded during the current Plan period by recruiting more personnel and training staff on impact assessments" (DP7, p. 72).

2.4.2 Role of other agencies

Whilst the Ministry of the Environment and Natural Resources Development will be involved in establishing environmental policies and standards for better management to be implemented through the Environment Unit, other departments, Island Councils and Town Councils will continue for the present to be responsible for environmental matters within their own sectors.

Special attention needs to be given to the present and future role of Local Councils. Their close contact with the communities they represent means that they have a major role to play in identifying environmental problems and advising on appropriate methods of responding to them, especially bearing customary practices in mind. On the other hand, it also means that it is more difficult for them to adopt policies which involve vigorous enforcement of unpopular laws. They must therefore be given extensive support by government departments and also be subject to ongoing monitoring and supervision by Government.

Recognition of the need to consider environmental impact in all developmental decision-making processes must permeate all government departments. The Environment Unit does not have the resources or power to supervise the environmental responsibilities of other departments. It is therefore essential that consideration of environmental impact become as much a part of Government decision-making processes as social and economic benefit. This is recognised in DP7.

Within Government, an attitude will be fostered which recognises the multi-sectoral nature of environmental issues and therefore the collective responsibility of the various arms of Government (para.7.21). Steps in that direction have already been taken.

2.5 Conclusion

There is nothing in the Kiribati Constitution which guarantees the citizens of Kiribati a clean environment or obliges the Government to ensure that development is ecologically sustainable. At the same time, there are no substantial constitutional impediments to the Government seeking to achieve these objectives through legislation. It can regulate activities on private land without paying compensation, provided that it does not seek to acquire the land (for example to create a park or reserve). Although there is a general declaration that the customs and traditions of Kiribati will be cherished and upheld, there is no guarantee of this given in the list of fundamental rights and freedoms, and it would appear that customs and traditions could be overridden in situations where they were not environmentally sensitive. The obstacles to the Government pursuing a vigorous

approach in the field of environmental regulation are political and customary rather than constitutional.

The range of responsibilities which can be conferred on Local Councils is sufficiently broad. The main issue which arises here is whether there is adequate supervision by the Government over the effective exercise of these responsibilities (see below). Again, the question is a political one, for the legal powers are adequate.

3 International environmental conventions

3.1 Introduction

In the last two decades, Kiribati, together with a number of Pacific countries, has been engaged in considerable and significant efforts to protect the natural resources and environment of the Pacific region. Pacific countries have also participated in the negotiations for global agreements on environmental matters that affect the planet. Concerned with the rate of environmental degradation which could lead to the destruction of the ozone layer of the earth's atmosphere, threatening the earth's ecological balance and disrupting global climatic patterns, Kiribati has become a contracting party to two conventions to protect the atmosphere.

3.2 Atmosphere

3.2.1 Convention for the Protection of the Ozone Layer, Vienna, 22 March 1985

This convention is at present the most important framework treaty designed to protect one of the major components of the atmosphere. The depletion of the ozone layer, damaged by chlorofluorocarbons (CFCs), halons and other substances, has been identified as an environmental problem of global character.

The convention requires the parties to take all appropriate measures, in accordance with the convention and related protocols, to protect human health and the environment against adverse effects resulting from human activities which modify the ozone layer (Article 2). The parties are not only required to co-operate on the formulation of agreed measures, procedures and standards to implement the convention, protocols and annexes, they must adopt also appropriate legislation and administrative measures, and develop appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction and control that are likely to have an adverse effect upon the ozone layer.

The convention provides for the exchange of scientific, technical, socio-economic, commercial and legal information, taking into account the particular needs of developing countries (Article 4).

The Montreal Protocol on Substances that Deplete the Ozone Layer (commonly called the Montreal Protocol and established under the Vienna Convention for the Protection of the Ozone Layer) sets out in Article 4 the restrictions on trade with countries who are not parties to the convention and protocol. Article 4 provides that:

- within one year of the entry into force of this protocol, each party shall ban the import of controlled substances from any State not a party to the protocol;
- beginning on 1 January 1993, no party operating under paragraph 1 of Article 5 may export any controlled substances to any State not a party to the protocol. (The list of substances are set out in Annex A of the protocol.)

The Montreal Protocol establishes precise quantitative restrictions on the use of CFCs and halons, and also provides for the definition of the substances to be controlled. It provides special treatment for developing countries by requiring the contracting parties to:

- facilitate access to environmentally safe alternative substances and technology for parties that are developing countries and assist them to make expeditious use of such alternatives (Article 5(2)); and
- undertake and facilitate bilaterally or multilaterally the provision of subsidies, aid, credits, guarantees or insurance programmes to parties that are developing countries for the use of alternative technology and for substitute products (Article 5(3)).

Kiribati acceded to the Convention for the Protection of the Ozone Layer and the Montreal Protocol on 7 January 1993.

3.2.2 Convention on Climate Change, Rio de Janeiro, 9 May 1992

During the Sixth Development Plan period (1987-1991), a number of studies on climate change and potential sea level rise such as "Kiribati Sea Level Rise" and "Environmental Planning, Climate Change and Potential Sea Level Rise" (DP7, p. 66) have been undertaken reflecting Kiribati's concern with the greenhouse effect and climatic changes that could threaten the survival of low-lying atolls.

The United Nations Convention on Climate Change was adopted on 9 May 1992 by the Intergovernmental Negotiating Committee established by the General Assembly. This convention was opened for signature at the United Nations Conference on Environment and Development at Rio de Janeiro and remained open at United Nations Headquarters until 19 June 1993.

The aim of the convention is to protect the atmosphere from the build-up of anthropogenic gases that trap heat from the sun, causing the "green-house effect" that will result in global warming and affect natural ecosystems and humankind.

One of the strategies incorporated in this convention is for the parties to adopt measures to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner.

Kiribati became a party to this convention in 1993.

3.3 Marine environment

The protection of the marine environment is high on Kiribati's agenda because traditional I-Kiribati life, culture and economic development are tied intimately to the sea. The dangers posed by human activities and pollution from the dumping of wastes at sea would have serious adverse affects on fisheries resources and aquatic ecosystems. Kiribati is a party to a number of conventions.

3.3.1 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention), 1972

This convention sets out the obligations of parties to prohibit the dumping at sea of wastes. Under Article 4, the parties are required to prohibit the dumping of wastes or other matter except as specified in the Annexes to the convention. The dumping of wastes listed in Annex 1 is prohibited. The dumping of wastes listed in Annexes II and III requires special permission. Periodical meetings of the parties are held to update the list of noxious substances.

Kiribati and Nauru initiated a strong move for a complete ban on dumping nuclear wastes in the ocean at the 1983 meeting of the London Dumping Convention. As there was opposition to the Kiribati and Nauru proposal from nuclear nations, Spain proposed a moratorium on all kinds of ocean dumping of radioactive wastes as a compromise until the Kiribati and Nauru proposal is reviewed by an expert group.

Kiribati became a party to this convention in 1982.

3.3.2 Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, Wellington, 24 November 1989

This convention restricts and prohibits the use of driftnets in the South Pacific region in order to protect and conserve marine living resources. Under Article 3, each party is required to take measures not to encourage the use of driftnets, by prohibiting their use and the transshipment of catches, and to restrict access of vessels using driftnets to ports. Each party is to take appropriate measures to implement and apply the provisions of the convention and to co-operate in surveillance and enforcement measures (Article 4).

Kiribati became a party to this convention on 10 January 1992.

3.3.3 South Pacific Forum Fisheries Agency Convention, 1979

This 1979 convention established the Forum Fisheries Agency which is located in Honiara, Solomon Islands. The objectives of the Agency are to harmonize fishery management policies; facilitate co-operation in surveillance, enforcement; and the processing and marketing of fisheries with States outside the region; and to arrange for reciprocal access by member States to their respective 200 mile economic zones.

Kiribati became a party to this convention in July 1979.

3.4 Nuclear

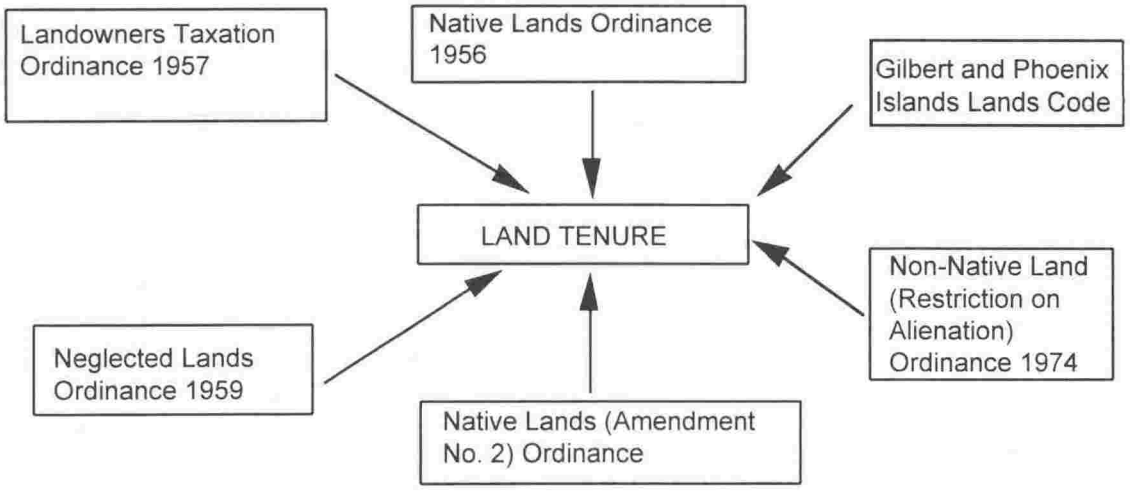
3.4.1 South Pacific Nuclear Free Zone Treaty, Rarotonga, 1985

The objective of this treaty is to establish a nuclear free zone in the region and to keep the region free from environmental pollution by radioactive wastes. The parties are required not to dump radioactive wastes at sea within the South Pacific Nuclear Free Zone (Article 7(a)); to prevent the testing of any nuclear explosive devices in their territories (Article 6(a)); and to prevent the stationing of nuclear weapons in their territories (Article 5(1)).

The treaty is supplemented by three protocols. The first invites France, the United Kingdom of Great Britain and Northern Ireland and the United States of America to apply the prohibitions contained in Articles 3, 5 and 6 to territories within the South Pacific Free Zone for which they are internationally responsible. The other two protocols respectively invite France, the People's Republic of China, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America not to use nuclear explosive devices within the zone.

Kiribati became a party to this treaty on 11 December 1986.

4 *Land tenure*



4.1 Introduction

Any assessment of environmental provisions relating to natural resources and land use must be carried out against the background of the system of land tenure. Three significant factors need to be borne in mind before any land use management or environmental issue can be discussed:

- Almost all land in Kiribati belongs to the I-Kiribati except for the Phoenix and Line Islands, small portions of reclaimed land owned by Government, and lands belonging to the Catholic and Protestant churches.

- Rights and interests in I-Kiribati land are mostly acquired by inheritance and gifting customs as codified in the *Gilbert and Phoenix Islands Lands Code 1956* (Code). The various customs governing the acquisition of interests and rights to land in the islands of Kiribati are defined in the Code. The Code documents customs and practices in 1956 and, despite changes to a market economy, these customs and practices continue to be highly relevant in Kiribati society today.

- Environmental management and resource conservation requires the co-operation of landowners. As customary land tenure touches on all aspects of social organisation - kinship, adoption, marriage, group affiliations - which involve in one way or another the ownership, use and conveyance of land, it is important that customary land use is understood if environmental management is to be effective.

4.2 Alienation of native land

The *Native Lands Ordinance 1956* begins with the basic premise that native land cannot be alienated by sale, gift, lease or otherwise to a person who is not a native (s. 5(1)), although this does not restrict the alienation of land to the Crown (State), a Local Government Council, the Housing Corporation, a registered society under the Cooperative Societies Ordinance or the National Loans Board (s. 5(2)).

"Native" is defined under section 2 of the Native Lands Ordinance as "any aboriginal inhabitant of the Islands and a descendant of any aboriginal inhabitant, whether wholly or partly of aboriginal descent, who has not acquired non-native status under the Native Status Ordinance.

"Native land" is defined in the same Ordinance to mean land owned by a native or natives.

4.3 Restrictions on the alienation of non-native land

The *Non-Native Land (Restriction on Alienation) Ordinance 1974* defines non-native land as "land owned by a person other than a native but does not include land owned by a Local Government Council or by a society registered under the Cooperative Societies Ordinance which immediately prior to its alienation to the Council or Society, as the case may be, was owned by a native" (s. 2).

"Native" is defined in section 2 of this Ordinance in the same way as it is defined in the Native Lands Ordinance.

Non-native land cannot be alienated by sale, gift or lease unless, six weeks before the alienation, a notice has been served on the Minister responsible by the interested party (s. 3(1)). Anyone who gives false information is liable to a fine of $2,000 and to imprisonment for two years (s. 3(4)). Where notice has been served under s. 3(1), the Minister may inform the intended vendor that the Crown (State) wishes to acquire the interest in the land (s. 4(1)). When this occurs, that interest can only be alienated to the Crown (State) upon such terms as agreed to by the Minister and the vendor (s. 4(2)). If the Minister and the vendor are in disagreement, the land in question will be deemed, for the purposes of the *State Acquisition of Lands Ordinance 1954*, to be required for a public purpose and the land will be acquired under that Ordinance.

4.4 Title to native land

Native land acquired under the Native Lands Ordinance does not cease to be native land (s. 5(4)). Title to native land registered by the Native Lands Commission and the Magistrate's Court is indefeasible (that is it cannot be annulled or forfeited) (s. 4(1)(a)(b)). A Magistrate has power to approve the transfer of native land and where no appeal has been made against the transfer, any title to land obtained under this procedure is indefeasible (s. 4(2)).

Under the *Magistrate's Courts Act 1978*, section 58 gives the Magistrate's Court the power to hear and adjudicate in all cases concerning land matters in accordance with the provisions of the Code, and where the Code is not applicable, in accordance with customary law. Land matters concerning land boundaries, transfers, registration of native lands and any disputes concerning the possession and utilisation of native land are dealt with by the Magistrate's Court.

4.5 Lands Code

Under section 28 of the *Native Lands Ordinance 1956*, the Gilbert and Phoenix Islands Lands Code was declared to be the code of laws governing native land rights from 1 March 1963 in each of the eighteen islands of Kiribati. The Code, however, does not affect the validity of any licence granted by Government to carry out any mining operations within Kiribati (s. 7(1)).

The Code, codifying custom, describes the system of native land tenure and regulates the distribution or transfer of native lands, fish ponds and fish traps to the owner's spouse and children (legitimate, illegitimate and adopted). The Code also regulates gifts of land for nursing a landowner who is incapacitated by illness; gifts for wet-nursing a child (that is where a child is cared for and raised by persons other than the child's natural parents); and gifts of land by a husband to his wife or a wife to her husband during marriage.

The customs pertaining to land and described in the Code have changed over the years. Baaro Namai (1987, p.31) points out that "values are changing and land is becoming a more marketable commodity". Where circumstances have changed, the Code can be amended by request of the Local Council to the Minister responsible. The Minister is obliged, under section 8 of the Native Lands Ordinance to lay before Parliament at its next sitting, any of the orders made incorporating the changes.

Under the Code, an owner's control, use and distribution of land is subject to various conditions of which the care of the family is of the utmost importance. An owner's property can be set aside by the Court if it is proved that the owner's children are prevented from obtaining a livelihood from that land (s. 1(i)). An absentee owner is free to leave the property to be cared for by others (s. 1(ii)(a)) but if no-one has been appointed to perform this task, the Court may chose a caretaker to take charge of the property during the owner's absence (s. 1(ii)(b)). If an owner wishes to appoint someone to look after the property, it will only be permitted by the Court if the property is to be cleared and maintained by the caretaker (s. 1(ii)(c)).

4.6 Communally owned land

From October 1956, land held communally was abolished but there are some exceptions. Those lands that continue to remain communally owned are Aubangkai and Barakinikuria held by the descendants of Nei Katiria and the descendants of Nei Kakiaki, as well as the Biti lands held by the descendants of Nei Taebontetoa. The custom regarding the use of land on a weekly, monthly or yearly basis also ceased at that date.

4.7 Multiple ownership of land

Where there are joint owners of a single piece of land, the owners will use and work the land in alternate years commencing on 1 January of each year. In cases where hardship to certain members arising from lack of land has been endorsed by the Court, the period may be reduced from alternate years to alternate months or weeks. A group of owners under one family head must all use the land during their appropriately allocated year. The same formula applies to any lesser period allocated to use the land.

When the land is being used in alternate years by members of the group, the owners can take coconut nuts until 31 August each year. If any person is found climbing a coconut tree after this date, he will forfeit his right to use the land until such time as he has been given the right to use the land by the Court. Those members whose term to use the land is shorter than a year are not permitted to pick coconuts off the trees.

If the Court finds that a land user has failed to carry out work within the time specified and is not performing his share of planting the land, cutting, or clearing the bush, or not carrying out his duties as land user during his allocated time on the land, the Court may make an order terminating his use of the land until such time as the Court observes that he has done his appropriate share of the work or provides his share of the tax, if any. The Court will arbitrate between landowners who fail to come to an agreement.

4.8 Distribution of land

Land can be distributed by gifting and in several other ways, although according to Baaro (1987, p. 32) "these gifts are becoming increasingly rare, partly because custom is changing and partly because the numbers of people holding land without co-owners is rapidly decreasing". A number of land distribution and gifting customs are defined in the Code.

4.8.1 Gifts inter vivos

An owner can dispose of his property during his lifetime and this disposal may be approved by the Court if it complies with the Code. The owner's order to dispose of his land will only be overruled if any of his "issue or next-of-kin", who are not guilty of neglect, will suffer hardship. If the next-of-kin are guilty of neglect, the order will not be stopped because of any resulting hardship (s. 4(i)(a)). If there is any deliberate neglect by the next-of-kin, the owner may direct that the next-of-kin should not receive any share of the property, provided that the next-of-kin is successfully prosecuted in Court for neglect during the owner's lifetime. These provisions do not apply universally. In Nikunau and Arorae, a parent may distribute his property to his children in whichever way he wishes and it is immaterial if the child is neglectful or marries without parental consent. The child will not be disinherited. But an heir of the owner who is not his direct descendant (such as an adopted child) may be disinherited if he is deliberately neglectful (s. 2).

4.8.2 Gift for nursing

A gift for nursing is a gift of land given by the owner to a stranger where the members of the owner's family refuse to nurse him. An owner may not choose a nurse from outside his family until he has successfully prosecuted members of his family in Court for neglect. Under section 5 of the Code, a gift for nursing may only be given by Will which must be confirmed by the Court; but in cases where no Will has been made, the Court must be satisfied that the deceased made no Will because he was incapable or prevented from doing so.

A gift for nursing must not exceed one land and one pit if the donor's family nurses him. If a stranger or a relative nurses him (where his children refuse to nurse him), the gift may be increased (s. 5(iii)). A gift for nursing is disallowed if the donor is in hospital (s. 5(iv)). A man may also give his wife one land and one pit and the wife may do the same for her husband if they are not nursed by their children, or by their next-of-kin if they have no children.

Variations to this gifting arrangement exist in Tabiteuea where all the property of the owner may be given to the spouse if the family's neglect is proved. In Makin, Butaritari and Kuria, a man may give his wife one land and/or one pit, and a woman may provide the same for her husband as a gift for nursing.

A gift for nursing is given away permanently and does not return to the donor's family if the recipient has no children. In Tarawa, the gifts for nursing will revert to the donor's family if the recipient dies childless. Where children exist, the donor looses his reversionary right (that is any right in property where the enjoyment is deferred) and it is immaterial if his children are later childless (s. 5(vi)).

4.8.3 Gift for wet nursing

Under the Code, land may be given by the parents of a child to a wet nurse as a gift for wet nursing and the members of the family may not object to such gifts being given (Abaiang, Nikunau). Land given to a wet nurse will revert to the donor if the recipient dies childless. If the recipient has children, the donor will lose ownership of the land even if the children of the recipient die childless.

4.8.4 Gift for kindness

An owner is free to donate land as a gift for kindness and it is immaterial if he is neglected or not by his family. The approval of the Court may be required for such gifts. If there is no neglect, it is likely that the gift will not be approved by the Court, particularly if the gift is large, as it could result in hardship for the next-of-kin (s. 6).

Gifts for kindness are given away and do not return to the donor's family even in cases where the recipient has no children, but variations do exist. In Marakei, Abaiang, Tarawa and Aranuka, a gift for nursing will revert to the donor's family if the recipient dies

without having any children. If the recipient has children, the donor loses his reversionary right and it is immaterial whether his children are later without issue.
In Abemama, Kuria, Onotoa and Tamana, gifts for kindness will revert to the donor's family if the recipient or his children are childless; the property will revert undivided to one of the donor's family or to that number of them which equals the number of properties. The Court will decide on the distribution after considering the livelihood of the various members of the donor's family.

4.8.5. Distribution of property of absentee owner

If an owner is absent from his island for fifteen years, the Court has power to inquire about the intention of the owner to return. If the Court is satisfied that neither the owner nor his children will return, then the estate will be distributed to the owner's next-of-kin who live on the island. The land can also be distributed in any way the Court decides (s. 12).

4.9 Neglected lands

The *Neglected Lands Ordinance 1959* provides for the purchase of neglected lands and regulates the sale of such land to indigent natives.

"Neglected land" is defined in the Ordinance to mean "land suitable for agricultural use which is not being fully and efficiently utilised for agricultural purposes" (s. 2).

"Indigent native" means a native who, in the opinion of an administrative officer in charge of a district, has insufficient land to support himself and his family (s. 2).

The Minister may, with the agreement of the landowner, purchase any land which is, in the opinion of the Minister, neglected land, for the settlement of indigent natives, or for sale or gift to a Local Government Council (s. 3). If the Minister wishes to purchase neglected land for sale to indigent natives or for sale or gift to a Local Government Council, reasonable inquiries must be made to ascertain the whereabouts of the landowners (s. 4(1)). If within six months of the inquiries being made, it appears to the Minister that the whereabouts of the owner have been ascertained but it is not possible to conclude any suitable agreement for the purchase of the land, or that the owner is not within Kiribati and his whereabouts cannot be ascertained, the Minister may acquire the neglected land compulsorily in accordance with the provisions of the Ordinance (s. 4(2)).

Where the Minister considers that circumstances exist which justify the acquisition of any land, he must direct the administrative officer in charge of the district where the land is situated, to serve a notice on the owner to attend the High Court to show cause why the land in question is not neglected (s. 5). If the Court is satisfied that the land is in fact not neglected, the Court is required to serve the owner with a notice (Form B), requiring him to utilise the land forthwith for agricultural purposes for the next five years (s. 6).

A representative of the High Court is required to inspect the land at the expiration of one year after the order has been made and at other times during the five year period if it is

deemed expedient or if directed by the Minister. If on inspection it appears that the owner has not complied with the requirements of the Court order, another notice (Form C of the Schedule) requiring the owner to appear before the High Court to show cause why the land should not be acquired compulsorily by the Minister will be served on the owner (s. 7(1)). The owner must satisfy the High Court that he has made reasonable agricultural use of the land or that he has failed to do so for reasons beyond his control (s. 7(2)).

If the owner fails to show cause why the land should not be compulsorily acquired, the Minister may acquire the land and the amount of compensation is then determined by the Court (s. 8(1)). In determining compensation, the High Court must take the following matters into consideration:

- the market value of the land at the date of the notice; and if a market value does not exist on any island, then the Court must assess the value of the land based on the fertility classification grades as provided for in the records of the High Court (s. 9(i));
- the damage sustained by the owner to any standing crops or trees at the time of taking; and
- if in consequence of the acquisition of the land, the owner is compelled to change his residence or place of business, the reasonable expenses, if any, incidental to that change (s. 9(iii)).

Anyone who wilfully hinders or obstructs any person authorised by the Minister to enter or take possession of or use any land in accordance with the provisions of this Ordinance, or who molests or hinders any officer of the High Court inspecting the land or serving notices or summons, is liable to a fine of $50 or to three months imprisonment (s. 12).

Native land acquired by the Crown under this Ordinance shall not cease to be native land for the purposes of the Native Lands Ordinance by virtue of that acquisition or of its subsequent alienation to a Local Government Council, notwithstanding the definition in the Ordinance (s. 13).

Where land has been acquired under this Ordinance for sale to indigent natives it must be offered for sale in accordance with s. 15 and s. 16. of the Ordinance. Under s. 15, the administration officer in charge of the district must, on instructions from the Minister, advertise privately or by public auction the sale of any land acquired for indigent natives. Under s. 16 the administration officer may sell privately or by public auction for any price not greater than the sum for which the Minister acquired the land. The administration officer may, however, at any time before the name of the purchaser has been registered in the High Court as the new owner, cancel any sale if satisfied that the purchaser is not an indigent native, or if the purchaser and the administration officer cannot agree on the price.

Where land acquired under this Ordinance has been alienated to a Local Government Council, the Council may:

- use the land for the purpose of any of its functions under the Local Government Ordinance or any other ordinance; or
- with the written consent of the Minister, alienate the land by sale, gift, or lease but if the land is native land it must not be alienated other than in accordance with the Native Lands Ordinance (s. 17).

Section 19 provides for repossession of land sold to indigent natives. If the High Court is satisfied on application made by the Minister that:

- at any time within 25 years of a sale to an indigent native, the land remains neglected or has again become neglected by the purchaser or by his successor; or
- the purchaser or successor has failed, without reasonable excuse, to pay any instalment when due,

it may by order, authorise the Minister to re-take the land. On making the order, the High Court may direct the Minister to refund to the purchaser or to his successor the purchase price in whole or in part (s. 19(2)). Where possession has been taken, the title of the purchaser or of his successor will immediately cease and an entry to this effect will be made on the records of the High Court (s. 19(3). At any time after the resumption of possession, the land may again be offered for sale as neglected land (s. 19(4)).

4.10 Exchange of property

Landowners may exchange their lands but they must do so in Court. The Court will prevent an exchange if there are great differences in the value of the properties offered. It is immaterial if the properties are both on one island or on different islands. Exchanges of pits and fish ponds may also be made. The line of inheritance of a land received in an exchange will be that "of the land which has been given away" (s. 13).

The Court can refuse to cut up a land plot when distributing an estate - so that each land plot in a distribution will not be cut into several pieces to be shared out to all the next-of-kin. Land plots will be distributed undivided so that one next-of-kin will be given one or more whole plots and the lands will be distributed according to their size (s. 11(viii)).

4.11 Sale of property

An owner may sell land, a pit or a fish pond provided the owner's next-of-kin and the Court approves. Before reaching its decision, the Court should first consider if the owner's remaining lands, after the sale, would be sufficient for his family's needs. But variations exist in Kuria, Aranuka and Abemama where an owner is free to sell one land and one third of the remainder of his lands received from his father's family and a similar proportion of those lands received from his mother's family. The landowner's next-of-kin will retain their rights of inheritance on the remaining lands from their families. The proportion of land may be exceeded if half of the next-of-kin of the relevant side of the family agree (s. 14).

4.12 Improvements

Before making a fish trap, a seawall, a pond, a pit or niba (eel burrow) upon anyone else's land, the person making the improvements can obtain the approval of the Court if the owner of the land refuses to give permission or if the value of an existing improvement will be reduced (s. 15(i)). When permission has been obtained to make the improvement, the Court is required to make an inspection on completion. The person who makes the improvement must then come before the Court for the improvement to be registered in the Register of Native Lands under his name (s. 15(ii)).

4.13 Natural accretions

If land accretes naturally towards the sea from an owner's land then the accretion belongs to the landowner. If land accretes upon a seawall, then the accretion belongs to the owner of the seawall, and if it accretes from a land and from a seawall then the accretion is shared between the owner of the seawall and the landowner (s. 16(i)).

Any accretion which does not adjoin existing land belongs to the Government and the Court may give it to any indigent person. If the person awarded the land cultivates, plants and maintains it, then he will be confirmed in ownership. If the land is neglected, the Court may give the land to another person (s. 16(ii)). This provision appears complex as although the land belongs to Government, the Court has the power to give the land away if neglect of the land can be proved. Similar provisions are found in the Neglected Lands Ordinance.

Variations from the above provisions exist in the village of Tabuarirae, west of the passage in Onotoa. If land accretes from a plot of land, then the accretion will belong to the owner of that plot, however, if it extends further beyond the limits of that land's boundaries then the extension will belong to an adjoining landowner opposite to whose land the accretion extends. If the land accretes from a seawall, then section 16(i) above applies. In Arorae, the ownership of accretion at the northern or southern ends of the island will be decided by the Court and awarded to someone in the nearest village (s. 16(ii)).

4.14 Landowner's tax

Under the *Landowner's Taxation Ordinance 1957*, as amended, landowners are responsible each year for the payment of tax on their land. Each plot of land, held in fee simple (an estate of freehold held by an owner and inherited by heirs) by a non-native, or registered in the Register of Native Lands, is assessed for payment of tax by the Local Council within whose area the land is situated. The method of assessment and tax imposed must be approved by the Minister (s. 4(3)), and if the taxpayer is still not satisfied with the assessment, an appeal may be lodged with the administrative officer in charge of the district (s. 4(5)). A taxpayer who has not paid the whole or part of the tax within the time prescribed is liable to a fine of $10 and, in addition, the Court may order payment of the tax still due (s. 6).

Tabwe Ietaake (1987, pp. 68-69) notes that the present tax base is not successful in promoting efficient use of land. Whilst the revenues obtained financial services provided by the Island Councils, "there is no indication that their impact on land development is significant. People in Kiribati still practice their semi-subsistence living pattern and attend to their land only when the need arises...the land is over populated and development will be difficult. The only positive effect of the land tax in Kiribati is the creation of funds for developing essential services").

4.15 House plots

Michael Lodge (1987, p. 92) states that house plots were not created by any law. The idea that people should live in villages was initiated by the colonial administration in the early part of the century. It was not law at that time. In 1956 when the Code became law, house plots were given recognition in s. 17 of the Code .

Under the Code a householder is free to remain in occupancy of his house site provided that the householder does one of the following (s. 17):

- leases the house site from the landowner and pays a monthly or yearly rent for the land;
- allows the use of his land, pit or pond by the landowner by way of exchange for the mutual use of their properties during the time the householder uses the landowner's site;
- agrees to a permanent exchange whereby he receives a house site, the latter to be regarded as his own property, in exchange for one of his lands, pits or ponds; or
- buys a house site from the landowner.

Lodge (p. 93) points out that it is important to note that "the householder may remain in occupancy of the houseplot. The section does not give any authority for the creation of new houseplots after 1956. It therefore seems that the only way the equivalent of the houseplot can be created now is by a lease or tenancy agreement between the landowner and the tenant".

4.16 Land boundaries

Tiriata Betero (1987, p. 40) points out that the problems associated with land boundaries are not new to the people of Kiribati. He states that the high status given to land boundaries in the olden days was related to the lack of a cash economy and storable assets that might bestow prestige, privilege and higher status upon the owner. In the period of pre-European contact, land boundaries were claimed through civil war, with stronger groups asserting their rights over land and drawing boundaries over areas claimed.

The Code provides for boundaries in this way:

> The boundaries between lands and fish ponds surrounded by barren land will be fixed at a point 3 fathoms from the high water mark of the pond. If the barren land extends less than 3 fathoms from the pond the boundary shall be placed at the point where the barren land ends and the fertile land begins (Tabiteuea).

The Native Lands Ordinance prohibits the removal, defacing or destruction of boundary marks by any person except those authorised (s. 36). Anyone found contravening section 36 is liable to a $50 fine and six months imprisonment.

4.17 Leases

Part VI of the Native Lands Ordinance provides for leases. No lease or sublease of native land is valid until it is approved and registered in accordance with the provisions of Part VI of the Ordinance (s. 9).

A lease or sublease of native land, other than a native lease, requires the approval of the Minister (s. 10(1)). Any native or non-native who wishes to lease native land must submit the lease agreement for the inspection of the Court of the district or island in which the land is situated (s. 10(2)). A lease of native land cannot be approved by the Minister unless the Court of the district or island in which the land is situated has confirmed that:

- the land is the property of the lessor (s. 10(3)(a);
- the lessor is not prohibited under the Code from alienating the land for the term proposed(s. 10(3)(b)); and
- the lessor will be left with sufficient land to support himself and his dependants (s. 10(3)(c)).

The Minister must also be satisfied that the terms of the lease or sublease are not manifestly to the disadvantage of either party, that the agreement conforms to the requirement of regulations made under section 40 of the Ordinance and that the prescribed fees are paid (s. 10(4)). When all conditions are satisfied, the Minister will direct that the lease or sublease be registered in a Leases or Sub-Leases Register (s. 10(5)).

4.18 Native leases

Any native wishing to obtain a lease over native land must submit the proposed lease to the Court of the district or island in which the land is situated (s. 11). The Court will approve the lease if there is sufficient land left over for the lessor to support himself and his family (s. 11(2)). No lease or sublease will be granted for a longer period than 99 years or for any land exceeding ten acres without the approval of the Minister (s. 12(1)). New provisions dealing with leases have been added by the *Native Lands (Amendment) Act 1983*. Under section 12(2) and subject to section 12(3), a lease or sublease is deemed to include any accretion of land after the commencement of the lease or sublease as the case may be, and conversely any erosion, diminishing the extent of the land, must be disregarded. Under section 12(3) the lessor and lessee in the lease or sublease, as the case

may be, may at any time in writing signed by both of them, exclude or modify expressly or by implication the provisions of section 12(2). No lease or sublease, other than a native lease, can be assigned or transferred without the approval of the Minister (s. 13) and the Court (s. 14).

In any lease or sublease there are a number of implied covenants, which include the payment of all rent, rates and taxes. The lessee is also required to yield up the property in good repair after accidents, damage from fire, storm and tempest, reasonable wear and tear excepted (s. 15). The Native Lands Ordinance grants the lessor the right under section 16, upon giving the lessee two days notice, to enter the leased property at all reasonable times, and view the state of maintenance. The lessor may serve a notice on the lessee to repair any defect within a reasonable time (s. 16)(a)). In cases where rents are three months in arrears, the lessor can take possession of the property (s. 16(b)). The lessor may also by an order of the Court take possession of the property if the expressed and implied conditions of the lease are not fulfilled within a continuous period of six months (s. 16(c)).

A surveyor may at all reasonable times enter and survey land (s. 22) and assess if any trees, crops, or other growth or any fence or other property is removed, damaged or destroyed. The surveyor must first assess the compensation to be paid and provide the owner with written notification of the amount (s. 24(1)). Any person dissatisfied with the amount can lodge an appeal to the Chief Lands Officer within three weeks of the notice (s. 24(2). The Chief Lands Officer may dismiss the appeal, confirm the amount or determine the amount of compensation to be paid.

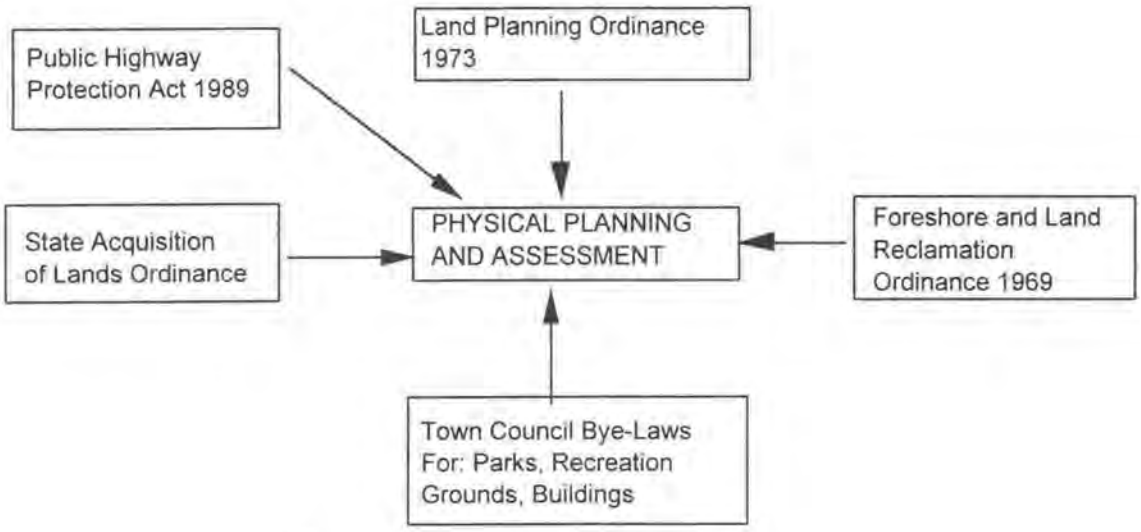
4.19 Unlawful occupation

The Native Lands Ordinance provides that any complaints of unlawful occupation of native land can be made to the clerk of the Court (s. 35(1)) and the Court may order such a person to pay compensation to the proprietor for the period of unlawful occupancy, and pay to the government any removal costs incurred (s. 35(2)). Any person who occupies land without rights to it will be liable to a fine of $50 (s. 35(3)).

4.20 Conclusion

This chapter has been written specifically to gain some insight into the complexities of the Kiribati land tenure system. The Code promotes orderly use of the land and defines the indigenous forms of gifting customs, land ownership, distribution and tenure. Any proposed environmental management strategy to protect the terrestrial environment, or initiatives to establish protected areas for conservation purposes, must be carried out in partnership with landowners if environmental management is to be effective.

5 *Physical planning and assessment*



5.1 Introduction

The debate triggered by land use issues in countries where there is a shortage of land and the majority of land is under traditional ownership makes land use planning one of the most challenging issues faced by governments. Administering land use planning is equally challenging, with the need to reconcile the complex land tenure system with a body of laws designed to manage land use for development. The merging of these issues and the pressure to take into account environmental quality objectives is changing the management of land, particularly in town and urban areas. Where these laws apply, landowners are faced with new restrictions on land use and development activities in the need to comply with planning laws, building regulations and environmental conditions.

In Kiribati, although the majority of land is under traditional ownership, there are portions of land that are owned by the State. All land in the Line and Phoenix Groups and small portions of land reclaimed by Government are State owned.

The responsibility for land use planning in Kiribati is shared between the Central Land Planning Board in the Ministry of Home Affairs and Rural Development, and local government administration through Town and Local Councils constituted under the *Local Government Act 1984*. This split in responsibilities is largely due to the fact that some planning decisions which relate to particular types of development, for example ports are of national significance and the responsibility of central government whilst others are of local significance. Local planning decisions are taken within national development guidelines. Geographical isolation and poor access to government officers in South Tarawa has led to local government administration being carried out by seventeen Island Councils and two Town Councils - the Betio Town Council covering the island of Betio and the Tarawa Urban Council covering the area from Bairiki to Bonriki. Much of the detail of planning regulations is included in the schedule to the Local Government Act

and in the Island Council bye-laws. For the purpose of this review, only the bye-laws of the Betio Town Council will be discussed.

The provisions of the Land Planning Ordinance will be considered in detail as they will provide some understanding of the institutional machinery though which sustainable development could be promoted, the opportunities given to the public to participate in planning decisions and the ways in which planning decisions are enforced.

5.2 Statutory background

The *Land Planning Ordinance 1973* provides control over land use and development only in areas designated under the Ordinance. Outside these designated areas, the Ordinance does not apply. Development is defined in the Ordinance to mean:

> the carrying out of any works or the erection of any structure on any land within a designated area or the use to which such land or any works or structure thereon are put (s. 2).

Any change to the existing use of land by the carrying out of works or erection of structures would fall within the definition of development. The change of use could be partial, where there is no significant alteration in the character of the land or building or material changes; or complete, where there is a material change to the character and use of the land or building. It would seem that the carrying out of any works, whether minor or major, which bring about changes to the existing use, fall within the broad definition of development and therefore require planning permission. An exception exists however, in the proviso to section 17 of the Act. Works which only affect the interior of a building and do not materially affect the external appearance of the building will not require permission and therefore fall outside the definition of development.

The definition above refers to "any land" within a designated area. "Any land" could include both State owned and customary land, as there is no express exemption made for customary land. It is possible the intention of the planning legislation is that control should be exercised over all development to ensure undesirable forms of development do not occur.

5.3 Planning authorities

Control over land use and development in designated areas is exercised by two authorities, the Central Land Planning Board and Local Land Planning Boards. The Central Board may exercise control and supervision over local boards and the Central Board may give directions to a local board when exercising its powers to grant permission to develop or redevelop land. Every local board is required to comply with directions given to it by the Central Board (s. 31).

5.3.1 Central Land Planning Board

The Central Land Planning Board consists of a Chairman, a Deputy Chairman, a Secretary and not less than five nor more than nine other members, all of whom are appointed by the Minister responsible under the Act (s. 4(1)). Board meetings are held in public except where the Chairman or Deputy Chairman considers they should be held in private in the interests of the public (s. 4(5)).

5.3.2 Local Land Planning Boards

Local Land Planning Boards may be established in designated areas (s. 5(1)), that is those areas that the Central Board designates (for planning purposes) by notice, with the approval of the Minister (s. 3)). Where a designated area is wholly within the area of authority of a single Local Government Council, the Local Government Council is the Local Board for that designated area (s. 5(2)). But in cases where the designated area is not wholly within the area of the single Local Government Council, the Local Board for that designated area will consist of those members that the Minister may by notice appoint. The Minister, instead of appointing members to the Local Board, may by notice appoint a person to perform the functions of the Local Board (s. 5(3)). Meetings of the Local Board are held in public unless the Central Board considers the meeting should be held in private in the interests of the public (s. 5(5)). Under section 6(1) committees may be appointed by the Central Board, the Local Board or the person appointed in accordance with the proviso to section 5(3).

5.4 General Land Use Plan

A General Land Use Plan of every designated area must be prepared by or on behalf of the Central Board (s. 9(1)). The General Land Use Plan, consisting of a single or a series of plans (s. 9(2)), must indicate the use or class of use to which every part of the land may be permitted to be "put on development or redevelopment" (s. 9(3)). It was not possible to obtain land use classifications during the course of the review but classifications may exist for commercial, residential and agricultural purposes. For the purposes of preparing the General Land Use Plan for a designated area, it is mandatory that the Central Board co-opt two persons chosen by the majority of village elders within a designated area and, until the plan has been certified, those two persons will be deemed to be members of the Board for that purpose alone (s. 9(4)). This interesting provision allows the opportunity for local knowledge and comment to be included as part of planning land use development.

5.5 Public scrutiny

A draft General Land Use Plan must be prepared first and opened to public scrutiny for twelve weeks at the Government or Local Government Council offices within the designated area, and other places as determined by the Central Board (s. 10(1)(a),(b)). Central and Local Boards are required to take all reasonable steps to inform the public that the plan is open to public scrutiny and of the right to make written requests for specific amendments (s. 10(2),(3)). The Central Board is required to consider all written requests

received within one month after the twelve week period, and may amend the plan accordingly (s. 10(4)).

5.6 Approval

After the Central Board has considered every request for amendment, the draft General Land Use Plan must be submitted to the Secretary of the Central Board, together with all requests for amendments (s. 10(6)). After consideration by the Minister of every request submitted, the plan may be approved (s. 10(7)). The approved plan, certified by the Secretary to the Central Board, then becomes the General Land Use Plan of the area designated. A copy of the plan must be transmitted to the Local Board of the area within fourteen days (s. 10(8)(9)). Currently, General Land Use Plans contain maps showing zones, but there are no explanatory notes or management documents attached to them.

5.7 Detailed Land Use Plan

On receipt of the approved General Land Use Plan, a detailed Land Use Plan must be prepared by the Local Board in accordance with any regulations or directions of the Central Board (s. 11(1)). The detailed plan can be a single plan or a series of plans but it must indicate precisely the use or class of use to which every part of the land is permitted for development or redevelopment (s. 11(2)). In general, the detailed Land Use Plan must be prepared within six months and must conform to the General Land Use Plan (s. 11(3)). The Central Board, with the approval of the Minister, may:

- extend the period within which the detailed Land Use Plan is to be prepared; or
- authorise the Local Board to prepare a detailed Land Use Plan for only part or parts of the area covered by the General Land Use Plan.

A Local Board may at any time, or if directed by the Minister must, submit to the Central Board a draft detailed Land Use Plan for the designated area or any part of it, if it appears to be expedient to do so (Amendment 1/1979) (s. 12(2)). Minor amendments to the General Land Use Plan may also be made by the Local Board during the preparation of the detailed Land Use Plan, but the amendments must be referred to the Central Board and to the Minister for approval (s. 12(2)).

5.8 Public scrutiny of detailed plans

Draft detailed Land Use Plans must be open to public scrutiny for twelve weeks at Government offices or Local Government Council offices within the designated area, and any other place determined by the Local Board (s. 12(3)). The Local Board must take all reasonable steps to inform members of the public of their right to propose, in writing, amendments to the draft detailed Land Use Plan (s. 12(4)(5)). As the detailed Land Use Plan sets out the strategy for development in the designated area, the law incorporates public participation at the decision-making level so that the community can react to developments that are potentially harmful to health or to the environment. Public

comment on development emphasises to both developers and planners the need to take into account the impacts of certain types of development on the community.

5.9 Amendments

The Local Board is required to consider all written requests for amendments received within two weeks of the end of the twelve week public scrutiny period, and may amend the detailed draft Land Use Plan accordingly (s. 12(6)). After consideration of the amendments, a copy of the draft detailed Land Use Plan, together with requests, must be sent to the Central Board. The Board may itself amend the plan or direct the Local Board to amend the plan (s. 12(7)) or approve the plan with or without amendment (s. 12(8)(9)). The draft detailed Land Use Plan, approved by the Central Board and certified by the Chairman and Secretary, becomes the detailed Land Use Plan for the designated area (s. 12(10)). A copy of the detailed plan must be transmitted to the Central Board as soon as practicable after certification (s. 12(11)). In general, not many detailed Land Use Plans have been prepared, but this situation is expected to improve with the recent recruitment of a trained planner.

5.10 Substitution of new General Land Use Plan

A new General Land Use Plan may be substituted for an existing one at any time. The same procedure for the draft General Land Use Plan and draft detailed Land Use Plan, as outlined above, will apply (s. 14(1)). Any draft detailed Land Use Plan prepared as a consequence of the substitution of a new General Land Use Plan will also require certification of the Chairman and Secretary of the Central Board (s. 14(2)).

Under section 15, the Central Board may at any time, with the approval of the Minister, amend a General Land Use Plan, but the amendment must be subjected to public scrutiny. If in the opinion of the Chairman of the Central Board the amendment proposed is extensive, then the substitution of a new plan, as described under section 14, is required (s. 15(1)(2)(3)).

A detailed Land Use Plan may also be amended by the Central Board or by the Local Board with the approval of the Central Board (15(4)), but no detailed Land Use Plan can be amended by the Central Board unless the Local Board has been given the opportunity to make representations in relation to the proposed amendments, and the public is given the opportunity to make comments (s. 15(5)). Every Local Board is required to review its detailed Land Use Plan once every three years (s. 15(6)).

5.11 Development in designated areas

A Local Board is not permitted to give permission for any development or redevelopment in designated areas unless it is in accordance with the general or detailed Land Use Plan for that particular area (s. 18). Any person who develops or redevelops land without obtaining written permission from the Local Board, or who fails to comply with any terms or conditions of the permission granted, is liable to a $5,000 fine. No offence is committed where the work carried out (such as repairs, maintenance or alterations of a

building) affects only the interior of the building and does not materially affect the external appearance of the building (s. 17).

5.12 Development applications

Any person wishing to develop or redevelop land must apply to the Local Board of the area for permission (s. 19). The application must be accompanied by development details and plans, siting of any works, structures, boundaries, the type of development or redevelopment, other relevant details such as maps or surveys, and a summary of the permission sought. The summary must immediately be published at Government or Local Government Council offices for public scrutiny for fourteen days. Supporting documents must also be open to public scrutiny (s. 19(2),(3)). There is no requirement for environmental impact statements (EIS) to be submitted with development applications, but this does not prevent the Board from requesting an EIS as part of the application process. This is a major gap in the planning law as many activities carried out by Government and the private sector could have significant adverse effects on the environment. Although the public are given opportunities to comment on the land use development plans, this may not be enough. Mandatory environmental impact assessment should be undertaken early in the planning process, providing a most useful means of scrutinizing projects in their early stages.

Section 20 requires the Local Board to consider every application made in writing or by oral presentations seven days after the period of public scrutiny. The Local Board is prevented from taking any decision unless written notice is given to the applicant of the date on which the application and submissions are to be considered. After taking into account all relevant factors, the Board may grant the permission sought. The permission to develop may include such terms, conditions (including environmental conditions) and modifications as the Board considers necessary. The Board must within seven days of making a decision, transmit that decision in writing to the applicant and to the office where the application has been opened for public scrutiny.

5.13 Appeals

Any person aggrieved by the decision of the Local Board has a right of appeal to the Central Board within one month (s. 21(1)). The Central Board or the Chairman has the power to extend the period of appeal (s. 21(2). The Central Board may either affirm the decision of the Local Board or direct the Local Board:

- to grant permission but subject to such terms and conditions that the Central Board may specify; or
- to revoke or to substitute that permission with fresh permission containing terms and conditions the Board may specify (s. 21(4)). Again, there is no requirement to include environmental conditions but the opportunity exists through this process to include environmental conditions where appropriate.

A copy of the order must then be transmitted to the appellant, Local Board and applicant within seven days of the order being made (s. 21(5)).

5.14 Period of validity of permission

If no development takes place within a year of the grant of permission to develop or redevelop land , the permission immediately ceases to be valid and is deemed to be revoked. A fresh application for permission to develop under section 19 is necessary for development (s. 25).

5.15 Non-conforming land uses

A Local Board may grant permission for the use of any land, works or structure within the designated area to continue although the development is not in accordance with the general or detailed Land Use Plan. The Local Board may at any time revoke any permission granted provided reasonable notice is first given. If permission is revoked, compensation must be paid at the determined amount. Any person aggrieved by the revocation of permission has a right to appeal against the decision (s. 26). Where permission is granted under section 26, no permission subsequently granted under section 20 shall permit the continuation of a use of land that does not conform to the approved general or detailed Plan unless the Central Board permits it (s. 27).

5.16 Discontinuance of development

The Local Board may require in writing the discontinuation of unlawful development by the removal, dismantling, demolition of any works or structure or any of its parts within a period of six weeks (s. 28(1),(3)). Anyone who wilfully and without reasonable excuse fails to comply with such requirements is liable to a fine of $5000 (s. 28(2)). The Attorney-General has the power to recover in any Court from the person responsible, the costs incurred by a Local Board for the removal, dismantling, or demolition of any works or structure, and no compensation is payable by a Local Board if such action is taken (s. 28(4),(5)).

5.17 Regulations

The Local Board may, in consultation with the Central Board make regulations prescribing the design, structure and materials to be employed in the construction of any works, building or any structure within the designated area. The approval of the Minister is required for such regulations (s. 32). The Central Board also has the power to make regulations which, amongst other matters, provide for the control of development and redevelopment and regulate the practice and procedure of the Central Board when acting as an Appellate Tribunal (s. 33(1)(d),(c)). The regulations also require the approval of the Minister. The Minister also has the power to make regulations with respect to compensation and appeals (s. 34). No regulations appear to have been made.

5.18 Land use planning by local government

Under the *Local Government Act 1984*, building control and town and village planning is a function of Local Councils. The Schedule to the Act lists a wide range of functions such as the preparation of control schemes for improved housing layouts and settlements (s. 2(d)); the laying out and adornment of public places by architectural schemes or ornamentation, including the erection of statues, fountains or other structures (s. 2(q)); the making and alteration of roads, parking areas, causeways, bridges (s. 10(a)); aerodromes (s. 10(d)); and the control and management of recreation grounds, open spaces and parks (s. 12(e)). In practice, there is little land use planning done by Local Councils as planning is left largely to the Central and Local Boards. The emphasis of Local Councils is on building applications rather than land use planning. As it is not possible in a review of this nature to comment on the functions of the seventeen Local Councils, the Betio Town Council has been singled out for discussion.

Under the Local Government Act, a Council has the power to make bye-laws for carrying into effect the functions conferred by that Act or any other law (s. 50(1)).

Local bye-laws are made by formal Council resolution. The Betio Town Council (Parks, Recreation Grounds and Maneabas) Bye-laws passed on 10 July 1975 make provision for the establishment of public parks, gardens, recreation grounds, maneaba sites, play grounds and open spaces to be designated by Council resolution. Once the designation has been made, the areas can only be used for the purposes specified. The area of land may cease to be designated for such purposes by Council resolution (BL 3(1)).

Where the Council intends to designate an area for development, it is required to first post a notice of intention at the Council office and in conspicuous places on the land concerned. The Council may also take other steps to give publicity to the proposal (BL 3(2)). Notices may be posted by the Council indicating the hours in which the park, garden, playground, recreation ground or any enclosed space is closed to the public and may for special purposes close such areas or any building or maneaba if considered necessary (BL 4). The Council may also grant exclusive use of such areas for games, sports or public meetings (BL 5).

Restrictions apply where a public park, garden, play ground, maneaba, recreation ground or open space has been designated. Bye-law 7 prohibits:

- the removal or defacing of any foundation, statue, monument, bust, post, chain, railings fence, play ground apparatus and equipment (a);
- the cutting, removing, digging up or damaging of any tree, shrub, fruit, flower or plant (b);
- the taking or damaging of any gravel, sand, turf, soil or water (c);
- the lighting of any fire or burning of any timber, plant or rubbish (d);
- any attempt to go into any enclosed space, plantation or garden where walking is prohibited (e);

- the erection of any structure without the consent of the Council (g);
- the depositing of any rubbish, dead animal or other matter (h);
- the grazing of animals without the Council's consent (i);
- the driving of cycles and vehicles except in areas defined for such purposes (j);
- the driving of any vehicle over flower beds or lawns (l);
- the cleaning of any carpet or mat, drying clothes, and bleaching linen or any other article in the designated area (m);
- the firing of any fire-arm, firework or throwing a stone, stick or other object which may endanger, obstruct or be a nuisance or cause annoyance to the public (n);
- urinating or defecating in the area (o);
- persons remaining unlawfully in designated areas after closing time (q);
- the taking of dogs into such areas (r) except under control (s); and
- smoking, where it is prohibited (t).

Anyone committing an offence against the bye-laws is liable to a maximum fine of $20 (BL 8).

5.19 Building control

The Betio Town Council passed Building Bye-laws on 10 July 1975 and these bye-laws are complementary to any regulations made by the Central Land Planning Board under the Land Planning Ordinance.

The Building Bye-laws prohibit the erection of any building until an application is made to the Council and a building permit has been obtained (BL 3). Any subsequent modification or alteration to the proposed building also requires the Council's approval (BL 3(2)). The Council may attach conditions to the building permit as considered necessary (BL 3(3)).

The bye-laws require building plans to be submitted to the Council for approval (buildings made of local material are exempt from these requirements) (BL 4(1)) but the Council may dispense with the submission of plans or alter the conditions under which plans are acceptable (BL 4(4)). Where plans are required, the building must conform to other building or construction regulations in force (BL 5). A building plan may not be approved if there is any contravention of the bye-laws or regulations; the system of drainage proposed is unsatisfactory; the building site is unfit for human habitation; the building does not conform to any existing or proposed land use plans or land zoning plans; or the site of the building is too close to an existing or proposed road (BL 6(1)). The Council may withhold the approval of the building application if it considers that the building is unsuitable or undesirable or will be put to undesirable use (BL 6(2)).

Where a permit has been granted, it will lapse unless the work on the building commences within six months of the date on which it was granted (BL 10). The bye-laws provide for buildings to be inspected in the course of erection and at completion (BL 12). Where a

new building is erected for business purposes, it must be made rat proof (BL 13). If any building has become dilapidated and unfit for human occupation, the Council may require the owners to repair it or demolish and remove it (BL 14). No building can be erected on any site which has been used as a site for deposit of excremental matter, carcasses of dead animals, or filthy or offensive matter (BL 17).

Every building other than a reef latrine made of local material, must have proper guttering and water storage (BL 21). Satisfactory disposal of waste and carriage of all rain and surface water, waste water or sewage from the plot of land or from any building must meet the requirements set out by the Council (BL 20).

Land Planning Building Guidelines set out the area of land required for the seven grades (A-F and local) of houses. The guidelines also set out the permitted proximity of the different grades of buildings to other buildings. These guidelines are used by the Central and Local Planning Boards, but it is understood that the Local Councils make little use of them.

Although the law with regard to building control is satisfactory, an assessment needs to be made of its implementation in practice. Government policy during the Sixth National Development Plan period (1987-1991) was to consider all major building programmes carefully, as South Tarawa has reached saturation point for major building projects and serious consideration will have to be given to major buildings being built on the outer islands. DP7 (p. 202) refers to the adoption and enforcement of a Building and Civil Standards Code and *Draft Buildings Regulations 1986*, to be incorporated under the Land Planning Ordinance to ensure proper inspections of buildings and civil works.

5.20 Public roads

The *Public Highways Protection Act 1989* creates a Highway Authority to advise the Minister responsible on all matters relating to highways, including the acquisition of land for highways under the *State Acquisition of Lands Ordinance 1954*. Under the State Acquisition of Lands Ordinance, the Minister may compulsorily acquire on behalf of the Republic, or with the agreement of landowners, any land which is required for the construction, maintenance or improvement of any road designated as a highway (s. 10(1)). The Minister is prohibited from acquiring any land on either side of a public highway, except by agreement with landowners (s. 10(2)).

A road reserve can be created by the State Acquisition of Lands Ordinance. Once a reserve is created, the construction of buildings within nine metres of either side of the centre of a public highway and the planting of trees, shrubs and crops within the reserve is prohibited (s. 11). The Public Highways Act also authorises the acquisition of land for exclusive Government and general public use, the laying out of a new township, Government station or housing scheme, or the extension and improvement of an existing township, Government station or Government housing scheme. Land can also be acquired for sanitary improvements, ports, railways, roads or other public works of convenience (s. 3).

There are two other statutes that have some bearing on land use planning. The *Mineral Development Licensing Ordinance 1978* gives power to the Minister responsible to compulsorily acquire land to secure the development or utilisation of the mineral resources in Kiribati. The acquisition of such land will be deemed to be for a public purpose in terms of the provisions of the State Acquisition of Lands Ordinance (s. 46).

5.21 Controls over the littoral zone

The other relevant statute considered in this section is the *Foreshore and Land Reclamation Ordinance 1969* as amended. Under this Ordinance, the Minister responsible may authorise the reclamation of the foreshore or the seabed irrespective of ownership of land bordering such areas. The reclamation is subject to specific procedures set out under section 4 of the Ordinance. The notification to reclaim land must be published in two successive issues of a Government publication and on radio, and the notification must be posted at all police stations in which the proposed land reclamation is located. There is however no requirement for environmental impact statements or assessments. Objections must be lodged with the Chief Lands Officer within six weeks of the publication of the notice. Section 4 of the Ordinance, however, does not apply to the construction of causeways and proposed Government or Local Council landing-places (s. 5).

As soon as land reclamation, construction of a causeway or landing-place has been authorised, all public and private rights of navigation or fishing and other ancillary rights, all public and private rights of access and any other rights over the foreshore or seabed in the proposed area are extinguished and cease to exist (s. 6). If a person's private rights have been affected, claims for compensation must be made to the appropriate authorities within three months of the notification, provided title to the area has been registered and issued prior to the claim. The Minister or the Local Council can also enter into an agreement with the claimant to settle any claim (ss. 7, 8).

Any land reclaimed vests in the State, but any causeway and landing place constructed by a Local Government Council will vest in the Council, subject to the right of the Minister to have them surrendered to the Crown (s. 9). The Minister has power to enter into any agreement with any person for the sale, lease, or grant of any other rights over the reclaimed land or other works (s. 10). The Ordinance does not apply to the filling in by the landowner of any foreshore, and any reclamation by the landowner does not create any right or claim over the reclaimed area (s. 11).

5.22 Conclusion

The Land Planning Ordinance of Kiribati, other land planning related laws cited in this chapter and bye-laws supplementing the Land Planning Ordinance have significant shortcomings which have now become apparent over time with increased environmental awareness. It is essential that environmental regulatory measures are incorporated within land use related laws for activities on land that will significantly affect the quality of the environment.

Although the law in many respects can be considered satisfactory, in practice, a number of deficiencies exist. For example, the lack of trained manpower to fully implement the provisions of the ordinances and bye-laws is an obstacle to the full implementation of the intention and objectives of the law.

Another problem identified during the course of this review related to lack of inspection during the construction of buildings, particularly close to road reserves. As information on the legal conditions for development is vital, published guidelines attached to building applications could help avoid violations of the law. A general zoning map for Tarawa and Betio exists, but the need for experienced town planners to prepare detailed land use plans was expressed by Government and Town Councils. The Kiribati Sixth National Development Plan: 1987-1991 (DP6) (p. 303) focuses on the problems as follows:

> The general problem is the lack of land throughout the country. This is particularly severe on South Tarawa which is one of the thinnest of the atolls in the Gilberts. Government-leased lands within areas of Betio, Bairiki, and Bikenibeu, which are designated for planning purposes, are virtually saturated and can only now accommodate projects with limited space requirements. Problems are also occurring on South Tarawa, especially Betio, from squatters occupying lands that have not been zoned or not yet properly laid out for housing.

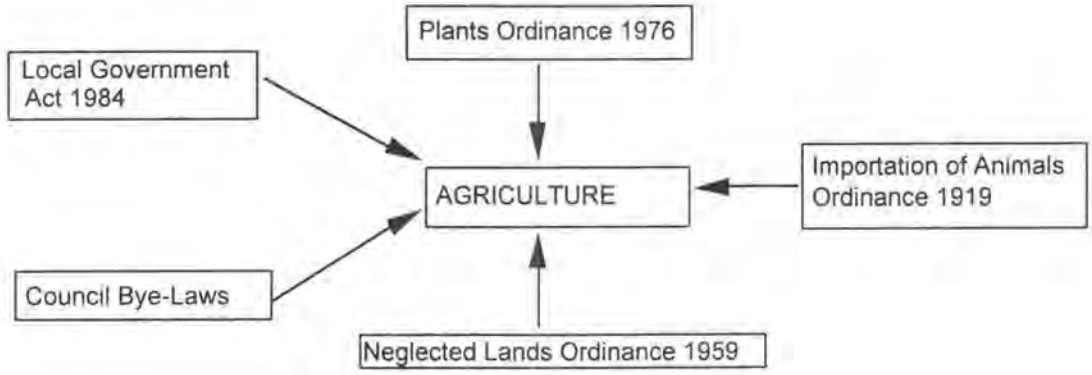
It is difficult to make useful suggestions where there is a marked shortage of land and a growing population. One suggestion however, is to encourage the training of town planners who will apply skill and thought to the issues of shortage of land and development planning, and the environmental issues associated with land use development. Furthermore, the requirement of environmental impact assessment for any development could assist in decision making for land use development. Enforcement of the law is stressed. As new environmental quality objectives are imposed, enforcement of the law is necessary to abate pollution and maintain environmental standards in order to protect and conserve the environment for present and future generations.

5.23 Recommendations

- Environmental impact assessment (EIA) guidelines should be developed by the Ministry of the Environment and Natural Resources Development so that EIA becomes an integral part of the planning process;
- The *Land Planning Ordinance 1973* should be amended to include environmental impact assessment provisions and heritage protection mechanisms, which should complement any heritage protection legislation when brought into force;
- The *Foreshore and Land Reclamation Ordinance 1969* should include a requirement for Environmental Impact Assessment and heritage protection;
- The planning functions under the *Local Government Act 1984* should be evaluated as it is possible that some functions may fall within the overall responsibilities of the Central Planning Board;

- Where environmental laws have been considered to be adequate, strategies should be developed to enforce them;
- Training of planners should be encouraged; and
- Necessary regulations under the *Land Planning Ordinance 1973* should be enacted.

6 *Agriculture*



6.1 Introduction

Agricultural development is largely dictated by soil capacity, composition and climate. In Kiribati, the major constraining factors are the small size and poor quality of the land, high salinity and poor rainfall. The UNCED Report (p. 6) states that in Kiribati "the atoll soils are possibly amongst the most infertile in the world. They are young, shallow, alkaline, coarse, textured and have carbonic mineralogy". The Southern and Central Kiribati Islands and Kiritimati Island are prone to droughts. There is inadequate domestic agricultural supplies and thus the Kiribati economy is dependent on import substitutes.

The UNCED Report (p. 15) however, also points out that despite limitations of soil and water, the I-Kiribati have developed a sophisticated subsistence agriculture based on coconut, breadfruit, pandanus, native fig (*Ficus tinctoria*) and the cultivation of "te bwabwai", the giant swamp taro (*Cyrtosperma chamissonis*), in pits which are fertilised with the leaves of highly salt-tolerant coastal plants. Other important staple food crops, such as breadfruit, pandanus and coconut palms are also given similar care to ensure their survival in the atoll environment. The declining importance of te bwabwai relative to copra production, and the availability of cash employment and imported foods has led to a large proportion of the pits being abandoned on some islands.

These changes in traditional agricultural patterns have influenced current agricultural policies. An integrated farming system including livestock-raising, food and vegetable crops and coconut planting is planned under DP7 (p. 86) as it is considered one of the most productive and efficient approaches in areas with limited land resources and changing consumption patterns. There are a number of projects encouraging the cultivation of short-term vegetables especially in South Tarawa. Livestock production is confined to pigs and chicken and in 1977 goats were introduced to provide alternative sources of protein. The quality of local chicken and pigs has been improved by cross-breeding with high grade imported stock (I. Nanjiani, Veterinary Officer, Ministry of Environment and Natural Resources Development, personal communication, February 1992).

Commercial export has been dominated by copra, but as copra prices have continued to fall on the world market, attention has shifted to the marketing of marine resources. Seaweed farming was introduced under a pilot scheme in Kiritimati in 1980 to assess its viability for export. The main species cultured is *Eucheuma striatum*. Dried seaweed is proving to be a viable export product. It is processed into carrageenan, a food additive for stabilizing milk products.

An important aspect of the agricultural system in addition to food and export production, is the production of a wide range of other useful products such as medicines, beverages, animal feed, firewood, fertilizer, tools, fishing equipment and handicrafts. The time-tested subsistence production system is seen as a priority for sustainable development because of the limited opportunities for cash income in Kiribati and because replacement of these products with imported substitutes would either be impossible or extremely expensive (UNCED Report, p. 51).

6.2 Statutory background

Kiribati has several statutes which regulate and control various aspects of agricultural activities. As the impact of agricultural activities on the environment can be substantial, there is now growing realisation that there must be a balance between agricultural and economic development and the preservation and conservation of the environment. One of the objectives of DP7 (p. 89) is to integrate agricultural development with environmental concerns and to revitalise traditional agricultural techniques which pose little threat to the environment.

Given the observations made in the UNCED Report (p. 5) that cash employment is partly responsible for the neglect of bwabwai pits, it is also possible that the movement of population to South Tarawa or to employment overseas could be responsible for some land in the outer islands being under-utilised. Where this situation occurs, the *Neglected Lands Ordinance 1959* makes provision for the purchase of neglected lands for agricultural purposes. With land shortages in Kiribati, the Ordinance is designed to encourage owners to fully utilise their lands, and in cases where land is classified as "neglected", the Ordinance regulates the sale of land to "indigent natives".

6.3 Neglected lands

The *Neglected Lands Ordinance 1959* has been discussed in detail in this review in Chapter 4. Ivan Brady (1974, p. 155) states that not many local owners fully understood the Neglected Lands Ordinance, but that the presence of this legislation has had a coercive effect on several landholders to improve the quality of land which otherwise might have been neglected. Lack of enforcement of the Ordinance has reduced its impact and there has been disagreement as to what actually constitutes "neglected land". There is not much land on any of the islands that would qualify as neglected on the basis of never having been cleaned of debris or harvested. Local regulations generally prescribe weekly upkeep. This often poses serious difficulties for landholders with widely scattered and highly fragmented holdings.

6.4 Plant protection

Agriculture in Kiribati is extremely vulnerable to plant and animal pests and diseases both from within Kiribati and those brought in from outside the country. There are a number of statutes which are designed to deal with these problems.

Kiribati is one of the few countries still free from exotic pests and crops. Geographical isolation and strict policy and law on quarantine checks help maintain this position (DP7, p. 86).

The *Plants Ordinance 1976* provides for the protection of plants within Kiribati. Quarantine Officers who are appointed by the Minister (s. 3(1)) are given wide responsibilities under the Act to enter any land and premises (other than a dwelling house) to search or examine any plant for diseases or pests or to perform any necessary duty required under the Ordinance and its regulations (s. 3(2)). Anyone who wilfully hinders or refuses to furnish any information is liable to a $50 fine (s. 3(3)).

6.4.1 Control of plant importation

Further control is provided under section 4 of the Act. The Minister may by order prohibit conditionally or absolutely the importation into the islands of any plants, including plants from specified places. Any person who attempts to import or wilfully imports prohibited or restricted plants into Kiribati, is liable to a fine of $1000 and to imprisonment for twelve months, and the plant is to be seized and destroyed by a Quarantine Officer (s. 4(2)).

The written authority of the Chief Agricultural Officer is necessary for the importation of plants. No plants can be imported except through the ports of Betio, Ocean Island and Kiritimati Island and the airports at Bonriki and Kiritimati Island or such other ports and airports as the Minister may from time to time designate (s. 5(1)). Officers in charge of Post Offices are also under a duty to notify the Chief Agricultural Officer of the arrival of any plant through the mail system (s. 5(2)).

6.4.2 Restrictions on importation

Under section 6 of the Act, no plant can be imported into Kiribati:

(a) except in accordance with the terms and conditions of:

  (i) a notice under s. 6(2) (see below); or
  (ii) a permit first obtained under section 14(1); and

(b) unless the plant is accompanied by a certificate signed by an official from the country in which the plant was produced or imported, certifying that the plant is free from diseases or pests; and

(c) unless the plant is packed in packages and wrappings that are clean and new and do not contain any sawdust, hay chaff, leaves, straw, moss, vegetable fibre or forest litter as packing material; and

(d) unless the plant has been inspected by a Quarantine Officer who has approved its release or onward transmission.

The Minister has the power to declare by notice specific plants that may be imported without a permit under section 14(1) but, for protective purposes, terms and conditions could be imposed (s. 6(2)). A Quarantine Officer may seize and destroy any plants or packaging if the plants and packaging are imported in contravention of section 6.

Under section 7(1), a Customs Officer under the Customs Ordinance or a Post Officer under the Post Office Ordinance has the power to hold any plant, container or wrappings in which the plant has been imported until a Quarantine Officer has examined them. Plants held under this section may be fumigated or treated in ways determined by the Quarantine Officer or the Chief Agricultural Officer and could include the destruction of the plant, wrappings and container (s. 7(2)). The Plants Ordinance also prohibits the importation of earth into Kiribati and any earth imported can be seized and disposed of in accordance with the Chief Agricultural Officer's instructions (s. 8). Anyone who imports earth is liable to a $1000 fine and twelve months prison (s. 8 (3)).

A Quarantine Officer has the power under the Act to (s. 9):

(a) enter and inspect any vessel and aircraft;

(b) require every passenger entering the islands to state orally or in a signed declaration whether he/she is carrying any plant;

(c) search and examine baggage and personal effects of any passenger entering the islands; and

(d) fumigate and treat baggage if suspected of being infested with plant disease or pest.

During DP7 there is a plan to upgrade the quarantine facilities in Tarawa and to provide fumigation and incineration units in Kiritimati.

6.4.3 Disease infected areas

Strict controls are imposed to eradicate plant diseases within Kiribati. The Minister may by notice declare any area within Kiribati to be an infected area and prohibit the movement of plants or plant material in or out of that area (s. 11).

The Minister may make regulations to prescribe measures to be undertaken in infected areas to further prevent the introduction and spread of plant diseases and pests and for their eradication (s. 13(a)):

- to further restrict the introduction into and movement of plants and plant material within areas lying outside infected areas (s. 13(b);
- to give Quarantine Officers further powers to remove or destroy any plant or soil which is infected with plant disease or pest and take further steps to prevent the spread of disease or pests (s. 13(c));
- to compensate owners for the destruction or removal of plant material (s. 13(d)).

Anyone who acts in contravention or refuses or neglects to carry out or observe any terms and conditions imposed is liable to a $500 fine and six months imprisonment (s. 16).

A Quarantine Officer may require a person possessing any imported plant to furnish proof that the importation of the plant is not unlawful (s. 18(1)). If no proof is furnished the Quarantine Officer may destroy the plant (s. 18(2)).

6.5 The control of pesticides

Governments in the Pacific region are exercising more control over the importation and use of pesticides, with the increasing public concern over the potential risks of pesticides to human and animal health through air, water and soil pollution and contamination of the food chain. At present there is no legislation in Kiribati to regulate the sale, use and storage of pesticides As the demand for pesticides is bound to increase with the introduction of short-term cash crops, some thought needs to be given to bringing in regulatory measures to control the chemical ingredients that are used on food (agricultural pesticides) in garden applications, and home and public health uses, particularly on refuse dumps and water.

There is also no inventory of the import of pesticides into Kiribati. A pesticide monitoring laboratory facility will become a necessity to test pesticides brought into the country. The application of pesticides by vegetable growers is carried out with advice from the Agriculture Division, and some field training is given to growers on the safe use of pesticides. The use of biological controls as an alternative to pesticides is also encouraged by the Agriculture Division.

6.6 Importation of animals

Importation of animals is strictly controlled by the *Importation of Animals Ordinance 1919* as amended. Stock improvement by cross breeding from imported livestock is expected to increase and the Importation of Animals Regulations set out the controls that apply to stock importation. The regulations start off with the basic prohibition as follows:

> the importation of any animal or animal manure or any fodder, litter, fittings or other things which have come into contact with any animal is absolutely prohibited except where such introduction takes place in accordance with these Regulations (cl. 3).

Cattle, horses and mules can only be imported from New Zealand, Fiji, Tasmania, New South Wales, Victoria, South Australia (cll. 7,8). Cattle can also be imported from the

United States of America (cl. 8) and horses and mules from the United Kingdom (cl. 7). The importation of sheep, goats and swine is permitted only from New Zealand, Fiji, New South Wales, Victoria, Tasmania and South Australia. A statutory declaration is required from the shipper that the animal has been free from disease and has not been in contact with any animal suffering from disease six months prior to shipment. A certificate is also required from an official veterinarian stating that the animal has been examined seven days prior to shipment and found to be free of disease and vermin and has been dipped or thoroughly sprayed within 36 hours of shipment with a standard anti-tick solution (cl. 10).

The importation of day old chickens is only permitted from Australia, Fiji or New Zealand and the importation of domesticated poultry (other than day old chickens) requires certification from an official veterinarian that six months preceding the date of shipment the poultry was free from disease, and that the disease Infectious Laryngo Tracheitis is not present. The regulations do not apply to the importation of poultry carcasses or eggs (except from China and Hong Kong) which have been properly sterilised or hermetically sealed, importation of manufactured animal manure which has been properly sterilised and packed in tins or new bags, or the eggs and frozen carcasses of domesticated poultry intended for consumption in Kiribati if produced in Australia, New Zealand or Fiji (cl. 12).

One of the problems encountered by the Agriculture Division is the importation of animal products for home consumption by residents returning to Kiribati by air. Animal products that are produced for the local domestic market in the overseas country from which they are purchased are not for export and any importation must comply with the Importation of Animals Regulations.

6.7 Goats

Goats were introduced into Kiribati as an exotic breed to provide an alternative protein source for local consumption. As goats can cause considerable damage to the environment, extensive trials were first undertaken to assess grazing methods and types of vegetation the goats prefer to eat in an atoll environment. We were informed during interviews that goat numbers are, for the time being, too small to pose a complete threat to the environment but the situation is being closely monitored.

6.8 Provisions under Council bye-laws

Under the *Local Government Act 1984*, Island Councils are given power to make bye-laws and a number of bye-laws which have some relevance to agriculture have been noted, such as those for the control of pigs. For example the *Tamana Council (Control of Pigs) Bye-laws, 1990* provide that no pigs can be kept on Tamana Island unless the pigs are properly penned. The bye-law requires pens to be maintained in a clean condition and they must not be erected within two hundred feet of a well, street, building or dwelling house (BL 2). Anyone contravening this bye-law is liable to a fine of $20 and to six weeks imprisonment (BL 4).

The Schedule to the *Local Government Act 1984* which spells out the functions of Local Councils has some relevance to agriculture. The Councils' functions as provided by the Schedule include regulating (that is the making of bye-laws) to control plant diseases, weeds and pests; methods of husbandry; areas and methods of planting; types of crops and trees, and the making of bwabwai pits.

6.9 Conclusions and recommendations

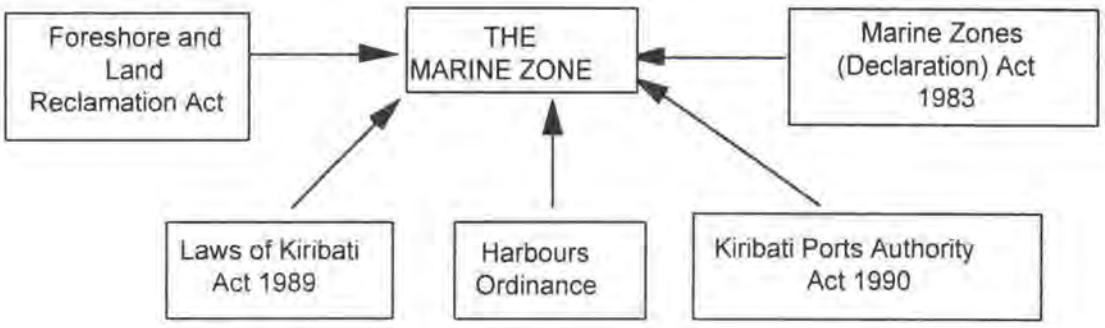
The various laws regulating agricultural activities need updating to provide for those aspects of practical significance which are not covered by any legislation. The import and use of pesticides is one such area. With the move to growing short-term vegetable crops, especially in South Tarawa, the demand for pesticides is expected to increase. A chemical safety audit of existing facilities is also suggested.

There are opportunities under the Local Government Act to regulate all facets of agriculture and it is suggested that the scope and potential of Council functions to regulate agricultural activities be closely examined to determine whether additional functions to protect the environment, degraded by agricultural activities, should be included.

It is recommended that:

- laws regulating agricultural activities be evaluated with a view to consolidating some of the current statutes in a new statutory framework such as an Agricultural Act;
- current laws on agriculture be reviewed for environmental content with a view to including measures for soil conservation and the prevention of erosion and other negative impacts caused by agricultural activities;
- new laws be introduced to regulate the importation and use of pesticides;
- functions of Local Councils with regard to agriculture be examined, with a view to giving them greater environmental responsibilities.

7 *Marine zone*



7.1 Extent of jurisdiction

The *Marine Zones (Declaration) Act (No 7 of 1983)* demarcates various marine areas, and by so doing seeks to determine the precise limits of Kiribati's jurisdiction under international law in these areas. The **territorial sea** extends 12 nautical miles out to sea from certain "base lines" (s. 6). This is the low-water line of the coast or of fringing reefs, where these exist (s. 2(1)). **Internal waters** are on the landward side of the lines from which the territorial sea is measured (s. 4). There is also provision for **archipelagic waters** to be declared (s. 5). The main aim of this would be to define groups of islands as archipelagos, equivalent to a single land mass, and thereby to redefine the points from which the territorial sea is measured in order to extend its coverage, along with the area of the **exclusive economic zone** (EEZ). This normally extends beyond the territorial sea to a point 200 nautical miles out to sea, measured from the same base lines from which the territorial sea is measured. Compromise arrangements exist where this would extend to less than 200 nautical miles from another country's coast and as a result impinge on that country's EEZ (s 7). Kiribati's EEZ covers over three million square kilometres (DP6, p. 127). The seabed and the subsoil of the EEZ are to be treated as part of Kiribati's continental shelf (s. 7(6)).

Kiribati has the same jurisdiction over its internal waters and the territorial sea as it has over the land mass (s. 8(1)), although it must allow passage to ships and aircraft (s. 9).

Kiribati's rights over the EEZ are more limited than its rights over the territorial sea, but in the broad areas of resource exploitation and environmental protection, they are very wide. It has exclusive rights to explore, exploit, conserve and manage all the natural resources of the waters, the seabed and the subsoil (s. 8(2)). This includes, for example, fish and minerals. It is on these provisions that Kiribati bases its regulation of foreign fishing vessels. These rights, however, must be exercised according to the rules of international law (s. 8(3)) and this probably includes an obligation to manage the resource and to give other countries access to any surplus fish stocks, above the sustainable level but beyond

those which Kiribati itself can harvest. This is the position under the United Nations Convention on the Law of the Sea, Montego Bay, 1982, but Kiribati is not a party.

The legislation contains broad powers to make regulations in relation to activities in the EEZ, covering:

- scientific research;
- exploration and exploitation for economic purposes, including the production of energy from waters, currents and winds;
- the construction and use of structures, such as artificial islands and oil rigs;
- measures for the protection and conservation of the marine environment.

7.2 Extraction and reclamation

Under the Foreshore and Land Reclamation Ordinance, the general position is that the State owns the foreshore and seabed, but this is subject to public rights of navigation, fishing and passing over the foreshore, as well as any private rights which may exist (s. 3). In other words, the legislation does not seek to override customary rights in marine areas. The *Laws of Kiribati Act 1989* deals with the recognition of customary law (s. 5) and specifically provides (Schedule 1, cl. 4) that it "may be applied ... in relation to":

- the ownership by custom of rights in, over or in connection with any sea or lagoon area, inland waters or foreshore or reef, or in or on the seabed, including rights of navigation or fishing; and
- the ownership by custom of water, or of rights in, over or to water.

Under section 3 of the Foreshore and Land Reclamation Ordinance, foreshore can be declared to be designated foreshore, with the consequence that a licence is required from the Chief Lands Officer for the removal of sand, gravel, reef mud, coral, rock and any similar substances. Before this can be done, landowners who "may be directly affected thereby" must be consulted. Areas of foreshore at Bonriki and between Nanikai and Bairiki have been declared designated foreshore (L.N. 82/77; 18/78). Note that the foreshore only includes the area affected by tidal movement (s. 2) and does not cover seabed which is permanently covered by water. Control over this area, however, can be asserted by the State as a result of its ownership rights, subject to any private rights which may exist (see above).

The same legislation deals with "reclamation" of land on the foreshore and the seabed. It does not deal with situations where landowners propose to fill the foreshore bordering on their land, although it does not acknowledge that they have any right to do this (s. 11). Because the State owns the foreshore, the answer to this question will depend upon whether they can claim a "private right", such as a right recognised by customary law, which prevails over the rights of the State (s. 3(1)).

Reclamation is broadly defined to include the construction of causeways, bridges, viaducts, piers, docks, quays, wharves, embankments, sea-walls, landing-places and other structures (s. 2). Before final authorisation is given by the Minister, there must be an elaborate process of public consultation. The proposal must be advertised, inviting objections and claims for loss of private rights, in two successive issues of a government publication, broadcast on two successive days over the radio and posted at each police station on the island. Within a period of at least six weeks, objectors can respond, giving an estimate of any loss which they allege would be incurred by the loss of any private right (s. 4). An inquiry can be ordered (s. 4(4)). This procedure does not, however, apply to the construction of causeways or landing places by or on behalf of the Government (for example those built by foreign donors) or by Councils.

Once final authorisation has been given or the causeway or landing place has been constructed, all public and private rights (for example access, use and fishing) are extinguished (s. 6). There is specific provision for compensation to be paid to those whose private rights have been extinguished by the construction of a causeway or a landing place by a public body (s. 7(3)). The rights of those who have private rights extinguished by other types of reclamation are less clear: they are simply allowed to "submit a claim in respect of the extinguishment of such private right" (s. 7(2)), although the implication is that they will indeed be compensated (see s. 8).

Except for causeways built by Councils (s. 9), the reclaimed land vests in the State, subject to any agreement made for sale or lease (s. 10).

Reclamation of an area at Nanikai has been authorised and the reclaimed land is to be set aside for light industrial, commercial and residential use (L.N. 34/77).

One of the powers of the Kiribati Ports Authority is to reclaim, excavate, enclose or raise any of the land vested in it (*Kiribati Ports Authority Act, No 13 of 1990* s. 8(1)(k)). It can control the erection of works in ports and their approaches, both above and below the high water mark (s. 8(1)(j)). It can make regulations controlling the removal of material from the bed of a port or its approaches (s. 52(1)(u)).

Under the *Harbours Ordinance 1957* any encroachment on the waters of the harbour requires the Minister's permission (s. 50). However, under section 28, the Harbour Master has limited powers to license development on the tidal lands and waters of a harbour. A licence can only be issued for a period of up to twenty-one years, and only for limited purposes. These purposes include ship building and repair, boat sheds, landing places and "any other purpose relating to the convenience of shipping or of the public". Licences are revocable at the will of the Minister, and compensation is only payable where the licence is for the purpose of constructing a dock or a slip (s. 28).

The permission of the Harbour Master must be obtained before material is taken from within the limits of the harbour (Harbours Ordinance (s. 27)).

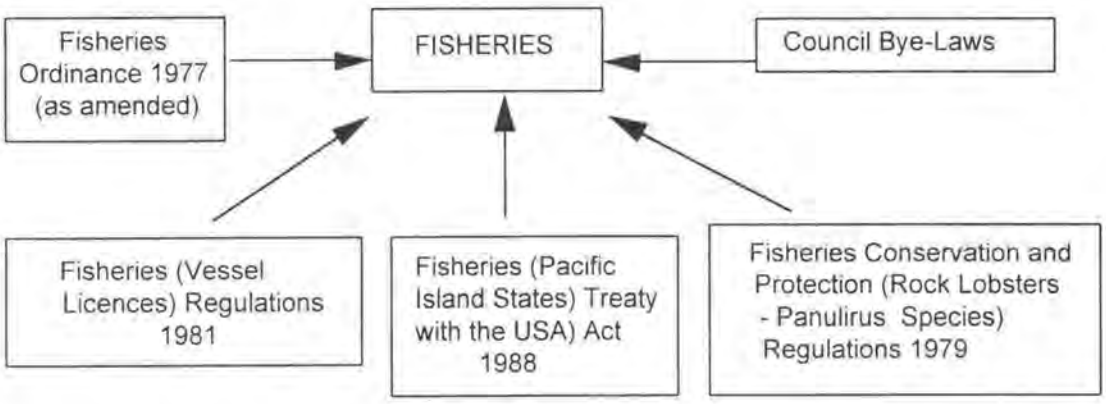
7.3 Conclusion

The land reclamation provisions of the Foreshore and Land Reclamation Ordinance allow for public input into the decision-making process and this is a model which could be followed in other areas of environmental law. The main problem arises where attempts are made to reclaim land along the foreshore by dumping rubbish. Apart from the unsightliness resulting from dispersion of material by tidal movement, toxic pollutants will also escape into the sea. There is a need for adequate environmental impact assessment. This question is dealt with further below in the section 11.8, Solid Waste Disposal.

The legislation deliberately seeks to avoid coming to grips with the problem of private claims to reclaim the foreshore. It was not clear whether this was causing any difficulties in practice. The requirement to obtain a licence from the Council to take material from the foreshore under section 3(2) of the Foreshore and Land Reclamation Ordinance purports to override any private claims, although landowners directly affected must be consulted, however it only applies to limited areas of designated foreshore. Given the threat posed to the islands of Kiribati by erosion of foreshores (see DP7 para. 7.9), it is especially important that the Government has control of activities which cause damage and that decisions are subjected to environmental impact assessment. Consideration should be given to extending the area of foreshore regulated by designating other areas. This point has recently been emphasised by Woodroffe and McLean, 1992, (p. 47):

> The collection of reef rock from areas of the reef flat is to be strongly discouraged, and in areas close to settlements it should be prohibited. Similarly collection of sand and shingle from beaches should be prevented, particularly from beaches whose protective role is especially needed.

8 *Fisheries*



8.1 Introduction

The UNCED Report (pp. 17, 23) points to the crucial importance of Kiribati's fisheries, both to subsistence diet and to economic development. Fish are the almost exclusive source of animal protein as well as providing the sole opportunity for significant economic development. It points out that increasing pressure is being placed on this resource because of commercialisation of many of the species, "thus underlining the need for protective legislation and sustainable production strategies".

The *Fisheries Ordinance 1977* (as amended by the *Fisheries (Amendment) Ordinance 1978*, the *Fisheries (Amendment) Act 1983* and the *Fisheries (Amendment) Act 1984*) emphasises the Minister's role in **developing** the fisheries of Kiribati by taking appropriate measures to "promote the development of fishing and fisheries ... to ensure that the fisheries resources ... are exploited to the full for the benefit of" the country (s. 3(1)). This language suggests development at all costs and omits any reference to **conservation** of the resource. It does not reflect the internationally accepted objective of "sustainable development".

There are, however, specific references to the President's power, with the advice of Cabinet, to make regulations relating to:

- the "conservation and protection of all species of fish";
- the establishment of closed seasons;
- the designation of prohibited areas;
- limits on size and quantity caught;
- prohibitions on fishing practices and equipment likely to damage the fish stock; and

- the taking of coral and seaweed (s. 22).

Pursuant to this, the *Fisheries Conservation and Protection (Rock Lobsters - Panulirus Species) Regulations 1979* (K.L.N.3/79) prohibit the taking, possession and sale of immature rock lobsters and females bearing eggs. The Prohibited Fishing Areas (Designation) Regulations (L.N. 61/78, 77/78) prohibit fishing in certain areas (Azur, Pelican and Isles Lagoons and the Tonga Channel, with the adjoining Artemia Ponds). These regulations were originally designed to protect brine shrimp aquaculture, but this has now been abandoned. We also understand that the taking of corals has been banned on Tarawa and restricted on other islands, but there appears to be no legal basis for this. There are no provisions regulating the taking of turtles. The lack of protection given to turtles while they are at sea and the limited protection given to their eggs under the Wildlife Conservation Ordinance is dealt with in chapter 12. The UNCED Report points out that there is evidence of exploitation of giant clams, bonefish and an endemic cockle (Te Bun), all species of cultural and nutritional importance (p 52), but there are no regulations protecting these species, or mangroves. The need to protect mangroves is specifically raised in DP7 (para. 3.7.9).

"Fish" and "fishing" are defined broadly to include the taking or harvesting of any aquatic animal, such as turtles and their eggs, molusces, crustaceans, sea urchins and beche-de-mer, as well as coral, sponge and even seaweed. Even preparatory and support activities constitute "fishing" (s. 2).

8.2 Local fishing

All "local fishing vessels" being used commercially must be licensed (s. 4(4)). This does not include native boats and those less than seven metres long, even if they have an engine and are being used for commercial fishing (s. 2). Those who operate a vessel or allow it to be operated without a licence or do not obey the conditions attached to their licence commit a criminal offence for which they can be fined up to $1,000 and imprisoned for up to three years (s. 4(4)). Licences cannot last for more than one year unless the Minister's approval is obtained (s. 4(3)), thus enabling licence conditions to be regularly adjusted to take into account any overfishing of the resource. The *Fisheries (Vessel Licences) Regulations 1981* do not include a set of model conditions, but there is a standard set of conditions attached to licences. These stipulate that vessels must not fish within three miles of the shores of any island, except when fishing for bait in the lagoon. Records of the catch must be kept, along with any other records required for scientific research purposes. Observers must be allowed on board the vessel, although this is at the master's convenience.

Licences are usually issued by fisheries licensing officers (ss. 4(1), 3(2)), but a special licence from the Minister is required for outsiders, including commercial fishermen, to fish in any sea or lagoon area or on any reef forming part of the ancient customary fishing ground of any kainga, utu or other division or subdivision of the people (s. 21). To this extent, the legislation recognises customary rights. No such licences have been issued.

The 1985 census showed that over 90% of the population fished on a subsistence basis, with less than 10% fishing commercially (DP6, p 129). Traditional fishing practices are diverse. According to the UNCED Report (p 18), the main ones consist of:

> 1) reef gleaning at low tide in the intertidal zone; 2) poling and trolling for small surf and schooling tunas using pearl-shell lures; 3) the use of gill nets and encircling nets for catching mullet, milkfish, etc.; 4) handlining for reef and lagoon fish (rarely at depths greater than 50 m); 5) underwater spearfishing; 6) scoopnetting for flying fish at night by the light of storm lanterns; and, 7) deepwater handlining, primarily for oilfish, which is also carried out at night in depths of up to 150 m.

The Fisheries Ordinance completely outlaws certain methods of fishing for both commercial and artisanal fishermen. This includes not only use of explosives but any "noxious substance" which makes fish easier to catch. Those who are found in possession of fish caught in this way, in circumstances where they ought to have realised this, are also guilty of criminal offences (s. 14).

There are provisions regulating local fishing practices in a number of local bye-laws. Some of these may have direct conservation significance (see DP7 para. 7.3) such as by limiting the catch, although the primary objective may be to protect those who are still using traditional practices from commercial operations and an increasing resort to new technologies, such as outboard motors. They include:

- prohibition of certain fishing practices, for example
  - Te Ororo, where a crowbar is used in combination with a net to frighten the fish (*Abaing Island Council Fishing (Te Ororo) Bye-Law 1988*);
  - using lights other than coconut torches (*Arorae Island Council (Fishing) Bye-laws 1990*; *Onotoa Island (Council Fishing) Bye-Law 1971*);
  - breaking the alignment of canoes while fishing for flying fish (*Arorae Island Council (Fishing) Bye-laws 1990*; *Onotoa Island (Council Fishing) Bye-Law 1971*).
- prohibition of fishing practices in certain areas, for example
  - use of motor boats in areas normally used by canoes (proposed Onotoa Island Council Fishing Amendment Bye-Law 1991; proposed Kuria Island Council (Control of Fishing pointing prohibited areas for towing using Outboard Motors) Bye-laws 1981).
- prohibition of fishing practices at certain times, for example
  - using any torches or any other methods of fishing than nets during the Kawariki season (*Arorae Island Council (Fishing) Bye-laws 1990*);

- fishing between midnight and sunrise in certain areas (*Arorae Island Council (Fishing) Bye-laws 1990*);
- fishing in a canoe between midnight and 6 am (*Onotoa Island (Council Fishing) Bye Law 1970*);
- using a coconut leaf torch between 6 am and 7.30 pm (*Onotoa Island (Council Fishing) Bye-Law 1971*).

- prohibition of fishing practices in relation to types of fish, for example
  - trolling for certain types of fish (*Arorae Island Council (Fishing) Bye-laws 1990*; *Onotoa Island (Council Fishing) Bye-Law 1970*);
  - catching flying fish or lobsters by certain methods (*Arorae Island Council (Fishing) Bye-laws 1990*; proposed Marakei Island Council (Control of Flying Fish) Bye-laws 1976).

It appears that some Councils provide for the registration of traditional stone fish traps and then offer protection to registered fish traps, for example by prohibiting fishing within a certain distance (proposed Teinainano Urban Council (Control of Fish Trap) Bye-laws 1982).

On Kiritimati, there is a special permit issued for recreational fishing by tourists (particularly fly-fishing for bone fish), although the legal basis for this is not apparent. Conditions include a daily catch limit and a ban on fishing for lobsters. A "No-Kill" zone has been established in one area of the lagoon. Here fishing is not allowed except in the company of an authorised officer and all fish must be released live.

The UNCED Report points to the need for effective regulation of lagoon and inshore fisheries, adversely affected by commercial exploitation for export (for example lobsters and prawns), as well as servicing rapidly expanding local urban markets and growing rural populations. This threatens the sustainability of subsistence and local artisanal fisheries. The report particularly singles out for mention the increasing use of small-mesh gillnets and the decline of traditional controls (pp. 51-52). Ecosystems Analysis Incorporated has commenced the Tarawa Lagoon Project, funded by the United States Agency for International Development (USAID), which will investigate the biology and ecology of lagoon fish (both finfish and shellfish), geared towards conservation and management of the marine resource. Atoll Research hopes to complement this work by carrying out research on pelagic fish. The collection and analysis of all of this information is crucial to the development of effective management strategies.

8.3 Foreign fishing vessels

Foreign fishing vessels normally need a permit to enter Kiribati's EEZ, and they always need a permit before they are allowed to fish there. They must comply with any conditions attached to the permit (s. 5). Regulations can be made relating to the conditions and procedure to be observed by foreign fishing vessels (s. 22(c)). Fishing

without a permit attracts a fine of $250,000, although breach of condition only attracts a fine of $50,000 (s. 5(14),(15)).

Conditions attached to foreign fishing vessel permits include a prohibition on fishing in areas which have been designated closed and a requirement to complete daily catch reports which must be submitted within a stipulated period after the completion of the trip. Notice must be given of an intention to transship fish or to reprovision the vessel. Transshipment must be in an approved port and under stipulated conditions. Authorised officers can board the vessel in the EEZ and inspect it.

Authorized officers (including the police and members of the defence force) have very wide powers of search, seizure and arrest (s. 8, 9). This includes the power to seize foreign fishing vessels fishing in contravention of the licensing provisions (s. 9(1)(b)(ii)). On conviction of certain offences, the vessel is forfeit (s. 15). Licences can also be cancelled or suspended by the Chief Fisheries Officer for breach of condition (s. 7(1)). There is a right of appeal to the Minister from such a decision as well as from a decision to refuse to grant a licence in the first place (s. 7(2)).

The Minister has broad powers to enter into agreements relating to fisheries with governments and government and international agencies (s. 20). The Minister may authorise these bodies to issue fishing permits on its behalf but subject to specified conditions (s. 20(1A)). The UNCED Report points out that such agreements are the only effective way of exploiting what is believed to be an "almost universally underexploited" resource because of the difficulties currently faced by the national fishing agency, Te Mautari (p 52). We understand that, in addition to the multilateral agreement with the United States in relation to purse seine fishing, discussed below, there are currently unilateral agreements with South Korea (longline fishing) and Japan (mainly pole and line, using bait brought from Japan, but also some longline). A prior agreement with Taiwan has not been renewed. The conditions applying to the 1984 to 1985 agreement with the Federation of Japan Tuna Fisheries Cooperative Associations are set out in G. Moore, (1988, pp. 251-252). They cover the same topics as those dealt with by the agreement with the United States, discussed in detail below.

8.4 Multilateral Treaty with the United States

The Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America was signed at Port Moresby on 2 April 1987. The *Fisheries (Pacific Island States' Treaty with the United States of America) Act 1988* brought it into operation in Kiribati (s. 3). The treaty acknowledges that Kiribati has sovereign rights for the purposes of exploring and exploiting, conserving and managing the fisheries resources of its EEZ. Article 2, however, emphasises the developmental focus of the relationship by providing that the United States will co-operate with the States through the provision of technical and economic support to assist them to achieve the objective of maximizing the benefits from the development of their fisheries resources. In addition to payments based on the number of vessels licensed to fish, there is provision for the rendering of technical assistance to the value of US $250,000 (Annex 2 Schedule 2).

Parties to the treaty, including Kiribati, have agreed to licence United States fishing vessels to fish for tuna, other than Southern Bluefin Tuna (Annex 1, cl. 5), in certain parts of the sea under their jurisdiction. So far as Kiribati is concerned this excludes the "closed areas" of its territorial sea and archipelagic waters and areas within two nautical miles of fish aggregating devices, but otherwise covers the whole of its EEZ (Article 1 and Annex 1, Schedule 2).

Licences can be refused for a number of reasons (Annex 2). These include a prior serious violation of the treaty or previous multiple violations which constitute a serious disregard of the treaty, as well as certain situations where the vessel does not have good standing on the Regional Register of Foreign Fishing Vessels, maintained by the Forum Fisheries Agency (FFA), because there is evidence giving reasonable cause to believe that the operator has committed a serious fisheries offence and has not been brought to trial.

The terms under which licensed vessels are permitted to fish are set out in Annex 1. Only purse seine fishing is allowed. Information relating to the position of the vessel (including entry into and exit from closed areas) and the catch must be supplied at regular intervals while it is in Kiribati waters. Observers, with full powers of inspection, must be allowed on board. The activities of traditional and locally based fishermen and fishing vessels must not be disrupted or in any way adversely affected.

There are special enforcement provisions in the Act and the Treaty. The maximum penalties are higher (US $250,000: s 6). In addition, although the States themselves can take enforcement action (Article 5), the United States Government has assumed primary responsibility for enforcing the provisions of the Treaty and fishing licences issued under it, including investigating offences. In particular, it has agreed to take the necessary steps to ensure that its nationals and fishing vessels comply with these provisions and to facilitate claims made by Kiribati (Article 4).

8.5 Fish processing

Fish processing establishments (including vessels which are simply preserving the fish which they have caught) require a licence and once again appropriate conditions can be attached (s. 6). These could include conditions designed to regulate pollution. Smoked beche-de-mer is exported and consideration is currently being given to a venture involving the vacuum packing of fish for export.

8.6 Mariculture

The definition of "fish" under the Fisheries Ordinance includes seaweed, coral and sponge and we have already noted that regulations can be made relating to the "taking" of coral and seaweed. We understand that an exotic species of seaweed is being cultivated in the lagoons of a number of islands and that it represents an important commercial opportunity as a stabiliser for ice-cream and for pharmaceuticals. Cultivation is a communal activity and the crop takes only a relatively short time to reach maturity, providing a quick cash return. We have not, however, been able to discover any regulations relating to this activity and the power to make regulations under the Fisheries Ordinance relating to

"taking" may not include cultivation. We are led to understand that landholders with land bordering on the foreshore claim the adjacent area of the lagoon in which to grow seaweed and that so far these issues have been left to the resolution of landowners themselves. We have already noted that the State owns the seabed, except to the extent that there are "private rights" over it. Even if the Government does not wish to clarify the issue of ownership, it should consider whether it may be appropriate to regulate the activity to make sure that there are no adverse environmental impacts.

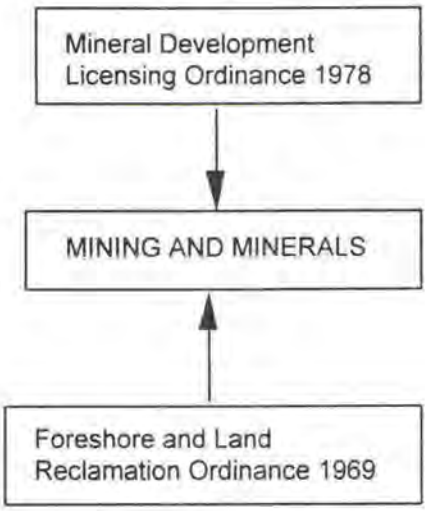
8.7 Conclusion

At a purely formal level, Kiribati's fisheries legislation contains the necessary structural elements for the effective management of both inshore, reef and pelagic fisheries. The main issues are ones of implementation and enforcement. So far as policing the EEZ is concerned, the problems are well known and solutions need to be sought in terms of greater regional co-operation and further exploration of the concept of flag state responsibility embodied in the Multilateral Treaty with the US.

In many ways the regulation of subsistence and artisanal fisheries presents even greater difficulties. In the EEZ the issue is currently viewed as one of ensuring that foreign fishing vessels pay for the right to fish. In the inshore areas on the other hand, there is already evidence of non-sustainable fishing in relation to some species and the question is whether the State should intervene now on the basis of the precautionary principle. There is clearly a power to make regulations designed to conserve fish and crustacean stocks, either under the Fisheries Ordinance or local bye-laws. These could impose size restrictions, household quotas or closed seasons, depending on what existing scientific research results suggest would be most helpful. The problems of enforcing such regulations should not be underestimated, however, if they conflict with customary practices.

A proposal by Atoll Research to carry out desperately needed research on traditional conservation strategies has recently been accepted by the Ministry of Environment and Natural Resources Development. The nurturing of such practices, the use of regulations which build on to them and the co-option of traditional enforcement machinery is likely to prove the most effective method of influencing behaviour, given the enforcement difficulties in this area. The first step is to identify those practices which are sensitive to conservation of fish stocks (or can be made sensitive with some adjustment) and those which actually have a detrimental impact. Falling into the first of these categories are such practices as secrecy about fishing grounds, taboos or bans on species of fish, restrictions on the consumption of certain species (for example only by chiefs or priests) and clan tenure or limited access to reef and lagoon areas (UNCED Report p 24). There is an argument that if formal regulation is employed, it should take the form of local bye-laws which communities have participated in making rather than regulations imposed from outside under the Fisheries Ordinance. Communities will then feel a greater sense of ownership of the rules.

9 *Mining and minerals*



9.1 Introduction

DP6 (p. 162) sums up the position regarding mineral resources in Kiribati as follows:

> the major problem facing this sector is the lack of mineral resources. The few minerals that do exist are located in inaccessible places and their exact positioning with respect to our territory is not yet clear.

In recent years much interest has arisen in the Pacific with respect to the development of the concept of the 200 mile Exclusive Economic Zone (EEZ) in the law of the sea. Kiribati's EEZ, which covers three million square kilometres of ocean, gives it the right to initiate the search for a commercial mineral body or oil or gas deposits. According to DP6 (pp. 161-2), four potential sources of future mining activities have been identified as follows:

- phosphate mining on Banaba, but the agreement of the Rabi Council is required;
- gypsum in the mineral sands of Malden, but the distance from market and lack of any infrastructure may preclude its economic viability;
- manganese nodules in rich fields lying in international waters to the north-east of the Line Islands, but the extent to which these extend into Kiribati waters has not been fully established and further work has to be done;
- cobalt crusts found in deposits and sea mounts in the Pacific, but extraction technologies have not as yet been fully developed.

The Ministry of the Environment and Natural Resources Development is responsible for regulating the mining of minerals under the *Mineral Development Licensing Ordinance 1978*.

9.2 Statutory background

The *Mineral Development Licensing Ordinance 1978* makes provision for the grant of licences (reconnaissance, prospecting, mining) to search for and extract minerals. This particular Ordinance does not apply to Ocean Island (Banaba). Mineral is defined in the Ordinance to mean (s. 2):

> any substance, whether in solid, liquid or gaseous form, occurring naturally in or on earth, or in or under the seabed formed by or subject to a geological process, but does not include water.

9.3 Acquisition of mineral rights

No-one is permitted to search for or extract minerals except under a licence (s. 3(1)) but the Ordinance does not prohibit an I-Kiribati from taking any mineral, to the extent that custom permits, from any land, in accordance with customary practices. Although this is an exception, mineral taking by an I-Kiribati could be subject to conditions or restrictions which may be applied by this or any other law (s. 3(2)(a)). The Ordinance does not apply to the search for minerals for building materials, road-making or other construction works (s. 3(2)(b)). Mining for sand and coral for building purposes or for road strengthening aggregates is covered by the *Foreshore and Land Reclamation Ordinance 1969*.

A right to take minerals will not be granted:

- to a person who is not I-Kiribati; or to a corporation, unless the corporation is incorporated by law in Kiribati. A reconnaissance or prospecting licence will not be issued to a company unless the company is registered under the Companies Registration Ordinance (s. 3(3)); or
- to any public officer unless authorised by the Minister responsible for mining and minerals (s. 7).

9.4 Reconnaissance licences

Under the Mineral Development Licensing Ordinance, the Minister responsible for mining and minerals may at his or her discretion, grant a reconnaissance licence to a person over any area of Kiribati (s. 10(1)). A reconnaissance licence will not, however, be granted over any area in which a prospecting or a mining licence has been granted, nor will a licence be granted for a period in excess of two years. The Minister has the discretion to include conditions (including environmental conditions) when issuing a licence, and may extend a licence for a further one year if it is in the public interest (ss. 10 (2,3,4)). Reconnaissance licences must be gazetted together with a description and plan of

the area covered by the licence, date of issue and period of validity of the licence, and the conditions imposed by the Minister (s. 11).

The holder of a reconnaissance licence is required under section 12 to submit to the Minister, at six monthly intervals and within three months of the expiry date, a final report and evaluation of mineral prospects within the licence area, along with negatives of aerial photographs; geological, geochemical and geophysical maps; profiles; diagrams and charts; tests; analysis and report and a statement of costs (s. 12). The holder of a reconnaissance licence may exercise his right to erect camp, put up temporary buildings for machinery, or place vessels or installations in water areas covered by the licence, but limitations can be imposed on such rights (s. 13). The limitations are not specified in the legislation and it is possible that the Minister could impose them for environmental reasons.

9.5 Prospecting licence

A prospecting licence may be granted by the Minister at his or her discretion provided the applicant has adequate financial resources, is technically competent and is sufficiently experienced to carry out an effective prospecting operation; the proposed prospecting programme is adequate; and the applicant is able and willing to comply with any terms or conditions imposed (s. 15). The Minister has the power to investigate, negotiate and consult with others before granting a licence to the applicant (s. 15(2)). A prospecting licence is subject to such terms and conditions as the Minister may determine (s. 16). The opportunity to impose environmental protection conditions exists under section 16, but this is largely dependent on the discretion of the Minister.

A prospecting licence is valid for three years in the first instance and renewals can be granted for a further two periods of two years (s. 19(2)). The renewal of licences is subject to the terms and conditions being implemented satisfactorily. The Ordinance stipulates that it is the responsibility of the holder to "backfill, plug or otherwise make safe any borehole or excavation made during the course of prospecting operations" (s. 23(e)). The holder is also required to remove, at the end of 60 days of the expiry of a prospecting licence, any camp, temporary buildings or machinery erected, and to repair any damage done to the surface of the ground as a result of prospecting activities (s. 23(1)(f)).

The holder of a prospecting licence must keep full and accurate records and submit these to the Minister every three months. These must show boreholes drilled, strata penetrated, minerals discovered, the results of any seismic surveys and geochemical or geophysical analysis, geological interpretation of the records, and any other work done in connection with the prospecting licence. Anyone who gives misleading information or falsifies records is guilty of an offence (s. 23(3)).

The holder of a prospecting licence can only remove minerals from the prospecting area for purposes of analysis, but such removal requires the written permission of the Minister, who may impose any conditions considered necessary (s. 26).

9.6 Mining licence

Where minerals have been discovered in commercial quantities by the holder of a prospecting licence, an application may be made to the Minister for the grant of a mining licence (s. 27). An application for a mining licence must include information of environmental significance, such as the proposed programme of mining operations and a detailed programme for prevention or treatment of pollution, safeguarding of fishing and navigation where mining takes place in the sea, progressive reclamation and rehabilitation of lands disturbed by mining, and plans for minimising the effects of such mining on water areas and adjoining land (s. 27(j)(v)).

9.7 Consideration of application for a mining licence

Before a mining licence will be considered by the Minister, the Ordinance requires a number of factors to be taken into account. These factors include the financial resources, technical competence and experience of the applicant to carry out an effective mining operation (s. 28(d)). In addition, the applicant's ability and willingness to comply with the terms and conditions imposed in a mining licence (s. 28(e)) will be an important consideration. The issue of a mining licence will be subject to terms and conditions that are determined by the Minister, covering matters such as processing, disposal and sale of the minerals (s. 29).

Under section 34(d)) of the Ordinance, any stacking or dumping of material and mining wastes requires the approval of the Minister. Environmental conditions are not specifically spelt out as considerations to be taken into account before the issue of a mining licence. It is important that such matters are specifically spelt out in the legislation. As any mining industry is usually conducted to the detriment of the environment, it is suggested that there should be a requirement to carry out an environmental impact assessment (EIA) before the issue of a licence, to minimise the threat of unnecessary environmental degradation.

If the Minister considers that the holder of a mining licence is using wasteful mining or treatment practices, the holder may be notified to show cause within a specified time why such practices should not cease (s. 36(1)). The Minister has the power to order the holder to cease such practices within a specified time (s. 36(2)) or the mining licence will be cancelled (s. 36(3)).

The export of radioactive material is prohibited, except in accordance with the terms and conditions of a permit granted by the Minister (s. 39(1)).

9.8 Mineral rights and surface rights

The written consent of the Minister is mandatory for the exercise of any mineral right upon:

- any land used as a place of burial; and

- any land (not State land) set aside or used for Government purposes (s. 42(1)(a)(b)).

Where the holder of a mineral right makes a find of historical or archaeological significance, or discovers any wreck, the information must be promptly conveyed to the Minister, who may give directions for the preservation or disposal of the finds (s. 42(2)). The holder of a mineral right is prohibited from exercising any right over any such land without the written consent of the owner or the lawful occupier, but if the consent is unreasonably held, the Minister may grant this right to the holder (s. 42(3)).

9.9 Compensation

Under section 44 of the Ordinance, the holder of a mineral right shall, on demand being made by the owner or lawful occupier of any land, pay fair and reasonable compensation for any damage done to the surface of the land, and shall, on demand, pay compensation for any damage done to any crops, trees, buildings or works, provided that:

- payment of rent is deemed to be adequate compensation for deprivation of the use of land;
- the compensation payable takes account of any improvement made by the holder which will benefit the owner; and
- the basis on which compensation is payable will be assessed at market value of the land, but the value will be reduced if any damage is caused.

If it appears to the Minister that the holder of a mineral right over any territorial sea, lagoon or inland waters, or any part of the foreshore, has interfered with and caused substantial damage to fishing, the gathering of crustaceans, shells or plants or any other activity customarily carried out in such areas, and that persons have been adversely affected by such interference or damage, the Minister may appoint a Board of Claims to inquire into the matter and award compensation (s. 45).

Where the Minister considers that any land is required to secure the development or utilisation of the mineral resources of Kiribati he or she may compulsorily acquire that land (s. 47(1)). Acquisition of land under section 47(1) will be deemed to be for a public purpose in terms of the provisions of the State Acquisition of Lands Ordinance, and any acquisition under this section will be effected in accordance with the provisions of that Ordinance (s. 47(2)).

9.10 Suspension and cancellation

The Minister can suspend or cancel a mineral right if the holder contravenes any provision of the Ordinance, the conditions of the mineral right, or the provisions of any law relating to mines and minerals (s. 55(b)).

9.11 Regulations

Under section 58 of the Ordinance, the Minister has the power to make regulations which are of environmental significance, such as:

- to prohibit the defiling or wasting of water (s. 58(j));
- to prevent pollution and protect the living resources of the sea (s. 58(o)).

No regulations appear to have been made under this Ordinance.

9.12 Sand mining

Sand, coral and limestone rock mining occurs in Kiribati "for construction and reclamation purposes [and is] often obtained at considerable environmental cost. In the case of sand mining and the use of dead and living coral from lagoons and fringing reefs, their removal can lead to accelerated coastal erosion and losses of considerable areas of land" (UNCED Report, 1991, p.7).

The *Foreshore and Land Reclamation Ordinance 1969*, as amended, essentially declares the ownership of the foreshore, but also provides some protection by regulating certain reclamation projects. The Ordinance vests the ownership of the foreshore and the seabed in the State, but this right is subject to any public or private rights that may exist for navigation and fishing or crossing the foreshore (s. 3(1)). The foreshore is defined to mean "the shore of the sea or of channels or creeks that is alternatively covered and uncovered by the sea at the highest and lowest tides" (s. 2).

The Minister may by notice designate any part of the foreshore (s. 3(2)), and the removal of any sand, gravel, reef, mud, coral, rock or other like substance cannot be undertaken in the designated area without a licence from the Chief Lands Officer.(s. 3(3)). The Chief Lands Officer has the power to impose conditions considered necessary, which could include environmental protection conditions. Any licensee who breaches any condition of the licence is liable to a fine of $250 (s. 3(4),(5)).

9.13 Conclusion and recommendations

The *Mineral Development Licensing Ordinance 1978* contains a number of environmental protection requirements. The Ordinance provides opportunities for the inclusion of environmental protective measures considered necessary, such as environmental impact assessments for any mining operations, as part of the terms and conditions of a licence. While permit terms and conditions will vary depending on the mining activity, some consideration needs to be given for environmental impact assessments to be made part of the specific requirements.

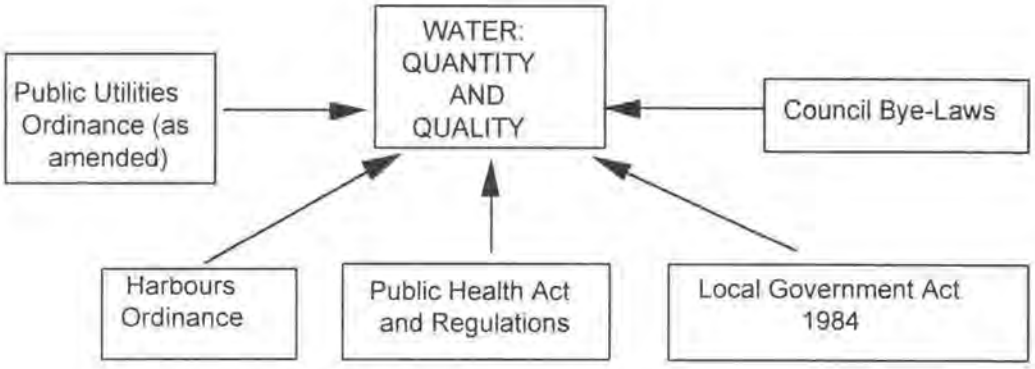
Similarly, the *Foreshore and Land Reclamation Ordinance 1969* gives specific power to the Chief Lands Officer to impose conditions when issuing a licence. As this power is discretionary and section 3(4) of the Ordinance does not give guidelines for appropriate

permitting requirements for the various characteristics of the takings, it is suggested that the law be amended to incorporate specific requirements for environmental protection, such as environmental impact assessments (EIA) and conservation measures be carried out before licences are issued. Whilst DP7 refers to EIAs having to be carried out for development projects, specific EIA laws or guidelines await enactment.

It is recommended that:

- environmental impact assessments be included as one of the conditions for issuance of permits to search for and extract minerals;
- environmental impact assessments be included as a condition of license approval for the removal of sand, coral and rocks from the foreshore and seabed; and
- guidelines or laws be developed for environmental impact assessments.

10 Water quantity and quality



10.1 Introduction

Water supply issues are already receiving detailed treatment. The United Nations Interregional Advisor on water legislation, Miguel Solanes, has given his views on the legal and institutional issues of water management and is expected to produce draft water legislation for Kiribati in 1992. Doctor Zeev Shalev, a consulting engineer, has recently produced a draft ten year National Water Master Plan,

10.2 Freshwater sources

There are two sources of potable water: the freshwater lenses under the islands which are directly dependent upon rainwater, and direct entrapment of rainwater by water storage, essentially roof collecting tanks.

The Betio Town Council (Building) Bye-laws provide that buildings must have proper guttering and water storage facilities (cl. 21). Originally, two years were allowed to bring existing buildings up to scratch (cl. 22). Gutterings and storages have to be kept in a reasonable state of repair (cl. 23). Shalev, (p 42), however, comments that there is under-utilisation of rainwater on South Tarawa because many buildings do not have rain catchment facilities and even where they do, they are frequently not operational because of inadequate maintenance. He reports that a variety of tanks are used on Kiritimati.

The main source of potable water is from the lenses under the islands. Access is gained in a number of ways described by Shalev (para. 7.1), primarily different types of wells and gallery systems which include, in addition to a well, a slotted pipe extending on either side below the water level.

10.3 Water supply

Under the *Public Utilities Ordinance 1977*, the Public Utilities Board (PUB) is given exclusive rights over the provision of water supply in any declared water supply area (ss. 5, 7(1)), but it can license others to perform this function (s. 7(2)). The PUB is a Government-owned corporation under the Ministry of Works and Energy; its Board of Directors is directly responsible to the Minister of Works and Energy, and the Secretary of Works and Energy is the Chairman of the PUB Board of Directors (Shalev para. 6.1). The Board must prepare an annual report (s. 22), but has not done so since 1984-5.

No **duty** is placed on the Board to provide an adequate water supply. In practice, its area of operations is confined to South Tarawa (including Buota), where, as a result of the Tarawa Water Supply Project, completed in 1987, it provides a reticulated water supply. The water is currently taken from the lens at Buota and Bonriki. Water reserves have been declared in these areas of the island to protect the lens from contamination (see below).

Serious attention needs to be given to issues of water conservation (DP6 p. 358). There are no provisions in the legislation requiring the conservation of water and the price of water has, at least in the past, been subsidised (PUB Annual Report 1984-5, p 40; DP6, p 346). There is, therefore, no incentive here to conserve water or to rely to a greater extent on roof collected rainwater. In addition, there are problems with illegal connections to the water supply and cases are currently before the courts. This, in conjunction with other comments made to the consultants, suggests that there is a good deal of resistance to paying for water even at subsidised rates. These are significant issues in light of water shortages which mean that the PUB normally has to restrict supply to a few hours each day and may have to consider pumping from North Tarawa.

DP6 (p 359) made a commitment to provide ten litres of safe drinking water per head per day within reasonable distance of each home. Water supply projects on the Outer Islands are the responsibility of the Water Unit of the Public Works Division under the Ministry of Works and Energy. There is currently a UNDP/UNCDF Outer Islands Community Water Supply Project which covers 73 villages in thirteen islands of the Gilberts (Shalev para. 9.3). A water supply programme has also been included in the Environmental Health Plan 1992-1995 of the Ministry of Health, Family Planning and Social Welfare (Shalev para. 9.1.2).

The location of wells close to dwellings and especially pit latrines is a serious problem as groundwater may become contaminated and flow into the wells (Shavlev para. 7.1.1; 7.2.1; DP6, p 361). A basic design principle is to locate the water source at a distance from the village and to provide latrines in the village (Shalev para. 7.2.5), however, Shalev states that this principle is not being followed in the Ministry of Health programme. The consultants were told that Council sanitation officers gave instructions on the siting of wells in relation to toilets. The source of this authority almost certainly lies in local bye-laws. The Betio Town Council (Public Health) Bye-laws, for example, provide that the permission of the Clerk is required for the sinking of wells and that certain design requirements must be complied with. Directions can be given to fill in

insanitary wells (cl. 7). The Ministry of Health, which provides materials for the construction of latrines, sees itself as having only an advisory and monitoring role. Attention needs to be given to the question of who should have overall responsibility for the siting of wells and latrines.

10.4 Freshwater quality

The Public Utilities Board has the power, provided it gets the Minister's approval, to declare any area to be a water reserve in order to ensure adequate and pure water supplies. This is subject to Chapter II of the Constitution, particularly ss. 8 and 9 dealing with deprivation of property (s. 8(2)(f)). Four water reserves have been declared on South Tarawa, however, the area on Betio (L.N. 69/69) is no longer used for water supply purposes and it has recently been discovered that the Taeoraereke reserve, after being rested because of salt water incursion, is also polluted. Water is currently being taken from the Bonriki reserve, the Tungaru Hospital reserve (for hospital purposes) and from Buota, although this has not apparently been declared to be a reserve.

It is an offence to do anything which is likely to pollute a water reserve or, without the Board's written permission, to erect a structure or dig a pit (s. 30(3). The Board can order owners and occupiers to remove structures and fill in pits and do the work itself if it is not done within a reasonable time (s. 8(2)(f)) but it must pay compensation for all loss and damage sustained unless the structure or pit is illegal under the Public Utilities Ordinance (s. 9(3)) In other words, it would have to pay compensation even though the structure or pit was illegal under other legislation, such as the Land Planning Ordinance.

Where the landowner has been substantially deprived of the normal use of the land, he or she can require that it be purchased. In practice, landholders would never want to terminate their relationship with their land in the way envisaged by an outright sale, as distinct from some kind of temporary leasing arrangement.

In practice, compensation has been paid to owners of land declared as a water reserve, but it only covers the removal of existing improvements, not the undeveloped areas on which landholders are still allowed to harvest coconuts. The owners are now insisting on a continuing lease arrangement applying to the whole of their land. It would be possible for the government to purchase the land, but this may be culturally and politically unacceptable. Meanwhile there is a significant problem of people squatting on the reserves, apparently with the authority of the landowners. Septic toilets have been placed on reserves. Prosecutions have been instituted. Recent tests show pollution of the lens by animal or human wastes (Shalev para. 7.2.5).

It is an offence punishable with a fine up to fifty dollars or three months' imprisonment to do, cause or permit anything which may "soil, foul, corrupt or injure" the water supply (s. 30(1)). The President, acting with the advice of Cabinet given after consultation by the Minister with the Board, has a very broad power to make regulations **to prevent the pollution of any water**, as well as to ensure the sanitary control of water reserves (s. 35(1)(r),(s)). There is also a power to make regulations under the Public Health

Ordinance, preventing the pollution of "any rain, stream, well or other water supply" (s. 3(1)(i)), for example by controlling the siting of latrines.

Apart from these attempts to protect the quality of the source, the water is also chlorinated.

In the outer islands, responsibility for water quality monitoring is the responsibility of the Ministry of Health, Family Planning and Social Welfare (Shalev para. 6.3). Well samples are, however, only tested on request. Under the Public Health Regulations, sanitary inspectors can close wells or other forms of water supply if they are injurious to health (cl. 20).

10.5 Sewerage

Following the enactment of the *Public Utilities (Amendment) Act 1983*, the Public Utilities Board has been given the "exclusive right" to perform the functions relating to the supply of sewerage facilities and the disposal of sewage under the Public Utilities Ordinance (s. 7(4)). This does not impose any **duty** on the Board, but simply gives it the **power** to act.

South Tarawa is the only island which has a centralised sewerage system (DP6, p 345). The Tarawa Sewerage Project provides sewerage only for a limited number of areas on South Tarawa (Betio, Bairiki and Bikenibeu), with disposal of untreated sewage by ocean outfall and toilet flushing by reticulated sea water. The communal toilet blocks originally provided are now, however, in poor repair. One estimate is that eighty per cent are unusable. It is not clear who has the responsibility for the maintenance of these facilities. The two Local Councils on South Tarawa do not regard themselves as having any role to play in this context although the Local Government Act allows sanitary responsibilities to be assigned to them (s. 45(1)). Shalev has suggested that because of problems with the toilet blocks, people are reverting to traditional toilet practices (para. 8.1; DP6 pp. 361-2). There is currently a proposal which will involve the replacement of the toilet blocks by individual toilets (non-cistern, bucket flush) for each house. Another problem, however, is that some people are reluctant to pay the connection fee (a minimum of $200) and as a result there are a considerable number of septic toilets within the sewered areas.

The theory is that the construction of new houses will not be approved unless there is adequate sanitation. Clause 11 of the Public Health Regulations in fact provides that **every house and building in daily occupation** must be provided with a latrine and the Betio Town Council (Building) Bye-laws 1975 provide that the Council **may** disapprove of a building application on the grounds that it contravenes regulations in force in the area (cl. 6(1)(a)). Clause 20 of these bye-laws provides that the occupier of any plot must make adequate provision, to the satisfaction of Council, for the disposal of sewage. In practice, it is difficult to insist on latrines when many people simply cannot afford them and tradition allows the use of the beach. Health inspectors used to be assigned to Local Councils and helped them to examine applications but this is no longer the case.

In spite of these provisions in its bye-laws, the Betio Town Council does not regard itself as having any role in relation to the regulation of domestic sanitation, pointing to the fact that a representative from the Public Utilities Board sits on the Local Planning Board. There is no representative from the Ministry of Health. We understand that in practice approvals are given on the basis that latrine requirements are satisfied by the existence of the toilet blocks, in spite of their shortcomings.

Under the Local Government Act, responsibility for toilet systems can be assigned to Local Councils (s. 45(1)), and this is the position outside the sewered areas (Shalev para. 8.1). Where facilities do exist, they are usually based on a waterseal latrine system (DP6 p 360). The Ministry of Health, Family Planning and Social Welfare has overall responsibility, rather than the Public Works Division of the Ministry of Works, but it sees its role primarily in terms of providing advice to Local Councils through its health inspectors and carrying out a sanitation works programme which has been included in its Environmental Health Plan 1992-1995 (Shalev para. 9.1.2). It leaves questions of law enforcement to the Councils but acknowledges the difficulties faced by elected village wardens.

The *Betio Town Council (Public Health) Bye-laws 1975* allow for the building of latrines on the beach provided that prior approval of the Clerk is obtained. It is otherwise an offence to pollute the beach (cll. 3, 4).

It is an offence under the Harbours Ordinance to permit any privy to discharge into the Tarawa harbour or to cast or discharge or to suffer to be cast or be discharged any night soil, sewage or other filth into the harbour except at such times and places permitted by the Harbour Master (s. 48).

10.6 Conclusion

There appear to be serious problems with regard to allocation of responsibility in the area of water supply and sewerage. This is true in relation to both Tarawa and the Outer Islands. There are a number of authorities with related functions but no adequate provision for co-ordination and grey areas when it comes to regulatory responsibility. This frequently leads to procrastination when it comes to controversial decisions, for example domestic sanitation. Shalev has suggested that the sanitation construction activities of the Department of Health be transferred to the Water Unit of the Public Works Division, but it is unlikely that this goes far enough. It does not clarify the role to be played by Councils, which at the moment, in theory at least, seem to carry most of the responsibility for regulation in this area. There is a Water Sanitation Committee, which is an advisory committee on water and sanitation, comprising representatives from the Public Utilities Board, the Public Works Division, the Department of Home Affairs, the Department of Finance and the Department of Health, but this has not been active until recently and is primarily concerned with the development of major projects. A fundamental change has been recommended by Doctor D C Jayasuriya, (1990, p. 13) a United Nations World Health Organization (WHO) consultant, who has recently completed a report on health legislation for Kiribati:

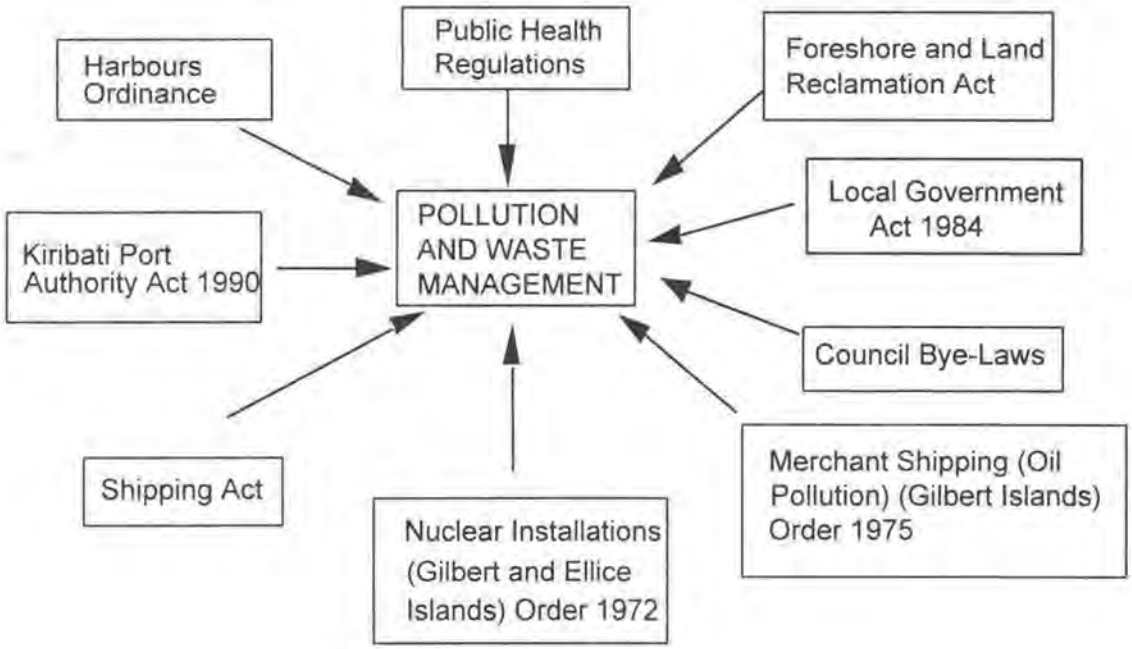
> In the absence of an overall public health and sanitation control plan of action, with specific targets and financial allocations which cannot be utilised for other routine matters, and an intersectoral monitoring mechanism at the national level, it is difficult to effectively implement the statutory provisions relating to public health and sanitation. If the existing statutory provisions have been implemented in the way they are expected to be implemented, much could have been accomplished by now. The mere addition of another body of regulatory measures at this stage will be of limited functional value, unless fundamental changes are introduced to the system itself.

He goes on to suggest as one possible option the appointment of a Public Health Commissioner to be in overall charge of public health and sanitation activities. Government and Council officers would be required to carry out his instructions in relation to the implementation of public health and sanitary provisions. This would involve a fundamental reallocation of regulatory responsibility away from Local Councils. An alternative would be to leave primary responsibility for enforcement in the hands of Local Councils, and to give a body such as the Water Sanitation Committee supervisory responsibility, including the responsibility to report to the Maneaba ni Maungatabu.

At present, there is evidence of regulatory failure when it comes to ensuring that adequate sanitation facilities are provided in new buildings on South Tarawa. A certificate of adequacy from the Department of Health should be required before houses can be occupied. There is also evidence of regulatory failure when it comes to the siting of wells in relation to toilet facilities. Once again there appears to be a need, in practice, for the Government to play a supervisory rather than merely an advisory role in relation to decisions by Councils. A commitment to deal with this problem, through more careful consultation and improvement in Council bye-laws, was made in the DP6 (p. 362). Any new legislation in this area should deal with questions of sewerage as well as water supply, given the intimate relationship between the two.

Finally, serious attention needs to be given to the problems associated with illegal occupation of the water reserves on Tarawa. If neither the payment of compensation under the existing legislation nor outright purchase provide an acceptable political resolution of the problem, steps must be taken to enter into leasing arrangements.

11 Pollution and waste management



11.1 Introduction

The UNCED Report (1991, p. 56) points out:

> Although the total volumes of waste produced may not be large compared to other countries, the effects of the disposal of increasing amounts of waste on fragile small islands environments are likely to be extreme and constitute a very serious constraint to sustainable development. This is particularly true for atolls with limited fresh water supplies and inshore lagoon marine ecosystems that are easily contaminated .

Issues of water supply and freshwater pollution are so inextricably intertwined on Kiribati that the statutory provisions dealing with pollution of freshwater have been dealt with above in the discussion of the Public Utilities Ordinance. In essence, it is an offence to pollute the water supply. This may not extend to the lens itself, as distinct from the works of the PUB, but this is arguable. Apart from this, the Minister of Works and Energy can make regulations to prevent the pollution of any water. This would include both the lens and the sea.

11.2 Marine pollution

The UNCED Report (1991 p. 57) points out that oil pollution is becoming increasingly common in harbours and that coliform bacteria concentrations in lagoons are "dangerously high" in densely-settled areas. There are a number of specific provisions dealing with marine pollution.

11.3 Pollution in harbours and ports

Under the Harbours Ordinance, the Minister may declare any place to be a harbour (s. 3). Tarawa has been so declared (L.N. 40/63). It is an offence to throw anything at all into the harbour or to allow it to fall in, whether from the land or a vessel (s. 44(i)). It is even an offence to let it fall onto land from where it is likely to fall or be washed into the harbour (s. 44(ii)). Offenders can be fined $100 and imprisoned for six months in default, as well as being required to "remove" the object in question or to "make good any damage". It would be appropriate to have a general clean-up requirement as the concepts of removal and making good may be too restricted in the case of some pollutants. Under clause 9 of the Harbours Regulations, the master or owner of any vessel or shore installation commits an offence if oil is discharged or allowed to escape into a harbour.

Timber and vessels no longer fit for service must not be placed or left in the harbour (s. 44(iii)). The Harbour Master can order the harbour to be cleared by the master or the owner of anything sunk or stranded in it, and direct it to be done at their expense if they do not comply (s. 24).

Vessels carrying dangerous or inflammable material require the approval of the Harbour Master before berthing (s. 22).

One of the functions of the Kiribati Ports Authority set up by the *Kiribati Ports Authority Act 1990* (Act No 13 of 1990) is "to promote the use, improvement and development of ports" (s. 7(d)). Although it is arguable that the reference to "improvement" would include keeping the harbours free from pollution, this should be made explicit. Section 8, which sets out the powers of the Authority, contains no reference to the control of pollution, however, regulations can be made "regulating the keeping clean of ... the waters of any port and preventing oil, rubbish or other things" entering them (s. 52(1)(o)). This would include land based sources of pollution as well as ships. The Authority must also make regulations dealing with the movement and storage of dangerous goods, and this includes oil (s. 33). We understand that no such regulations have been made.

11.5 Preventing pollution from ships

There are provisions in the *Shipping Act 1990* which may have the effect of preventing pollution. All ships must have certificates of seaworthiness, except those used solely on lagoons and inland waters (ss. 10, 11). Licensing officers have powers of inspection over unseaworthy vessels. Orders may be made for the detention and repair of the vessel (s. 14). Unseaworthiness is defined exclusively in terms of "serious danger to human life"

rather than in terms of threat of damage to the environment, although there is clearly a substantial overlap.

Part IX of the Act deals specifically with the adequacy of crews on foreign vessels in Kiribati ports, and it appears also to extend to Kiribati vessels themselves (this should be clarified) (s. 26(3)(c). Authorised officers can verify that the crew is adequately certified and in certain circumstances can assess the ability of the crew to maintain watchkeeping standards. This includes situations where the ship has discharged substances in contravention of international conventions while in the port or port approaches (s. 26(2)). If the inspection reveals the absence in the watch of a person qualified to operate equipment essential to safe navigation or pollution prevention, the officer is required to give notice in writing to the ship's master and diplomatic representatives of "the deficiencies and dangers posed to persons, property and environment". Failure to correct this problem with the watch is not in itself a justification for detaining the ship (s. 26(3)-(5)).

11.6 Compensation for oil pollution

The *Merchant Shipping (Oil Pollution) (Gilbert Islands) Order 1975* extends certain provisions of the *Merchant Shipping (Oil Pollution) Act 1971 (UK)* to Kiribati. In doing so, it gives effect to the International Convention on Civil Liability for Oil Pollution Damage, signed in Brussels in 1969, which provides uniform rules and procedures for determining questions of liability and for awarding compensation when damage is caused by pollution resulting from the escape or discharge of oil from commercial (s. 14(1)) bulk oil carriers. The **general** position (ss. 1(1); 3(a); 15(1)) is that where persistent oil is discharged or escapes from such a ship the owner is only liable for:

- any damage caused by contamination in the area of the islands, including the territorial sea (s. 23(2));
- the cost of reasonable measures aimed at preventing or reducing the damage;
- any damage caused by the preventive measures.

There is no liability (s. 2) where the discharge or escape:

- resulted from an act of war, hostilities or an "exceptional, inevitable and irresistible natural phenomenon";
- was caused by someone, other than the servants or agents of the owner, who intended to do damage;
- was caused by an authority neglecting its responsibility to maintain lights or other navigational aids.

Even where there is liability, the owner can apply to the High Court of Kiribati to limit it to a specified amount (s. 5) based on the ship's tonnage but subject to an overall maximum (s. 4). The Court must distribute this amount to claimants in proportion to

their claims (s. 5(2)) and in so doing must take account of any reasonable measures taken by the ship owner to prevent or reduce damage (s. 5(5)).

Commercial ships carrying a bulk cargo of more than 2,000 tons of persistent oil must not enter or leave a Kiribati port or terminal in the territorial sea unless they hold a certificate certifying either that they are owned by a State and that State will take responsibility for pollution liability (s. 14(2)), or that they are insured against these incidents (s. 10). Legal proceedings can then be brought against the insurer unless the discharge or escape was due to the wilful misconduct of the ship owner (s. 12), however the insurer can also limit its liability (s. 12(3)).

Where liability is excluded or restricted under the provisions discussed above, the *Merchant Shipping Act 1974*, again extended to Kiribati by the *Merchant Shipping (Oil Pollution) (Gilbert Islands) Order 1975*, provides that the International Oil Pollution Compensation Fund will usually pick up the bill (s. 4(1)), albeit still subject to an overall maximum (s. 4(10) and Schedule 1. This fund is made up of contributions made by oil importers and others receiving oil (s. 2). Payments will not be made from the fund where pollution damage resulted from an act of war or hostilities or where the ship involved was operated by a State on non-commercial Government service (s. 4(7)).

11.7 Nuclear material

The *Nuclear Installations (Gilbert and Ellice Islands) Order 1972* applies to Kiribati certain provisions of the *Nuclear Installations Act 1965 UK* dealing with transportation of fissile material and radioactive byproducts. It does not cover natural uranium or radioactive isotopes prepared for use for industrial, commercial, agricultural, medical or scientific purposes (s. 26).

The legislation places a duty on operators of nuclear installations in countries covered by international agreements dealing with third party liability in the field of nuclear energy and others on behalf of whom nuclear matter is being transported. This requires them to ensure that no "occurrence" arising from the transportation of nuclear material within Kiribati causes injury or damage resulting from radioactivity, either alone or in combination with toxic, explosive or hazardous properties of the material (ss. 10, 11). The duty covers natural disasters but not armed conflict (s. 13). Compensation is payable in the event of a breach (s. 12), but this may be reduced where the claimant has acted with reckless disregard for the consequences (s. 13(3)).

11.8 Solid waste disposal

The UNCED Report (1991, p 56) makes it clear that solid waste disposal is a major problem. It points to the fact that it can create hazards, encourage mosquitoes to breed and restrict land use. Toxic waste will have far more damaging effects if it finds its way into the sea or the freshwater lens. A recent project organised by the Catholic Church, involving the payment of a bounty on used household batteries, resulted in 60,000 batteries being handed in (see also DP7 para. 7.9).

Apart from limited and vague provisions in the *Local Government Act 1984* and the Public Health Regulations, Kiribati has no legislation dealing directly with the collection and disposal of waste of any kind, let alone toxic and non-biodegradable waste. It is important to point out, however, that traditional practices, notably the rearing of pigs and the cultivation of bwabwai pits, are an effective method of dealing with biodegradable waste.

Among the functions which can be assigned to a Local Council under the *Local Government Act 1984* are the provision of sanitary services dealing with rubbish and the prohibition of acts detrimental to the sanitary condition of the area (s. 45(1)). DP6 (p. 363) reported that there were no garbage disposal systems on the outer islands, leaving individuals with the responsibility.

The Ministry of Health, Family Planning and Social Welfare advises Councils on the location of waste dumps, covering such factors as distance from dwellings and the threat of pollution to groundwater. If such advice is being provided, there is clear evidence that it is not being heeded. Tarawa Urban Council (TUC) has three dump sites. The ones at Bairiki and Nanikai are invaded by the sea, with resulting problems of marine pollution. The one at Temaiku is on the reclaimed land, however, the consultants observed what appeared to be another tipping area on the lagoon side of the causeway at Temaiku. Once again, this would be affected by tidal movements. The situation seems to have changed little from that described in DP6 (p. 363):

> The tip sites are poorly maintained and lack adequate containing walls. During rough weather much of the garbage gets washed away and often ends up seriously littering the adjacent beaches, creating a health hazard and eyesore.

The legal position would appear to be that tipping can take place as long as the landholder has given his or her consent, and under the Foreshore and Land Reclamation Ordinance (Cap 35), the general position is that the ownership of the foreshore and seabed is vested in the Crown (s. 3(1)). The foreshore is defined as the area alternately covered and uncovered by the sea at low and high tide (s. 2). What this means is that any tipping in this area would require approval from the Crown. In appropriate circumstances, this could take the form of an authorisation to reclaim land under section 4 of the Foreshore and Land Reclamation Ordinance.

The tip used by the Betio Town Council is on land leased or subleased from the Crown. Crude attempts have been made to exclude the impact of tidal movement by building a barrier of old trucks and drums. None of these tips appear to have been authorised under the planning legislation.

It is an offence under the Public Health Regulations to deposit a receptacle in any public place or to allow receptacles to remain upon any premises. The primary aim here is to prevent mosquitoes from breeding rather than the prevention of litter per se. There are general prohibitions on:

- depositing litter or rubbish on the public highway in the *Public Highways Protection Act 1989* (s. 5(1)(c), punishable with a fine of $200 and three months imprisonment;
- the littering of villages and public places and the sea in the *Betio Town Council (Public Health) Bye-laws 1975* (cl. 5). The owner or occupier of land can be ordered to remove insanitary refuse (cl. 5(3)).

Again under the Public Health Regulations, all premises and land must be kept clean (cl. 2). Rubbish must be burnt if possible, and if not, put in tins ready for daily collection (cl. 14).

11.9 Conclusion

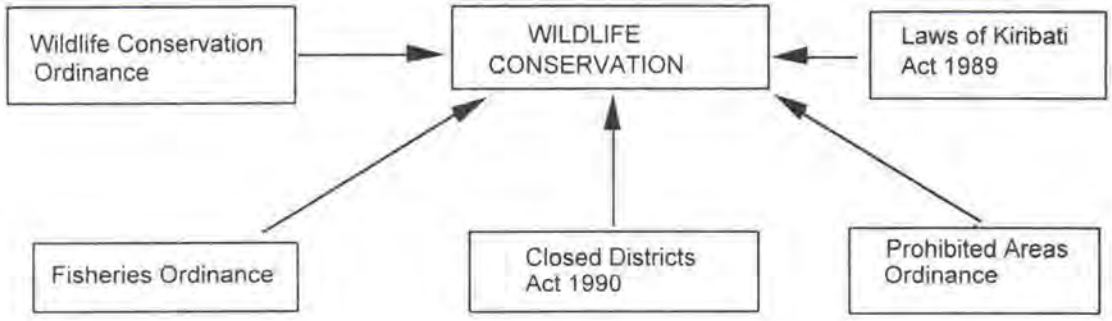
Kiribati has no adequate legislation dealing with waste minimisation and the disposal of waste, and nothing at all covering hazardous waste. Nor is there any legislation dealing generally with marine pollution from land-based sources, except where this affects harbours or ports. For example, the consultants were presented with allegations that oil from the PUB electricity generator is being dumped and running into mangroves. Legislation needs to be developed.

The legal status of the existing tips needs to be clarified. Our understanding is that they are located on foreshore owned, and therefore controlled, by the State. If so, appropriate leases should have been issued, with conditions attached designed to reduce environmental impact. Some of them are quite inappropriately located. It is quite likely that toxic waste is escaping into the sea, posing a threat to marine life. Adequate environmental assessment should be mandatory prior to sites being nominated and the land should be appropriately zoned under the provisions of the planning legislation.

Kiribati currently has no comprehensive legislation regulating the dumping of waste at sea, imposing liability for the discharge or escape of oil and other pollutants from ships or land into its marine environment or enabling it to take adequate preventive action. As a result, it is not in a position to fulfil any obligations which might arise under the MARPOL, London Dumping, or SPREP Conventions.

There is considerable overlap in relation to pollution control between the *Kiribati Ports Authority Act 1990* which focuses on "ports" and the Harbours Ordinance, which is concerned with "harbours". Both pieces of legislation are, however, only concerned with limited areas of the marine environment. There is no legislation dealing with pollution of the sea or the lagoon from land-based sources (for example solid waste) or shipping outside of these narrow areas. The *Merchant Shipping (Oil Pollution) (Gilbert Islands) Order 1975* is only concerned with questions of civil liability and compensation regarding oil pollution caused by commercial bulk oil carriers.

12 *Wildlife conservation*



12.1 Introduction

The UNCED Report (1991, pp. 15-16) points out that although there are probably no indigenous land mammals in Kiribati, there is a very rich avifauna, consisting primarily of sea birds and migratory species. These constitute an important resource in terms of the important role they play in the oceanic ecosystem but the potential role they can play in the development of a limited tourist industry is of more direct economic interest to Kiribati. To the extent that these birds nest on the uninhabited atolls of the Line and Phoenix Island groups, they are naturally protected from most forms of human interference. The main tourist development is centred on Kiritimati. Although there are extensive rookeries here, there is a conflict arising from the local population's traditional practice of supplementing a limited fish diet by eating certain species of birds.

Apart from the threat to avifauna from direct human interference on the inhabited islands, there is the question of habitat destruction. The UNCED Report points out that the indigenous vegetation of Kiribati is among the most degraded on earth. Little appears to be known about the terrestrial habitat of the avifauna and, in light of this, development which interferes with this habitat should proceed cautiously and the likely impacts carefully assessed. Our attention was drawn, for example, to areas of *Pisonia grandis* forest on Tabuaeran and Teraina which provide habitat to large numbers of seabirds and are under some threat. Teraina also contains the habitat of the scarlet breasted lorikeet.

Regulations have historically focused on controlling direct human interference with fauna, by hunting and killing or removal of eggs and young. This is the approach which Kiribati has taken (see below). Increasingly, however, many countries are beginning to focus on the protection of wildlife habitat, the assumption here being that habitat destruction rather than direct human interference constitutes the major threat to fauna.

There are two approaches to habitat conservation. One approach which can be taken is to set aside certain special areas, such as national parks and nature reserves, where fauna and habitat are protected. This frequently involves land owned or leased by the government, and managed by government officials. The other is to leave land in the hands of private

landholders, but to induce them through regulation or incentives to manage it so as to ensure the protection of habitat.

12.2 Protected areas

12.2.1 Prohibited areas

Powers under the *Prohibited Areas Ordinance 1957* (Cap 77) could be used to set aside areas for nature conservation purposes. This allows the President, acting in accordance with the advice of Cabinet and subject to section 14 of the Constitution (freedom of movement), to declare any island to be a prohibited area. Three of the limited bases on which a prohibited area can be declared is that it is reasonably required in the interests of public health, environmental conservation or in fulfilment of Kiribati's international treaty obligations (s. 3(1)).

The effect of declaring a prohibited area is that entry is completely forbidden without permission (s. 4). Four islands have so far been declared prohibited areas: Birnie, Kanton (Canton), Enderbury and Orana (Hull) (L.N. 46/72). It is not possible under this legislation to set aside **parts** of islands or the seabed. The impact of a declaration is purely negative. In essence it has the effect of substantially isolating fauna from human contact, but there is no provision for management where this is required. There is not even a power to make regulations.

12.2.2 Closed districts

The *Closed Districts Act 1990* is a reenactment of the original 1936 Ordinance along with certain amendments, first made in the *Constitutional (Laws Adaptation) Order 1980* to cure a constitutional defect. It allows the President, acting in accordance with the advice of Cabinet and subject to section 14 of the Constitution, to declare closed districts. Unlike prohibited areas, these can be declared over parts of islands (ss. 2, 3). Three of the limited bases on which a closed district can be declared is that it is reasonably required in the interests of public health, environmental conservation or in fulfilment of Kiribati's international treaty obligations (s. 3(1) and Constitution (s. 14(3)(b)).

We understand that four closed districts have been declared on Kiritimati, Tabuaeran (Fanning), Teraina (Washington) and Kanton. The latter is an old United States base, possibly with radioactive waste present, and in addition, there are limited supplies of water. Tabuaeran and Teraina are major resettlement islands, with a staged programme of migration. This is also true to a lesser extent of Kiritimati, but in addition this island is earmarked for development projects. Although Tabuaeran, Teraina and Kiritimati all provide important bird habitats, this is not the primary reason for declaring them closed. The objective is to provide for the orderly development of these islands, preventing the formation of squatter-type developments and the overloading of government services (see generally, Agrico Draft Integrated Development Plan, 1993, p. 126).

Closed districts are distinguishable from prohibited areas in terms of the range of people allowed entry. Unlike prohibited areas, they remain open to natives of the area and those

ordinarily resident, as well as government officers. Although, therefore, they may serve a beneficial function in protecting wildlife habitat from human population pressures arising from migration, they have nothing to offer in terms of protection from both direct and indirect interference from the existing population or from development pressures which pose threats to habitat.

Those who hold a licence are also allowed to enter (s. 4). Conditions can be attached (s. 5) and licences can be revoked at will (s. 6). It is an offence punishable with up to $1,000 fine and two years imprisonment in default to be in a closed district without a licence or to breach the conditions of a licence (ss. 7, 8, 10).

Regulations can be made "generally for the purpose of carrying" the Act into effect (s. 11). This would not allow regulations to be made restricting those activities of the native population which directly interfere with birds or marine animals or destroy habitat. As a result, there are fundamental restrictions on the extent to which regulations could provide for the management of areas for the purposes of nature conservation.

12.2.3 Wildlife sanctuaries

There is no legislative provision for national or marine parks but section 8 of the Wildlife Conservation Ordinance (Cap 100) allows any area to be declared a wildlife sanctuary. Any area within a sanctuary can be declared a closed area, where even entry without a licence is forbidden. Six islands have been declared wildlife sanctuaries, none of them in the Gilberts: Birnie, Kiritimati, Malden, McKean, Rawaki (Phoenix) and Starbuck (L.N. 24/77). Malden, Starbuck and areas of Christmas Island and its islets (Cook, Motu Tabu, Motu Opua and Ngaon Te Taake) have been declared closed (L.N. 24/77; L.N. 128/77). The draft Integrated Development Plan for the Northern Line Islands, (Agrico, 1993 pp. 28-29) has recommended that wildlife sanctuaries also be established on parts of Teraina and Tabuaeran.

There are no provisions dealing with the protection of habitat. The concern is to protect wildlife from direct human interference. Within wildlife sanctuaries the hunting, killing or capturing of **all** birds and other animals without a licence is prohibited. So too is wilful destruction and damage to eggs and nests (s. 8(2)).

Fish are not protected. There appears to be no reason why a wildlife sanctuary could not be declared over an area of the seabed. Ownership of the seabed lies with the Crown (Foreshore and Land Reclamation Ordinance s 3), thus avoiding issues of compensation, however, the exclusion of fish from the protective provisions would deprive this of much of its effect.

Note that although there are provisions for granting, attaching conditions to, and revoking licences to enter closed areas (s. 8(4)-(7)), there are no equivalent provisions relating to hunting licences. This appears to be an oversight.

12.3 Protected animals

Outside wildlife sanctuaries, there are two categories of protected bird and animal (once again fish are excluded). Birds and animals can be declared to be either **fully or partially** protected. The difference is that those partially protected are only protected against being hunted during the **closed season**, which is specified for different species in the notice. The legislation allows for areas to be specified where a particular species is fully protected and those where it is partially protected.

At present certain species of birds and only one animal, the green turtle, have been declared fully protected, with no species so far declared partially protected (s. 3(1)(b) and Declaration of fully and partially protected birds and other animals (L.N. 24/77; K.L.N. 5/79)). The birds specified are protected throughout Kiribati, but the green turtle is only protected on certain islands: Birnie, Caroline, Kiritimati, Flint, Nikumaroro (Gardner), Orana (Hull), Malden, McKean, Rawaki (Phoenix), Starbuck, Manra (Sydney) and Vostock (Declaration of fully and partially protected birds and other animals, Schedule 2). These are known as "designated areas" (s. 3). No areas have been designated in the Gilberts group despite the fact that there are turtle nesting areas here, for example Teirio Islet on Abaiang, Katangateman sandbank near Makin and a sandbank near Nonouti (UNCED Report p. 20).

Protection rests on a number of prohibitions:

- against hunting, killing or capturing (s. 5(1),(2);
- against possessing, acquiring, selling or giving any which have been unlawfully killed or captured, or any part or product of them (ss. 5(1),(2); 9(1)) - this would cover both those who give and those who receive meat and things made from skins and shells (s. 2(2));
- against searching for, taking or wilfully destroying or damaging eggs and nests (s. 6(1),(2));
- against possessing, acquiring, selling or giving eggs or nests unlawfully taken (ss. 6(1),(2); 9(1)).

Note that the first and third of these offences are restricted to the closed season in relation to any species declared to be partially protected. There are no provisions concerned with restricting interference with habitat.

Exceptions to these prohibitions can be made through the granting of written licences (ss. 5, 6). Where protected birds, nests or eggs or green turtles (within their protected areas) are taken under the terms of a licence, they can be lawfully given and received. The Minister can also issue a general notice allowing a specified species to be hunted and captured, but not killed (s. 5(3)).

Those convicted of an offence are liable to a penalty of up to $200 and imprisonment of up to six months (s. 10(1)). If anyone found in possession of a prohibited article wants to

argue that they acquired it lawfully (for example from someone who had a licence), they must prove that this is the case (s. 9(2)).

Wildlife wardens, including voluntary wardens, can be appointed to enforce the legislation (s. 4). They have broad powers of arrest on reasonable suspicion and search and seizure (s. 11). They have the power to bring prosecutions (s. 13). The draft Integrated Development Plan, (Agrico, 1993, pp. 14, 31) however, points out that there are only three people working in the Wildlife Conservation Unit covering the Line and Phoenix Islands, and that while it has "the technical ability to undertake its mandate, its lack of resources makes it ineffective in the field where a conspicuous presence is essential". Teraina and Tebuaeran are visited infrequently and the study found evidence of significant poaching of birds (p. 29). There is evidence that Government employees are extensively involved (p. 32).

Other comments made to the consultants suggest that the Wildlife Conservation Unit has had only limited success in enforcing the legislation to protect the bird population on Kiritimati because of the traditional practice of eating birds and their eggs and the understandable reluctance of magistrates to hand out large fines. It is by no means clear that increased fines are the appropriate response, given the place which the birds occupy in the local population's diet. Alternative methods of providing variation to this need to be explored, for example poultry. Another approach would be to consider selective culling of birds and taking of eggs after careful study of the impact which this would have. These could be sold and the money generated used for wildlife management purposes.

12.4 Turtles

The UNCED Report (p 20) points out that the green turtle is considered to be endangered and that there are indications that turtles are scarce in the Gilberts group. Apart from the confused legal position, discussed below, there are massive enforcement problems, even where protective regulations are in place, because of the fact that turtle meat and eggs are considered delicacies by the indigenous population and the difficulties involved in catching those who breach the regulations, even if there was motivation to do so.

The legal position with regard to turtles is very complex and there are a number of questions which remain unanswered. It is important to distinguish between:

- green turtles and other species of turtle;
- turtles taken from land and those taken from the sea;
- turtles taken from inside and those taken from outside wildlife sanctuaries.

- ***Green turtles in their designated areas***: As already discussed, green turtles are fully protected on certain islands, **but not when they are in the sea**. What this means is that the additional protection given to green turtles over other species discussed below, is primarily in terms of protecting their eggs and nests on designated islands and prohibiting any possession of and trade in their eggs, meat

and shells, whether commercial or not. If someone found in possession wishes to argue that the turtle material in question did not come from a designated area, they must prove that this is the case (s. 9(2)).

- ***Green turtles outside their designated areas and other species of turtles***: Section 7 of the Wildlife Conservation Ordinance prohibits the hunting, capturing and killing of wild turtles without a licence, whether or not they are in a wildlife sanctuary, but only when they are on **land**. Turtles can lawfully be taken from the sea. They are not protected under the Fisheries Ordinance. Possessing a wild turtle dead or alive which has been unlawfully taken is also prohibited (s. 9(1)). The legal position with regard to possession of turtle meat is not clear (cf s. 2(2) which specifically includes meat within the definition of "fully or partially protected bird or other animal", discussed below).

  The legal question posed is when does a wild turtle cease to be a turtle and become turtle meat? Possessing, selling, giving and receiving things made from turtle shells is clearly not an offence. Nor is any protection given to their eggs. Turtle eggs can quite lawfully be taken, possessed, sold, given and received. Some attention should be given to whether "turtle" should be defined broadly to include meats, products and eggs.

Although the possession of wild turtles is an offence (s. 9(1), there is no specific prohibition on giving, buying or receiving turtles. Many of these activities would be caught by the prohibition on possession, as extended by the concepts of aiding and abetting, counselling and procuring and the offence of conspiracy under the Penal Code. Consideration should be given, however, to whether express offences should be created to make it quite clear that these activities are prohibited.

- ***Turtles in wildlife sanctuaries:*** Whether turtles in wildlife sanctuaries receive any additional protection to that noted above, depends on whether turtles are defined as animals or fish. As we have already seen, fish are not protected from human interference in wildlife sanctuaries but animals, **their eggs and nests** are (s. 8(2)).

  There is no definition of "fish" in the Wildlife Conservation Ordinance. Under the Fisheries Ordinance, it is defined broadly so as to include all aquatic animals, including sea urchins, **turtles** and their eggs and beche-de-mer, as well as molusces, crustaceans, corals, sponges and seaweed (s. 2), but this is not binding for the purposes of the Wildlife Conservation Ordinance. It could be argued that turtles would normally be regarded as animals in the absence of special definitions such as that found in the Fisheries Ordinance. In practice this is the assumption made by those responsible for the administration of the Ordinance, because green turtles have been declared to be protected animals. This question of definition should be given attention.

Even if searching for, taking or destroying and damaging turtle eggs and nests is prohibited in wildlife sanctuaries under section 8(2), there is no regulation of trade in turtle meat, eggs, skin and shells.

12.5 Customary law

There are many instances where customary controls operate to conserve natural resources and to protect the environment. There are, however, situations where customary practices which allow people to take and eat birds and marine life may conflict with provisions in legislation designed to protect fauna for nature conservation purposes.

Provisions dealing with the recognition of customary law are to be found in the *Laws of Kiribati Act 1989*. The general position is that customary law - "the customs and usages, existing from time to time, of the natives of Kiribati" (s. 5(1) has effect unless it is inconsistent with legislation (s. 5(2)). In other words, if legislation makes it a criminal offence to kill protected birds, it is no defence that this is permitted under customary law. There are a number of qualifications elaborated in the Schedule to the Act, which sets out the situations when customary law is to be recognised and how it is to be proved.

Most environmental law uses the criminal law as a vehicle for enforcement and penalty and this will ordinarily prevail over customary law, but clause 3 provides that customary law "may be taken into account" in criminal cases for certain purposes. In other words it is only a factor to be considered - it is not decisive. The circumstances are:

(1) ascertaining whether a person has a particular state of mind which must be proved for the offence to have been committed or is a vital part of a defence;

(2) deciding whether a person behaved reasonably, where the definition of an offence makes this an issue;

(3) deciding whether an excuse put forward is reasonable, where reasonable excuse is a defence to the particular offence charged;

(4) deciding whether to proceed to a conviction where the Court has the option of merely finding that the facts have been proved and not registering a conviction;

(5) determining the penalty;

(6) "where the Court thinks that by not taking the customary law into account injustice will or may be done to a person".

In practice, any of these issues could be raised in a prosecution for an environmental criminal offence, depending on the precise definition of the offence. In the offences under the Wildlife Conservation Ordinance, the last three are likely to be the most important. A Court could well, for example, decide not to register a conviction or to reduce the penalty of someone found committing an offence in relation to turtles or protected birds because this was a customary practice. It might even decide, in accordance with the last of the exceptions noted above, that it would be unjust to convict at all. One argument might be that the accused did not realise that a particular bird was protected, an excuse that would ordinarily fall into the category of mistake of law rather than fact and not constitute grounds for acquittal under (1) above. An approach which allowed such an argument to be pleaded as an excuse or in mitigation of penalty would be especially attractive in a situation where the Government made a relatively sudden decision to start enforcing laws such as this on islands where they have traditionally not been enforced at all.

At present, the Wildlife Conservation Ordinance does not contain a defence of reasonable excuse, so the third exception is not relevant. One approach would be to amend the legislation to provide for such a defence and then to allow customary practices to be taken into account in determining the reasonableness of the excuse.

12.6 Conclusion

Apart from the confused position with regard to turtles, Kiribati has a range of provisions which, if adequately implemented and enforced, would offer a considerable degree of protection to fauna on land from direct human interference. The highest level applies to protected animals, whether or not they are in wildlife sanctuaries. There is no provision for the protection of fish. Other marine life **could** be declared protected in the sea as well as on the land, provided that it can be defined as an "animal", but the only example of protected marine life so far, the green turtle, is only protected while on certain islands.

Attention needs to be given to developing an adequate definition of the wildlife to be covered by the legislation and to ensuring that this is in line with the definitions under the fisheries legislation. In light of evidence of the scarcity of all turtles, consideration should be given as to whether all species should be protected to some degree both on land and in the sea. In light of the major law enforcement problems that exist, however, the main initiatives in this area should be through customary controls (where they exist) and education rather than prosecution.

The list of protected birds was compiled some time ago and it would be appropriate at this stage to review it in light of what is now known about the conservation status of different species. Limited harvesting of particular species may prove to be acceptable and this would take some of the pressure off any law enforcement efforts.

The issue of law enforcement needs careful attention. Even where a major effort has been made (on Kiritimati), it appears to have encountered severe resistance from the local population. This would certainly also be the case if it was extended to other islands where the strong economic case in favour of protection stemming from tourist development does not exist to the same degree. Arguments based on nature conservation or the preservation of biological diversity are likely to prove less convincing.

Thought needs to be given to developing alternative strategies to coercion through legislation. It may be possible to build onto existing customary controls in some cases, perhaps formalising them in some way (for example enactment of bye-laws) but this would first require a major research effort to discover precisely what environmentally sensitive traditional controls exist. They would almost certainly involve some degree of regulated harvesting (for example limits on catch sizes or closed seasons). Other than this, other non-legal controls, such as the provision of information and education, may achieve far more success in the long run than the threat of criminal law.

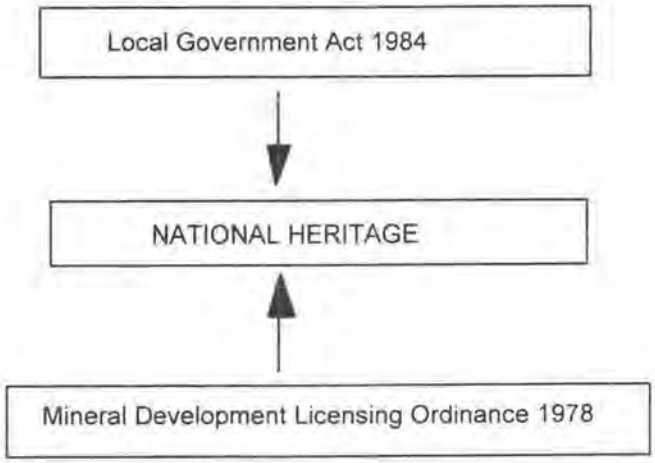
The present legislation offers no protection from interference with wildlife habitat by human development. It merely outlaws direct human interference. This is also the position in wildlife sanctuaries, where there are no restrictions on development. In

practice, this may not at present be a live issue. An assessment needs to be made of the extent of threats to habitat and whether this requires the enactment of appropriate provisions dealing with the assessment of environmental impact and the long-term protection of wildlife habitat.

Finally there is the question of whether it would be appropriate for the sanctuary system to be developed beyond Kiritimati. This would be more feasible on the Phoenix and Line Islands, which are owned by the Government. It does not own land on the Gilbert Islands and is not politically in a position to purchase it using its compulsory powers. This is a crucial difference from many other countries which have an extensive system of reserves.

If Kiribati is to set aside land, it must lease it at some expense as well as employing people to manage it. In light of this, alternative methods of management which seek the co-operation of the local people while allowing limited development of the land, need to be explored.

13 National heritage



13.1 Introduction

In 1977, the Kiribati Government established the Cultural Division for national heritage protection within the Ministry of Education and Training (now the Ministry of Education, Science and Technology). In 1982, following a ministerial reshuffle, the Cultural Division came under the Ministry of Home Affairs and Decentralization, (now the Ministry of Home Affairs and Rural Development). In 1985 the Kiribati Cultural Conservation Council was established to assist and advise Government in matters relating to cultural protection and preservation. DP6 (p. 278), notes that "considerable thought and effort have been made to preserve those parts of our cultural heritage that are threatened with extinction by modern economic and social changes".

The Cultural Division works in close co-operation with the Island Councils, community workers and other Government institutions, such as the Language Board, Curriculum Development Unit, Tourism Office and Radio Kiribati. Close links have also been established with non-governmental organisations, such as AMAK, the Te Rikia n Tungaru Society and the Te Kabi Canoe Club. "Much work is concentrated in the recording of oral traditions, including genealogy, historic sites, shrines, monuments and traditional skills" (DP6, p. 278).

The SPREP Report on Environmental Planning, Climate Change and Potential Sea Level Rise (No 50, 1991) states that:

> a number of traditional cultural sites, mostly relating to creation stories, mythological sites, graves of important figures or other notable locations are known ... Some of these are recorded by the Department of Culture, but prehistoric archeological sites in Kiribati are not well known or recorded. In several parts of South and North Tarawa, the walls of pits dug for various purposes reveal layers of shell and other cultural debris. It is possible that

> many present village locations and other areas on the islands have been used sporadically for much of the time that the islands have been occupied. Press reports during 1989 indicated that more than ten radiocarbon dates from archaeological sites in the northern Marshall Islands and on Marjuro indicated that these islands had been occupied for 3,000 to 4,000 years. Similar histories of occupation exist for eastern and central Polynesia ... It is therefore likely that Kiribati may similarly have been settled for more than 3,000 years, and that the remains of early settlements occur within archaeological sites which have yet to be investigated.

In 1983, excavation was conducted on one of the traditional sites on the island of Makin by an archaeologist from Tejukayana University in Tokyo, Japan. One hundred artifacts were unearthed and the items sent to Japan for analysis. The items are currently stored in the National Archives in Tarawa. The discoveries carried information about life and the people during a pre-historic era (DP6, p. 279).

13.2 War relics

World War II relics, made up of Japanese guns, command posts and other defence bunkers in Tarawa, especially on the island of Betio, are being preserved as part of Kiribati's history. Preservation of these relics is carried out through the co-operative efforts of the Cultural Division, the Betio Town Council and the Tourism section of the Ministry of Transport, Communications and Tourism. There is currently no legislation to protect the relics.

13.3 Statutory background

Except for references found in the *Mineral Development Licensing Ordinance 1978* and the *Local Government Act 1984*, no other legal provision to protect national heritage, buildings of architectural and historic merit or special natural features has been found. There is a need for legislation to follow what is currently in practice in Kiribati.

Although the Mineral Development Licensing Ordinance is basically designed to encourage the development of mining, the law does require the holder of a mineral right to inform the Minister promptly of any find of historical or archaeological significance, or of the discovery of any wreck. The Minister may give directions for the preservation or disposition of any finds as considered appropriate (s. 42(2)).

Under the Local Government Act, provision is made for the preservation, control and the removal of any antique artifact to be part of the function of Island Councils. It was not, however, possible to ascertain during the course of the review whether any bye-law has been passed for these specific purposes by any Island Council.

References have also been made in a number of reports about the existence and potential richness in Kiribati of historical and archaeological sites and war relics. In order to prevent destruction of these sites, antiquities and relics, it is suggested that some thought be given to bringing legislation into effect to achieve better protection of the nation's

heritage. It is understood that a list of historic and archaeological sites has been compiled by the Cultural Division and this could be made part of an official Register so that future developments do not adversely affect those places listed in the Register. The entry of a place on a Register should ensure that it is given protection during any development activities.

Apart from the listing of historic and archaeological sites, it is also suggested that some assessment be made of buildings of historic and architectural importance. The Bairiki Club is one such building identified by the Cultural Division which could merit consideration. The thrust of the legislation should be aimed at preserving the characteristics of the buildings, and at the same time any usage of the property should be in accordance with protective guidelines. Legislation should also be considered for protecting marine areas that are of national significance or have features of outstanding beauty.

13.4 Conclusion and recommendations

- It is suggested that there should be separate and comprehensive heritage protection legislation to cover historic and archaeological sites, sites of special national, cultural and spiritual significance, historic buildings and monuments. The protection of marine areas that are of national importance for conservation purposes or areas of outstanding beauty, could also be considered. Such legislation could provide the basic charter for a national historic preservation programme.
- Consideration should be given to the protection of important artifacts, war and ancient relics that are of national significance.
- The Land Planning Ordinance should be amended to include heritage protection provisions, to complement heritage protection legislation.
- Local Government Councils should be encouraged to pass bye-laws to protect the nation's heritage.
- The existing National Heritage Register should be expanded and guidelines developed for evaluating and documenting traditional cultural properties, archaeological and sacred sites, ancient cemeteries, historic buildings, places and relics of national importance. The guidelines could eventually be codified in regulations when new legislation is enacted.

14 General conclusions

The National Environmental Management Strategy (NEMS) Workshop held in Tarawa from 7 to 10 June 1993 aired some of the environmental problems in the Kiribati environment from the public's perspective. Waste management, litter, pollution in the marine environment, atmospheric pollution in Betio, water quality, sanitation and enforcement of legal provisions were some of the issues discussed. The range of solutions proposed included improvement in environmental legislation. Projects utilising natural resources need not only a favourable regulatory environment to promote projects but also regulatory provisions and an adequate system of enforcing standards designed to protect the environment.

One of the purposes of the review was to identify gaps in the legislation and to provoke fresh thought on what regulatory strategies should be pursued. Recommendations have been made at the end of each chapter designed to fill gaps and to strengthen environmental provisions. Although there have been suggestions that consideration should be given to the possibility of a single Environment Act, the reality is that it is simply not feasible to deal with all things which touch upon the environment in a single piece of legislation. There will continue to be a need for separate legislation dealing with agriculture, mining and fisheries. Nevertheless, there are some environmental issues which cut across all sectors, and these could usefully be dealt with together. These include:

- environmental impact assessment, including a legal requirement for all government and Local Council decisions on development to take into account environmental impact, and a legal requirement for environmental impact statements to be prepared for significant development;
- waste disposal and pollution from land-based sources;
- administrative arrangements for environmental protection, including provisions spelling out the relationship between Local Councils and the Government, and enforcement powers and responsibilities.

Other issues which could be covered include conservation of natural and cultural heritage and wildlife, although in other countries these have usually been dealt with in separate legislation.

In drafting legislation, the question of enforcement should always be at the forefront of consideration. It is one thing to have neat symbolic statements in legislation which prohibit particular activities with a view to protecting the environment, or require decision-makers to carry out certain procedures; it is quite another to enforce them. In practice, there has been a long tradition of very selective enforcement in the field of environmental criminal law in countries such as Australia and the United Kingdom, with prosecution only being used as a last resort. A crucial consideration here has been the tension between economic development and environmental protection and the fear that too much emphasis on protection will discourage development.

The consultants found that there were also significant enforcement issues in relation to Kiribati's environmental laws, although because of the country's current state of development, many of the issues which arise relate to the behaviour of individuals in their day-to-day lives, rather than industrial activities. Enforcement of environmental laws which directly interfere with traditional sanitary practices or declare certain traditional food sources off-limits, such as turtles or birds, is likely to prove even more difficult than enforcing pollution laws against companies in industrialised societies.

It is important, therefore, not to overstress the importance of environmental law as a way of changing the behaviour of the I-Kiribati people, with a view to making that behaviour more environmentally sensitive. For example, it is of no use prohibiting particular methods of waste disposal if proper waste disposal facilities are not available. Only where such facilities do exist, and people do not use them, is it appropriate to think about resorting to a legal response. Even then, it should only be used as a last resort when other methods have failed and there is a real commitment not only to enacting legislation but also to providing the machinery to enforce it. In many cases, people will change their behaviour when the consequences of what they are doing are explained to them, especially when they are directly affected, for example, in terms of their health. This points to the need for environmental education, both in the schools and in the wider community.

We also believe that customary law has an important role to play in inducing environmentally sensitive behaviour from the people of Kiribati, given the enforcement problems which exist when physically remote government authorities attempt to impose requirements through legislation. Research needs to be done with a view to identifying customary rules and practices sensitive to the environment so that they can be reinforced through education and, where appropriate, more formal legal procedures. This is a lengthy and more involved exercise which we were not in a position to undertake, lacking both time and expertise. Ideally it should be undertaken by members of the particular Kiribati island communities who also have a broad expertise in environmental management. It may well be that appropriate personnel will first have to be trained.

Finally, the role of the churches in Kiribati is an extremely important one, and to this extent the position is very different to that which exists in many industrialised countries, where the church has largely lost its influence over people. Government must work closely with the churches with a view to identifying areas of behaviour currently having an impact on the environment where a common approach can be agreed.

15 References

Agrico of New Zealand. 1993. Draft Integrated Development Plan for the Northern Line Islands, Part 1: Main Report. Republic of Kiribati, Tarawa, Kiribati.

Agrico of New Zealand. 1993. Draft Integrated Development Plan for the Northern Line Islands, Sector Study No 5 - Environment. Republic of Kiribati, Tarawa, Kiribati.

Baaro, N. 1987. 'The Evolution of Kiribati Tenures' in Land Tenure in the Atolls, 3rd edn, ed. R. Crocombe. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji, pp. 30-39.

Betero, T. 1987. 'Boundaries' in Land Tenure in the Atolls, 3rd edn, ed. R. Crocombe. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji, pp. 40-49.

Brady, I. 1974. 'Land Tenure in the Ellice Islands: A Changing Profile' in Land Tenure in the Atolls, ed. H.P. Lundsgaarde, University of Hawaii Press, Hawaii.

Crocombe, R. (ed.). 1987. Land Tenure in the Atolls, 3rd edn. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji.

Ietaake, T. 1987. 'Land Taxation' in Land Tenure in the Atolls, 3rd edn, ed. R. Crocombe. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji, pp.63-72.

Jayasuriya, D C. 1990. Health Legislation. Republic of Kiribati, Tarawa, Kiribati.

Lodge M. 1987. 'Land Law and Procedure' in Land Tenure in the Atolls, 3rd edn, ed. R. Crocombe. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji, pp. 73-107.

Moore, G. 1988. Coastal State requirements for foreign fishing, United Nations Food and Agricultural Organisation Legislative Study 21, rev 3, pp 251-252.

Public Utilities Board. Annual Report 1984-1985. Tarawa, Kiribati.

Republic of Kiribati. 1988. Kiribati Sixth National Development Plan: 1987-1991. Ministry of Finance, Tarawa, Kiribati.

Republic of Kiribati. 1993. Kiribati Seventh National Development Plan: 1992-95. Ministry of Finance and Economic Planning, Tarawa, Kiribati.

Republic of Kiribati. 1992. Country Report for United Nations Conference on Environment and Development. Tarawa, Kiribati.

Shalev, Z. 1994. Ten Year National Water Master Plan. Water Engineering Section, Public Works Division, Ministry of Works and Energy, Tarawa, Kiribati.

Solanes, M. 1993. Preliminary Views on the Legal and Institutional Issues of Water Management in Kiribati. Public Works Division, Ministry of Works and Energy, Tarawa, Kiribati.

Sullivan, M. & Gibson, L. 1991. 'Environmental Planning, Climate Change and Potential Sea Level Rise: Report on a Mission to Kiribati'. South Pacific Regional Environment Programme Report and Studies, no. 50, Noumea, New Caledonia.

UNCED Report. *See* Republic of Kiribati 1992.

Woodroffe C.D. & McLean R.F. 1992. Kiribati Vulnerability to Accelerated Sea-Level Rise: A Preliminary Study. South Pacific Regional Environment Programme, Apia, Western Samoa.

World Conservation Union IUCN/UNEP/WWF. 1980. World Conservation Strategy: Living Resource Conservation for Sustainable Development. World Conservation Union (IUCN), United Nations Environment Programme, World Wide Fund for Nature. Gland, Switzerland.

Appendix 1

Legislation and international conventions reviewed

Legislation

Companies Registration Ordinance 1916
Importation of Animals Ordinance 1919
Public Health Ordinance 1926
Public Health Regulations 1926
Closed Districts Ordinance 1936
Co-operative Societies Ordinance 1952
State Acquisition of Lands Ordinance 1954
Native Lands Ordinance 1956
Gilbert and Phoenix Islands Lands Code 1956
Prohibited Areas Ordinance 1957
Landowner's Taxation Ordinance 1957
Harbours Ordinance 1957
Harbours Regulations 1958
Shipping Ordinance 1958
Neglected Lands Ordinance 1959
Native Lands (Amendment No. 2) Ordinance 1959
Customs Ordinance 1964
Importation of Animals Regulations 1965
Nuclear Installations Act 1975 (UK)
Foreshore and Land Reclamation Ordinance 1969
Merchant Shipping (Oil Pollution) Act 1971
Nuclear Installations (Gilbert and Ellice Islands) Order 1972
Land Planning Ordinance 1973
Non-Native Land (Restriction on Alienation) Ordinance 1974
Wildlife Conservation Ordinance 1975
Merchant Shipping Oil Pollution (Gilbert Islands) Order 1975
Plants Ordinance 1976
Fisheries Ordinance 1977
Post Office Ordinance 1977
Prohibited Fishing Areas (Designation) Regulations 1978
Public Utilities Ordinance 1977
Mineral Development Licensing Ordinance 1978
Fisheries Conservation and Protection (Rock Lobsters - Panilurus Species) Regulations 1979
Constitutional (Laws Adaptation) Order 1980
Fisheries (Vessel Licences) Regulations 1981
Native Lands (Amendment) Act 1983
Marine Zones (Declaration) Act 1983
Local Government Act 1984
State Acquisition of Lands (Amendment) Act 1986

Fisheries (Pacific Island States' Treaty with the United States of America) Act 1988
Public Highways Protection Act 1989
Laws of Kiribati Act 1989
Shipping Act 1990
Kiribati Ports Authority Act 1990
Closed Districts Act 1990
Importation of Animals (Amendment) Regulations 1990

Note Laws enacted by the Kiribati Legislature before Independence were called "Ordinances". Laws enacted by the Kiribati Legislature after Independence are called "Acts". Kiribati gained Independence on 12 July 1979.

International environmental conventions and treaties

Convention for the Protection of the Ozone Layer, Vienna,1985

Convention on Climate Change, Rio de Janeiro 1992

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Dumping Convention)

Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, Wellington, 1989

South Pacific Forum Fisheries Agency Convention, 1979

South Pacific Nuclear Free Zone Treaty, Rarotonga, 1985

International Convention on Civil Liability for Oil Pollution Damage, Brussels, 29 November 1969

Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America, Port Moresby, 1987

Appendix 2

Kiribati Task Force on the Environment (KTFE) members

Secretary for Environment and Natural Resources Development	Nakibae Teuatabo (Chairperson)
Secretary for Home Affairs and Rural Development	Baraniko Baaro (Vice-Chairperson)
Chief Planning Officer	Mikaere Baraniko
Chief Lands Officer	Tiriata Betero
Chief Agricultural Officer	Manate Tenang
Chief Fisheries Officer	Tukabu Teroroko
Assistant Secretary for Foreign Affairs	Kaburoro Ruaia
Water and Sewerage Advisor	Laszlo Erdei
Chief Engineer	Pita Iabeta
Civil Engineer	Tapetulu Merang
Water Engineer	Taboia Metutera
Officer-in-Charge, Meteorological	Uarai Koneteti
Senior Health Inspector	Neeri Tiaeke
Curriculum Development Officer	Moarerei Davis
AMAK Director	Tekarei Russell
Secretary for National Council of Churches	Tekabu Tikaa
Environment Co-ordinator	Tererei Abete

Note on the authors

Mere Pulea has been a legal adviser and consultant to the South Pacific Commission and the South Pacific Regional Environment Programme for some years. She is now attached to the Pacific Law Unit of the University of the South Pacific, and is based in Vanuatu.

David Farrier is Professor of Law in the Centre of Natural Resources Law at the University of Wollongong in Australia. He is author of the 'Environmental Law Handbook: Planning and Land Use in New South Wales' (2nd ed, 1993), and a number of articles on environmental law. His current research interests lie in the fields of biodiversity conservation and the relationship between criminal and environmental law.

Environmental Legislation Review

South Pacific Regional Environment Programme