

NATIONAL ENVIRONMENTAL MANAGEMENT PROJECT

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TECHNICAL ASSISTANCE OF THE ASIAN DEVELOPMENT BANK
TO THE DEPARTMENT OF TOWN AND COUNTRY PLANNING
MINISTRY OF HOUSING AND URBAN DEVELOPMENT

FIJI



— THE WORLD CONSERVATION UNION

in association with

ENVIRONMENTAL SERVICES AUSTRALIA

ENVIRONMENTAL LAW

IN FIJI

A DESCRIPTION AND EVALUATION

Prepared By:

MERE PULEA

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**SUMMARY OF
CONCLUSIONS AND RECOMMENDATIONS**

REVIEW
OF
ENVIRONMENTAL LAW IN FIJI

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Land Tenure System

- (1) There has been some comment and criticism on putting too much emphasis on legal requirements and environmental conditions in leases and licences without looking at the impact of these requirements on the capability of the lessee or licensee to comply with them. It is equally important that the resources available to enforce conditions and the quality of the leasing and licensing programmes are adequate.
- (2) With increases in population, the demand for land is inevitable. In some cases, the growth of the members of the mataqali far exceeds the availability of mataqali land and any restrictive use of land and resources due to environmental conditions has been viewed with some unease in some quarters.
- (3) In considering the adequacy of legal environment related conditions prescribed for in leases and licences in the Native Land (Leases and Licences) Regulations Saved and the actual conditions imposed in leases and licences, the conditions are adequate if all the requirements can be monitored satisfactorily.
- (4) The standardisation of environment related conditions in leases and licences for the various types of land use is suggested.
- (5) Some distinction needs to be made between Fijians living in a subsistence economy and those earning a living by commercial cash cropping. As a general rule (although there are exceptions) Fijians living in a subsistence economy are by tradition, environmentally conscious, and will harvest the land, the forests, the sea and tend the plantations using traditional methods of conservation and environmental control. It appears, however, that once Fijian land owners convert from subsistence farming to cash cropping, then commercial requirements tend to supercede traditional environmental considerations and conservation practices. Thus plantation land left to lie fallow for a period of seven to ten years are now shortened to one or two seasons at the most and clearing land by burning and indiscriminate cutting is now more common.

- (6) Effective enforcement of the lease and licence conditions is a key component in the leasing and licensing systems. Paper conditions imposed may be satisfactory to meet environmental requirements, but the adequacy of enforcement (a criticism often made) is a critical issue in most programmes. It is therefore suggested that a re-evaluation of the lease and licence conditions one year after the initial approval might be a valuable technique to use to ensure compliance. Recent attention to environmental issues by Government and interested groups makes clear that these legal duties should not be ignored.

Physical Planning and Assessment

1. As the Director of Town Planning is the sole permitting authority for development planning matters, the concentration of such wide discretionary powers in the office of the Director can be burdensome. The Town Planning Act does make provision for a Planning Advisory Committee but this Committee is not currently operational. It is suggested that the Planning Advisory Committee be reinstated to perform the functions expressed under the Town Planning Act.
2. The lack of enforcement of planning conditions and the obvious breaking of the law has been identified as a central problem due mainly to the lack of resources. There needs to be more focused efforts to enforce the law.
3. The Environmental Impact Assessment procedures require legal formality to encourage special weight in decision making to be attached to environmental damage. The Environmental Impact Assessment procedures should not be made part of the Town Planning Act but a stand alone Act on Environmental Impact Assessment is strongly suggested.
4. The Subdivision of Lands Act should be incorporated into the Town Planning Act.
5. That the Town Planning Act be changed to either the Town and Country Planning Act or the Planning Act as planning responsibilities are far wider than the limits of a town.
6. That a national land use policy be drafted and implemented.
7. That the Town and Country Planning Bills drafted in 1976 and 1981 and any other Bill drafted in the past in relation to planning matters be reviewed and updated with the view to bringing new planning legislation into effect.

Agriculture

1. There are at least 10 Acts and regulations providing for and specifically regulating agricultural activities in Fiji which draws some attention to the necessity of consolidating some of these Acts and regulations under a new statutory framework such as an Agriculture Act, to facilitate implementation.
2. The range of environmental provisions found in agricultural leases for both native and state land and the environmental provisions in the various Acts cited appear to be adequate though enforcement is effectively lacking. Of late, the Native Lands Trust Board and the Lands Department have attempted to keep pace with environment developments and have made corresponding changes to lease conditions by the inclusion of environmental provisions.
3. In combination with environmental requirements, additional efforts are necessary to encourage compliance; although from all accounts, effective enforcement of lease and licence conditions are partly hampered by a lack of resources. The various statutes, regulations, leases and licences include penalties for violation of requirements and conditions imposed and there are activities which are subject to inspection. As the various Acts cited affect a wide range of agricultural activities, any enforcement efforts could have mixed results in that large scale agricultural projects may be more likely to have resources to comply with and implement environmental conditions imposed, whilst small scale agricultural businesses and those engaged in subsistence farming may find such requirements burdensome and thus ignore them altogether. An assessment technique that is simple and cost effective could prove valuable in minimising the negative impacts on land resources brought about by agricultural activities.
4. In taking any legal action against the lessee with respect to land use, the NLTB requires a "Certificate of Failure by Tenant to Observe the Rules of Good Husbandry" from the Permanent Secretary, Ministry of Primary Industries. This procedure appears cumbersome and probably fraught with delays. It is suggested that the NLTB be given the opportunity to develop its own expertise in this matter and to issue its own Certificates in cases of 'bad land use'. It is further suggested that to prevent duplication, the function of issuing certificates be transferred from MPI to NLTB.

Mining and Minerals

1. It is suggested that Quarrying licences be made part of the responsibility of the Department of Mineral Resources and

quarrying licences should be granted in the same way as a permit to mine or a mining lease.

Fisheries

1. The establishment of a specialised Enforcement Unit in the Fisheries Division would further their regulatory and protective responsibilities and would encourage the fishing community to comply with the law;
2. Reseeding programmes have been conducted by the Fisheries Division for a number of depleted species. The Fisheries Division should be given the power to declare restricted areas or protected areas that are suitable for reseeded programmes and for those areas where there has been over exploitation of species and their habitats;
3. The solution to the inshore sedentary resource problem is to reduce fishing effort, and to introduce management measures such as rotating harvesting areas and the setting aside of breeding reserves together with better marketing to maximise the value of the existing resource.
4. As tourism plays an increasing role in Fiji's economy, some research is necessary to investigate the effects of game fishing on fisheries resources and the possible introduction of a system of controls;
5. It is recommended that fishing licences be issued, where appropriate, in the three main languages; and
6. Appropriate resources be made available to the Fisheries Department for research purposes.

Water Quality

1. Deficiencies in the present Water Supply Act has been recognised. Comments have also been made that the scope of the Water Supply Act needs to be expanded to incorporate those aspects of water protection that are currently inadequately protected or not protected at all. Other comments relate to the following issues:
 - that there is a necessity to categorise water resources for management purposes for example, that distinctions must be made between ground water and surface water;
 - that it is crucial to define protection zones for public water supply boreholes with the view to protecting them from industrial and agricultural activities;

- that licences should be issued for the abstraction of any ground water except for domestic use;
 - that a Water Authority be established to manage all water resources in Fiji and that a Fiji Drinking Water Quality Standards be also established.
2. It is also suggested that the Reports by Professor Sanford Clark and by Mr. R.C. Dixie and the Report by D.W. Peach be reviewed with the view to implementing the recommendations made.

Waste Management and Pollution

1. This brief review provokes fresh thought on the whole issue of pollution and waste management and the goals and strategies that should be adopted. The generation of waste material and the air and water pollution which commonly results from waste disposal focuses attention on the waste itself and the affected environment. Most wastes in Fiji are disposed of by landfill except for some medical wastes which are disposed of by incineration.
2. The categories of waste are undefined and it is essential that certain categories, such as hazardous, commercial, industrial, chemical and medical wastes be specifically defined and stringent controls imposed. Technological controls on land disposal facilities, incinerators or storage containers also need specific permitting requirements. Any new law introduced should in addition to providing for separate categories of wastes, the law must also provide for EIA requirements for waste disposal.
3. In a more practical and immediate sense, the present municipal land fill disposal system on ill selected sites is seriously affected by the difficulties in finding alternative sites, particularly in Suva where a proposed site on native land has not received all the necessary approvals from the landowning group. One of the difficulties is the uncertainties surrounding waste disposal as the problems associated with the Lami and the Rewa river dump site is obvious.
4. Waste management Plans as well as inspection and monitoring should be the central features in any new law and close attention to trade, agricultural and waste from tourist establishments should receive close attention.
5. Public nuisance law is an important tool that can be applied to a range of environmental problems and it is important that this area of law be closely examined and vigorously applied.

6. The maximum levels of fines in the Ports Regulations 1990 are incredibly low in the light of the damage that could result in the marine environment from oil spills and any other type of marine pollution. It is suggested that the maximum levels of fines be reviewed.
7. That the provisions of the Traffic Regulations against polluting motor vehicles needs to be regularly and consistently applied.

Protected Areas

Protected areas are established to provide lasting conservation of species and ecosystems and there are a number of ways in which protected areas can be established or created. The status of land to be designated as a protected area is critical because of the variation of land uses and ownership rights.

- (a) Under the State Acquisition of Lands Act 1940, an acquiring authority (i.e. a government Minister or any person empowered to compulsorily acquire property) may compulsorily acquire any land required for any public purpose(s.3). Public purpose as defined by the Act includes 'the utilisation of any property in such a manner as to promote the public benefit'(s.2) which appears broad enough for application to protected areas.
- (b) The creation of protected areas through the leasehold system such as the Waisale Dakua Reserve requires some attention as the lease could have potential for flexibility than protected areas established by statute. Reserves established by lease could also allow for the active participation of the landowners. In creating protected areas through this system it is important that the traditional landowners perceive the benefits in order to actively support the programme.
- (c) The establishment of a protected area by agreement is also possible as demonstrated by the Yadua Taba Iguana sanctuary. The agreement between the National Trust and the chief of the landholding mataqali serves a wider purpose than protecting the iguanas as the whole island of Yadua Taba is protected.
- (d) The Garrick Memorial Reserve is an important example of the creation of a protected area on freehold land. The girding of the Reserve by the Garrick family for conservation purposes has no legal constraints for management purposes compared to native land protected through a leasehold system where the customary authority and communal organisation must be taken into account.

- (e) As Fiji is a Contracting Party to the APIA and SPREP Conventions, domestic legislation must be consistent with the obligations incorporated in the Conventions. Where there is an absence of such legislation, new laws need to be formulated to give effect to the Conventions.
- (f) A comprehensive National Parks and Reserves legislation to cover both terrestrial and marine areas need urgent consideration.

Wildlife

1. The wildlife legislation drafted in 1979 and 1984 be reviewed and updated with a view to bringing a framework legislation into effect. The current deficiencies are such - both in relation to unspecified rare species (e.g. Fiji's crested iguana) and in relation to the smuggling trade as to make it vital that urgent action be taken.
2. Urgent consideration be given for Fiji to become a Contracting Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

National Heritage

There is clearly a need for comprehensive legislation to be established for long term legal protection of:

- national parks and reserves. A National Parks and Reserve Bill was drafted in 1980 following the 1980 report on 'A National Parks and Reserve System for Fiji' by Dunlap and Singh. It is suggested that the report be reviewed and the Bill be updated, if necessary. Some consideration is necessary to bring the Bill into effect. This is an urgent need;
- comprehensive wildlife legislation is urgently needed to cover wildlife management, habitat and sanctuaries to respond to the protection of Fiji's wildlife such as the crested iguanas. In 1984, a Fauna (Protection and Control) Bill was drafted by Mr. David Clarkson, Senior Veterinary Investigation Officer, Ministry of Primary Industries. The Bill was submitted to the Office of the Solicitor-General in May 1984 but the Bill was returned to the Ministry of Primary Industries in July 1984 for further action. A similar Bill was drafted in 1979. It is suggested that the draft Bills be reviewed and updated urgently with the view to bringing such legislation into effect;

- that comprehensive legislation be enacted for the protection of places of cultural significance; and
- that urgent consideration be given to the establishment of a National Heritage Register.
- that consideration be given for Fiji to become a party to:
 1. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and
 2. the Convention on the Conservation of Migratory Species.

REVIEW
OF
ENVIRONMENTAL LAW IN FIJI

1. Introduction

The purpose of this Review is to collate information and to summarise the present situation of "environmental law" in Fiji. The Inception Report of the National Environment Management Project submitted to the Government of Fiji in September 1990 outlines the IUCN Consultant's proposal in detail of which this Review is a part. In addition, the National Environment Strategy Report outlining strategies to be pursued will be submitted at the end of the IUCN Project in 1992.

The State of the Environment Report 1991 describes Fiji's current problems of environmental concern and provides the background to this Review. This Review contains some recommendations for environmental concerns to be reflected in Fiji's current legislative framework and national organisational structures and attempts to incorporate the Government's environmental policies as outlined in Development Plans (DP) 7,8 and 9; but given the vast areas of law covered, it is impossible to be comprehensive in making the recommendations.

There has been no shortage in Fiji of environment sector studies carried out by various organisations which make a useful contribution to the overall understanding of environmental issues for this Review. One of the justifications for undertaking this particular Review is that in the light of the substantial awareness of environmental issues, an overall study of the regulatory framework is considered necessary to advance our understanding of the range of laws and the gaps that exist in Fiji's legal system.

Environmental legislation impacts on most areas of human activities in economic and social development and provides a framework within which national and local development must operate. However, different areas of national and local development respond in different ways to economic and social change and areas covered by legal provisions for environmental considerations vary widely. Apart from legal environmental protective measures in statute books, national policies on environmental directions have been expressed through the five yearly Development Plans.

DP 7 (1976-1980) states that:

"the administration of existing environmental legislation is unco-ordinated. During the Plan period a thorough review of this legislation, its strengths, weaknesses and omissions, will be undertaken" (p.60).

DP 8 (1981-1985) makes further mention of the environment and singles out Government's objective to enact a National Parks and Reserve Act during the Plan period. DP 8 adds that:

"National Parks and Reserves need to be established in a manner which avoids conflict with agricultural schemes, forestry projects and other development schemes. Government will protect unique species of mangroves, especially those in danger of extinction, through the creation of coastal marine reserves and the incorporation of mangrove areas into coastal parks where necessary. Priority will be given to parks and reserves near existing urban areas where both pressure of development and recreation demand is heaviest.

Criteria for the selection of priority projects to be identified early in DP 8 will include the distance from large concentrations of population, the threat of destruction or despoliation of the environment, extent of present usage and the pressure of development from other sources. A list of priorities will be prepared embodying the following strategies:

- (a) to establish most of the maximum possible number of protected areas at minimum cost by leasing Crown (State) lands, and negotiating for rights with native landowners who are willing to consider compensation in the form of economic benefits (employment, income etc) rather than outright cash payments; and
- (b) to concentrate the major programme on Viti Levu initially where the future implication of socio-economic development indicate the greatest pressure on Fiji's natural environment and where the need for outdoor recreation is greatest" (p.289-290).

DP 9 (1986-90) states that:

"legislation in Fiji concerning conservation of the environment and the protection of heritage are inadequate and obsolete. Some important areas, like the environment assessment of development projects, control of pollution, storage and use of toxic

chemicals etc. are currently not covered under any legislation. During DP 9, laws which have hitherto not been co-ordinated will be brought together and new laws enacted to cover all aspects of environmental management" (157).

Environmental law, singled out as a distinct area of law has had little emphasis in Fiji until 1982. Approval was given by Government then for the establishment of the Environment Management Unit in the Ministry of Housing and Urban Development when issues concerning the environment took on an entirely new dimension. The Environment Management Unit was formally established in 1989.

There is no definition in Fiji's existing legislation as to what 'environmental law' is or should be and interpretation varies with the interest of the person using the term. Environmental law covers many 'environments'. Thus this Review broadly covers those aspects of existing legislation that is considered to affect the population, human activities and the environment. Those areas of law brought into the scope of the Review that have been regarded as part of "environmental law" include:

- (a) Legislation that deals with natural resources (such as forestry, mining, fisheries and water) which provide for both resource exploitation for development purposes and protective measures for conservation purposes.
- (b) Land use planning laws which have been dealt with in some detail because of the decisions of planning authorities to permit development and land use. The environmental impact of human activities in the course of some development and land use could result in the loss of particular natural resources and fragile ecosystems.
- (c) The laws regulating the various facets of development (e.g. agricultural, industrial, commercial and tourism) that could have adverse consequences on natural resources and the environment resulting in land, inland waters and marine pollution. The effect on the environment of pollution and waste disposal from domestic, industrial and commercial activities have been considered in this Review. Some attention to the law of nuisance under the Public Health Act and its capability to abate nuisances and clean up contaminated sites has been considered as part of 'environmental law'.
- (d) Those laws that address environment protection and preservation goals such as those specifically focused on the preservation of Fiji's national heritage have been brought within the scope of this Review. The Review covers both the natural environment such as nature reserves and other

protected areas and the cultural environment such as archaeological and historic sites, historic buildings and the protection of Fiji's wildlife.

- (e) The sections on land tenure and fisheries provides brief historical backgrounds for two reasons. Eighty-three percent of the land is native land owned by indigenous Fijians and a historical background provides some focus to our understanding of the complex nature of the Fijian land and marine tenure systems.
- (f) Regional and International Conventions. Fiji is a party to a number of environment related regional and international conventions such as the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (the SPREP Convention) and its related Protocols. Where appropriate, references have been made to Conventions to indicate Fiji's obligations and commitments to environmental protection at the regional and the international levels.

Although this Review recognises the laws covering all those aspects described above that could appropriately be deemed to be part of "environmental law", one of the fundamental problems encountered is that the laws or legal provisions that have environmental significance are scattered and intertwined in a large number of statutes and are administered by different Ministries and bodies.

Environmental issues have been given little consideration in economic planning and other areas of development in the past, but this pattern is slowly changing as the need to balance development, conservation and the maintenance of environmental quality has become a necessity. Thus, environmental matters in economic development planning continue to merit serious consideration and should be integrated into the development planning process. The major obstacles that prevent such integration could be the lack of knowledge of environmental issues, the lack of effective 'environmental legislation', the lack of resources (e.g financial, trained, skilled and knowledgeable personnel, facilities such as testing laboratories) and the inadequacy of enforcement of environmental provisions found in the range of existing statutes.

The Review has cited a number of draft laws prepared over the last decade or more. These initiatives designed to protect various aspects of the environment have had enormous investments in both time and financial resources. Serious consideration needs to be given to reviewing all 'environment' related laws e.g. the National Parks and Reserve Bill, for the purpose of bringing these outstanding pieces of legislation into effect.

Marking the beginning of the 1990s are two important pieces of legislation - the Ports Regulations 1990 made under section 63 of the Ports Authority of Fiji Act; and the Litter Decree 1991, giving the protection of the environment a new prominence. The coming into effect of the Litter Decree has been postponed to March 1992, to allow time for public awareness programmes to be instituted before enforcement of the legislation. Although these are major steps, the most important step is to improve on the existing legal system and to ensure that the legal provisions of environmental significance are adequately enforced. Enforcement, or lack of it remains a central problem.

Public awareness and information programmes are vital and an important strategy in involving public participation in the protection of Fiji's environment.

This Review is by no means exhaustive and further details could be obtained from the statutes quoted and the references cited.

2. LAND TENURE SYSTEM

The use of land resources and the patterns of land use are particularly significant in small island states as land use is essentially determined by the limitations of the natural environment and the nature of ownership. In Fiji, where agriculture is the main economic activity, the demand for land has been substantial in recent years with increases in population, coupled with cash requirements by rural people, which has significant implications for land use management and the future development of land resources.

The total land area in Fiji of 18,284 square kilometers is portioned into four main forms of land tenure of which 83.29% is held as native land by Fijian land holding units; 8.06% is held under freehold tenure; 8.41% held by the state as State land; and 0.24% as Rotuman land. T.E Foster writing in 1958 perceptively stated that "given the time and skill, three books could be written on the subject of land tenure in Fiji and even then I would consider the subject had only been introduced" (Foster:1958).

The land tenure system in Fiji is complex for two main reasons. Firstly, land tenure operates in a dual system of law (legal and customary) which inevitably leads to some confusion particularly for land holding units, the mataqalis. This confusion over rights is not uncommon and some times illustrated in the enforcement of rights by mataqalis over land and natural resources by the erection of road blocks (sometimes violating the legal rights of others) across land they 'own'. Secondly, the administration of all Fijian land is vested in the Native Land Trust Board (NLTB), a corporate body established under the Native Land Trust Act 1940. The NLTB acts as trustee and the Act restricts landowners from exercising their rights (not customary rights), particularly in the leasing of their own land, without the consent of the NLTB.

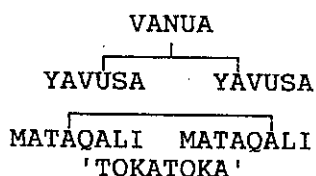
Of the four main land tenure systems, only the important provisions of the Native Land tenure system, because of its complexity, will be discussed in detail.

(a) NATIVE LAND

The present system of native land tenure was framed in the Deed of Cession 1874 as prior to Cession, the principles of customary land tenure could not be applied universally. There was considerable variation in tenure and territorial boundaries were constantly changing. But at the time, three main types of land use rights appear to be practiced:

- "(1) Yavu - the exclusive rights of an occupant to a house site;
- (ii) Qele - the right to cultivate land which belonged to the extended family and was subject to rendering services to the tribe and paying sevu (first fruits) to the chief;
- (iii) Veikau - rights to forest land belonging to the community and were distributed by its chief. Individual rights could be acquired by cultivation after requesting permission and giving sevu."(Eaton 1985:59)

Land under customary tenure is held communally and not individually, though individual rights to land can be created by gifting, occupation or cultivation. The categories of communal land holding unit were recognised since pre-cession as the yavusa, the mataqali and the tokatoka. "Members of the yavusa are by official definition agnatically related and recognise a common authority or tutelar head chief" (1). The yavusa is the sub-unit of the vanua (land) which is described by Ravuvu as "groups of people who could trace their dependents agnatically to a common ancestor or ancestral god" (2). The mataqali, the land holding unit "normally consists of members of patrilineally related kinsmen whose founder was a descendant of the founder of the yavusa, but it may also include other persons who have no such links and have been incorporated either socially or legally into the mataqali...members of (the) mataqali have proprietary rights to the area of land, of which the title is held by the mataqali as a whole" (3). The tokatoka, according to Ravuvu is not a term universally used in Fiji though where the term is recognised, the tokatoka is used to identify a sub-unit of the mataqali.



Nayacakalou (1978:19) asserts that to claim that the land holding unit is the mataqali is only partly true as there are instances where the Native Lands Commission has recorded numerous pieces of land throughout Fiji as owned by itokatoka. The itokatoka rights are recognised and these rights cannot be overridden by the mataqali. No itokatoka has the right to lease land it holds without the consent of all members of the mataqali.

Members of the patrilineal kin group who owned the land had the right to use and cultivate it and any dispute arising over land use and rights in the pre-colonial period were settled and determined by the senior members of the group. These traditional patterns of allocating land and the resolution of disputes were altered considerably by the Deed of Cession in 1874.

Land Tenure - Deed of Cession

Under clause 2 of the Deed of Cession the prerogative to prescribe and determine the form or constitution of government and the laws and regulations to be administered was conferred on Her Majesty. Land rights incorporated in the Deed under clause 4 recognised 3 categories of land:

- land belonging to Europeans and foreigners - recognising private rights to land;
- native land - land in actual use and occupation of some chief or tribe;
- Crown land - land which is not required for future support of chief or tribe is vested in Her Majesty, her heirs and successors (Fa:1989).

The 1880 Native Lands Ordinance No. XXI attempts to regularise the administration of land by providing for:

- (i) the legal tenure of native land derived from ancestors was to be in accordance with tradition and usage (s.I);
- (ii) all such land was to be inalienable by native owners except to the Crown, and then only for certain public purposes or with the consent of the Crown under certain restrictions (s.III);
- (iii) the land to be cultivated, allotted and dealt with by the native owners in accordance with their custom and subject to any Regulations made by the Native Regulation Board (s. IV);
- (iv) a Commission to be set up with the task of ascertaining the land of native owners in each province and the lands of the different communities defined and boundaries set (s.V,VI);
- (v) in the event of a mataqali becoming extinct the Crown would inherit the land as ultimums haeres (lord) or allotted to the Qali or to other divisions of the people (s XIII).

Clause 5 of the Deed vests the Crown with power to take any land for public purposes whenever considered necessary upon payment of compensation; and in section XVI of the 1888 Native Lands Ordinance provision is made for the Governor to purchase native lands "for purposes of public utility".

Native Land - Ownership Rights

The ownership of native land is vested in native owners defined under section 2 of the Native Lands Act 1905 as "the mataqali or other division or subdivision of the natives having customary right to occupy and use any native lands". Ascertaining the identity of the native owners of land, the Native Lands Act "sets out a complete code showing how the identity of native owners is to be ascertained." (Charlie Ravovo Thomas and Others v Native Land Trust Board (Sup. Ct. 1962, Civil Jur. - 8 Fiji L.R. 223-228). Section 4 of the Act provides for the establishment of the Native Lands Commission "charged with the duty of ascertaining what lands in each province of Fiji are the rightful and hereditary property of native owners, whether of mataqali or in whatever manner or way or by whatever divisions or subdivision of the people the same may be held."

The duty of the Commission to make enquiries into titles to all land claimed by a mataqali, the names of the members and the boundaries of such land is set out under section 6 of the Native Lands Act.

The right to use or the ownership of native land (defined in s. 2 of the Native Lands Act as land which is neither State land nor the subject of a State grant) essentially depends on the status of the individual within the mataqali by birth, marriage or dependency. The Native Lands Act essentially deals with the rights of natives to native lands. Customary tenure is described in section 3 of the Native Lands Act as follows:

"Native lands shall be held by native Fijians according to native custom and tradition. Subject to the provisions hereinafter contained such lands may be cultivated, allotted and dealt with by native Fijians as amongst themselves according to their native customs and subject to any regulations made by the Fijian Affairs Board, and in the event of any dispute arising for legal decision in which the question of the tenure of land amongst native Fijians is relevant all courts of law shall decide such disputes according to such regulations or native custom and usage which shall be ascertained as a matter of fact by the examination of witnesses capable of throwing light thereupon."

Native Lands Commission

Under the Native Lands Act it is the responsibility of the Native Lands Commission to ascertain "what lands in each of the province of Fiji are the rightful and hereditary property of the native owners, whether of mataqali or in whatever manner or way

or by whatever divisions or subdivision of the people the same may be held".(s.4) The procedure involving the ascertainment of rights is a lengthy course of inquiries by the Commission (s. 6(1)); notices served on all parties concerned; and at the direction of the Roko Tui of a Province in which the land is claimed, boundaries were marked and defined by the persons claiming ownership (s.6(3)). For the purposes of the inquiry, the Commission has the same power as a magistrate to summon and examine witnesses (s.6(8)). The decision of the Commission is recorded in the Register of Native Lands (s.8) which is then transmitted to the Registrar of Titles ((s.10(1)).

The Commission also has the power to settle land disputes of Fijians over native land (s.16) and disputes arising over the headship of "any division or subdivision of the people having the customary right to occupy and use any native land" (s.17).

Land can also be allotted to dependents by the Commission with the consent of Fijian owners (s. 18(1)). The Native Lands Act defines dependents in section 2 to mean:

"native Fijians who at the time of the erection of the Fiji Islands into a British Colony had become separated from the tribes to which they respectively belonged by descent and had by native custom lost their rights in the tribal lands and were living in a state of dependence with other tribes, and includes their legitimate issue."

But where a dependant is found to be an owner of land by operation of any Fijian custom, no allotment of land will be made (s.18(3)).

Any decision of the Commission is subject to an appeal. An Appeals Tribunal is provided for under section 7 of the Native Lands Act to "hear and determine appeals from decisions of the Commission under section 6 and from a Commissioner under section 16 and any such determination by the Appeals Tribunal shall be final".

The work of the Native Lands Commission was at first dependant on the Bose-Vaka-Yasana (Provincial Councils) in the determination of claims:

"the Bose-Vaka-Yasana of each Province shall in the first place take measures to have the lands of the different communities of such Province defined and boundaries set forth in writing..."(s.VI. Native Lands Ordinance XXI, 1880);

but this procedure was altered by section 8 of the Native Lands Ordinance No. XXI of 1892 which gave the Native Lands Commission direct authority in ascertaining land claims. The 1990 Constitution of the Sovereign Democratic Republic of Fiji has further entrenched the power of the Native Lands Commission in that decisions of the Commission on:

- (a) "matters relating to and concerning Fijian customs, traditions and usages or the existence, extent, or application of customary laws; and
- (b) disputes as to the headship of any division or sub-division of the Fijian people having the customary right to occupy and use any native land, shall be final and conclusive and shall not be challenged in a court of law" (Art.100(4)).

As native land was to be inalienable, the Native Lands Act introduced changes and provided for the leasing of native land (s.11, s.12) and broadened the function of the Native Lands Commission to the settlement of disputes (s.16, s.17). The Commission also has the power, with the consent of Fijian owners to allot land at its discretion to any dependents for their use and occupation but the land was to revert to the Fijian owners when the land was no longer used or occupied (s.18(2)). The Commission also has the power to declare vacant lands where the land has been unoccupied at the date of Cession and have remained unoccupied up to the time of the sittings of the Commission and where no title has been created by the operation of native custom. The declaration of vacant land automatically places those lands under the control of the State and is dealt with as State land (s.19). The rights of ownership to communal land can be forfeited "on the request of other members of such communal division" where a Fijian member ceases to reside there for a period exceeding 2 years (s.20(1)) unless absence is due to employment or in the case of a married woman if she is living with her lawful husband and in the case of young persons living with recognised guardians (s.20(4)). But where a person has been divested of all interests in land, these rights can be restored with the consent of the proprietary group and the approval of the Minister (s.20(3)).

The Native Lands Amendment Ordinance No. III of 1912 prohibited the sale, grant or exchange by native owners of native land except to the Government of the Colony (s.3) and the leasing of native land could only be done with the consent of the Commissioner for Lands (s. 5).

Administration of Native Land

The restrictions imposed in the 1912 Ordinance set the basis for the administrative control of native lands. The Native Land Trust Act 1940 provides for the establishment of a board of trustees called the Native Land Trust Board (s.3) to control and administer native lands for the benefit of the Fijian owners (s.4(1)). Other relevant sections of the 1940 Act provide that native land shall not be alienated by Fijian owners whether by sale, grant, transfer or exchange except to the Crown (State), and the land shall not be charged or encumbered by native owners. Where any land has been transferred to native owners, the native owner is prevented from transferring such land or any estate or interest or charge or encumber the land in any way without the consent of the Board (s.5(1)). All instruments purporting to transfer, charge or encumber any native land or any estate or interest therein to which the consent of the Board has not been first given will be null and void (s.5(2)).

Because of the proprietary interest of the State in natural resources, native land is subject to the provisions of the State Acquisition of Lands Act, the Forest Act, the Petroleum (Exploration and Exploitation) Act and the Mining Act (s.7).

Although the responsibilities for the management of land resources is divided amongst several Government Ministries, the Native Land Trust Act section 4 vests in the Native Land Trust Board the control of all native land, and such land is administered by the Board for the benefit of the Fijian owners. The vesting of control in the Board creates a trust relationship between the Board as trustees and the native owners. Ownership of native land and user rights have been the source of some confusion to land owners. The position was explained by Mr. Justice Kermode in Naimisio Dikai (Supreme Court of Fiji, Civil Action 801/1984) as follows:

"... legally no individual Fijian can be said to 'own' native land in the sense that the word own usually conveys. Fijians in land owning units have customary rights to occupy and use native lands, but individually they are not 'owners' of such land.

'Native owners' in both the Native Lands Act and the Native Land Trust Act is defined as:- 'native owners' means the mataqali or other division or subdivision of the natives having the customary right to occupy and use any native land. Members can enjoy two rights usually associated with ownership, namely the right to occupy and use the land but they cannot sell or charge (i.e. by way of an incumbrance) the land.

No member of a landowning mataqali can legally object to any other person coming into his mataqali's land without the authority or permission of the Native Land Trust Board. He cannot personally bring an action for trespass to the land or claim damages for trespass which does not directly infringe his personal rights.... The control and administration of all native land is vested in the Native Land Trust Board. If there is any trespass to native land, it is the Board which is entitled to maintain the action.

If the Fijian land tenure system is to endure, it must be appreciated that the interest of all members of every land owning mataqali from new born infants to the old and infirm and the interest of the unborn generation of Fijians must be safeguarded and protected. The land must be controlled and administered as trust land by a trustee or Board of trustees for the benefit of the Fijians now and in the future entitled to occupy and use the land".

Mr. Justice Kermode noted that native land must be controlled and administered as trust land by the Native Lands Trust Board which is of particular significance as confusion over the ownership rights of native land continues to persist. Mr. Justice Kermode further elaborated in the same case that the:-

"Fijian land system is one which in the modern commercial world requires a legal entity to control and manage the land. The English legal system which we have adopted was not designed to cope with a land system which has no physical or corporate legal owner. Creating trustees by law and vesting control and administration of all native land in trustees, which as a Board is a body corporate with perpetual succession, is not only a practical and legal necessity but is eminently desirable in the best interests of the Fijian people and unborn generations of Fijians."

The Status of the Mataqali

Uncertainty as to the legal status of the mataqali and the rights of the proprietary group to native land has sometimes been a source of conflict between the Native Land Trust Board and native owners. 'Native owner' is defined in the Native Lands Act to mean:

"the mataqali or other division or subdivision of the natives having the customary right to occupy and use native lands".(s.2).

The same definition is used in section 2 of the Native Land Trust Act.

The legal status of the mataqali was given interpretation in the case of Timoci Bavadra v Native Land Trust Board (Supreme Court of Fiji, Civil Action 421/1986) in which Mr. Justice Rooney stated that:

"A mataqali cannot be equated with any institution known and recognised by common law or statute of general application. The composition, function and management of a mataqali and the regulations of the rights of members in relation to each other and to persons and things outside it are governed by customary law separate from and independent of the general law administered in this court...If the plaintiff wishes to pursue this case further he has to establish within the framework of the common law that tokatoka or mataqali has a right to sue and be sued in the Courts. It is, as far as the applied law is concerned an alien institution which is neither a corporation nor an unincorporated association."

Mr. Justice Rooney also observed that times have changed and that modern development has transformed the mataqali into major landlords commanding revenues much greater than those contemplated by the Board and it is inevitable that disputes could arise with different interests as a result of these developments.

Native Reserves

For any land that is required for planting and for the purposes of subsistence of natives, the Native Land Trust Board has power to set aside any portion of native land, for the exclusive use of the native owners, as a native reserve (s.15 Native Land Trust Act).

Although the land designated as native reserves cannot be leased or disposed of, the Government has proprietary interests in oil and mineral resources and therefore the reserves are subject to the provisions of the State Acquisition of Lands Act, the Forest Act, the Petroleum (Exploration and Exploitation Act) and the Mining Act (s.16(1))

The Board has the power, with the consent of Fijian owners to grant leases or licences only to native Fijians (s.16(2)) and leases may also be granted with the consent of the Fijian owners to the Land Development Authority as if it were a native Fijian provided that the land is not transferred or sublet by the Land Development Authority except to a native Fijian (s.16(3)(a)). The Board may also de-reserve land permanently or for a specified period "upon good cause being shown and with the consent of the Fijian owners of the land" (s.17(1)). Upon the expiration of the

lease period, the land reverts to native reserve (s.17(3)). The President may also set aside State land if land belonging to a mataqali is found to be insufficient for the use, maintenance and support of its members (s.18).

The State Lands Act provides for State land to be set aside as native reserve (s.3) where it is proved that the land belonging to any mataqali is insufficient for their use maintenance and support (NLT Act s.18). Where a mataqali ceases to exist by the extinction of its members, the mataqali land reverts to the State as ultimums haeres to be allotted to another mataqali or retained by the State or dealt with by the Native Land Trust Board as it considers necessary (s.19(1)).

A report to the Native Land Trust Board by the chairman of the Native Lands Commission that a mataqali is extinct is necessary before the land falls to the State (s.19(2)).

It is not known how much land was held in native reserve before the coming into force of the Native Land Trust Act in 1940, compared with the land held in reserve to date. Concern has been expressed over de-reservation of land that is taking place without accurate figures being made available. The de-reserving of land by the Native Land Trust Board for capital development or other usage could cause potential problems in the future for Fijian land owners who do not have land (Ravuvu:Oct.1991). There are a number of mataqalis who have land surplus to requirements but there are also mataqalis who have a shortage of land thus leaving those mataqali members with rights to land, landless. Land held in reserve is subject to claims by landless Fijians. As not all land in Fiji is first class arable land, some Fijian owners have little return from the land they own because of the poor quality of the soil. Often too, there is an assumption that Fijian owners live on the land they own. In the majority of cases, the land of some mataqali members can be located some distance away from the village and because of access and transportation difficulties, land that can be utilised is left uncultivated for years and there is a reluctance for land owners to permit or lease such lands to anyone outside the mataqali.

Constitutional Provisions

The 1970 Fiji Constitution (which is now replaced by the 1990 Constitution) provided for Parliament when considering a Bill to alter any provisions of the Native Lands Act and the Native Land Trust Act to ensure the Bill "shall not be passed by either House of Parliament unless it is supported at the final voting in the House by the votes of not less than three-quarters of all members of the House (Art.68(1)). A Bill that alters the provisions of these two Acts that "affects Fijian land, custom or customary

rights should not be passed by the Senate, unless it is supported in the final voting ...by the votes of not less than six of the members of the Senate..."(Art.68(2)).

The 1990 Constitution has further entrenched indigenous rights to land with a more stringent requirement. The alteration of rights affecting Fijian land, custom or customary rights and any alteration to the Native Lands Act and the Native Land Trust Act requires the support in the final voting in the House by a majority of votes of all members of each House including the vote of not less than 18 of the 24 nominees of the Bose Levu Vakaturaga in the Senate (Art. 78(1)).

(b) STATE LAND

State Land is administered by the Department of Lands and Survey and totals about 153,884 ha (1986) which is roughly about 8.41% of the land area in Fiji. Since Fiji's change to a Republic status after the 1987 coups, a Decree to amend the Interpretation Act was issued on the 13th. December 1989 which makes the following provision:

"where in any written law, instrument, document or legal proceeding in force made or proceeding on 7 October, 1987, the word "Crown" is used or appears, it shall be replaced by the word "State".

State Land is defined by the State Lands Act 1946 as "all public lands in Fiji including foreshore and the soil under the waters of Fiji, which are for the time being subject to the control of the State by virtue of any treaty, cession or agreement, and all lands which have been or maybe hereafter acquired, by or on behalf of the State for any public purpose"

There are three main classes of State land:

- (a) State Freehold (State land with Title)- is freehold land purchased by the State such as land belonging to the Colonial Sugar Refining Company. After Cession there were 31,096.8 ha in this category.

A sub-category of State Freehold is State Land without Title which refers to freehold land bought by the State where the previous title is cancelled under section 46 of the Land Transfer Act 1971, as amended. After Cession there were 38,153.5 ha in this category but in 1986 the total acreage for State Freehold with Title and State Freehold without Title was 67,068 ha.

- (b) State Schedule 'A' (the 'A' denotes after Cession) is land which has reverted to Government as *ultimums haeres* on extinction of the Fijian owning *mataqali* but does not include land of *mataqalis* reported extinct but not yet transferred to government. After Cession, there were 60,500.5 ha in this category and in 1986 60,501 ha remained in this category; and
- (c) State Schedule 'B' (the 'B' denotes before Cession) refers to land which was decreed by the Native Lands Commission to be unoccupied at the date of Cession of the Fiji Islands to the British Crown, and to have remained unoccupied up to the time of the sittings of the Commission, and to which no title has been created by the operation of any native custom which was in force before Cession. After Cession, there were 30,480.9 ha in this category and in 1986 26,315 ha remained in this category (see Tables 1,2,3).

The figures cited above do not reflect an accurate picture as it does not include State land recommended to be set aside as native reserve for Fijian land claiming units, the occasional transfer of freehold land to government by way of dedication, land acquired by government by enactment of law, and land ownership rights acquired by government under sale and purchase agreements since coming into force of the Fiji (Constitution) Order 1966.

In the October 1991 meeting of the Great Council of Chiefs, the proposal from the Native Lands Trust Board was endorsed for State Schedule 'A' and 'B' lands that are presently administered by the Lands Department to be handed over to the Native Land Trust Board to be administered as native land. According to the Minister of Fijian Affairs there has been no doubt at any stage that the land in both categories is native land previously owned by *mataqalis*, "the handover to the NLTB means that the Board will make this land available to Fijians and non-Fijians alike... Crown (State) leases currently held on land handed over to the NLTB would become native leases" (Fiji Times 3/10/91). As this has been a recent development, no machinery or legislation has been put in place as yet to give effect to this proposal.

Compulsory Acquisition of Land

Where any native land has been acquired by the State for public purposes, under the provisions of the State Acquisition of Lands Act 1940 or any other written law, the Minister responsible after consultation with Cabinet must declare such land to be State land (s.8).

Whenever any land is required for public purposes section 5 of the State Acquisition of Lands Act requires prior written notice to be served on every person not less than thirty days on every person who has an interest or right over the land, and damages paid to those affected. (s.7(1)) or adequate compensation paid on a court order (s.7(2)). An order will not be granted by the Court unless it is satisfied that the acquisition is necessary or expedient in the interests of defence, public safety, public order, public morality, public health, town and country planning or that the utilisation of any property is to promote the public benefit (s.6(3)). In determining the amount of compensation, the court will consider the market value of the land, damage caused by the taking of crops or trees, damage arising out of the severance of land (s.12(a)). Additionally, compensation will be paid for loss of rents and profits (s.13).

(c) Freehold Land

Prior to Cession, most of the land that is known as freehold today was sold, traded or given for personal service to Europeans who sought land primarily for plantation purposes. By the time of Cession "a pattern of occupation in all accessible areas and over much of the best land, mainly in large plantations...but there were a few sales for commercial undertakings even at the time of Cession" (Foster:1958). Although the sale of land was completely alien to the Fijian system of land holding, it was believed then the land would revert to Fijian ownership once the occupier leaves. Because of the Fijian land tenure system, it was difficult to understand the concept of outright alienation.

Freehold land also includes a small number of native grants made between 1905 and 1909 when alienation of native land was permitted. Much of the valuable freehold land in Fiji is agricultural land, land used for tourist resort development and over the years, some residential land and freehold land have come to acquire a high market value.

Freehold land comprises 147,448 ha representing 8.06% of the land area in Fiji (1986).

The Leasehold System

Leases of Native Land

The Native Land Trust Board is empowered to grant leases or licences of portions of native land which are not included in a native reserve (s.8(1)NLT Act) but the Board must be satisfied that the land proposed "is not being beneficially occupied by Fijian owners, and is not likely during the currency of such

lease or licence to be required by the Fijian owners for their use, maintenance or support" (s.9).

All leases of native land is subject to conditions and covenants which also includes environment related provisions. The Native Land Trust (Leases and Licences) Regulations Saved (Fiji Laws Rev.1985) provide for the following classes of leases:-

- Agricultural leases
- Residential leases
- Commercial leases
- Grazing leases
- Gardening leases
- Dairying leases
- Tramway leases
- Quarry leases
- Special Purposes leases (e.g. Tourism lease, Forest Amenity Reserves)

All classes of leases have standard provisions and conditions for the particular activity and are set out in the regulations. Detailed provisions of the various leases are dealt with under their respective chapters. In addition, the Native Lands Trust Board can impose additional conditions as it sees fit and usually these additional conditions now routinely contain environment related conditions such as the requirement of an EIA. A typical NLTB logging licence cited contained a number of environmental conditions, examples of which are produced below:

" The Conservator may:"

- "Prohibit logging in those areas which he may from time to time define where in his reasonable opinion due to the steepness of gradients, topography or soil conditions it is considered that excessive soil erosion is likely to be caused;
- Prohibit logging in those areas which he may from time to time define where in his reasonable opinion serious damage to water, soil, flora or fauna would be caused or damaged to the environment or ecological systems in general is likely to be caused".

and the lease for a Forest Amenity Reserve:

- "The lessee shall keep the said land clean and tidy and free of all litter and shall keep the service areas free from weeds, unsightly growth, vermin and pests;
- The lessee shall prepare within two years of the date...a comprehensive survey of vegetation, wildlife and other natural resources on the said land and shall have prepared a

management programme to ensure the preservation of rare and endangered species".

Consultation between the Native Lands Trust Board and the Environmental Management Unit (EMU) of the Ministry of Housing and Urban Development has been increasing since the formal establishment of the EMU in 1989 and environment related conditions suggested by the EMU are now being routinely included in leases and licences issued by the Native Lands Trust Board with respect to activities on native land.

The Minister for Fijian Affairs also has power to make regulations under section 33 of the Native Lands Trust Act which addresses environment protective measures such as:-

- the reconditioning of any native land and ...prohibiting and regulating the occupation of any area therein (b); and regulating generally the conservation of any area of native land (c).

Conclusions and Recommendations

- (1) There has been some comment and criticism in putting too much emphasis on legal requirements and environmental conditions in leases and licences without looking at the impact of these requirements on the capability of the lessee or licensee to comply with them. It is equally important that the resources available to enforce conditions and the quality of the leasing and licensing programmes are adequate.
- (2) With increases in population, the demand for land is inevitable. In some cases, the growth of the members of the mataqali far exceeds the availability of mataqali land and any restrictive use of land and resources due to environmental conditions has been viewed with some unease in some quarters.
- (3) In considering the adequacy of legal environment related conditions prescribed for in leases and licences in the Native Land (Leases and Licences) Regulations Saved and the actual conditions imposed in leases and licences, the conditions are adequate if all the requirements can be monitored satisfactorily.
- (4) The standardisation of environment related conditions in leases and licences for the various types of land use is suggested.

- (5) Some distinction needs to be made between Fijians living in a subsistence economy and those earning a living by commercial cash cropping. As a general rule (although there are exceptions) Fijians living in a subsistence economy are by tradition, environmentally conscious, and will harvest the land, the forests, the sea and tend the plantations using traditional methods of conservation and environmental control. It appears, however, that once Fijian land owners convert from subsistence farming to cash cropping, then commercial requirements tend to supercede traditional environmental considerations and conservation practices. Thus plantation land left to lie fallow for a period of seven to ten years are now shortened to one or two seasons at the most and clearing land by burning and indiscriminate cutting is now more common.
- (6) Effective enforcement of the lease and licence conditions is a key component in the leasing and licensing systems. Paper conditions imposed may be satisfactory to meet environmental requirements, but the adequacy of enforcement (a criticism often made) is a critical issue in most programmes. It is therefore suggested that a re-evaluation of the lease and licence conditions one year after the initial approval might be a valuable technique to use to ensure compliance. Recent attention to environmental issues by Government and interested groups makes clear that these legal duties should not be ignored.

For further Information:

1. Eaton.Peter (1985) Land Tenure and Conservation, South Pacific Commission, Noumea, New Caledonia- SPREP Topic Review No. 17.
2. Foster.T.E. (1958) The History and Development of Land Tenure Since Cession The Fiji Society Vol. 7 (for the Years 1958/59)p.40-49.
3. Nayacakalou. R.R. (1975) Leadership in Fiji University of the South Pacific in Association with Oxford University Press.
4. Nayacakalou. R.R. (1978) Tradition and Change in a Fijian Village South Pacific Social Science Association in Association with the Institute of Pacific Studies, University of the South Pacific.
5. Ravuvu. Asesela (1987) The Fijian Ethos Institute of Pacific Studies, University of the South Pacific.

6. Ravuvu. Asesela (1983) Vaka I Taukei The Fijian Way of Life Institute of Pacific Studies, University of the South Pacific.
7. Fa. Isireli T.(1989) Customary Land Rights Over Native Land In Fiji (Thesis presented to the University of Auckland as part of an LLM requirement). The sections on Native Land is largely guided by the writings of Fa. Read Fa for further detail.

References:

1. Ravuvu. Asesela (1987) The Fijian Ethos Institute of Pacific Studies, University of the South Pacific, p.17.
2. Ibid p.16
3. Ibid p.17

STATE LAND STATISTICS

Type of Crown Land	Total Acreage After Cession (In hectares)	Total No of Reserve Claims	Acreage Approved For Reserve to Fijians to Date (In hectares)	Areas Recommended For Reserve but yet To be Finalised (In hectares)	Areas used by Government (In hectares)	Total Rent Collected in 1988	Amount paid to FAB in 1988
(a) Crown Freehold							
(i) Crown Land with Title	31,096.8 ha	6	670 ha	697.2 ha	Unavailable	N/A	N/A
(ii) Crown Land without Title	38,153.5 ha	None				N/A	N/A
(b) Crown Schedule A	60,500.5 ha	286	165.2 ha	13,254.4 ha		\$146,581.87	\$131,923.69
(c) Crown Schedule B	30,480.9 ha	38	6168.8 ha	1,839.2 ha	10,210.8 ha	\$ 28,004.07	\$ 25,204.40
TOTAL:	160,231.7 ha	330	7004.0 ha	15,890.8 ha	10,210.8 ha	\$174,586.74	\$157,128.09

2. Total Number of Crown Leases in Fiji - 14,688.
3. Breakdown on types of leases i.e. Residential, Industrial, Commercial, Agricultural, etc - Figures not available.
4. Breakdown of lessees by Ethnic Groups - Figures not available.
5. Legal Provision for reservation of State Lands for Fijians:
 - (a) Native Land Trust Act - Section 18 (See Appendix A).
 - (b) Cabinet Decision CP(75) Item 19 of 9th July, 1975 (See Appendix B).

Table 2.1

Table 2.2

STATE LAND STATISTICS

1. Total Acreage of Crown Lands after Cession:

Type of Crown Land	Total Acreage after Cession	Acreage reverted to Fijians to date
(a) Crown Freehold		
(i) Crown Land with Title	31,096.8 ha	670 ha
(ii) Crown Land without Title	38,153.5 ha	--
(b) Crown Schedule A	60,600.5 ha	165.2 ha
(c) Crown Schedule B	10,480.9 ha	6168.3 ha
Total:	160,231.7 ha	7004 ha

2. Total Number of Crown Lands Recommended for Reserve but certain Statutory procedures still yet to be completed to revert lands to the Fijians:

(a) Crown Schedule A	- 13,254.4 ha
(b) Crown Schedule B	- 1,339.2 ha
(c) Crown land with Title	- 697.2 ha
Total:	16,390.8 ha

3. Native Reserve Claims over Crown Schedule A and B Lands: (inclusive of those already reverted to Fijians)

(a) Crown Schedule A	- 286 claims
(b) Crown Schedule B	- 39 claims
(c) Crown Land with Title	- 6 claims
Total:	- 530 claims

4. Areas of Crown Schedule A and B occupied by Government: 10,210 ha

5. Total Number of Crown Leases in Fiji: 14,688

6. Rent on Crown Schedule A and B paid to the Fijian Affairs Board Annually: (Amount shown is for 1988)

Type of Crown Land	Total Rent Collected	Amount Paid to FAB
(a) Crown Schedule A	\$146,581.87	\$131,923.69
(b) Crown Schedule B	\$ 29,004.37	\$ 25,204.40

7. Legal provision for reservation of State Lands for Fijians:

- (a) Native Land Trust Act - Section 18 (See Appendix A)
- (b) Cabinet Decision C?(75) Item 19 of 9th July, 1975 (See Appendix B)

TYPE OF LAND	AREAS IN HECTARES	SUB TOTAL AREAS IN HECTARES	TOTAL AREAS IN ACRES		PERCENTAGE OF TOTAL LAID AREA
			AREAS IN HECTARES	TOTAL AREAS IN ACRES	
<u>NATIVE LAND</u> Communally owned land Extinct mataqali lands	1507568 16556	3725283 40910	1524124	3766193	83.29
<u>CROWN LAND</u> xx Crown freehold land xxx Crown Schedule 'A' xxxx Crown Schedule 'D'	67068 60501 26315	165729 149500 65027	153884	380256	8.41
<u>FRESHOLD LAND</u> Crown and Native grants (other than Crown freehold)	147448	364351	147448	364351	8.06
<u>ROTUMAN LAND</u> Communally owned	4452	11000	4452	11000	.24%
	GRAND TOTAL	4521800	4521800	4521800	100.00%

x Lands of Mataqali reported extinct but not yet transferred to Government.

xx Includes C.S.R. Co Ltd freehold lands purchased by Government

xxx Crown Schedule 'A' Land is land which has reverted to the Government as Ulitimus Haeres on extinction of the Fijian land owning unit but does not include land of Mataqali reported extinct but not yet transferred to Government.

xxxx Crown Schedule 'D' Land is land which was decreed by the Native Lands Commission to be unoccupied at the date of Cession of the Fiji Islands to the British Crown and to have remained unoccupied up to the time of the sittings of the Commission and to which no title has been created by the operation of any native custom which was in force before Cession.

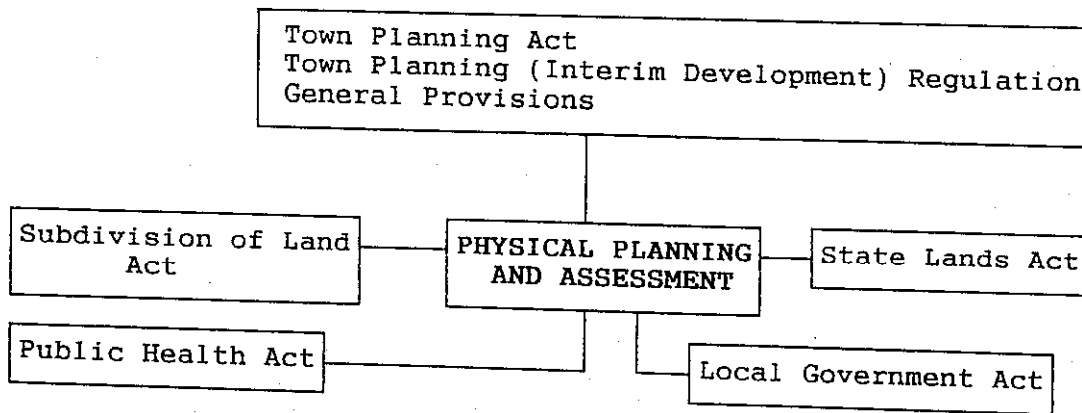
These figures do not account for:

- (i) land resumed or acquired by Government since the issue of the original Crown Grants and Native Grants and where the resumptions and acquisitions are not registered against the titles.
- (ii) occasional transfers of freehold lands by way of dedication accepted by Government under sale and purchase agreements since coming into force of the Fiji (Constitution) Order 1966.
- (iii) land acquired by Government by enactment of law.
- (iv) Crown land recommended to be allotted to or set aside as native reserve in favour of, i/jan land-claiming-unit.

Statutory section

Table 2.3

3. PHYSICAL PLANNING AND ASSESSMENT



Land use planning is one of the most challenging issues faced by governments of small island states, charged as they are with managing land on the basis of multiple use against the increasing demand for environmental factors and sustainable development to be taken into consideration. The Department of Town and Country Planning in the Ministry of Housing and Urban Development bear responsibility for planning land use and development and balancing these developments against the disappearance of some of Fiji's natural resources and fragile ecosystems.

The principal statute governing physical planning is the Town Planning Act 1946, as amended. The Act provides for the development of land, buildings and other operations and for any material change in the use of land and buildings but subject to exceptions in both cases. The Subdivision of Land Act 1937 provides for the sub-division of land for various purposes such as agriculture, residential and various other uses such as the formation of streets and drainage systems which involves change to the physical character of the land.

CURRENT LEGISLATIVE FRAMEWORK

A. Town and Country Planning

The Town Planning Act provides for the Director of Town and Country Planning and local authorities to have extensive responsibilities for planning. Local authority is defined in section 2 of the Act to mean:

- (a) a town council constituted under the provisions of the Local Government Act;

- (b) in respect of land outside the boundaries of any town, the local authority of a rural sanitary district constituted under the provisions of the Public Health Act.

Town Councils are established by a procedure set out in section 5 of the Local Government Act, 1972 and those areas outside the town boundaries are established as rural sanitary districts under section 9 of the Public Health Act 1936. Any part of Fiji which is not included in a town or rural sanitary district has the Central Board of Health as the local authority (s.10(c) Public Health Act) - Nadi airport and the Lau group are the only two areas in Fiji for which the Central Board of Health is responsible (Lesu:Oct.91).

The rural local authorities are essentially concerned with public health, sanitary services, garbage collection and the abatement of nuisances elaborated under Part VI of the Public Health Act; and building control which is elaborated under Part III of the Public Health Act and the Public Health (Building) Regulations 1959, as amended.

The city and town councils, rural local authorities and the Central Board of Health are planning authorities in their respective areas of jurisdiction for the purposes of the Town and Country Planning Act.

Town Planning Area

The Act provides for the Minister (currently the Minister for Housing and Urban Development) to order a Town Planning Area (TPA) to be constituted upon the application of the Director of Town and Country Planning or any local authority, with the approval of the Director (s.6(1)). There are no legal requirements for any environmental information to be submitted with the application. The order stipulates the limits of the TPA which are fixed by the Director or the local authority with the approval of the Director (s.6(3)). The Minister also has power to order that an area may no longer be constituted as a TPA. (s.6(1)) though this power has never been exercised. Once an order for a TPA is made, publication of the order is mandatory in the Gazette, a newspaper, the office of the Divisional Commissioner in which the TPA is established and the office of the local authority (s.6(2)).

Need for Additional Information

As a TPA affects the physical environment and is largely concerned with development and the utilization of resources, some planning practitioners have felt that the application to

constitute a TPA should contain more information about the proposed TPA at the application stage. The information should be designed to provide planners with an overview of the major developments and land uses in the area at a very early stage which will assist in formulating planning strategies when applications for development are considered. In theory, the information available at this early stage should shorten the length of time it takes to process development applications, some development applications taking as long as 12 months to process.

The information profile of the TPA should include demographic, socio-economic and environmental conditions, the existing and proposed land uses and the major development policies envisaged for the TPA. The inclusion of environmental information, the identification of special areas for conservation and protection purposes and key policy issues on development of the area as a whole could give planning authorities background information which will be of significance with regards to government's overall policies on economic, environmental planning and development in the country as a whole. A TPA profile or study plan will also act as an early warning system for both planners and developers of specially sensitive and vulnerable areas or special land features to be taken into account before any decisions for land use and development takes place. An area profile should alleviate some of the pressures associated with physical and environmental planning at a later stage. The early requirement of a profile will place a duty on the local authority and the community to identify special features or areas that should be singled out for protection. Public participation in local issues would generate interest in conserving and protecting those features that are considered important in the local environment.

Planning Scheme

Once a TPA has been constituted, the permission of the local authority with the approval of the Director is required for any development (s.7). The Act also requires the local authority to prepare and submit a scheme for all land within the TPA to the Director (s.18). A scheme may be made:

"with respect to any land with the general object of controlling the development of land ...and securing suitable provision for traffic, transportation, disposition of commercial, residential and industrial areas, proper sanitary conditions, amenities and conveniences, parks, gardens and reserves" (s.16) and other related matters set out in the Schedule to the Act.

Every scheme is to consist of a scheme plan in a defined area and contain provisions necessary or expedient for prohibiting or regulating the development of land (s.17). Although the preparation of every scheme is the responsibility of every local authority (s.18), in practice a large percentage of schemes, (except for the City of Suva) are prepared by the Town and Country Planning Department. The Act also provides for development restrictions within the TPA; and in any application to develop land, the local authority and the Director must take into consideration the provisions set out in the Schedule to the Act (s.7(4)) which covers a range of matters including those which are designed to safeguard amenities and to preserve historic buildings and to conserve the natural beauties of the Area.

Provisional approval of the scheme by the Director is required before public notification of the scheme. The scheme is deposited in the office of the local authority for public inspection (s.19). The public has the right to object to the scheme and public objections must be lodged with the local authority within three months of the first notification (s.20). The objections are forwarded to the Director together with a statement from the local authority on the merits of the objections (s.21). A public hearing is conducted by the Director (s.22) and on final determination of the objections, the scheme is then approved and the local authority notified (s.23,24,25). However, if any person who has an interest in the land is dissatisfied with the decision of the Director, a right of appeal exists under section 5(2)(b) of the Act. It is the duty of the local authority to observe and enforce the requirement of the scheme(s.25).

If a scheme is modified or altered or a new scheme substituted, the existing scheme is suspended and the amended scheme or new scheme must be submitted for provisional approval (s.26(2)). The Minister is required by section 26(3) to gazette the notification for suspension of the appropriate provisions of the scheme and section 26(4) states that the provisions of the Town Planning Act "relating to interim development shall apply, as from the date of such publication, to development of the land specified in such notification as if no scheme had been approved in respect thereof". Interim development is provided for under r. 5 of the Town Planning (Interim Development) Regulations 1960, as amended.

Town Planning (Interim Development) Regulations

Once a TPA is constituted, the Town Planning (Interim Development) Regulations provides for the developer to apply to the local authority for development permission (r.4). The approval of a development scheme is a lengthy process and the concept of interim development control has been introduced to

regulate development before a scheme is ultimately approved. The Interim Development Regulations safeguard the developer provided consent is obtained for any development undertaken which later conflicts with the scheme.

The application for development, expressed as an outline application can be made for an approval in principle to erect any building subject to subsequent approvals being given with regards to such matters as seating, design, external appearance, access including plans and other particulars. The approval in principle may be granted with or without conditions or refused (r.4).

General Provisions

The General Provisions is a model scheme text used by Planners as a guideline in cases where the scheme is inadequate regarding any proposed development. The Provisions do not appear to be specially authorised by any section of the Town Planning Act but section 17(2) of the Act appear wide enough to apply to General Provisions. The Schedule to the Act provides for 'matters which may be dealt with by General Provisions in a Town Planning Scheme' also contain similar provisions to the General Provisions except that the General Provisions contain more detail. Provision 1 of the General Provisions provides that an approved scheme must consist of the General Provisions and the Scheme Plan and that they must be read together one with the other. No development will be permitted except in accordance with the requirements in the Scheme Plan, the General Provisions and its related Schedules (Provision 2).

In cases where the Director considers it appropriate, the Provisions are used as guidelines when assessing subdivision applications. The Provisions also act as interim development control in areas where the approved scheme is under suspension or in areas where the scheme has not been approved. The Provisions are incorporated in writing as a matter of practice in all approved schemes which gives it statutory effect. The inclusion of the Provisions is at the discretion of the Director.

The General Provisions are divided into 9 parts dealing with approved planning scheme; compliance with planning scheme, interpretation of planning scheme; non-conforming building and uses; temporary permissions; relaxation from General Provisions; and notification of relaxations. The relaxation from the stringent requirements of an approved scheme requires the consent of the Director and only granted where the proposed development does not conflict with the overall principles of the scheme. Major relaxations are to be gazetted and publicised in the newspaper and every owner and occupier of property within the scheme area have the right to object to the exemptions.

Provision 8 contains a list of definitions and Provision 9 contain a number of schedules setting out the zoning tables and other particular requirements applicable to planning such as advertising development, the preservation of buildings of historic or architectural merit, the conservation of sites, objects and areas of natural beauty and tree preservation.

The present arrangements of the Town Planning Act, the Scheme Plan, the General Provisions and its related schedules and the Schedule to the Town Planning Act and where they all fit together is quite confusing and some consideration should be given to the introduction of a new Town Planning Act that incorporates all these provisions in a more efficient way.

Zoning Provisions

Zoning regulates land use according to its nature or uses and controls development. Provision 9 of the General Provisions sets out a zoning table and other related standards associated with the scheme (see Table 1). Permitting certain land uses and development in specific areas allow for the orderly development of the community as the quality of life, health and general welfare of the community is dependant on zoning regulations. In theory, special and environmentally sensitive areas are expected to be protected under the zoning schemes. There are eight schedules (A to H) which apply to any development within the Scheme area. The Schedules tabulate those developments which are permitted, those developments that are conditional and those that are prohibited.

Procedure for Planning Permission

After the constitution of the TPA, if any development of land has been carried out without permission or where any conditions have been breached in cases where permission has been granted, the local authority may at any time and at the cost of the person in default, take steps to restore the land to its condition before the development took place or enforce the conditions and any expenses lawfully incurred by the local authority can be recovered as a civil debt (s.7(6)).

Any one who carries out development of land without permission or contravenes any condition imposed or obstructs or interferes with the exercise by the local authority will be in addition to any civil liability, be guilty of an offence and be liable on conviction to a fine not exceeding one hundred dollars or imprisonment for a period not exceeding three months. Further failure to comply or any continuing obstruction or interference after conviction, is a further offence and a person is liable on further conviction to a fine not exceeding twenty dollars for

every day on which the contravention, failure to comply, obstruction or interference continues (s.7(7)).

The procedure required for obtaining planning permission involves the submission by the developer to the local authority of an application form accompanied by a plan identifying the land and other necessary information describing the proposed development (r.4(1)). The outline application seeking an approval in principle is submitted first whilst other detailed matters are reserved for later approval. Obtaining an approval in principle has sometimes created confusion for developers as it is assumed that approval of the details once submitted would be automatic. This step in the approval process has caused some developers to proceed with development which has created difficulties when conditions restricting development have been subsequently imposed. The application stage also lacks a base of information about the full extent of the development plans and the extent of the environmental effects associated with the proposed development. With the rise of environmental awareness, closer scrutiny of the development application has become necessary to comply with environmental guidelines, such as an Environmental Impact Assessment (EIA) (see Table 2) established by the Department of Town and Country Planning in 1982.

An approval in principle is valid for 2 years. The matters that are not particularized in the application, the "reserved matters" must be approved within 2 years. The extension for any development is also valid for 2 years. If no development has taken place within the 2 years, the approval lapses and a fresh application needs to be made.

The government's power to control development is at its height at the application stage and environmental protection conditions could be included with other relevant conditions before any application is approved in principle. After approval is given in principle, the government's power to control development diminishes because the developer may have proceeded with development and any conditions later imposed could only be designed to mitigate the environmental impacts of development.

The Act does not stipulate what other details are required except those set out in the application form (see Table 3) but generally any of the conditions in the Schedule to the Act or the General Provisions may be included at this stage and appropriate environmental conditions have now been regularly included (Nasome:Oct.91). The application may be granted with or without conditions or refused. Any one dissatisfied with the grant or refusal of development permission or any conditions attached to the permission, a right of appeal exists under section 5(2)(a) of the Act.

If any development of land has been carried out without permission or any conditions have been breached, the local authority may, at the cost of the person in default, take steps to restore the land to its former condition or secure compliance of the conditions imposed and any expenses incurred by the local authority can be recovered as a civil debt (s.7(6)). Anyone who carries out development without permission or contravenes or fails to comply with any conditions or obstructs or interferes with the work of the local authority will be guilty of an offence and in addition to any civil liability, the person will also be liable on conviction, to a fine of up to \$100 or to a term of up to three months imprisonment (s.7(7)).

Any planning permission may be revoked or modified but it is mandatory that the revocation or modification is confirmed by the Director. The revocation or modification can be exercised where the permission relates to building operations anytime before completion and where the permission relates to the use of land, at any time before the change takes place. Where a developer has sustained loss or damage as a result of the revocation or modification, the local authority is required to pay compensation to that developer for any losses incurred (s.9).

Where permission to develop land is granted or subject to conditions and the land has become incapable of development in its existing state, anyone who has an interest in land is entitled to compensation from the local authority (s.8). The developer also has the right of appeal to the Minister within twenty eight days of notification of the decision but the Minister has power to extend the period of appeal. The decision of the Minister, after receiving advice from the Town and Country Planning Advisory Committee, (s.4) is final (s.5). However, it is understood that this Planning Advisory Committee is not currently operational. The legislation gives no guidance as to how the Minister is to determine an appeal nor does it specify if the appellant can be heard by appearing in person.

Development Provisions

The Town Planning Act defines development (in s.2) in relation to any land to mean:

- (a) any operation which changes the physical characteristic of the land or building such as:
- any building operations involving external alterations;
 - the formation, laying out or widening of a street or providing for vehicle access, and

- (b) where any land use or any building is materially different from the purpose for which the land or building was last being used.

Those activities excluded from the definition of development and do not require planning permission are :

- repair and improvements which only affect the interior of a building;
- the use of land or buildings within the curtilage of a dwelling house for the purposes incidental to the enjoyment of the dwelling house; and
- the use of any building which is used for the purposes of agriculture or forestry. In this context, the building e.g. a tool shed is regarded as secondary to the dominant activity of agriculture or forestry.

The Act also makes provisions for development control before a planning scheme is brought into force and the permission of the local authority is essential before any development takes place(s.7(1)). The development control during this period is prescribed under the Town Planning (Interim Development) Regulations.

Any development undertaken by government is not subject to planning legislation following English planning traditions on which Fiji's present planning legislation is largely based. The development of buildings or land sponsored by government remain outside of planning control and it is critical that the impact of these developments on natural resources is not overlooked.

Enforcement

Section 27 of the Act provides for the enforcement of planning schemes. To enforce conformity with the provisions of the scheme, the local authority can at any time:

- remove, pull down or alter any buildings or works;
- prohibit the use of land which contravenes the provision of the scheme;
- reinstate the land where any land has, since the material date been put to use which contravenes any provision of the scheme;
- where the efficient operation of the scheme has been or will be prejudiced, execute any work where delay has occurred due to the inability of the person responsible to execute the work.

Before any action is taken by the local authority, notice is served on the owner or occupier of the building or land, outlining the grounds and the action proposed to be taken; and any person who uses the building or land in any manner that is prohibited or obstructs or interferes with any powers vested in the local authority (in addition to any civil liability) is guilty of an offence and liable to a fine of \$100 (s.27(5)).

The Director or members of the local authority or a person authorised by them in writing have power at all reasonable times, after giving the owner/occupier 24 hours notice, to enter and inspect any premises or work executed under the Act (s.41).

Proposed Town and Country Planning Laws

Two new Town and Country Planning Bills were drafted - in 1976 and in 1981. Both drafts incorporate the Subdivision of Land Act into the Town and Country Planning laws for ease of implementation. Both drafts also provide for environmental considerations to be incorporated in the planning process in two main ways:

- by making environmental analysis an integral part of the planning system; and
- by assessing the environmental impact of particular proposals before decisions are made.

Planning and environmental policy guidelines have been provided in both drafts as a central feature for regional and local planning. The draft Bills require serious consideration, but further updating is required before any action is taken to bring such legislation into effect.

B. Subdivision of Land

The Subdivision of Land Act 1937 applies to only those areas of land the Minister may declare by notice in the Gazette but with the exception of:

- (a) unleased State land;
- (b) land within the boundaries of any city or town to which the Local Government Act applies; and
- (c) any native reserve constituted under the Native Land Trust Act (s.2).

The Cities of Suva and Lautoka do not come under the Subdivision of Land Act as the city councils administer their own subdivision of land by-laws made under the Local Government Act, 1972.

The term 'subdivide' is defined to mean "dividing a parcel of land for sale, conveyance, transfer, lease, sub-lease, mortgage, agreement, partition or other dealing or procuring the issue of a Certificate of Title in respect of any portion of land, or by parting with the possession of any part thereof or by depositing a plan of subdivision with the Registrar of Titles..."(s.3)

As a general rule, no land can be subdivided without the prior approval of the Director of Town and Country Planning. Approval is necessary where land is situated in any town or within three miles of the boundaries of a town or where the land is subdivided into lots of five acres or less (s.4). Land outside those stipulated under section 4 are not subject to the Director's approval under the Subdivision of Land Act but are provided for by the Town Planning (General) Order 1971 made under the Town Planning Act. Under the 1971 Order, any hotel or subdivision development taking place any where in the country is automatically declared a Town Planning Area to provide greater planning control and the prior approval of the Director is required before any planning can proceed.

Any one who wishes to subdivide land must submit an application to the Director, together with specific information required under s.5 of the Act and accompanied by a proposed plan. The specific information of environmental significance includes existing water courses, sewer drains, surface drains and direction of flow and discharge. A statement lodged with the proposed plan should include the provision of water supply, disposal of refuse, waste water and night soil (although in some areas, for example, Nakasi Park Estate on the outskirts of Suva, sub-divided over ten years ago has had no refuse disposal system put in place in parts of the Estate. A temporary sewerage treatment plant was in operation in the initial stages of the development of the Estate until the system was connected to the Kinoya plant. The rubbish disposal service for the Estate, the responsibility of the Nausori Rural Local Authority have considerably lagged). The proposed plan and application is sent to the local authority to consider the application. When no recommendation is received by the Director within thirty days from the date on which the application was sent, it is deemed to have no recommendation to make (s.7).

A subdivisional approval does control the use in which the subdivided allotment may be used as for example, if a subdivision has been approved for residential purposes it cannot be used for any other purpose although there may be some "permitted" or "conditional" uses approved for the same allotment. The types of buildings that are to be erected on the allotment are subject to separate planning control. Some concern has been raised by planners over the fragmentation of agricultural subdivisions. Residential buildings in such subdivisions are permitted under a

formula described in Schedule F para. 47 of the General Provisions. For example, where there is a subdivided lot of 1.2 ha or less in area, one permanent or temporary building is permitted. In a subdivided lot between 1.2 ha and 2.0 ha, 2 buildings are permitted and in lots in excess of 2.0 ha, one further permanent building for each 2.0 ha in excess of the basic 2.0 ha; or one further dwelling for each 1.0 ha in excess of the basic 2.0 ha. The fragmentation of land subdivision is becoming a problem largely caused by families who wish to build more family residences on an agricultural lot or by families wishing to further subdivide the lot to cater for each family member, particularly if there are sons who wish to establish an independent family home.

Conditions Imposed Prior to Approval of Application

The Act provides for the Director to impose conditions prior to approving an application or to refuse an application where a building or further building development is undesirable, taking into account the health, amenity or convenience of the neighbourhood. Development may also be refused under the same criteria for the establishment of any noxious or offensive trade, or where the portion of land being subdivided does not exceed one-twentieth of the total area which should be reserved as an open space. The current practice is that a 5% open space provision is imposed on every subdivision except in agricultural proposals.

The Director could also impose conditions considered necessary to conserve and enhance the area. Thus in every subdivision which has a river, creek or sea frontage, the provision for open space is imposed through building restrictions requiring a 30m foreshore/access reserve and a 6m river bank/access reserve and an access easement registered over it in favour of the general public. For example, in the new Laucala Beach Estate industrial/residential subdivision now nearing completion, the developers have been required to set aside 30 meters foreshore reserve to be open to the public and in addition 5% of the total subdivision area to be set aside for open space/recreation reserve. Other conditions can be imposed which relate to the prevention of soil erosion and the silting of rivers and creeks.

The Director has wide discretion and may refuse a subdivision application where the land is State land or Native land leased for agricultural or pastoral purposes; or if such a lease expires within the period of ten years from the date of application to subdivide; or where provision is not made for any drainage reserves or drainage easements; and where any section of the subdivision ten chains or more in length of a new road or street is not intersected or met by a cross road or connecting road (s. 9).

Where the Director refuses an application, the applicant can appeal to the Minister within twenty eight days and the decision of the Minister is final (s.14). The current practice is that the applicant can apply for reconsideration of the application and if dissatisfied with the results of the reconsideration, the applicant may appeal to the Minister.

Enforcement

The decision of the Director is sent to the local authority and if there is no notice of appeal, steps are taken to enforce the observance of the Director's decisions (s.8).

The local authority has power to enforce the provisions of the Act in cases where any building has been erected contrary to the provisions of the Act, the local authority may order the building be demolished by the owners and where the owners fail to do this within a stipulated time, the local authority may demolish the building and recover the costs (s. 16(1)). Any person aggrieved by the order, may summon the local authority within ten days of the order to appear before a magistrate to show cause why the order should not be set aside (s.16(2)). An appeal lies to the High Court from the magistrate's court and the provisions of the Criminal Procedure Code relating to appeals apply (s.16(3)).

CONTROL OF LAND USES OTHER THAN DEVELOPMENT

There are other uses of land that the Town Planning Act controls besides the development of land. As one of the objects of the Act is to preserve and enhance amenities, planning permission may be subject to conditions or refused if the development is detrimental to amenities. In cases where it appears to the local authority that the amenity of any part of the town planning area to which a scheme has not been finally approved, is seriously injured by the condition of any garden, vacant site or open land or by the presence of any waste or derelict material or object in those areas, the local authority may serve on the owner and occupier of the land (subject to the approval of the Director) a notice requiring the steps to be taken to abate the injury within a certain time period (s. 14(1)).

The Schedule to the Town Planning Act also makes provision for the conservation of natural beauties of the area and the preservation of historic buildings and objects of historical or scientific interest. In implementing the provisions in the Schedule and the scheme, the General Provisions (GP9) requires the local authority or the Director to order the preservation of the building and to consult the National Trust when consideration is being given that a building is of historic interest or of architectural merit. Similarly, the local

authority or the Director in consultation with the National Trust may order the conservation of a site, object or area of natural beauty. So far there has been no designation of a conservation area.

In practice, there has been no consultation to date between the National Trust and the Town and Country Planning Department and some consideration may need to be given for effective consultation to take place on every occasion in order to harmonise the strategy required for the management of historic buildings, objects or area of natural beauty.

A practice that has gone unchecked for a considerable time in Fiji is the destruction of trees. As it is desirable to preserve the special and pleasant features of the urban and rural environment there is need for this practice to be controlled. It would be difficult to enforce tree preservation orders, but it is suggested that some consideration be given for planning permission to include appropriate provision for the preservation, planting and the replacement of damaged and destroyed trees.

CONTROLS OVER THE LITTORAL ZONE

Special problems associated with the development of the littoral zone have been long recognised in law in Fiji. The State Lands Act 1946 provides that no grant or lease, unless expressly provided, confer any right to the foreshore or to soil under the waters of Fiji. All foreshore and soil under the water are held by the State. Any lease of foreshore or soil under the waters requires the express approval of the Minister for Lands and a Ministerial declaration made to the effect that the approval does not create a substantial infringement of public rights. Before the approval is given or declaration made, the substance of the lease, together with sufficient description of the property, must be published by the applicant, with the prior approval of the Director of Lands in two consecutive issues of the ordinary Gazette; and twice, within seven days of such first issue, in a newspaper together with a notice requiring persons objecting to the lease to send their objections in writing to the Director of Lands not later than thirty days after the date of the second notice in the Gazette. All objections are considered by the Minister (s.21).

Provisions in Foreshore Leases

Every lease must specify the purpose for which the foreshore or soil is required. The Ministry of Lands issue leases mainly for reclamation purposes for such development as agriculture or residential and special licences for dredging purposes, for

wharfs and piers. A problem that now confronts the Land's Department is the establishment of marinas.

Under section 22 of the Act every lease of any part of the foreshore and the soil under the water must specify the purposes for which the foreshore or soil is required. The lease must contain such covenants and provisions and must be approved by the Minister with regard to the construction and use of any works on the leased premises and the time frame in which the work is to commence and terminate. In the event of any breach by the lessee, the Director of Lands could have the lease forfeited. Where any alienated or native land abutting or adjoining any foreshore lease, the lessee is required to pay compensation for any infringements of rights and in the event of a dispute, compensation will be determined under the State Acquisition of Lands Act.

As foreshore development infringes the customary fishing rights of Fijians, the Cabinet in 1974 took into account the loss or diminution of fishing rights to owners and decided that:

- Fijian customary rights were compensable rights; and
- where Fijian customary fishing rights were interfered with, the owners should be recompensed in the form of a capital sum by the developer. The Native Fisheries Commission is charged with the responsibility of determining what rights exist over the area and what division of people enjoy these rights. An independent arbitrator, with professional advice, assesses the quantum of recompense.

No foreshore lease or lease of soil under Fiji waters is issued unless the developer has lodged the recompense in a public account.

The standard conditions found in tourism foreshore leases for the development of hotel, condominium, jetty and marina contain a number of covenants. Thus the lessee:

"shall take all reasonable precautions to abate or alleviate to the satisfaction of the lessor any form of pollution or other detrimental environmental effects arising from its activities on the demised land (i.e. leased land) as may be advised from time to time by the lessor"

whilst another covenant requires the lessee:-

"to keep the demised land clear of all noxious weeds, shrubs, unsightly undergrowth, refuse and rubbish to the satisfaction of the lessor and shall keep neatly trimmed all lawns and grassed areas".

Foreshore leases also require the lessee to provide members of the public to have access to the foreshore and below is one such example found in a foreshore lease:

The lessee is required to:-

"provide and construct to the satisfaction of the lessor, public foreshore and open reserves together with public access thereto, and shall construct upon the public reserves such recreational facilities as may be reasonably required by the lessor for the dedication of such public areas and shall maintain all such facilities to the reasonable satisfaction of the lessor until such time as the responsibility for the maintenance thereof shall have been assumed by a competent Government, local or statutory authority".

In practice, the Lands Department has been processing the same format for leases and licences for a very long time, and the Department is now looking at the lease and licence conditions for the inclusion of environmental protective measures (Waqanika:91) on the advice of the Environment Management Unit where it is considered appropriate.

In the past, there has been no provisions in the lease to protect mangroves, reefs and corals or any environmental impact assessment requirements for foreshore development but this situation is changing and environmental requirements are included in leases on the advice of the Environment Management Unit or the Department of Town and Country Planning.

The standard licences issued by the Lands Department specifically to remove sand contain no provision in the special conditions covering this activity for an Environmental Impact Assessment to be carried out nor any other environmental protective measures included. The Environment Management Unit in the Ministry of Housing and Urban Development has a proforma for Environment Impact Assessment but views obtained from the Environment Management Unit are that the proforma needs updating.

Since the establishment of the Environment Management Unit "Government has moved to initiate environmental control through the planning process for new projects and development" (21.4 State of the Environment Report for Fiji 1991); and a practice has developed where by the Lands Department and (in the last 2 years) the Ministry of Primary Industries have referred development matters to the Environment Management Unit for comment and assessment of environmental implications of the proposed development before any lease or licence is issued. The procedure adopted by the Environment Unit is to discuss environment implications of the project with the developers; the discussion is followed by an exchange of letters setting out the terms and

the agreed conditions to be adopted. Although the letters do not have the force of law, the conditions agreed upon are expected to be included in the lease or licence that is to be issued. Although, those who issue leases or licences are not involved in the discussions between the Environment Management Unit and the developer, the agreed conditions are communicated and become part of the lease or licence. There appears to be a need for a mechanism to be developed between the Environment Management Unit and the various Departments to ensure that there is departmental involvement from the early stages of discussion with the developers and the Environment Management Unit particularly in cases where highly technical and complex development is proposed. Such participation can only enhance the flow of information particularly where knowledge and expertise is critical to the decision making process.

The method of imposing conditions on developers by way of letter is sometimes used as it provides for a more flexible avenue for regulating development or regulating the developers compliance with environmental conditions but the practice of regulating by letters need careful assessment as it imposes conditions, some of which may be quite substantive, on developers. New legislation for Environmental Impactment Assessments is recommended.

Two approaches might be useful to consider:

Firstly, each Department or Ministry should be responsible for their own environment management and in the first instance include environment protective conditions in leases or licences considered appropriate. Each department could seek the assistance of the Environment Management Unit before approving the lease or licence, and if considered necessary, the environmental conditions could be sent to the Environment Management Unit for comment and endorsement.

Secondly, a small committee with representatives of the relevant departments such as the Lands Department and the Environment Management Unit could form a Lease and Licence Committee to evaluate development applications. Such a committee could provide an early opportunity for environment protective conditions and implementation procedures to be discussed for inclusion in leases or licences.

Mangrove Management

"Ideally, consideration for the use and management of mangrove resources should be a part of a comprehensive analysis of all natural resources" (Baines:1979).

"Mangrove land, that is, the intertidal land where mangroves are generally found is under constant pressures for their conversion into non-renewable uses" (Lal:1990)

Recommendations arising from a Mangrove Workshop in Suva in February 1983, Cabinet endorsed the formation of a Mangrove Management Committee and directed that a Mangrove Management Plan be drawn up. In 1985, the first phase of the Plan establishing the broad zonation philosophy for Fijian Mangroves was completed and the second phase of the Plan was completed in 1986.

The ownership of mangrove land and plants (if on State land) lie with the State, but the rights of Fijians to mangrove land are recognised as part of their traditional fishing rights.

There are a number of Acts which cover mangroves namely:-

the Forest Act which regulates forestry licences; the Fisheries Act which regulates fishing; and the State Lands Act which provides for foreshore land and soils beneath the waters.

Under the State Landss Act, the Lands Department can issue development leases for foreshore which covers mangroves. The foreshore leases are issued in consultation with the Department of Town and Country Planning and with the Environment Management Unit located in the same Ministry.

The Lands Department, on receiving the development proposal, consults with the traditional fishing right holders, other Departments and bodies and the Native Fisheries Commission, and forwards the information to the independent arbitrator who then determines the value of the potential loss of fishing rights expected to occur as a result of reclamation. The recompense sum is assessed on the basis of submissions made by the customary right holders and developers and on information on the productivity of the area assessed by the Fisheries Department.

The lease is then issued when the developer has paid compensation for the potential loss of fishing rights. If the recompense sum is not acceptable to the developer, then the area is not developed. On the other hand if the proposed sum does not adequately reflect the willingness to accept compensation by the "mataqali", the traditional owners have the option to petition the Minister for Lands to stop any development. The cost of the arbitration hearing averages about \$500 (though this could be more) which is borne by the developer.

The bulk of reclamation in the 1980s has been initiated by various government departments and primarily for agricultural purposes. Reclaiming for industrial and service uses undertaken

by the government accounted for less than 10% (157 ha), of which about a third (55 ha) was for sewerage oxidation ponds and treatment plants.

The Mangrove Committee is chaired by the Lands Department but the Committee meets "on a needs basis"(Jaffar:1991).

ENVIRONMENTAL IMPACT ASSESSMENT

In 1982, a New Zealand consultant to the Department of Town and Country Planning developed a format for an Environmental Impact Assessment (EIA) covering such matters as a description of the existing environment, the impact on the environment, the safeguards to minimize any adverse environmental effects, the possibility of any remedial measures being undertaken later in the life of the project, and monitoring activities that will be undertaken during the operation of the project (see Table 2).

In practice, the procedure adopted by the Environment Management Unit (EMU) before an EIA is conducted is to interview every developer for both parties to gain a clear understanding of the nature of the development and the requirements of an EIA. Although the law does not make any references to EIA, the planning authorities have wide powers to impose conditions and the requirement of an EIA can be imposed as a condition and thus legally enforceable. The EIA proforma contains some important provisions for assessment of environmental impacts of development proposals and the safeguards that must be incorporated in the proposal to prevent or minimize adverse environmental effects. Monitoring activities during the life of the project need to be specifically detailed in the EIA although one of the problems expressed by the EMU with regards to EIA is the lack of monitoring. Although this is easily explained by the lack of personnel and resources within the EMU to conduct reviews, this situation should improve with additional staff in the EMU. The proforma of the EIA is also considered as inadequate by the EMU (Chape: 1991) and some consideration will be given to preparing a more comprehensive EIA format and the incorporation of EIA requirements in relevant legislation.

Conclusions and Recommendations

1. As the Director of Town Planning is the sole permitting authority for development planning matters, the concentration of such wide discretionary powers in the office of the Director can be burdensome. The Town Planning Act does make provision for a Planning Advisory Committee but this Committee is not currently operational. It is suggested that the Planning Advisory Committee be

reinstated to perform the functions expressed under the Town Planning Act.

2. The lack of enforcement of planning conditions and the obvious breaking of the law has been identified as a central problem due mainly to the lack of resources. There needs to be more focused efforts to enforce the law.
3. The Environmental Impact Assessment procedures require legal formality to encourage special weight in decision making to be attached to environmental damage. The Environmental Impact Assessment procedures should not be made part of the Town Planning Act but a stand alone Act on Environmental Impact Assessment is strongly suggested.
4. The Subdivision of Lands Act should be incorporated into the Town Planning Act.
5. That the Town Planning Act be changed to either the Town and Country Planning Act or the Planning Act as planning responsibilities are far wider than the limits of a town.
6. That a national land use policy be drafted and implemented.
7. That the Town and Country Planning Bills drafted in 1976 and 1981 and any other Bill drafted in the past in relation to land use planning matters be reviewed and updated with the view to bringing new planning legislation into effect.

which are minimal and which shall apply in the respective zones are as tabulated hereunder:-

Table 3.1

ZONES	SITE AREA(MIN.) EXCLUDING REAR SITE ACCESS STRIP	STREET FRONT-AGE (MIN.) FOR FRONT SITES	FRONT YARD (MIN.) (REFER DEFINITION OF "YARDS"	SIDE YARD (MIN.) BOTH SIDES	REAR YARD (MIN.)	DENSITY (MAX.) PLOT RATIO OR UNITS			
						SEWERED		UNSEWERED	
						PLOT RATIO	UNITS	PLOT RATIO	UNITS
Applicable to Subdivision Schemes introduced after General Provisions provisionally approved.									
RES. 'A'	1000m ²	20.0m	9.0m	3.0m	6.0m		2 units per site (see Note 1)		2 units per site (see Note 1)
RES. 'B'	unsewered 800m ² sewered 600m ²	15.0m	6.0m	Single - Unit 1.8m or 1.5m per storey. Multi-Unit Sch.F(13)	Single-Unit 6.0m Multi-Unit Sch.F(14)	1:1		0.2:1 (See Note 2)	See Notes 3 and 4
RES. 'C1'	400m ²	12.0m	6.0m	"	"	1:1		Prohibited	
RES. 'D'	220m ²	Sch.H(1)(h) 9.0m	4.5m	Single - Unit 1.5m Multi-Unit Sch.F(13)	"	1:1		Prohibited	
COMM'A'	200m ²	9.0m	1.8m set-back Sch. F(29)	Optional Schedule F(24)	Optional Sch. F(24)	5:1		Prohibited	
COMM'B'	200m ²	9.0m	Not reqd. Sch.F(31)	Optional Schedule F(24)	6.0m in unsewered sites	3.5:1		1:1	1 Res. Unit, per 800m ² See Note 4

Provision 9: Continued

ZONES	SITE AREA	STREET FRONTAGE	FRONT YARD	SIDE YARD (MIN.)	REAR YARD	SEWERED		UNSEWERED	
						PLOT RATIO	UNITS	PLOT RATIO	UNITS
COM. 'C'	500m ²	12.0m	9.0m set-back Sch. F(35)	Optional Sch.F(24)	6.0m	1:1		0.5:1	1 Res. Unit per 800m ² See Note 4
GENERAL INDUSTRY	350m ²	12.0m	Optional Sch.F(43)	Optional Sch.F(43)	6.0m in unsewered sites	2.5:1		1:1	
HEAVY INDUSTRY	350m ²	12.0m	Optional Sch.F(43)	Optional Sch.F(43)	6.0m in unsewered sites	2.5:1		1:1	
NOXIOUS INDUSTRY	350m ²	12.0m	Optional Sch.F(43)	Optional Sch.F(43)	6.0m in unsewered sites	2.5:1		1:1	
Rural	2.5 hectares	100.0m	18m	6m	6m	Refer Schedule F(44) etc.			
CIVIC						REFER SCHEDULE F(46)			
NOISE HAZARD	THE REQUIREMENT FOR EACH DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE ZONES IN WHICH THAT DEVELOPMENT IS A PERMITTED DEVELOPMENT								
SPECIAL USE	"	"	"	"	"	"	"	"	"

NOTE 1: Subject to compliance with the requirements of Schedule F(9).

NOTE 2: Providing that, proper provision can be made for soakage and adequate percolation rates are established within the site for septic tanks.

NOTE 3: 800m² for the first two units plus 400m² for each additional unit i.e. 1 unit requires 800m²
2 units require 800m²
3 units require 1200m²
etc.

NOTE 4: Sealed surfaces shall not exceed 25% of the yard areas. A residential unit shall be permitted on a site under 800m² in area provided the residential unit complies with 0.2:1 plot-ratio.

(STATEMENT)

Table 3.2

1. Name of Proposal: (To include name or relevant part of larger proposal).

Stage of Commitment : State whether at the concept planning or design stage.

2. Objectives and Options:

- (a) State the purpose(s) of the action proposed.
- (b) State the options open to achieve the purpose defined; and the advantages and disadvantages of each option in terms of the objectives.

3. Description of Proposal

- (a) Describe the proposed action and include the necessary technical data, photographs, maps and other information relevant to an assessment of the environmental impact of the proposal.
- (b) Give reasons (environmental, social economic; etc) for following the action proposed, including where relevant explanations for site selection and the choice of locality.

4. Description of Existing Environment

- (a) Give a general description of the characteristics and condition, in qualitative and quantitative terms, of the physical, biological and human environment prior to the implementation of the project. This should include a definition for the purposes of the report of the spatial boundaries within the environment which is expected to be affected by the proposal.
- (b) To the extent relevant, to the assessment of the environmental impacts of the proposal, describe the geology, soils, flora and fauna, water quality, climate, hydrology. The functioning of the ecosystem of other aspects of the physical or biological environment. Any environmentally sensitive areas of special or unique scientific, socio-economic or cultural values, including any endangered species or important habitat types should be fully described.
- (c) Describe the relevant aspects of the existing human environment including land use, community patterns, man-made facilities and activities etc.

5. Impact of the Environment

In considering the possible environmental impacts of the proposal; the following aspects should be fully assessed.

- i) Adverse and/or beneficial effects;
- ii) Primary and secondary effects;
- iii) Unavoidable effects;
- iv) Immediate short-term effects
- v) The probability of an effect occurring; and
- vi) whether or not any changes are irreversible or will offer or consume ~~in~~ ^{any} irreplaceable resources.

In each case the magnitude, intensity and significance of the effect is to be assessed and areas of uncertainty identified.

The new amenities, if any, created by the proposal should be identified.

6. Safeguards:

- a) Identify the safeguards incorporated in the proposal to prevent or minimise adverse environmental effects.
- b) The possibility of remedial measures being taken later in the life of the project should be examined.
- c) The environmental effects of the safeguards should themselves be evaluated.
- d) Any additional safeguards which have been considered but which are not recommended and the reasons for this should be stated.

7. Summary and Conclusions

- a) Appropriate conclusions should be drawn in each section of the EIA report. Summarise the environmental impact of the proposal and the steps that would be taken to minimise adverse environmental effects.
- b) State the recommendation(s) which the project proposes wishes to make to the decision-making authority.

8. Monitoring

State any monitoring activities that will be undertaken during the operation of the project.

9. Consultation

Individuals and agencies that have been consulted for their expert views and advice or opinion should be listed, and wherever possible, their written views and/or recommendations attached to the report.

10. References

Any reference work or scientific/technical papers used in the environmental study should be listed.

11. Responsibility for the Report

The report should be dated and signed by the representative of the proposer who is to take full responsibility for the content.

12. Introductory Remark on EIA Format

The format provided is not meant to be rigid but open to modification of content and detail according to the type of statement being prepared, and to the nature and scope of the proposal being examined.

The content and coverage of an impact statement care should be taken to ensure that advice is sought from appropriately qualified experts. EIA often requires a multidisciplinary approach which calls for or organised efforts by experts by both natural and social sciences in order to make an integrated and comprehensive assessment of environmental impacts of the projects in the area concerned.

FOURTH SCHEDULE

(Regulation 4)

(Substituted by Regulations, 28th December, 1961.)

TOWN PLANNING ACT

(CHAPTER 139)

APPLICATION FOR DEVELOPMENT PERMISSION

(Section 6)

To the.....Local Authority, being an application for permission to undertake the development described in this application and more particularly shown on the attached plans and specifications.

APPLICANT'S NAME..... AGENT (if any).....

POSTAL ADDRESS.....

TITLE OR LEASE NUMBER.....

(If Lease state whether Crown, Native or Freehold. If Freehold state Plan and Lot number)

APPLICANT'S INTEREST IN SITE.....

(e.g. owner, lessee, licensee, prospective purchaser)

IF LEASE STATE NATURE OF TENANCY.....

(e.g. Residential, Commercial, Industrial, Agricultural)

PLAN AND LOT NUMBER..... AREA OF SITE.....

(where applicable)

STATE THE PURPOSE OF THE DEVELOPMENT.....

(e.g. Detached dwelling, Residential building, Shop, Shop with residential accommodation, Replacement of dilapidated building, Service station, Advertising hoarding, etc., etc.)

NAME AND OCCUPATION OF THE PROPOSED OCCUPANT

.....

.....

.....

Applicant's Signature

Date

Development permission is granted subject to the following conditions:

Approved Director of Town and Country Planning.

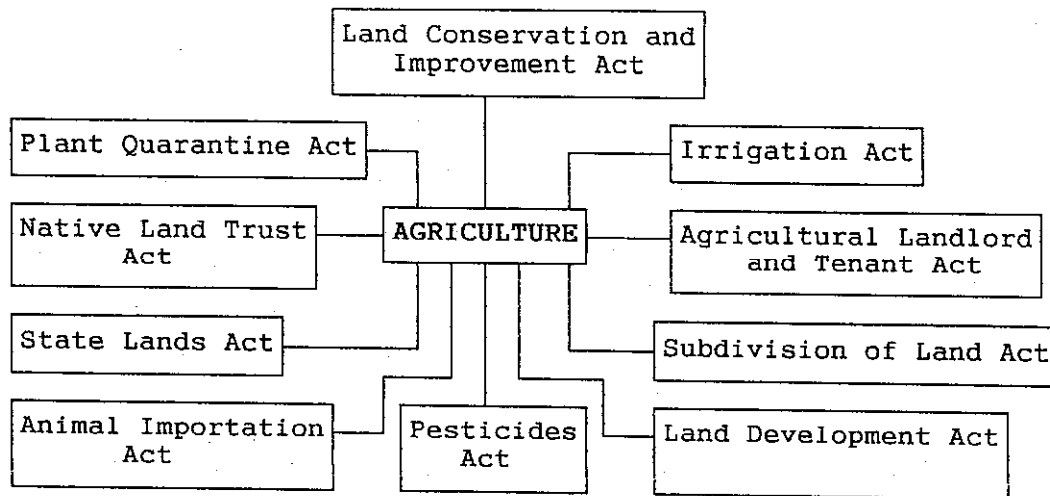
Approved Local Authority

.....

.....

(Three copies of this form must be filled in.)

4. AGRICULTURE



Agriculture in Fiji falls into two distinct categories though the distinction is now becoming less clear as more subsistence farmers are turning to commercial agriculture:

- (a) subsistence agriculture or shifting cultivation practiced by the indigenous population which involves the clearing and planting of land with root crops for about two or three seasons followed by a long period of sometimes ten years of bush fallow to allow for the regeneration of the soil. This long period of bush fallow has been substantively curtailed over the years to two or three years with increased pressure on land for commercial agriculture;
- (b) commercial agriculture mainly for sugar, coconut, rice, ginger and cocoa with some large scale cattle schemes mainly at Yalavou, Uluisaivou, Yagara and Tilivalevu, all located on Viti Levu and three major rice irrigation schemes in Nausori, Navua and Bua.

Agriculture in Fiji is prone to cyclone damage, market disturbances and in some areas, poor soil conditions. Recent land use studies estimate that although 60% of the total land area in Fiji has agricultural potential only 17% is potentially suitable for sustainable arable agriculture.

At the present time the major agricultural land uses are as follows:

sugarcane	102,000 ha
coconut plantations	65,000 ha
rice	13,000 ha

other crops	22,000 ha
pastures	300,000 ha

Figures by the Ministry of Primary Industries, Oct.1991.

Statutory Background

Agriculture is not dealt with under one specific Act. Legal provisions regulating agricultural activities are scattered in a number of Acts and regulations. These various statutes and regulations also contain prohibitions and requirements that affect every phase of agricultural operations. Because of the magnitude of potential environmental damage to the land and its resources brought about by agricultural activities, some of these activities are now subject to environmental requirements and controls. In addition, leases for agricultural, grazing and dairying contain conditions that have specific environmental relevance.

The Agricultural Lease - Native Land

Commercial agriculture is usually carried out under the terms of a lease. Leases for native land contain a number of provisions which have relevance for environmental protection of the resources in agricultural holdings.

Under the Provisions of Native Land (Leases and Licences) Regulations Saved, Fourth Schedule, the Native Land (Leases and Licences) Regulations have been revoked but some of the provisions are set out in the Fourth Schedule) standard conditions require the lessee to plant crops in a good husbandlike manner (r.25(b)); manure portions of land planted and not to allow any part to become impoverished (r.25(c)). The lessee is required to adopt any one of the following measures to check soil erosion (r.25(d) :- strip cropping, terracing, contour planting, cover cropping and rotation of crops. The construction of drains or dams and the construction of fences (r.25(d)) can be part of the lease agreement. The felling of trees, clearing of bush and the cultivation of any land within twenty four feet of the river bank or stream (r.25(e)) requires the consent of the lessor and the cultivation of any crop within thirty-three feet of the centre of any public road or a horizontal slope more than thirty five degrees (r. 25(f)) is prohibited. The lessee is also prohibited from clearing, burning off, cultivating or allow excessive grazing at the top twenty-five per cent of the hills (measured vertically) with a slope measuring twenty-five degrees from the horizontal (r.25(g)).

Leases for gardening purposes contain covenants for conserving the fertility of the soil by green manuring and rotation of cropping (r.29(b)). There are also grazing leases (r.28) which contain special conditions for permanent improvements such as fencing and these leases also contain conditions which address clearing, burning and uncontrolled grazing. Measures imposed to check soil erosion and damage caused to forest trees are routinely included in such leases.

The leases for dairying purposes (r.30) also contain a number of special conditions similar to those leases issued for grazing leases and in addition, there is a requirement that within the first five years of the lease, at least seven acres or one tenth of the area of the land suitable for dairy stock should be planted with grass. The rate of planting is determined by a formula of fifteen acres or one fifth of the area (which ever is the lesser) to be planted within ten years of the lease; thirty acres or two-fifths of the area within fifteen years of the commencement of the lease. The lessee is required to maintain the area in good order and free from weeds and undergrowth.

The leases also contain a number of general conditions (r.34) to protect any forest products and fruit trees growing on the leased land. The lessors consent must be gained first before the products can be removed. The lessee is also expected to keep drains, ditches and water-courses in good condition. In the event of breach of any condition or covenant by the lessee, the lessor can enter and take possession of the land or impose a penal rent at the discretion of the Native Land Trust Board.

Where a lessee does not comply with the practices of good husbandry "and the interests of the landlord is materially prejudiced" the Native Land Trust Board may take action to recover the agricultural holding but a "Certificate of Failure by Tenant to Observe the Rules of Good Husbandry", issued by the Permanent Secretary of the Ministry of Primary Industries under section s.37(1)(c)(i) of the Agricultural Landlord and Tenant Act is necessary. The procedure appears cumbersome and an opportunity given to the Native Land Trust Board to develop its own expertise in this matter is suggested.

Agricultural Lease - State Land

Under the State Lands Act, the State Land (Leases and Licences) Regulations provides for nine classes of leases (Class A to I) issued by the Director of Lands. The leases for agriculture (Class A), grazing (Class D) and dairying (Class F) contain similar conditions and covenants providing for the protection of natural resources as those found in leases issued for the same purpose with respect to native land. The leases issued for

agriculture, dairying and grazing are limited to 30 years but the Minister may approve the lease term for 99 years if special circumstances exist (r.8).

Most leases prepared before 1980 (and a good number since then) paid little attention to environmental impairments although the language in the various laws specifically addresses environmental obligations imposed on the occupier or owner of land. The language in leases is now becoming more explicit in defining the environmental requirements for which each party is responsible, including improvements to the property. Thus the language in leases has expanded and in addition to the "compliance with all laws" clauses found in standard leases, environment related clauses requiring the occupier or owner to "correct, prevent, abate nuisances and improve the property" are now becoming routinely included as standard lease conditions.

Planning control elaborated in the Subdivision of Land Act bears some application to agriculture. Any subdivision for agricultural purposes incorporates a number of environment related conditions. Agricultural development is prohibited within six meters of any river bank and thirty meters from any foreshore. These restrictions are designed to prevent pollution in the waterways although the prevention of water pollution is not specifically addressed under the Act. The provision for adequate and wholesome water is also part of the requirements.

One of the problems frequently mentioned is the lack of concern of some farmers to conservation matters once the expiry date of their lease approaches. Some farmers tend to maximize production and take all they can out of the land if uncertainty surrounds the renewal of leases or if there are plans to move out of the land to other ventures. With the increase in population and the pressure for economic development, maximizing the usage of land, especially in marginal areas, is likely to cause enhanced environmental damage. Mangroves and forests have been cleared in some areas to make way for new agricultural developments, shorter periods of fallow are now more common affecting in the long term the natural regeneration of soil fertility. Slopes which are susceptible to soil erosion are being increasingly utilised particularly for subsistence farming.

Although the leasing of land is a major source of revenue, the protection of the leased resources from environmental damage is both vital and necessary. There is not enough information available on the extent to which land is being degraded as well as on the mandates imposed in leases and licences and the practices of the lessee and licensee to comply with the mandates. The inclusion of environmental conditions in leases needs assessment in practical terms as a matter of simple accounting to evaluate actual and potential environmental consequences on the resources involved.

Landlord and Tenant

The most important legislation concerning agricultural land came into force in 1966 following recommendations in the Burns Report on the need for reform to improve the relationship between landlord and tenant. The Agricultural Landlord and Tenant Act (ALTA) grants tenants security of tenure and establishes an Agricultural Tribunal to deal with rent disputes, compensation to be paid on termination of leases and the rights of landowners seeking to resume their land at the end of the lease period. Amendments to ALTA made in 1977 extended the minimum period of leases and incorporated a five yearly review of rents based on a regular reassessment of the Unimproved Capital Value of the land. The legislation provided security for tenants against eviction except in cases where any condition set out in the Act is breached.

The statutory conditions and covenants implied in every contract of tenancy of an agricultural holding includes important environment related provisions. Under section (1)(e)(iv) the tenant covenants:-

"to farm, cultivate, manure and manage the entire holding in a good and husbandlike manner according to the practice of good husbandry and also to keep the holding in good heart and condition and not to allow any part to become improvised, injured or deteriorate by neglect or improper cultivation, and to keep the same clean and free from weeds."

A tenant is entitled to be granted a single extension of contract unless there is failure to cultivate the land "in a manner consistent with the practice of good husbandry" (s.13(a)). The expression "practice of good husbandry" means:-

- the maintenance in good order of terraces, drains, barriers, bents, hedges and the carrying out of such measures that the Director of Agriculture considers to be a minimum standard necessary for the protection and conservation of the soil;
- the cultivation of land to be done in such a way that the fertility of the soil in the agricultural holding is maintained;
- the avoidance of any practice that is harmful to the soil which may lead to a reduction in fertility;
- that pests, diseases and noxious weeds are controlled;

- that the maintenance and repair of buildings, fences, walls, gates, windbreaks and hedges must be carried out if specifically provided for in the contract. (s.13(2)).

In the Instrument of Tenancy, other covenants may be added with the consent of both parties and could include:-

- fruit trees growing on the leased land should not be cut down without the consent of the landlord;
- any land used for grazing of stock should be enclosed with good and substantial fencing;
- the felling of trees, clearing or burning of bush or cultivating any land within a distance of twenty four feet from the bank of a river or stream or the planting of any crop within thirty-three feet of the centre of any public road or on a slope exceeding twenty five degrees from the horizontal be prohibited;
- the clearing of land of all refuse, rubbish, weeds and any unsightly undergrowth must be carried out;
- the application of measures to check soil erosion;
- but any measure qualifying as improvements requires the recommendation of the nominee of the Permanent Secretary for Primary Industries.

Applications for agricultural leases are not usually assessed by the Agriculture Department as the lease conditions imposed by the Native Land Trust Board and the Lands Department are generally considered to be adequate for conservation purposes. The main advice given by the Agricultural Department relates to the size of the agricultural holding and its viability for agricultural purposes in accordance with their 1977 Land Use Capability Classification guidelines. These guidelines are influential but have no statutory backing.

The Land Use Capability Classification guidelines classifies land according to those properties that determine its capacity for permanent sustained production (Manual:2). The classification provides for three categories based on the physical qualities of the soil at a particular site. The three categories defined are (a) major class (b) subclass and (c) capability unit. In the major class, land is divided into eight classes in the order of I to IV for land suitable for arable cultivation, classes V to VII for land unsuitable for arable cultivation but suitable for pastoral agriculture or forestry and class VIII describes land which is only suitable for protective purposes and the least suitable for productive use.

In the subclass category, land is defined according to its limitations or hazards. The four general limitations recognised are erodibility, wetness, soil limitation within the rooting

zone and climate. Any subclass may be present in any of the major classes except for Class I which describes flat land with soils of good structural stability. The determination of the correct subclass is sometimes difficult to decide where there are several limitations affecting the same land unit but in practice, the dominant limitation determines the agricultural activity permitted.

Agricultural Loans

The Fiji Development Bank issues loans for agricultural purposes for which there are about seven thousand accounts at the present time (Tauba:91). The standard forms for agricultural loans do not contain any reference to environmental requirements as part of the loan condition. As other sectors are making a strong effort to include environmental conditions in order to protect Fiji's increasingly limited resources, the Development Bank as an influential institution could have a considerable effect by adding environmental requirements as part of the loan conditions.

Crops under Irrigation

The Irrigation Act 1974 requires the Commissioner for Irrigation to be responsible for the establishment and administration of irrigated agriculture (s.4(a)). The Commissioner also has power to engage either on his own behalf or with other persons or bodies, in promoting the adoption of improved agricultural and irrigation practices (s.7(f)). In this respect, the Commissioner, with the approval of the owners and occupiers, may alter the boundaries of agricultural holdings to form fields of suitable size and shape for the irrigation of crops but the approval of the Director of Town and Country Planning must be obtained first (s.8(2)). Any costs incurred by the alterations to the holdings are borne by the Commissioner (s.8(3)). The cultivation of the types of crops in an irrigated area needs the approval of the Commissioner and the Commissioner may exercise his discretion in approving other crops for cultivation on the application of the owner or occupier (s.12). Any consultation or the approval of the Director of Agriculture for crop cultivation in such areas does not appear to be required under the Act.

The Commissioner is also empowered to specify engineering and agricultural programme practices and standards to be adopted by the owner and occupier in irrigated areas (s.14(1)). In any failure to comply with these standards and practices, a notice requiring compliance or remedial action can be served on the owner or occupier. The Commissioner may also withhold the supply of water where there is failure to comply with the requirements of the notice (s.14(2)(3)).

A number of provisions in the Act address the issue of pollution in the waterways, field channels and drains. The wrongful use of water from irrigated lands or irrigation works (s.21), the pollution of water (s.26), the damage to irrigation works by fire (s.18) and any obstruction or damage (s.19) is punishable by a fine and/or imprisonment. The owner or occupier is also required to keep the field channels and drains free of trees, plants and growth that will inhibit the free flow of water and any refuse that is likely to harbour vermin must be removed. In cases where an officer in charge of an irrigation area requires the destruction of valuable trees or plants, reasonable compensation can be claimed by the owner or occupier (s.16).

To date, only three irrigation areas have been declared - the Nausori Irrigation Area in 1977, the Navua Central Irrigation Area in 1978 and the Bua Irrigation Area in Vanua Levu in 1972. The predominant crop grown in the three areas is rice.

Control of Agricultural Chemicals

The control of pesticides is regulated by the Pesticides Act 1971 as amended, the Pesticide Regulations and the Customs Act which controls the import of chemicals. Importers or persons formulating pesticides intended for use in Fiji are expected to follow the procedure set out in the Regulations.

No pesticide can be used, offered for sale or sold in Fiji unless the pesticide has been registered with the Registrar of Pesticides (s.4). Under the Act, pesticide means:

"any product intended for use or used for controlling a pest, or any adjuvant intended for use or used in connection with any such product"(s.2).

In practice, an application is made to the Registrar of Pesticides for the registration of a pesticide. The applicant is required to provide a range of details including the composition of the pesticide, its formulation and proposed use. The chemical and physical properties of each active constituent and its toxicological properties. Data on the symptoms of poisoning and the antidotes must also be included together with two copies of the draft labels. The tests are conducted by the Research Station at Koronivia and other opinions may be sought from the Ministry of Health. If the chemicals meet the standards permitted after testing, the chemical is then registered in a Register of Pesticides under its trade name, chemical names, percentage of active ingredients or acid equivalents as appropriate, the name and place of business of the manufacturer and the name and place of business of the importer (s.3)

The testing of chemicals is mainly done in the field without proper laboratory analysis due largely to the lack of laboratory facilities at the Koronivia Research Station and therefore this method does have some limitations. The quality of the chemicals, the testing of treated commodities for pesticide residues and chemical impurities require laboratory testing.

The Registrar of Pesticides has discretionary power to register a pesticide with or without conditions or refuse the registration. The Registrar must state his reason for his refusal to register a pesticide at the request of the manufacture (s.5(1)). Any change in the formulation of any registered pesticide requires the approval of the Registrar by way of a fresh application. No change in an approved label may be made without the approval of the Registrar (s.5(3)(4)).

The Agricultural Research station at Koronivia routinely rejects products if such products are banned by other countries such as New Zealand. The Research section obtains up to date information on agricultural chemicals from the United States and New Zealand to keep themselves informed of international standards and practices and on any chemicals that are being 'dumped' on third world countries. "Dumping of pesticides is unlikely to be a significant problem as the most commonly used pesticides are not banned or severely restricted and most products and active ingredients are sourced from internationally reputable companies" (MacFarlane). Some chemicals are not recommended for usage (although considered appropriate for certain crops) if it is considered that inappropriate usage may be a danger to the environment even where instructions on the use of chemicals are given in the three major languages (Fauro:Oct.91).

Review of the Pesticide Act was carried out by FAO (David Lunn-consultant) in 1989 and recommendations have been made for the establishment of a National Chemical Analysis Laboratory, though the scope of this recommendation should be widened to include not only facilities for chemical analysis but also for other tests and concentrating all the expertise and equipment in one location making the operation and maintenance of such a facility more efficient.

Other recommendations include:

- the amendment to the Pesticides Regulations to "provide a legal basis for a Pesticides Advisory Committee to act as an advisory body to assist the Registrar, in the operation of the pesticide control scheme."
- the amendment of the Pesticide Regulations to appoint inspectors to "assist in the enforcement of the Act and to conduct post-registration activities relating to the safe handling and effective use of the pesticides";

- "discussions be held with officers with the Ministry of Health to determine the most appropriate means of regulating the storage and handling of pesticides at the supply and retail level, preferably by way of licensing premises" and
- training for the Registration Officer.

The only recommendation that has been implemented so far is some training for the Registration Officer. It is suggested that the recommendations made in the FAO report be implemented as a matter of urgency.

Import of Animals and Plants

The importation of animals into Fiji is regulated by the Animals Importation Act 1970 and the Animals Importation Regulations. The Act provides for a list of animals that are prohibited imports and the Minister of Primary Industries has power to gazette any animal on the prohibited list and any other animal that is likely to become a nuisance or cause injury or damage (s.5). Any animal required for research or experiments to improve the quality of animals in Fiji or for the purpose of any zoological garden or display are exempted (s.6).

The importation of any other animal is subject to a permit system (s.4). Where any animal is found to be affected with any harmful animal, fungus, bacteria, virus or any disease specified in the Schedule of the Act, the animal may be seized and destroyed and the costs will be borne by the owner of the animal (s.4(5)). The classes of animals that are permitted for import are subject to quarantine regulations in accordance with a prescribed schedule and the Assistant Director of Agriculture may extend the quarantine period beyond those prescribed (s.27).

In order to protect Fiji's environment from plant pests and noxious weeds, the importation of any plants or noxious weeds are subject to the requirements of a permit issued by the Minister of Primary Industries (s.11) under the Plant Quarantine Act 1982. The permit may include conditions that requires the plant to be grown under post-entry quarantine or supervision for any period that may be required to determine whether the plant is infested or infected with plant pests (s.11). The importation of any plant material or culture is also subject to a permit system (s.12 s.13). Any plant illegally imported (s.27) can be seized by an inspector (appointed by the Public Service Commission (s.3(1)) to be disinfected or quarantined for further inspection and treatment (s.22(1)). Imports from prohibited countries where scheduled diseases are found, is provided for under the Plant Quarantine (Prohibited Imports) Order. At the international level, Fiji is a party to the Plant Protection Agreement for the South East Asia and Pacific Region which provides for the prohibition of certain named plants to be imported into the country unless the plants

were required for scientific purposes. Strict controls are to be observed by the Contracting Parties if any of the prohibited plants are to be imported.

The Plant Quarantine Act makes provision for domestic quarantine control and inspectors are given power to issue a written notice to anyone in possession of infested or infected plant or where no one is in possession of the infected plant, to remove, cut, destroy or treat any infected plant, material, conveyance, article or substance suspected of being contaminated (s.29(1)). The Minister of Primary Industries also has power under the Act to bring in emergency regulations to eradicate and prevent the spread of contamination of plants which is likely to be injurious to health of human beings, animals or plants (s.30(1)).

The Noxious Weeds, Pests and Diseases of Plants Regulations 1965 as amended, provides for the control and eradication of noxious weeds. The Regulations list those species regarded as noxious weeds and the written consent of the Permanent Secretary for Primary Industries is required for import of any noxious weeds to propagate, sow, sell or be distributed (s.17).

Regulations have also been promulgated to control taro beetle under the Plant Quarantine (Taro Beetle) Emergency Regulations 1984. The Regulations prohibit the movement of live taro beetle from infested areas (reg.4). The removal of any fresh vegetable material, soil or compost, plant or any host plant from an infested area requires the written approval of the Director of Agriculture. Inspectors are given power under the Regulations to search property during daylight hours for the purpose of eradicating or preventing the spread of taro beetle and to give direction to the owner or occupier to take measures to destroy host plants, or to eradicate and destroy the taro beetles (s.4).

Suggestions have been made by the SPC Plant Specialist (MacFarlane) to improve the Plant Quarantine regulations and written submissions have been made three months ago to the Chief Quarantine Officer in Suva. The submissions include more stringent controls over any plant, plant material, soil and culture at designated ports of entry and the inspection and treatment of any vessel arriving from overseas. Special places should be established specifically for quarantine purposes.

Conservation

The Land Conservation and Improvement Act 1953 establishes a Land Conservation Board which is chaired by the Deputy Permanent Secretary, Primary Industries. Members of the Board includes the Conservator of Forests, the Permanent Secretary for Works, the Director of Lands and Surveyor-General and five other members

appointed by the Minister. Recently, the Principal Environmental Planning Officer was appointed to this Board.

The Minister of Primary Industries is empowered to appoint Conservation Committees to advise the Board on matters relating to the conservation of land and water resources but to date, no Conservation Committee has been appointed.

The Board has power to make Conservation Orders for the conservation or improvement of land or water resources. The Act does not apply to any land within a town (s.23). Activities that require Conservation Orders are regulated by way of prohibitions which relates to the breaking up or clearing of the land for cultivation or for other purposes, the grazing and watering of livestock, the cultivation of crops specified in the order, the method of land cultivation, the use of sledges, the lighting of fires and burning of vegetation and the uprooting or destruction of crops without payment of compensation or to crops planted in contravention of the Conservation Order (s.7(1)(a-g)). The Conservation Order may be general or particular (s.7(3)). The Board also has power to make Closing Orders in cases where the land has become despoiled and the Board can direct that land be a closed area (s.8(1)). The Closing Order must specify the area to which it relates and that the occupation, cultivation of land, the pasturing of cattle, the cutting and the destruction of vegetation within the area is prohibited (s.8(2)).

The Board also has power to give a written order any owner or occupier of any land to construct and maintain on the land "such works for the conservation of land or water resources as specified in the Order" (s.9(1)). If the owner or the occupier refuses to comply with the Order the Director of Agriculture may order the work to be done by his servants or agents and any costs incurred may be recovered from the owner or occupier (s.9(2)(3)).

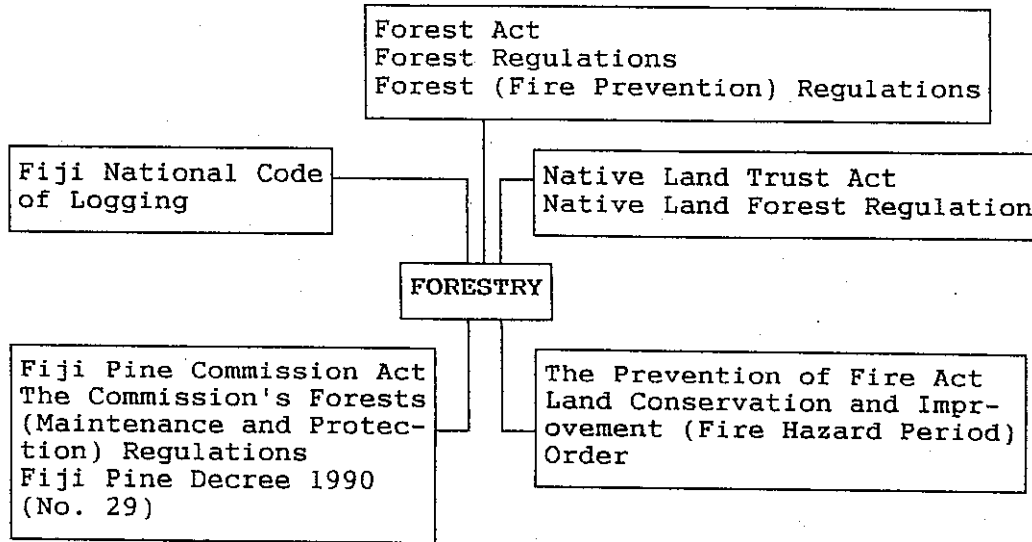
A general Conservation Order and a Closing Order will come into operation 90 days after publication in the Gazette and a particular Conservation Order in 90 days after the service of the order provided there is no appeal in both cases (s.10(1)(2)). An order for work to be done will come into operation 30 days after the service of the Order provided there is no appeal (s.10(3)).

Recent developments in 1992 indicate that the Ministry of Primary Industries is in the process of establishing an Environmental Committee. The Environmental Committee will be a two tier system consisting of a Policy Committee made up of heads of division and Implementation Committee made up of technical representatives. The aim of the Environmental Committee is to consolidate resources, co-ordinate activities and address environmental issues.

Conclusions and Recommendations

1. There are at least 10 Acts and regulations providing for and specifically regulating agricultural activities in Fiji which draws some attention to the necessity of consolidating some of these Acts and regulations under a new statutory framework such as an Agriculture Act, to facilitate implementation.
2. The range of environmental provisions found in agricultural leases for both native and state land and the environmental provisions in the various Acts cited appear to be adequate though enforcement is effectively lacking. Of late, the Native Land Trust Board and the Lands Department have attempted to keep pace with environment developments and have made corresponding changes to lease conditions by the inclusion of environmental provisions.
3. In combination with environmental requirements, additional efforts are necessary to encourage compliance; although from all accounts, effective enforcement of lease and licence conditions are partly hampered by a lack of resources. The various statutes, regulations, leases and licences include penalties for violation of requirements and conditions imposed and there are activities which are subject to inspection. As the various Acts cited affect a wide range of agricultural activities, any enforcement efforts could have mixed results in that large scale agricultural projects may be more likely to have resources to comply with and implement environmental conditions imposed, whilst small scale agricultural businesses and those engaged in subsistence farming may find such requirements burdensome and thus ignore them altogether. An assessment technique that is simple and cost effective could prove valuable in minimising the negative impacts on land resources brought about by agricultural activities.
4. In taking any legal action against the lessee with respect to land use, the NLTB requires a "Certificate of Failure by Tenant to Observe the Rules of Good Husbandry" from the Permanent Secretary, Ministry of Primary Industries. This procedure appears cumbersome and probably fraught with delays. It is suggested that the NLTB be given the opportunity to develop its own expertise in this matter and to issue its own Certificates in cases of 'bad land use'. It is further suggested that to prevent duplication, the function of issuing certificates be transferred from MPI to NLTB.

5. FORESTRY



Fiji has just under half of its total land area of 1.83 million ha under some form of forest or tree cover. The last Forest Inventory (published in 1973 by the Land Resources Division/Overseas Development Administration of the Foreign and Commonwealth Office, London) is currently being updated and a natural forest inventory is being undertaken by the Fiji-German Forestry Project.

The Fiji-German Forestry project was established in 1986 to assist the Ministry of Forests "to provide ecologically sound advisory assistance in the fields of forestry and agroforestry in line with the social, cultural and economic requirements of the target groups" (Project summary paper). The project is conducted over three phases and is jointly administered by the Fiji Forestry Department and the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). In addition to the production of a natural forest inventory, the project provides inputs in the field of extension or social forestry.

The 1990 Annual Report of the Ministry of Forestry indicated that the major emphasis of the Ministry in recent years has been "in the field of resource development and the regulation of indigenous forest harvesting." (Annual Rep. p.1) With the problems associated with deforestation, soil erosion, illegal logging, cyclone damage and expanding agriculture, the Forestry Department's response is to become increasingly "involved in extension forestry, in environmental forestry, and environmental education and information." (Annual Report 1990 p.1)

The environmental education and information programme was established in 1979 by the Ministry of Forestry; and in 1986 the Forest Park and Amenities office and the Environmental Education office were bought under a newly reconstructed Forest Park, Conservation and Environment Division. The Environment Education programme in promoting a better understanding of forestry conservation and the environment is supplying schools with resource material for projects. Regular school visits to both rural and urban areas are frequently undertaken by the Environmental Education Officer. The Division is also responsible for the organisation of "Arbor Week" which is the "single major awareness activity undertaken by the Department each year" (1990 AR p.19). Radio spots, essay and poetry competition, thematic posters and pamphlets are all part of the programme and the response from schools have been encouraging with over nine hundred requests received this year (Ravuvu:Oct.91). The Division also organizes workshops with various groups and is becoming increasingly involved with women's groups and landowners and in the training of forest guards and rangers.

The Forestry Parks and Amenities officer is also involved in forestry conservation programmes with schools, maintains the Colo-i-Suva Forest Park and provides advice to landowners in forest based tourism projects such as Bouma and Waikatakata.

Forests in Fiji are divided for management purposes (at the present time based on the 1973 Forest Inventory) into three main types in the 1990 Forestry Department's Annual Report - indigenous forest and plantations are under the category of production forest whilst the other two types are identified as protection forest and non-commercial forest. These forest types are found within the various land ownership classes of State land, State lease, native land, native lease, private freehold land and forest reserve (see Table 1).

The application of the Forest Act to these various land ownership classes commonly results in different regulations, procedures and authorities involved in forestry administration and operation. To avoid problems that could result from multi agency regulation, the Act provides for an advisory board, the Forestry Board consisting of the Conservator as chairman plus six other members appointed by the Minister to be made up of one person appointed on the recommendation of the Native Land Trust Board, four members of the civil service and one member to be a Fijian as defined in the Fijian Affairs Act. The members are appointed for two years and the Board is responsible for advising the Minister on matters relating to forest policy (s.4). Forestry Committees established by the Minister also advise the Forestry Board on matters relating to forest matters of local relevance (s.5).

No Forestry Committees have been established and the Forestry Board which usually meets once a quarter has been inactive since 1990. The Forestry Department sees the role of the Board as valuable and plans to reactivate the Board in the near future (Chang:Oct.91)

Statutory Background

The principal legislation governing forestry matters in Fiji is the Forest Act 1953 (though this Act is likely to be replaced in the near future by a new Forestry Act). The Conservator of Forests, who is the administrative head of the Ministry is responsible to the Minister for the administration of reserved forests and for all matters prescribed in the provisions of the Act (s.3). The Minister for Forests has enormous responsibilities under the Act for forestry and section 9(3) is indicative of such powers:

"the powers of the Conservator under this section shall be exercised subject to such directions as the Minister may deem fit to give him"

Forest Types - Management Category

Forest lands are allocated to different management areas with each area emphasising the particular resource value and uses which are subject to management prescriptions, mainly through the creation of offenses designed to protect them. Generally, forests are identified by two broad categories. Firstly, for economic reasons no forest land is eliminated from consideration for timber production. This category identifies those areas which are economically suited to timber production which is also dependent on a range of pertinent factors such as areas where the land can be adequately restocked. Secondly, timber harvesting is precluded from other categories of forest land which are dependant on minimum management requirements or environmental constraints.

The Forestry Act establishes a number of different forest categories - Reserve Forests, Nature Reserves, Protected Forests and Silvicultural Area - and all are created by Ministerial declaration. The forest categories are not specifically defined in the Act but the descriptions and the degree of protection for each category is found in other parts of the Act. The activities that are prohibited in each category are set out in section 12 in the form of offenses.

Reserved Forests

There are at present 16 remaining (of the 24 declared under the Forestry Act) reserved forests in existence in Fiji comprising a total of 29,800 hectares (Forestry Register). Reserved forests can only be declared on unalienated State land and land leased to the State (s.6(1)). The Minister may also include any alienated land in a reserved forest if it is considered that the land should be acquired for public purposes under the State Acquisition of Lands Act (s.11). As the purpose of reserved forest is undefined under the Act, forests graded as such are reserved for future and present productive use.

Under section 12 of the Act, the activities which are prohibited in reserved forests or silvicultural areas include grazing, felling, injuring, burning and removal of forest produce; cutting, damaging and removing forest produce, building livestock enclosures, setting fires, clearing cultivation and digging, obstructing or constructing roads and waterways; setting traps, snares or nets and using firearm, poison and explosives; destroying and damaging forest property, entry into areas prohibited by regulations; damaging, altering, interfering with boundary marks, notices and fences; hunting and fishing (s.12(a)).

On State land, not being land in a reserved forest or alienated land, the felling, injuring, burning and removing of forest produce is prohibited (s.12(b)) and anyone who lights, or throws lighted material within four hundred yards of a reserved forest can also be prosecuted (s.12(c)).

These activities can be authorised by the Conservator through a licensing system and conditions may also be imposed for any activity authorised (s.33). The Conservator does not require the prior consent of the Native Land Trust Board to issue a licence in a reserved forest or silvicultural area (s.33(2)).

In 1990, there were fifteen prosecutions for forest offenses, of which fourteen involved the removal of forest products and the fifteenth case involved the shooting of pigeon in excess of the quota permitted during the pigeon shooting season (1990 AR p.10).

No rights in a reserved forest or a silviculture area can be acquired except by a written grant or contract with the Conservator or within a mining tenement by the Director of Mines with the consent of the Conservator (s.9(1)). But in cases of a grant or contract concerning native land in any reserved forest where no provisions for royalties have been made or provisions for royalties have been made at a rate less than that prescribed, the prior approval of the Native Land Trust Board is required (s.9(2)).

Customary native rights to hunt, fish, collect wild fruits and vegetables can be exercised in any native land contrary to the prohibitions in section 12, but these rights do not extend to reserved forests (s.36(1)(a)).

Nature Reserves

The Minister has power to declare any part of the reserved forest as a nature reserve under section 7(1) of the Act. Power to declare a silvicultural area in a reserved forest (but not in a nature reserve) is provided for under section 7(2). Nature reserves are protected from commercial use and are governed by the same regime as the reserved forests. (s.7(3)). The same activities prohibited under section 12 are also prohibited in nature reserves. An additional prohibition applies to nature reserves and to silvicultural areas as access is limited to the hours of 6 a.m. until 9 p.m. Stricter controls are provided in nature reserves as a licence for cutting, grazing or removing forest produce is only permitted for conserving the natural flora and amenities of the reserve (s.33(5)). A licence to hunt or fish is only issued if the taking or killing of any species of animal is desirable for conservation purposes (s.33(6)).

There are in existence seven nature reserves in Fiji covering a total area of 5,720.2 hectares (Forestry Register 1991).

Protected Forests

The Minister may declare any native land, not being reserved forest or alienated land, to be a protected forest. The consent of the Native Land Trust Board is mandatory (s.8(1)). The Minister may, with the consent of the Native Land Trust Board declare the whole or any part of the protected forest to be a silviculture area (s.8(2)). The Native Land Trust Board cannot alienate any land in a protected forest by sale, transfer or lease without the prior consent of the Conservator of Forests (s.10(1)). Any land lawfully alienated ceases to be part of the protected forest (s.10(2)). To date only one protected forest has been declared - Batiwai Protected Forest covering an area of 17,089 hectares (Forestry Register 1991), though from all accounts, Batiwai has been logged and not 'protected' as the term appears to convey.

Under section 12(e) of the Act, the prohibitions applying in any protected forests includes the cutting, taking, marking, injuring, burning and removing of any forest produce and the clearing, cultivating or digging in such areas. The prohibitions are less strict than those applying in reserved forests.

Although the Forest Act makes no reference to Protection Forests, the category is identified under the Fiji Forest Inventory 1973 and must be distinguished from Protected Forests. The Inventory describes this type of forest by the differences in land form rather than by the appearance of the forest cover (Inventory p.40). Such forests are found on the summit of knife edge ridges or on very steep precipitous slopes. The forests in these areas are protected by definition as logging on steep slopes is likely to cause serious soil erosion and damage to water catchment areas. From all accounts, these areas are subject to timber concessions which makes the description 'protection forest' meaningless.

Silvicultural Areas

A silvicultural area "means any part of the reserved forest or protected forest for the time being declared to be a silvicultural area..."(s.2). Reference has been made earlier to silvicultural areas under section 7(2) where any part or the whole of the reserved forest (not a nature reserve) can be declared a silvicultural area; and under section 8(2) with the consent of the Native Land Trust Board, the whole or any part of the protected forest can be declared a silvicultural area. The acquisition of rights in a silvicultural area by grant or contract must be made in writing by the Conservator or in the case of a mining tenement, by the Director of Mines with the consent of the Conservator (s.9(1)). The same prohibitions applying to reserved forest and to nature reserves also apply to silvicultural areas. The exemptions applying to customary native rights under section 36 apply to silviculture area.

Fiji Pine

The species 'Pinus caribaea' was first introduced into Fiji for trials in 1955 from Belize when the Forestry Department "was charged with finding some tree variety which would grow on degraded talasiqa lands of the west"(Gregor:1978). The policy at the time was for Fiji to become self sufficient in timber supplies and to eventually produce enough for export needs. The implementation of this scheme was put in the hands of the Fiji Pine Commission (now no longer a statutory corporation but a privatised company known as Fiji Pine Ltd.), a statutory corporation created in July 1976 under the Fiji Pine Commission Act. This nationally important industry expected to cover a total plantation area of 55,700 ha by 1990 with earnings estimated at \$15m in exports (DP 9:p.78) suffers from one of Fiji forest's major hazards, fire, some of which are deliberately lit. Gregor writing in 1978 states that fire was a major hazard then but he adds that "it is difficult to kill P. caribaea by fire once it

reaches fifteen meters or so in height unless a full crown conflagration is involved and such a possibility can be guarded against by reducing the ground fuels by such means as controlled early burning or the use of cattle...(Gregor 1978:31)

Specific Provisions for Native Land

Section 12(f) makes specific provision for offences on native land not being alienated land or land in a reserved forest or protected forest and prohibits the cutting, taking, converting injuring, burning and removing of forest produce or the removal of forest produce from native land. Unlike in protected forest, the clearing, cultivation and digging for cultivation is permitted. Under section 33(2) a licence relating to native land (but not land in a reserved forest or silvicultural area), can only be issued with the prior consent of the Native Land Trust Board.

As noted under section 9(2) any grant or contract made by the Conservator relating to native land in reserved forests or silvicultural areas which does not make provision for royalty or the royalty is at a lesser rate than prescribed, needs the prior approval of the Native Land Trust Board.

Native customary rights exercised on any native land (not leased to the State in a reserved forest) and from alienated land with the consent of the owner are limited to family needs such as housing, fishing, firewood and other village and domestic purposes (s.36(b)) and do not extend to cultivation.

Specific Provisions applying to State Land

On State land (not in a reserved forest or alienated land) it is prohibited to take, convert, cut injure, burn or remove any forest produce (s.12(c)); and any licences issued relating to State land (other than State land in a reserved forest) needs the consent of the Director of Lands (s.33(3)).

Specific Provisions applying to Alienated Land

Alienated land is land "the subject of sale, lease, grant, transfer or exchange" (s.2). A licence to remove forest produce can only be issued with the consent or on the application of the owner or registered lessee (s33(4)). Under section 12(g), the removal of any forest produce from such land is prohibited. The consent of the owner is also required for the exercise of native customary rights of forest produce from alienated land (s.36(b)(ii)).

The Licencing System

As noted earlier that unless a person is authorised by a licence, grant or contract, a range of activities in the different categories of forests is prohibited under section 12 of the Act. The Minister is empowered under section 35 to regulate conditions for licences and "may restrict or prohibit the issue of such licences in respect of classes or descriptions of forest produce or in respect of areas" (s.35(2)(a)).

The Forest Regulations 1955 and subsequent amendments provides for licences for timber concessions not to exceed thirty years and ten years in other cases; although these licences can be renewed (r.3(1)). The Conservator may impose additional conditions for conservation purposes such as boundary clearances, controlling, prohibiting or controlling the felling of trees of any class or species of trees or the taking of any other forest produce; the felling of trees of any specified species; the method of felling trees and the extraction of forest produce (r.3(1)(a-d)). In 1990 the Fiji National Code of Logging Practice was adopted by the Forestry Department as it was found that the guidelines incorporated in licence conditions and concession agreements were too vague and limited in value. Although the Logging Code has no legal status as yet, logging conditions in the Code will eventually be included in logging licences. A licence may be revoked by the Conservator if conditions have not been complied with (r.3(2)). A licence may also be canceled if a deposit has not been paid (r.5(4)).

Logging Operations

Logging operations have come under increasing criticism over the last few years and the results of deforestation and the damage caused by uncontrolled logging practices such as soil erosion, damage caused to water catchment areas, rivers, streams, forest species and other forest products are all too evident.

The Fiji National Code of Logging 1990 provides for planning, operational and environmental requirements and spells out the safety requirements for the equipment to be used in logging operations. The Code also requires all untrained logging personnel to attend an approved training course by the Fiji Forestry Training Centre and to undertake the required tests. All existing untrained logging personnel must attend the approved training course by 31st. December 1992; and all new recruits to the logging industry must attend the course and obtain the necessary certificate before a logging licence will be issued. The environmental protection measures provide for detailed guidelines to protect water catchment areas, creeks and streams, and to prevent soil erosion especially on banks. Seasonal restrictions can be imposed if harvesting operations are

detrimental to the environment. Fire precautions and the control of pollution from machinery or logging operations have also been included.

In addition to the adoption of the Fiji National Code of Logging Practice the Native Land Trust Board attempted in 1985 to develop policy guidelines for logging on native land.

The policy paper developed by Salmon and Thomerson in 1985 was also designed to be used as a manual. The paper outlines the management for the (a) remaining forest to ensure perpetual hardwood industry on native land (b) the maximum utilization of the forest resource by processing to obtain export quality timber product (c) to ensure maximum benefit to the land owners and (d) to protect the environment. The paper outlines that logging of indigenous forests should only be permitted from:

- (a) production forests only;
- (b) logging to be prohibited from protection forest as this will provide the minimum area necessary for natural forest for environmental protection;
- (c) sound measures should be taken to afforest and reforest logged areas; and that two thirds of the total land area logged annually be replanted to ensure that one third of the annual deforested area be reforested in hardwoods to ensure that on completion of logging from production forests there will be sufficient plantation timber to maintain a perpetual hardwood industry.

The policy paper also suggests that logging licences are to be carefully controlled and in the last 4 years the terms and conditions of licences and concessions have been reviewed and amended to incorporate environmental protective measures and to be brought in line with sound forest management practice. The Native Land Trust Board has been assisted in this regard by the United Nations Centre for Transnational Corporations.

Under section 33(f)(i) of the Native Land Trust Act, the Minister is empowered to make regulations for the issue of licences on native land with respect to "the removal of timber, forest produce, sand lime and common stone". The Native Land (Forest) Regulations 1943 and subsequent amendments have been found by the Board to be inadequate and limited and in need of revision.

Under the Native Land (Forest) Regulations, r.3 prohibits the felling, cutting, ringing, lopping, tapping or injuring by fire or otherwise any tree; the cutting, conversion, manufacturing or burning to charcoal of any timber or the taking and removal any forest produce except by licence. The Conservator of Forests can authorise the cutting, manufacture or collection of forest produce for any period not exceeding six months (r.9).

The regulations also specifies the size of trees that may be taken (usually prescribed by girth measurements) and the species of trees that are protected. Any taking can only be done with the express authorisation of the Conservator (r. 12) The Board also has power to prohibit or restrict the cutting or removal of any forest produce within any specified area of native land if it considers it necessary (r.16).

These provisions do not affect any native customary fishing and hunting rights nor does it prohibit the exercise of customary rights to forest products considered necessary for the construction and repair of the family dwelling house and for other domestic or village uses (r.17).

Environmental Impacts of Logging Operations

The State of the Environment Report for Fiji 1991 states that the amount of soil erosion caused by logging is dependant on logging practices and the kind of land being logged and that the removing of trees has far less impact than roading and skidding. Studies would need to be carried out to assess the effect of logging on other aspects of the environment such as wildlife, fragile ecosystems and water catchment areas to see how these resources, if lost through logging, can be further protected or replaced and at what costs.

Illegal logging and questionable logging practices have been a source of great concern in Fiji; and Drysdale suggests that a system of logging audits should be established and regular surprise audits on log removals and spot checks could curtail such practices (1988:30,31).

The State of the Environment Report 1991 indicates that the damage to trees and vegetation always look severe after logging, but many forest species have a remarkable recovery rate, partly due to their evolution in a cyclone prone environment. There have been only two short term investigations done in Fiji on regeneration and they provide encouraging results on the ability of forests to regenerate to a semblance of their former diversity and composition. This statement may be valid for the wet zones of Fiji but in the dryer zones the position can be quite different as the forests can quite easily revert to grass land as found in the Nausori Highlands. The Report adds however that there is insufficient attention to the vitally important question of what happens to the forest vegetation after logging. The absence of any long term and even medium term research programme to monitor this is a serious deficiency.

The Environment Report concludes that there are also no controlled field studies on the effects of logging on wildlife although some attempt has been made to investigate the effects of

logging on the silktail in Vanua Levu, its findings were uncertain.

Enforcement

Under section 20 of the Act, forest officers and police officers may (a) without a warrant demand the production of any authority or licence for acts for which a licence or authority is required; (b) arrest any person within any alienated State or native land possessing forest produce who fails to give a satisfactory account for it; (c) arrest any person reasonably suspected of being in unlawful possession of any forest produce; (d) seize and detain forest produce and any instruments related to the offence (e) and seize livestock found trespassing in any reserved forests. They are also authorised to enter any timber yard and sawmill by day to inspect forest produce. Persons arrested must be taken to the nearest police station without unnecessary delay. If the offence is compoundable under the provisions of section 19, an officer is empowered to accept compensation under section 20(2). Compensation under section 19 is not to exceed five times the estimated damage and where the value cannot be estimated, the sum is fixed for twenty dollars for each offence. Only the Conservator or the Assistant Conservator is permitted to compound offenses (s.34(1)) and all other forest officers must be specifically empowered by the Minister (s.34(2)).

Under section 15 any person guilty of an offence against the Act is liable to a fine not exceeding three hundred dollars or to a term of imprisonment not exceeding six months or to both fine and imprisonment. Where forest produce has been damaged, injured or removed, the court may, in addition to any other penalty order compensation but not exceeding the value of the produce (s.16) and any instruments used for the commission of the offence can be confiscated by an order of the court (s.18).

The Conservator is empowered under section 21 to seize property and dispose of it when an offence has been committed by an unknown offender or an offender who cannot be found. The property cannot be disposed of unless the required notice has been published and the notice served on anyone who has an interest in the property (s.21). Any one interested in the seized property may, within one month of the publication of the notice, appeal to a magistrate against the taking of possession of such property (s.23). In cases where no appeal has been filed and the time for taking possession of the property has lapsed, the property will vest in the State (s.24).

Under section 22, any forest officer or magistrate is empowered to sell any seized property "subject to speedy and natural decay."

The Forest Regulations provide that any person cutting and taking forest produce under the authority of a licence must produce it if required by a forest officer, police officer, customs officer or a person authorised by the NLTB (reg.6).

Any forest produce cut or collected under the terms of a licence vests in the State or native owners under section 28 if the produce is not removed within a month or within the time period allowed by the Conservator.

To ensure the protection of silvicultural areas, the shooting of livestock habitually trespassing in such areas is permitted under section 30. Livestock found in silvicultural and reserved forest areas is deemed to be there under the authority of the owner, unless the contrary is proved(s.14). Any livestock seized and detained under section 31 must be paid for by the owner in addition to any fine or penalty imposed by a magistrate or the forest officer compounding the offence (s.31).

Fire

Fire is one of the principal causes of deforestation particularly in the dryer regions of Fiji. The geographical situation with respect to climate is very important as the dry western areas of Fiji are essentially different from the wetter eastern side in terms of ecosystem types, management requirements and vulnerability.

The Forest Act and Regulations, the Fiji National Code of Logging as well as other Acts and regulations make various provisions on fire. Under section 12(b)(v) of the Forest Act it is an offence to set fire or to assist anyone to set fire to any grass, undergrowth or any forest produce; and the exemptions of section 36 which extend to customary native rights do not extend to the setting of fire to grass or undergrowth (s.36(4)). Under section 12 (d) it is an offence to light a fire or throw down any match or lighted material within four hundred yards of a reserved forest in such a manner as to subject the reserved forest to risk of fire.

The Forest (Fire Prevention) Regulations 1972 apply to all reserved forests, nature reserves, government controlled plantations in Ba, Bua, Kadavu, Macuata, Nadroga, Navosa and Ra and in the tikina of Vaturova in Cakaudrove; and to all land within the one mile boundary of the reserved forest, nature reserve or government controlled plantation area or to any other land specified by order of the Minister. A fire licence may be issued by a forest officer containing terms and conditions deemed necessary (reg.3) and no other person is authorised to start a fire out doors without a licence (reg.4(1)).

The Commission's Forests (Maintenance and Protection) Regulations, 1987 (Legal Notice No.29) were promulgated under section 4 of the Fiji Pine Commission Act (now replaced by the Fiji Pine Decree, 1990 (No.29)); and provide that all pine plantations and areas within one kilometer of them are declared to be "protected places". Admittance to such areas are restricted and the lighting of any fires is prohibited except by written permission of officers of the Fiji Pine Commission or other authorised officers (s.2,s.3,s.4).

The Land Conservation and Improvement (Fire Hazard Period) Order 1969, administered by the Ministry of Primary Industries, prohibits the burning of vegetation in designated areas (s.3) during the fire hazard period from the 1st. July to 31st. December of any year. The designated areas are provided for in the schedule to the Order. The Order does not apply to the burning of vegetation by an owner for the purposes of cultivation or harvesting of sugarcane, or by a person with written authorization by a District Officer or Roko or District Agricultural Officer or a person recommended by the Commissioner of a Division (s.4).

The Prevention of Fire Act 1878, administered by the Ministry of Forestry, applies generally to land situated outside the limits of a town (s.12) and provides for precautions that must be taken by land owners when intending to light a fire. Notice must be given to adjoining landowners and (in the case of Fijians) to the nearby village (s.3). An open space of four metres in width must be cleared around the land before a fire is lit. Penalties of fines and imprisonment are imposed on anyone who negligently or wilfully sets fire to any land. Fire rangers may be appointed in each Division to prevent and to combat fires; and the fire rangers are given power to require a person to extinguish any fire considered to be dangerous or to hand those resisting to the police.

Proposed Amendment to the Forest Act

A study carried out in 1991 of the Forest Act by the Food and Agricultural Organisation (FAO) has proposed a set of amendments to the Act. Broadly, the amendments provide a major shift in emphasis to make planning a central function of forest management. This will change the whole balance and orientation of the law and it will no longer be appropriate to describe forest management in terms of the acts prohibited in each category of forest land.

As planning is envisaged to have several dimensions, the Forestry Department has been considering the whole aspect of national forest planning which will require information on forest resources and land suitability data. The national plan is

envisaged to set not only targets for forest production, processing and marketing but also for forest conservation and land use. Planning will be required for each level of forest area, forest concession and in critical watersheds and protection areas and the plan is expected to give legally binding guidance to each area.

Management Plans will also ensure that concessions are subject to forest plans and post-logging use of land will be an essential feature. Plans for watershed management and in general for sustainable management for land resources are an essential legal instrument where authoritarian regulation is undesirable and impractical. The extension of management to large area of protection forest and to logged areas is essential to preserve a meaningful forest estate and conserve its soil and water resources. Post logging management will be made an essential feature of the logging licence or concession.

Landowner participation will play a key role in watershed and protection forest management and in every other management category.

Special recognition will be given to plantation forests and emphasis will be given to tree planting activities.

For Information:

Gregor. E.W. 1978 The Fiji Pine Commission: Its Development and Future Fiji Society Volume 14 p. 29-39.

APPENDIX I

AREA OR FORESTED LAND AS AT 31/12/90 (000 ha)

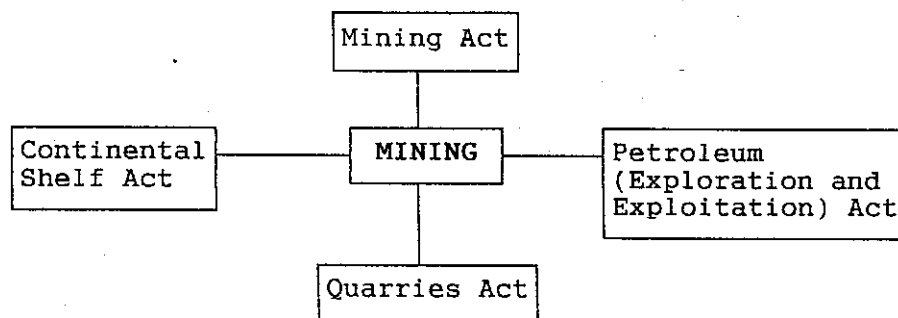
FOREST TYPES BY DIVISION	TOTAL LAND AREA	PRODUCTION FOREST											PROTECTION FOREST	NON-COMMERCIAL FOREST	TOTAL
		INDIGENOUS FOREST				FOREST				PLANTATIONS					
		CROWN LAND	FOREST RES.	CROWN LEASE	NATIVE LAND	PRIVATE (FREE-HOLD)	CROWN LAND	FOREST RES.	CROWN LEASE	F P C LEASE	PRIVATE				
<u>NORTHERN DIVISION</u> Inland Mangrove	525.00	1.90	0.69	0.39	92.28	9.95	2.23	1.63	13.61	10.15	2.72	122.70	95.08	353.33	
<u>SOUTHERN DIVISION</u> Inland Mangrove	694.00	2.60	0.08	0.36	86.36	3.90	0.22	0.87	19.56		7.61	67.50	78.08	267.14	
<u>WESTERN DIVISION</u> Inland Mangrove	611.00	1.10	0.19	0.09	9.20	0.11	2.38	3.58	2.22	33.48	3.44	59.53	136.08	231.60	
TOTAL	1,830.00	5.60	0.96	0.85	187.84	13.96	5.03	6.08	35.39	43.63	13.77	268.13	309.24	890.48	

Notes:

- (i) The figures under 'Indigenous Forest' indicate remaining 'Production Forest' (LRD classification) by the various land ownership classes. It includes unlogged native land leased to the crown.
- (ii) The figures under 'Plantations' indicate areas planted by Government, Fiji Pine Commission (F P C) and landowners (Private). Government plantations are established on some crown land, forest reserves and native land leased by the Crown.

Table 5.1

6. MINING AND MINERALS



There is only one mine operating at present in Fiji, the Emperor Gold Mine at Vatukoula but there are two separate metallurgical mill processes currently operating there - one being the original mill treating gold ore which is operated by Emperor Gold Mining Company Limited and Koula Mining Company Limited. The second plant is retreating old tailing dams to recover residual gold contained within and is operated by Ranger (Fiji) Limited.

The State of the Environment Report 1991 states that there are other prospects in various stages of exploration or feasibility study including a large copper deposit in Namosi, the former gold mine at Mount Kasi, Vanua Levu; and the marble deposits at Naqalimare and Wainivesi. The Report points out that the two serious environmental hazards in the operations of the gold mine at Vatukoula are the gaseous discharge from the smokestack and the effluent from the tailing ponds with potentially high levels of suspended solids and hazardous levels of cyanide.

The Mineral Resources Department point out that there are however tailing dams that are constructed for the purpose of retaining suspended solids allowing for the solids to settle in order that only clear fluid (i.e. free from suspended solids) is discharged as effluent. For environmental purposes the tailing dams are fundamentally necessary to avoid sedimentation occurring in such areas as natural surface waterways.

Although cyanide is of great concern as a chemical element in effluent discharges, the Mineral Resources Department further point out that metallurgical mill processes employed at Vatukoula does incorporate cyanide destruction circuits which almost completely eradicates cyanide. However, there is a possibility that effluent would contain heavy elements which originally were an integral part of the ore being treated and then become liberated as a consequence of the metallurgical process. These elements are not easily destroyed and could remain in solution to be discharged as effluent. It is these toxic elements which are of major concern and the Mineral Resources

Department constantly monitors effluent in order to detect their possible presence (Walker:Jan.92)

The principal statutes governing mineral resources in Fiji are the Mining Act 1965 as amended and the Petroleum (Exploration and Exploitation) Act 1978. The Mining Act proceeds from the basic premise that:

"All minerals of every description, including oil as defined in the Petroleum (Exploration and Exploitation) Act in or under all lands of whatsoever ownership or tenure and in whosoever possession or enjoyment they may be, are, and shall be deemed always to have been, the property of the State and shall be deemed not to have been parted with under any alienation, dedication, lease, licence or permit..." (s.3(1)).

In general, the ownership of all minerals and petroleum is vested in the State. The State may, alone or in conjunction with others have liberty at all times, enter any land in Fiji to search, dig and carry away any minerals but the rights conferred on the State can only be exercised by the Director, an inspector or any authorised persons (s.3(2)(3)).

From the above, it must be noted that the owner of private freehold or native land does not own the minerals under that land but leases and licences can be granted which allows not only the State, but others, to explore or mine for minerals.

However, under Article 9(7) of the 1990 Constitution of the Democratic Republic of Fiji, provision is made that " where any law makes provision for vesting in the State of the ownership of unextracted minerals...then notwithstanding the provision of that or any other law, any royalties or proceeds received by the State in respect of any minerals extracted from any land or from the seabed over which there exists any registered customary fishing rights, shall from the date of the commencement of this Constitution become payable to the owner of the surface of that land or the beneficiary of the registered customary fishing rights as the case may be, subject to the right of the State to retain such proportion of any such royalties or proceeds as may be approved by the Cabinet from time to time, and to retain in addition the cost of administration by the State of any mineral exploration and extractions."

Mineral is defined in the Mining Act to mean precious metals, precious stones, earthy minerals (i.e. non-metallic minerals such as bauxite), radioactive minerals, coal and metalliferous minerals (s.2).

Under the 1990 Constitution the definition of mineral has been expanded to include geothermal heat and energy. Article 9(11) defines "mineral" as follows:

"any substance including petroleum resources, gas, geothermal heat and energy and any substance defined as minerals or petroleum under the Mining Act and the Petroleum (Exploration and Exploitation) Act or any other enactment."

Government Protection Area

A government protection area of up to a maximum of 250 ha. can be established by the Director of Mineral Resources by notice in the Gazette. Protection areas are closed to prospecting and can be established for a number of purposes which could include conservation for environmental reasons or closed to obtain the best possible proposals for the development of the area rather than developing the area on a 'first come first serve' basis (Simpson:Nov.91).

The consent of the Director is necessary for mining in a government protection area except where a mining tenement is held over the area (s.5(2)). The establishment of a protection area is subject to cancellation (s.5(1)). The Minister of Lands and Mineral Resources may also by order prohibit or restrict prospecting for any specified mineral and may by a subsequent order, grant exclusive rights to persons named in the order (s.4).

Holder of a Prospector's Right

Under section 24 the holder of a prospector's right (subject to any law relating to drainage, land conservation and the control of natural water supplies), is permitted to enter land open to prospecting after first giving written notice to the owner or occupier. Entry into unalienated native land is prohibited unless copies of the notice have been sent to the NLTB and the Commissioner of the Division where the land is situated (s.24(1)(a)(i)). Entry is also prohibited on land subject to a prospecting or a special prospecting licence, a mining permit, mining lease or special mining lease (s.24(ii)(iii)(iv)).

A prospector is permitted to remove any undergrowth or use any tree, (except planted trees, trees of the sandalwood species and those included in the first three classes of the First Schedule of the Forestry Regulations), for prospecting purposes. The Director may regulate the clearing of trees and impose restrictions if the clearing is likely to interfere with the

course of any stream or cause erosion (s.24(c)). Any excavation must be fenced or secured and on leaving the neighbourhood, the prospector is required to fill the excavations to prevent persons or livestock from falling in (s.24(i)). A holder is only permitted to use water from the water course for washing or sluicing to test the mineral qualities provided it does not effect the quality or the flow of the water (24(e)).

The holder of a prospector's right is prohibited from burning, any grass, bush, forest, undergrowth or any standing vegetation; and for any damage done to the surface of the land, the holder of the prospector's right is liable to pay compensation (s.25(2)(3)).

(a) Prospecting Licence

A Prospecting Licence gives the holder the right to prospect in an area of up to a maximum of 400 ha.(s.26(1)). Although a Prospecting Licence Area cannot be extended beyond 1200 ha. each area in excess of 400 ha. can be held by other prospecting licence holders up to and until the maximum stipulated hectares for a Special Prospecting Licence is reached. Special Prospecting Licences can be granted for areas of land in excess of 1300 ha. The period in which the licence remains valid and the terms and conditions imposed are at the discretion of the Director. Although there are no specific references in the Act for the submission of any environmental information or the requirement of an EIA, the Director as a matter of policy does require an EIA to be submitted prior to the grant of permits. The Director also has power to enter into covenants with the licensee and in addition, impose environmental conditions in the licence (s.26(3)(b)). The Director may also require a bond, with or without sureties, for the sum of one hundred dollars or more before issuing the licence. The bond could be used to liquidate damages for any breach of the licence conditions (s.26(3)(c)).

The prospecting licence gives the holder the exclusive right to prospect for those mineral(s) specified in the licence (s.27(1)). All minerals obtained in the course of prospecting are the property of the State and cannot be removed or disposed of without the written consent of the Director (s.28).

A prospecting licence may be cancelled automatically on the grant of a permit to mine, or on the issue of a mining or special mining lease over the whole or any part of the land subject to a prospecting licence. If within 14 days of the grant of a licence or lease, the licensee applies for a new prospecting licence over any part or the whole area, the application for a prospecting licence will be given priority over any other licences over the same land (s.29).

Special prospecting licences may be approved by the Minister for Lands and Mineral Resources for an area not less than 1,300 ha provided that the applicant satisfies the Director that unusual circumstances exist. The Minister for Lands and Mineral Resources has wide discretion to impose any terms and conditions considered appropriate (s.30) and although there are no specific references in the statute for the submission of an EIA, the requirements for an EIA are made part of the conditions as a matter of policy.

Mining Permit

Where minerals have been discovered in commercially recoverable quantities, a mining permit may be granted for a period of two years (s.31). Extensions may be granted for a period of one year with respect of each extension (s.31(3)).

Where the Director is satisfied that the mineral bearing qualities of the land are commercially recoverable, a mining lease may be issued on the cancellation of the mining permit (s.31(4)). The Director may impose conditions including an EIA to be carried out before the granting of the permit to mine.

Mining Lease

A mining lease may be granted by the Director to the holder of the prospectors right, holder of a prospecting licence or holder of a mining permit (s.32(1)). A mining lease can be granted for a period of up to twenty one years (s.32(2)) and a further extension of twenty one years can be granted provided the mining operations are conducted in a normal and businesslike manner, two months written notice have been given and the prescribed fees paid (s.32(3)).

A condition implied in every mining tenement is that the holder must pay compensation for any damage done to the surface of any land or improvement through prospecting, mining or other operations (s.40(1)) unless the land is restored (s.40(6)).

The Director has wide powers to impose conditions before granting a Mining Permit, Mining Lease or Special Site Right. The conditions, including environmental conditions are imposed after consultation with the Environment Management Unit of the Ministry of Housing and Urban Development and other relevant Government Departments and statutory bodies. Professional advice on technical details of EIA requirements, land restoration and rehabilitation make up part of the consultation process.

Restricted Areas

The Mining Act prohibits prospecting or mining in any Fijian village, burial site or land set apart for any public purpose, any land within 30 meters of a dwelling house unless the owner consents, any land under crop, land within the boundaries of the city or town except with the consent of the owner of surface rights, any land reserved for railway or public roads, any land within 60 meters of any spring in use as a water supply source or in any area declared as a catchment area; or in any artificial reservoir, water works or water supply buildings, (except with the consent of the Commissioner of Water Supply); any reserved forest, except with the consent of the Conservator, and any land the Minister may by order close to prospecting or mining (s.11(1)).

In every mining tenement (i.e. piece of land held by someone for mining purposes), a number of covenants are implied against the holder. The holder is prohibited from felling any planted tree particularly of the sandalwood species or any tree included in the first three classes of the First Schedule to the Forests Regulations, without the consent of the owner or occupier. An application can be made to the Director for approval on the refusal of the owner or occupier to give consent (s.20).

Restoration of Land

The Act provides under section 43 for the Director to order the holder of a mining tenement to restore the surface of the land where the surface has been disturbed by prospecting or mining operations. The requirements of restoration must be included in an appendix attached to the order. At the abandonment or termination of any mining tenement, the holder must secure the area within 30 days from that date by filling up all the shafts, pits, holes and other excavations in a permanent manner, remove all post markings and provide a certificate to the Director on completion. Any failure to restore the land and to comply with the conditions, the Director has the right to secure the excavations and to deduct the sum from any amount deposited by the holder with the Director (s.43)

Surface Protection

The Mining Regulations provide for the protection of the surface areas of mines by the requirement of proper fencing around mine cavities (r.116). No excavation which is likely to result in the subsidence of the land surface will be permitted except with the prior written permission of the inspector who may impose other conditions considered necessary to protect the surface (r.117).

All land on which water containing any poisonous or injurious chemical is stored "shall be effectually fenced to prevent inadvertent access" and notices erected to warn people of the danger of making use of the water (r.123). The storage of mercury, cyanide and other poisonous substances are to be stored in separate compartments especially set aside under lock and any removal must be first authorised by the manager (r.120). Where quartz or any other substance is crushed or handled in a dry state, it is mandatory that appliances are used to abate the accumulation of dust (r.124). Dams built for impounding water or tailings must be properly constructed so as not to endanger life, limb or cause damage to property and a satisfactory spillway must be provided (r.125).

During the course of prospecting or mining operations, the Mining Regulations provide a penalty of a 100 dollar fine if anyone deposits or discharges any rubbish, dirt, filth or debris or any waste water from sinks, sewers or drains or filthy water or chemical or other substances deleterious to animal and vegetable life, or any other noxious matter or thing, without written authority of the Director (r.82(1)).

The Director may however authorise the holder of a mining tenement, to deposit or discharge sludge, tailings or other mining debris into any watercourse "at such times and in such places and subject to such conditions as the Director thinks fit"(r.82(2)). In granting the permit, the Director may require the holder to provide an alternative water supply at the holder's expense if the water supply is affected by the discharges of mining debris into the watercourse (r.82(3)). The permit of the Director does deprive the riparian owners of their injunction (i.e. to prohibit a party from doing some act) remedy but the permit holder can be ordered to provide an alternative water supply by way of compensation for injuries or damage suffered.

Regulation 59 (b) and (c) also provides for penalties if any person permits sludge or other noxious matter to flow into or pollute the water or injures the banks of a race, dam or reservoir or any works connected with it.

Quarry Permits

The Quarries Act 1939, as amended, applies to:

"every excavation and place (not being a mine) in which persons work at the removal of rock, earth, clay, sand, soil, gravel, limestone, or such other common material substances as have been declared by the Minister under section 2 of the Mining Act, by notice in the Gazette..."(s.2).

Section 2 applies to "every excavation" and this description is broad enough to include Borrow Pits. The term Borrow Pit is frequently used but there is no mention made in the Quarries Act. Generally, a Borrow Pit is an area excavated mainly for soil and sand and unlike stone or rock quarries, explosives are not usually used in Borrow Pit excavations. Borrow Pits can be quite enormous and have just as much a negative impact on the environment as quarries.

Quarrying licences and other excavation licences such as for Borrow Pits are issued by the Lands Department for State land and by the Native Land Trust Board with respect to native land. These licences appear to be issued infrequently for Quarries though more frequently issued for sand, soil and gravel excavations. Although the Department of Mineral Resources does not issue Quarrying licences they are responsible for the enforcement of provisions contained within the Quarries Act but have no power to cancel an operator's right to quarry when conditions are breached. The Department of Mineral Resources is of the view that for ease of implementation and to ensure the compliance of operators with Quarrying conditions, it is suggested that Quarrying licences should be made part of the responsibility of the Department of Mineral Resources and Quarrying licences should be granted in the same way as a Permit to Mine or Mining Lease.

With the damage that can be inflicted on the environment and to human health by dust and fumes caused by sand, earth, sandstone and gravel mining and processing operations, some form of control can be exercised by the Quarry inspector if it is considered that quarrying operations are dangerous and may cause injury to the body; or are detrimental to the health and welfare of any one or injure live stock. A written notice can be served on the owner requiring the situation to be remedied or the inspector may order work to be suspended until the danger is removed (s.5(1)). In addition, further control is suggested whereby a deposit of a performance bond with the relevant licensing authority should be imposed to ensure compliance with the Quarries Act and the environmental conditions imposed.

It is possible that the law of public nuisance under the Public Health Act is capable of use to supplement the Quarries Act if considered necessary to abate the nuisance.

R. 24 of the Quarries Regulations contains provisions regarding fencing and warning notices where subsidence or cavities have or are likely to occur (r.24). The Inspector also has power to order discussed trenches, pits or other excavations to be filled or securely fenced (r.25(1)).

Adequate ventilation in all subterranean workings of a quarry should contain not less than three cubic meter of fresh air per minute for each person employed (r.54(1)) and where ventilation

of any part of the quarry is unsuitable or inadequate, a Quarry inspector may issue a notice for additional ventilating appliances to be installed (r.54(2)). If an inspector considers the health of the workmen are endangered by dust from rock-drills or by dust from any cause, a notice in writing must be issued to the owner, agent or foreman in charge to use jets or sprays of water to prevent the nuisance and keep the air free and prevent the accumulation of dust. In cases where the rock or other substance crushed is dealt with in a dry state and the dust produced is considered by the Inspector to be dangerous to health of the workmen, a written notice can be issued for measures to be taken to remove the nuisance and prevent the dust circulating and being breathed in by workmen (r.57).

There is no specific statutory requirement for the submission of an EIA in connection with a quarry licence application but the informal EIA procedure at present in practice requires EIAs for these types of operations.

Mining on the Continental Shelf

Under the Continental Shelf Act 1970:

"All rights exercisable with respect to the continental shelf appertaining to Fiji and its natural resources for the purpose of exploring that shelf and exploiting those resources are ...vested in the State" (s.3(1)).

The Minister of Lands and Mineral Resources may by order designate any area of the continental shelf within the territorial limits of Fiji for the purposes of exploring for petroleum and minerals (s.3(2)(3)). The construction and improvement of any work on the seabed in the designated area requires the written consent of the Minister. The Act requires detailed plans to be submitted for any work proposed though the inclusion of environmental information is not specifically required. The Minister may refuse consent if it is considered that the application is likely to cause obstruction or any danger to navigation (s.7).

Where any oil is discharged in a designated area from a pipeline or as the result of any operations for the exploration of the seabed or subsoil or the exploitation of the natural resources, the owner of the pipeline or the person carrying out the operations will be guilty of an offence unless it can be proved that the discharge was due to some other unauthorised person or (in the case of an escape), that all reasonable care was taken to prevent the discharge or that all reasonable steps were taken to stop or reduce it (s.9).

Under section 10 of the Act, the Minister is empowered to make regulations prescribing measures to be taken in a safety zone for the protection of the living resources of the sea and the natural resources of the seabed and subsoil from harmful agents (s.10(c)); and to prohibit or restrict exploration of any specified part of a designated area or the exploitation of the natural resources which in the opinion of the Minister could result in unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea...(s.10(g)).

No such regulations appear to have been made.

Petroleum

Under the Petroleum (Exploration and Exploitation) Act 1978 petroleum is defined as:

"any naturally occurring or naturally occurring mixtures of hydrocarbons in a gaseous, liquid or solid state or naturally occurring mixture of one of the hydrocarbons such as hydrogen sulphide, nitrogen, helium and carbon dioxide in a gaseous liquid to solid state" (s.2).

"Any petroleum in or under all lands within a designated area of whatsoever ownership or tenure and whatsoever possession or enjoyment they may be, are, and shall be deemed always to have been, the property of the State"(s.3)

Three types of licences are issued - Exploration, Production and Pipeline Licences.

Exploration Licence

An exploration licence gives the holder the exclusive right to explore for petroleum in the licenced area (s.17). Licences can be initially granted for a period of five years and can be extended for three years (s.18(a)(b)). Licences relate to blocks which are described as a particular section within a designated area (s.5(2)). These blocks are constituted as petroleum prospecting areas by the Minister (s.6(1)).

On the discovery of petroleum, section 21 requires the licensee to notify the Director immediately, furnish particulars of the discovery within three days, determine the chemical and physical properties and conduct tests "in keeping with good oil field practice"(s.21(A0(b)(c))). Good oil field practice means all those things that are generally accepted as good and safe in the

carrying on of exploration or operations for the recovery of petroleum (s.2).

Production Licence

Whilst an exploration licence is in force an application can be made for a production licence. Within the application period an application for the variation of the licence can be made to include within the licenced area any other adjoining block in the location (s.25(3)). An application period will be for two years and the period can be extended for up to five years (s.25(4)). An application for a production licence will be granted by the Minister "subject to such conditions... as the Minister sees fit"(s.26(2)) but the Act does not require any environmental information to be included in the application. The Minister does have power to include environment protective measures and require the applicant to submit an environmental impact statement to minimize adverse impact, as a condition of issuance. A production licence will remain in force for an initial period of twenty-one years and each renewal for the same length of time (s.28).

Work Practices

A licensee is required to explore and recover petroleum in a proper and workmanlike manner and in accordance with good oil-field practice to secure the safety, health and welfare of the persons engaged in operations. All steps must be taken to control the flow and prevent the waste or escape of petroleum and water, mixture of oil or drilling fluid (s.62(a)(i)(ii)) and prevent damage to any petroleum bearing strata outside the licenced area (s.62(a)(iii)). The licensee is under a duty to prevent the pollution of any water-well, spring, stream, river, lake, estuary, harbour, the high and territorial seas and shoreline by oil or any drilling fluid or substance which might contaminate the water or shore line which would harm or destroy marine life (s.62(vii)). All waste oil, salt water and refuse must be drained into proper receptacles and maintained at a safe distance (s.62(b)). Similarly, the holder of a pipe-line licence is required to prevent the waste or escape of petroleum from any pipe line, station, tank valve or water line (s.62(2)).

Any one authorised by licence to carry out operations in a designated area must conduct operations in such a manner as not to interfere with navigation, fishing and the conservation of natural resources of the sea or seabed (s.83).

Environmental Impact Assessments-(EIA)

There is in practice an informal EIA procedure conducted by the Environment Unit of the Ministry of Housing and Urban Development which allows the scrutiny of projects in the early planning stages. The EIA guidelines aim to "determine and evaluate the environmental impacts of a proposal, what measures should be taken to avoid or minimize damage and to identify opportunities for achieving the objectives by means of the development and implementation of the proposal" (McClymont:1982).

The guidelines require a description of the environment affected by a proposal and the assessment of environmental impacts on the geology, soils, flora, fauna, water quality, climate and hydrology. The functioning of the ecosystem of other aspects of the physical or biological environment. Any environmentally sensitive areas of social or unique scientific, socio-economic or cultural values, including any endangered species or important habitat types should be fully described. The relevant aspects of the existing human environment including land use, community patterns, man made facilities and activities are also required.

Impact on the Environment:

matters to be addressed include adverse and beneficial effects; primary and secondary effects; unavoidable effects; immediate short-term effects; the probability of an effect occurring; and whether or not any changes are irreversible or will offer or consume any irreplaceable resources.

Safeguards:

- identified to safeguard and minimize adverse environmental effects; remedial measures.

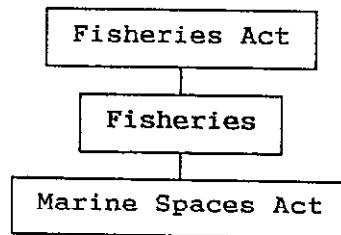
Monitoring:

- monitoring activities undertaken during the operation of the project.

Recommendation:

It is suggested that Quarrying licences be made part of the responsibility of the Department of Mineral Resources and quarrying licences should be granted in the same way as a permit to mine or a mining lease.

7. FISHERIES



Customary Fishing Rights and Historical Background

In Fijian traditional society, natural resources and the area they occupy are not conceptually divided into land and sea components. As a consequence, the principles of sea tenure differ little, if at all, from land tenure. The Fijians feel about their 'vanua ni qoliqoli' (fishing area) in the same way as they feel about land rights. The qoliqoli includes the sea, lagoons, rivers, streams, lakes and creeks that a particular yavusa (clan) or mataqali (sub-clan) claim as their traditional fishing grounds. The rights to fish in these areas are defined by customary law. The community's fishing areas are a seaward extension of the community's land boundaries, but the criteria for defining fishing areas vary from one part of Fiji to the other. As a general principle, the exclusive fishing territory of a coastal or river side community is the waters adjacent to the village. Exclusive rights are also maintained in all reefs adjacent to the lands. The reefs can be claimed by the yavusa, the mataqali or a particular family according to the dictates of the local Fijian social organisation.

As the traditional Fijian life and culture is intimately tied to the sea, the extent of Fijian sovereignty has long been an intractable question that cannot be dealt with in depth in a study of this nature. Some brief reference is however necessary to provide background to some of the legal provisions in the current Fisheries Act, particularly those addressing Fijian customary rights.

Under Clause 1 of the Deed of Cession, the islands, the waters, reefs and foreshore, and under Clause 4, the ownership of all lands not properly alienated and not needed by Fijians, vested in Her Majesty and Her successors. There was some uncertainty after Cession as to the ownership of reefs and fishing grounds as these areas were traditionally recognised as the property of Fijian communities and like land and were required for their use and subsistence. The acknowledgement of Fijian rights through the enactment of laws relating to these resources was a gradual process.

The Native Lands Ordinance No. 21 of 1880 provided for the registration of land (and it is assumed any extension of land such as coral outcrops and reefs). Under section VI of the 1880 Ordinance:

"the Bose Vaka Yasana of each Province shall in the first place take measures to have the lands of the different communities of such Province defined and boundaries set forth in writing to be laid before the Commissioners...with the names of respective communities claiming to be owners..."

and any land not claimed because of the demise of the mataqali becomes the property of the Crown (s.XIII) in the same way as the other lands vested in the Crown under the Deed of Cession.

In 1879, Ordinance No.XVI was passed for the Preservation of Beche-de-Mer and no one could collect them without a licence (s.I) but this position was superceded by the Ordinance No. XI,1887 "To Impose an Export Duty on Beche-de-Mer" which opens beche-de mer fishing by the following provision:

"Whereas it appears desirable to develop the industry of Beche-de-mer and whereas certain native mataqalis have hitherto enjoyed the exclusive privilege of fishing what are known as the inshore reefs and it is right that some compensation should be made to them for the loss of their exclusive privilege..."

The Rivers and Streams Ordinance No. XIV of 1880 abolished the exclusivity of traditional fishing rights of Fijians in rivers and streams which were to be "perpetually open to the public for the enjoyment of all rights incident to rivers"(s.II). But riverine fishing rights still exist, in a sense that native peoples have the right to expect to maintain subsistence food sources and any loss of these rights, for example, by dredging, can be compensated.

The Fisheries Ordinance No.III of 1894 recognised certain mataqali's rights of exclusive fishery on certain reefs, shell fish beds and waters and made it unlawful for any other person to fish in such areas without obtaining a licence issued by the Commissioner for Native Affairs. The Fisheries Ordinance 1894 was repealed and its provisions were included as Part IV to the Birds, Game and Fish Protection Ordinance No. 20 of 1923.

Ordinance No. 4 of 1941 made provisions for the "regulation of fishing" and it also re-established the Native Fisheries Commission (NFC) and defined its powers and functions. The NFC was charged with the duty to ascertain what customary fishing rights are the rightful and hereditary property of native owners, and to institute all enquiries into the title of all customary

fishing rights. These provisions are incorporated in the present Fisheries Act of 1942.

Fijian owners of a registered fishing right can fish for subsistence in registered customary fishing grounds without a licence. A licence to fish for commercial purposes must be obtained in a registered customary fishing ground but a licence is not needed for anyone fishing from shore with a line or a spear (s.5(3)(a) Fisheries Act).

In addition to subsistence fishing, small scale commercial ventures are carried out to supplement income by supplying the local markets with fresh fish. Large scale commercial fisheries for export purposes are carried out by the IKA Corporation, a Government owned venture engaged in commercial skipjack, pole and lining and associated bait-fish operations and other ventures, some between Fiji citizens and foreign owners.

Although commercial ventures have been encouraged by Government, subsistence fishing for domestic needs still shapes the lives of the coastal and riverside population. Most of the population in coastal areas and on river banks fish for a variety of shell fish, sea weed, crabs and fish. Reef collection and in-shore fisheries are regularly practiced by women at low tide, or by men and women using nets, lines and other traditional methods, including traditional methods of fish poison. Fish drives in certain areas are also common particularly for traditional feasts and ceremonies.

Control over Destructive Fishing Methods

(a) Prohibited Methods and Areas

Under the Fisheries Act, a permit may exclude "fishing for particular species of fish...fishing in particular areas, ...by particular methods or may contain any combination of such exclusions "(s. 13(1)(b))."

The permit to fish is issued at the discretion of the Divisional Commissioner. The Commissioner is required to consult with the Fisheries Officer and the Fijian people whose fishing rights may be affected before the granting of the permit (s. 13(2)), but in practice, a 'Letter of Consent' from 'qoliqoli' owners (i.e. owners of fishing grounds) is required before the issue of any permit.

The Fisheries Regulations regulate the use of fishing devices such as fish fences (r.6) and methods of fishing. The use of hand, wading and cast nets only are permitted in the estuary of rivers and streams or in the sea within 100 yards of the mouth of a river or stream (r.7). Other nets are banned in estuaries. The

killing or taking of fish of any kind (excluding shell fish) in fresh water will only be permitted by use of a hand net, portable fish trap, spear, line and hook. (r.10). The harpooning of turtle is prohibited unless the harpoon is armed with at least one barb of which the point projects not less than 3/8 inch from the surface of the shaft, measured at right angles to the long axis of the shaft (r.9). Where areas are restricted by the Divisional Commissioner as described in the Fifth Schedule, the killing or taking of fish must be authorised and only by use of hand net, wading net, spear or line and hook.(r. 11)

Under Regulation 8 the killing of any fish in any lake, pool, pond, river, stream or in the sea by the use of poison from the following substances is prohibited :

- (a) any chemical or chemical compound;
- (b) any substance containing derris;
- (c) any substance containing the active principal of derris, namely, rotenone;
- (d) any plant or extract of or derivative from any plant, belonging to the genera Barringtonia, Derris, Euphorbia, Pittosporum or Tephrosia, or place any of these substances or plants in any water for the purpose of taking, stupefying or killing any fish is prohibited.

Taking fish through the use of chemicals and dynamite poses a serious problem as it is difficult to police. At the present time the dynamiting of fish is receiving concentrated effort particularly in the north-western parts of Viti levu but fishermen are beginning to recognise the vessels which carry the fisheries officers and refrain from dynamiting on those days (Adams:17 Oct.91). The Fisheries (Amendment) Decree gazetted on the 4th. November 1991 provides for increases of fines and mandatory jail terms if convicted for catching fish by explosives.

'Any fisherman convicted of using explosives or dynamite faces a fine of \$1000 (up from \$100) and a mandatory six months jail term on the first offence. The fine for second-time offenders increases to \$2000 (up from \$150) and a mandatory jail term of one year (up from nine months). Third-time offenders face fines of up to \$5000 (up from \$200) and a jail term of two years (up from one year)' (Fiji Times 13 Nov.91).

The run off from agricultural chemicals is also a serious problem and although there is some consultation between the Department of Fisheries and the Agricultural Department over this matter, the run off of agricultural chemicals into the streams and rivers is difficult to detect except if reports are received that fish are floating dead in the water. The use of agricultural chemicals is difficult to control without a public awareness programme.

Despite the prohibitions listed in the legislation there are serious difficulties of policing and it has been suggested that an Enforcement Unit in the Fisheries Department to concentrate specifically on enforcement of the law would go a long way in providing the controls and protection set out in the Act (Adams:17 Oct.91).

Protection over Particular Harvested Species

(b) Size and Limits of Fish

Fish - R. 18 prohibits the killing, taking or selling of any fish listed below which are less than the lengths set out in the list when measured from the point of the snout to the middle of the tailfin when the fish is laid out flat. But this regulation does not apply to children under 16 years who fish with a hook and line from the shore or wading near the shore and who do not offer the fish for sale (see Table 1). The selling of undersized fish and crabs are common along the road side on the outskirts of Suva and other town centres. The lack of full enforcement of some of these provisions could be overcome with the establishment of an Enforcement Unit in the Fisheries Division.

Crabs - The killing, taking or selling of any crab of the species 'Scylla serrata' (Swimming Crab or Qari Dina) if the widest part of the carapace or shell measures less than 5 inches (r.19).

Turtle - Greenpeace in 1990 were in Fiji promoting their Pacific campaign to stop the decreasing turtle population in the Pacific region. Sea turtles, the Green Turtle (Chelonia mydas), Loggerhead Turtle (Caretta caretta), the Hawksbill Turtle (Eretmochelys imbricata), the Leatherback Turtle (Dermachelys coriacea) and the Olive Ridley Turtle (Lepidochelys olivacea) are extremely vulnerable to commercial fishing, marine pollution and exploitation.

Under r. 20, the digging up, use, taking and destroying of turtle eggs of any species, or the molesting, taking or killing of any turtle which is less than 18 inches in length is prohibited. The regulation also prohibits the possession, sale or export of any turtle shell if the length is less than 18 inches and the export of turtle meat and raw turtle shell is banned. For conservation purposes, January, February and November and December in any year are declared as closed seasons for the taking, molesting or killing of turtles of any size.

Recent scientific evidence now indicates that the protection of turtles less than 18 inches is not as useful as protecting breeding adults and that the laws must be established to set maximum size limits above which turtles are protected.

Trochus - Regulation 21 prohibits the taking, possession, sale and export of the species 'Trochus niloticus (sici)' (trochus shell) measuring less than 3.5 inches across the whorl; and of the species 'Pinctada margaritifera' (civa, pearl oyster shell) of which the nacre or mother-of-pearl measures less than 4 inches from the butt or hinge to the opposite edge or lip.

Davui and Giant Helmet Crabs - regulations 22 and 23 respectively provide for similar controls and prohibits the taking, selling and exporting of the species 'Charonia tritonis' (davui) and the species 'Cassis cornuta' (giant helmet shell).

Porpoises and Dolphins - the killing, taking or selling of any porpoise or dolphin of the genera 'Phocaena' or 'Delphis' (babale) is prohibited by Regulation 25.

Giant Clam and Beche-de-mer - the three species of the Fiji tridacnid clam 'Tridacna derasa' (vasua dina) 'T. squamosa' (cega) and 'T. maxima' (katavatu) are prohibited from export. The Fisheries Division could consider the prohibition to extend to clam shells if trade becomes profitable and leads to renewed exploitation (r.25a). The possession, export or sale of beche-de-mer less than 7.6 centimetres in a natural or processed form is prohibited (r.25b), and the export of the beche-de-mer and sandfish (dairo) of all sizes is prohibited.

Export of Fish - the export of live fish and turtle meat is also prohibited under Regulation 26.

Exemptions - the Permanent Secretary for Agriculture and Fisheries could exempt any person from the requirements of some of the provisions of the Regulations. There are however no exceptions to regulations 22 and 23 where the taking, selling, offering or exposing for sale or export of the species Charonia tritonis (davui) and the species Cassis cornuta (giant helmet shell) are prohibited.

Fisheries Management

- (a) Traditional fisheries management practiced by coastal and river side Fijian societies cannot be ignored as they have considerable knowledge of marine resources, the environment, the life cycle and habitat of named species, traditional techniques to conserve and exploit marine resources. Traditional management measures include 'tabu' or prohibitions on fishing for particular species particularly at the death of a chief, other life crisis or for conservation purposes. Prohibition on fishing in certain areas can also be imposed by chiefs or other traditional leaders of the right holding groups. Such practices have the effect of conserving resources although the conservation

practices may have evolved for an entirely different purpose.

Although traditional conservation practices have been underthreat from commercial practices, many coastal communities have been able to adapt their traditional management systems. Some customary practices continue to survive today but these practices also face challenges from new technologies and commercial joint fishing ventures with right holding groups. Whether it is possible to revitalize weakening customary practices or re-introduce those practices which are no longer observed or whether it is possible to have legal support to relevant customary practices are questions that require investigation. There has been recent regional initiatives to address these crucial issues. The South Pacific Commission (SPC) Regional Technical Meeting on Fisheries in August 1991 discussed these matters which has led to further work to be developed at a Forum Fisheries Agency (FFA) workshop in Niue in May 1992.

The State of the Environment Report for Fiji 1991 states that "traditional fishing rights can be a potent force for fisheries conservation, since the owners of each qoliqoli presumably have a paramount interest in protecting the resource for their own future benefit. Increasingly, members of the ownership of a qoliqoli are becoming involved in business and, in certain cases, consider that the qoliqoli is simply a source of disposable income to be tapped for immediate gain, or to attract joint-venture partners. There have been several recent cases of conflict between subsistence and commercial recent Fijian interests within the same qoliqoli".

- (b) For management purposes, two areas i.e. licence issuance and compliance, establish a regulatory regime and in any decision to issue a licence, the authorities must give conservation interests equal consideration with commercial and development interests. The conservation interests includes the protection, mitigation of damage to and enhancement of fisheries resources and the preservation of other aspects of the marine environment.

Licences are issued specifically to permit an activity and such licences can contain conditions and restrictions. Under the Fisheries Regulations, any one wishing to take fish or shell fish in areas under customary fishing grounds are required to have a licence from the Commissioner of the Division (r.13). Section 13(2) of the Fisheries Act requires mandatory consultation with customary owners and any permit may exclude fishing for particular species of fish, or in a particular fishing area, or fishing by a particular method (s.13(1)(b)).

Although there is a general hope that once a licence is issued that there is automatic compliance with the conditions of the licence, in reality, non-compliance is not unusual. Some times the licence holder is unaware of the full implications of the conditions or restrictions and one of the problems frequently stated is that both the law and licences are in the English language. The translation of both the law and licences into the vernacular may receive more attention. There are constraints in the enforcement of licence conditions and other conditions set out in the Act. The Fisheries Division are well aware of these problems and steps are being taken to overcome some of the difficulties of non-compliance.

In 1990 the Fisheries Regulations were amended to make further provisions for the protection of fishery by the issue of Offshore Licences to protect certain scheduled species. Under r.4A (1) of the amended regulations, a fishing licence issued under s.5 of the Fisheries Act does not permit the licence holder to kill or take any species listed in the Seventh Schedule outside the limits of Fiji's Internal Waters as defined by the Marine Spaces Act unless the Fiji fishing vessel has been issued with an Offshore Licence. The fishery categories in the Seventh Schedule include Deepwater Snapper and Tuna (see Table 2). A licensing officer may issue Offshore Licences for every fishery category in accordance with the guidelines laid down by the Minister for Primary Industries (r.4A(2)). If any Fiji fishing vessel intends to fish for several species listed under more than one fishery category listed in the Seventh Schedule, a separate Offshore Licence must be obtained for each relevant category (r.4A(3)).

The 1990 Amendment Regulations also provides for conditions of Offshore Licences. Under r.4B, the Minister shall from time to time determine on the basis of the best available information, the total allowable catch of every fishery category listed in the Seventh Schedule and allocate maximum allowable catch quotas according to the individual Offshore Licence holder (r.4B(1)). However, under the Marine Spaces Act 1978, the Minister also has the power to determine the total allowable catch for a fishery within the exclusive economic zone (see Chapter 8 for definition) and the portion that Fiji fishing vessels have the capacity to harvest. The remaining portion "shall constitute the allowable catch for that fishery for foreign fishing vessels "(s.13(2)). It is understood that no quotas have yet been introduced to control overfishing but it is not known without appropriate research whether overfishing does occur in Fiji waters.

The Minister may also prohibit the fishing for species listed under a fishery category in certain areas by certain classes of Fiji fishing vessels (1990 Amendment Regulations (r.4B(2)). Set nets are prohibited for the taking or killing of any listed species except for the purposes of scientific research if it is permitted in writing by the Director of Fisheries (r.4B(3)).

Monthly records as provided for under (r.4B(4)), where details of the weight of each species caught at each geographical location on each day of fishing and any other details requested by the Director of Fisheries, is mandatory.

The Director of Fisheries has the power to nominate persons who "shall be allowed on board during fishing trips by offshore fishing vessels for the purpose of scientific observation" (r.4B(5)). Enforcement of the provisions has been provided for under (r.4B(6)) where an Offshore Licence may be cancelled or quota reduced for any infringement of the regulations.

Aquacultural Initiatives

The State of the Environment Report 1991 record the following initiatives for a number of species including tilapia, giant clam and shrimp. Some of the programmes are for resource replacement programmes whilst others are aimed at the commercial markets.

The tilapia was introduced by the Fisheries Division aimed particularly at inland subsistence farmers but the tilapia is rapidly becoming a popular market fish. The Giant clam hatchery in Makogai was established in 1988 and is now producing over 100,000 viable seed clams per year and rural grow out trials will be in the next development phase. This project is aimed at resource maintenance but there appears to be a commercial potential. The Macrobrachium prawn culture development is still on going and a hatchery system is in production with grow out methods being optimised. The seaweed culture industry has had a chequered history since its inception in 1984 but the cultivation of seaweed has considerable potential. Ninety-nine small scale family farms are currently in production and the product is entirely exported. The penaeid shrimp culture has also not come up to expectation but new investment may make this a success.

Conclusions and Recommendations

1. The establishment of a specialised Enforcement Unit in the Fisheries Division would further their regulatory and protective responsibilities and would encourage the fishing community to comply with the law;
2. Reseeding programmes have been conducted by the Fisheries Division for a number of depleted species. The Fisheries Division should be given the power to declare restricted areas or protected areas that are suitable for reseeded programmes and for those areas where there has been over exploitation of species and their habitats;

3. The solution to the inshore sedentary resource problem is to reduce fishing effort, and to introduce management measures such as rotating harvesting areas and the setting aside of breeding reserves together with better marketing to maximise the value of the existing resource (State of the Environment Report for Fiji);
4. As tourism plays an increasing role in Fiji's economy, some research is necessary to investigate the effects of game fishing on fisheries resources and the possible introduction of a system of controls;
5. It is recommended that fishing licences be issued, where appropriate, in the three main languages; and
6. Appropriate resources be made available to the Fisheries Department for research purposes.

SIXTH SCHEDULE
(Regulation 18)

Common Name	Fijian	Family	Genus	Minimum length— inches
Barracuda	Ogo	Sphyranidae	Sphyrona	12
Crevally, Trevally, Pompano	Saqa (excluding vilu/Saqa)	Carangidae	Caranx	12
Grey Mullet	Kanace	Mugilidae	Mugil	8
Glassperch, Aholehole	Ika Droka	Ducidae	Dules	6
Ketang, Spinfeet, Rabbitfish	Nuqa	Siganidae	Siganus	8
Long-jawed Mackerel	Salala	Scombridae	Rastrelliger	8
Longtom, Garfish, Greengar	Saku Busa	Belonidae	Belone	12
Milk Fish	Yawa	Chanidae	Chanos	12
Mojarra	Matu	Gerridae	Gerras	4
Parrotfish	Ulavi	Callyodontidae	Scaritichthys	10
Pouter, Slimy, Soapy, Peperok	Kaikai	Leiognathidae	Gazza	4
Rock Cod, Grouper, Salmon Cod	Donu, Kawakawa, Kavv (excluding small red spotted cod)	Serranidae	Serranus	10
Sea Bream, Pig-faced Bream	Kawago, Dokonivudi, Musubi	Lethrinidae	Lethrinus	10
Small Sea Bream	Kabatia, Kake	Lethrinidae	Lethrinus	6
Small Sea Bream	Sabutu	Lethrinidae	Lethrinus	8
Surgeon Fish	Balagi	Hepatiidae	Hepatus	8
Surmullet, Goatfish, Whiskercod	Ki, Ose	Mullidae	Mulloidichthys Pseudupeneus Upeneus	6
Snapper	Damu	Lutjanidae	Lutjanus	12
Unicorn-Fish, Leather jacket	Ta	Hepatiidae	Naso	12

SEVENTH SCHEDULE
FISHERIES REGULATIONS
(Regulations 4A, 4B & 5A)

Fishery Categories for which an offshore licence is required³⁴:-

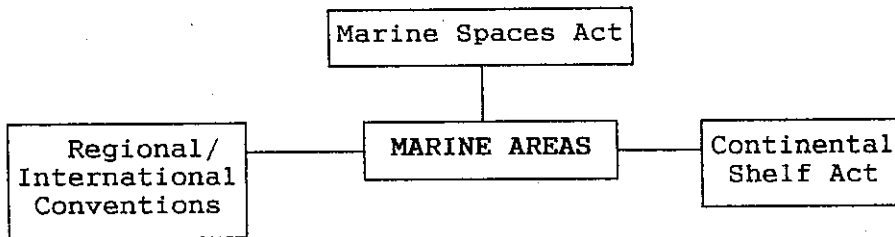
Fishery Category 1:-

"DEEPWATER SNAPPER"; meaning benthic or demersal deep-bottom fishes of the family Lutjanidae or Serranidae having a natural habitat between 100 and 450 metres depth, including Red Snapper (*Etelis carbunculus*), Longtail Snapper (*E. coruscans*), Smalltooth Snapper (*E. radiatus*), Purplecheek Opakapaka (*Pristipomoides multidens*), Yellowfinned Opakapaka (*P. flavipinnis*), Redfinned Opakapaka (*P. filamentosus*), Flower Snapper (*P. zonatus*), Redtailed Opakapaka (*P. typus*), Red Jobfish (*Aphareus rutilans*), Large-eye Bream (*Wattsia mossambica*), Kusakar's Snapper (*Paracaesio kusakarii*), Stone's Snapper (*Paracaesio stonei*), Scarlet Seaperch (*Lutjanus timorensis* and *L. malabaricus*) and Deepwater Rockcods and Groupers (*Epinephelus magniscuttus*, *E. miliaris*, *E. morrhua* and *E. septemfasciens*).

Fishery Category 2:-

"TUNA"; meaning pelagic fishes of the family Scombridae, excluding the mackerels but including Skipjack (*Katsuwonis pelamis*), Yellowfin tuna (*Thunnus albacares*), Bigeye tuna (*Thunnus obesus*), Southern bluefin tuna (*Thunnus maccoyii*), Albacore tuna (*Thunnus alalunga*), Little tuna (*Euthunnus alletteratus*) and Frigate tuna (*Auxis* species)

8. MARINE AREAS



Maritime Jurisdiction

The Marine Spaces Act 1978 makes provision for the demarcation of Fiji's marine spaces and declares the right to regulate the exploitation of its marine resources. The Act also makes further provision for the regulation of fishing.

The extent of Fiji's maritime jurisdiction is set out under section 6 of the Act which defines the Exclusive Economic Zone (EEZ) as "comprising all areas of sea having, as their innermost limits the outermost limits of the territorial seas, and, as their outermost limits, a line drawn seaward from the baselines every point of which is at a distance of 200 miles from the nearest point of the appropriate baseline". Fiji also exercises jurisdiction over its internal waters (s.3), its archipelagic waters (s.4) and its territorial sea (s.5). The classification adopts the classification of the Law of the Sea Convention. All areas of the sea bed and the subsoil within the EEZ are also deemed to form part of the continental shelf of Fiji to which the Continental Shelf Act applies (s.7) Fiji was the first country (of those invited to participate) to ratify the Law of the Sea Convention on the 10th. December 1982.

Fiji's declared sovereignty over its EEZ provides for appropriate courses of action to be taken against those who inflict damage on its marine resources and environment and to generally control all activities there. Fishing by foreign fishing vessels and the lack of control over such activities have been a source of concern to Fiji as well as other Pacific island nations. With the declaration of the 200 miles EEZ any commercial fishing in Fiji's EEZ is regulated and subject to a licence issued by the Minister of Foreign Affairs under the Marine Spaces Act.

Management and Conservation

Part III of the Marine Spaces Act emerges as a major force for the management and conservation of fisheries through controls established with respect to foreign fishing vessels licenced to fish in Fiji's EEZ. The Minister for Primary Industries may issue

licences authorising foreign fishing vessels to fish in Fiji's EEZ. The conditions imposed in licences are extensive and there are a number of conditions which have relevance for the environment.

The licence defines the area in which the foreign fishing vessel is authorised to fish, the periods and voyages during which the fishing is authorised, the descriptions and quantities of fish to be taken, the methods of fishing, the use, transfer and processing of fish taken, the compensation payable for loss or damage to any fish stocks or other Fiji interests, and the conduct of fisheries research programmes. If necessary, conditions could be imposed for the placing of Fiji observers on foreign fishing vessels. The minister has power to impose other conditions considered necessary to regulate fishing or for the conservation and management of fisheries (s.14(3)). Fishery is defined by section 2 to mean one or more stocks of fish and plant which can be treated as a unit for the purposes of conservation and management identified on the basis of geographical, scientific, technical, recreational and economic characteristics. Under section 15 of the Act, a licence can be suspended, varied or cancelled if any foreign fishing vessel contravenes any conditions of the licence or any Fiji law relating to fishing.

The Act lays some stress on co-operative efforts made between Fiji and foreign fishing nations licenced to fish in the EEZ. The Minister has wide powers to determine, on the basis of the best available information, the total allowable catch in respect of every fishery within the EEZ (s.13(1)(a)). In addition, the Minister may also determine the portion of that catch which Fiji's fishing vessel have the capacity to harvest (s.13(1)(b)).

Where the determination is made of the total allowable catch for a fishery within the EEZ and the portion that Fiji fishing vessels are capable of harvesting, the remaining portion constitutes the allowable catch for that fishery for foreign fishing vessels (s.13(2)). The portion for foreign fishing vessels may be further apportioned amongst other countries, other than Fiji (s.13(3)).

In determining apportionments, the law dictates a number of matters to be taken into consideration and these include:

- the cooperation of foreign fishing nations with Fiji for the conservation and management of fisheries resources and the enforcement of Fiji laws relating to them;
- cooperation with Fiji in fisheries research and the identification of fish stocks within the EEZ;
- the times with which the fishing vessels have been habitually engaged in fishing within Fiji's EEZ; and
- the terms of any international agreement (s.13(4)).

Under section 22, the Minister may make regulations prescribing the measures for conservation and management of fisheries resources within the EEZ (s.22(1)(h)) and to further prescribe the measures for the regulation of fishing for highly migratory species within Fiji fisheries waters and in the case of Fiji fishing vessels, beyond the limits of Fiji waters (section 22(1)(1)).

There is also provision for the Regulations to be made in accordance with the rules of international law for measures to be prescribed for the protection and preservation of the marine environment in the EEZ (s. 11(d)). One focus of this provision is on actions that jeopardize particular and endangered species protected under the Fisheries Act, and measures to prevent and control pollution in the marine environment. The Minister may make further regulations under section 11 of the Marine Spaces Act for the conduct of research within the EEZ, the exploration and exploitation of the EEZ for the production of energy from water, currents and winds for economic purposes, the operation and use of artificial islands and the establishment of safety zones.

Under the Continental Shelf Act 1970, a person can be found guilty and fined for oil spills causing oil pollution in Fiji waters (s.9). The Minister is required to make Regulations (s.10) prescribing measures to be taken in the safety zone for the protection of living resources of the sea and the natural resources of the sea-bed and sub-soil from harmful agents (s. 10(2)(c)). The Minister may also prohibit or restrict exploration of any specific part of designated areas of the continental shelf or prohibit or restrict the exploitation of the natural resources of the seabed and subsoil if it is considered that there is an unjustifiable interference with fishing or the conservation of the living resources of the sea (section 10(2)(g)).

International Conventions

Fiji is a party to a number of Regional/International Conventions dealing with the marine environment, a number of the Conventions dealing particularly with marine pollution:-

- International Convention on the Prevention of Pollution of the Sea by Oil 1954, as amended (OILPOL). Acceptance by Fiji on the 15th August 1972;
- High Seas Convention 1958 - ratified by the United Kingdom on the 14th. March 1960. Applied to Fiji on the 10th. October 1970;
- Continental Shelf Convention 1958 - ratified by the United Kingdom on 11th. May 1964. Applied to Fiji, 10th. October 1970;

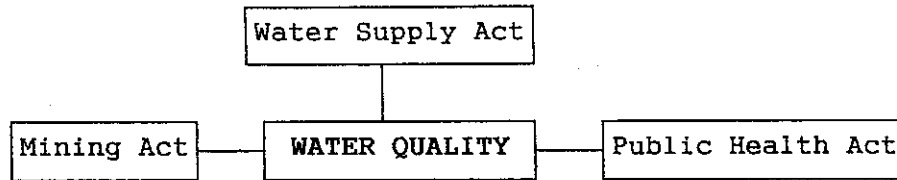
- 1958 Convention on the Territorial Sea and the Contiguous Zone. Ratified by the United Kingdom on 14th. March 1960. Applied to Fiji on 10th. October 1970;
- 1958 Convention on Fishing and Conservation of the Living resources of the High Seas. Ratified by the United Kingdom on 14th. March 1960. Applied to Fiji on 10th. October 1970.
- 1960 International Regulations For Preventing Collisions at Sea. Accepted by Fiji on 15th. August 1972.
- 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere in Outer Space and under the Water. Applied to Fiji on the 10th. October 1970.
- International Convention on Civil Liability for Oil Pollution Damage 1969 - accession by Fiji on the 15th. August 1972 (and the 1976 Protocol).
- The International Convention relating to Intervention on the High Seas in cases of Oil Pollution Casualities 1969 and its Protocols;
- The Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971 (the Fund Convention). Accession by Fiji on the on 4th. March 1983.
- 1972 Convention on International Regulations for Prevention of Collisions at Sea. Accession by Fiji (including 1981 amendments) on 4th. March 1983.
- 1976 The Convention on Conservation of Nature in the South Pacific (known as the Apia Convention). Signature by Fiji on the 18th. September 1989.
- 1979 South Pacific Forum Fisheries Agency Convention. Signature by Fiji on the 10th. July 1979.
- Law of the Sea Convention. Ratified by Fiji on the 10th. December 1982.
- South Pacific Free Zone Treaty. Ratified by Fiji on 3rd. October 1985.
- 1986 the Convention for the Protection of the Natural Resources and Environment of the South Pacific (the SPREP Convention) and its Protocols - the Protocol for the Prevention of Pollution of the South Pacific by Dumping and the Protocol Concerning Co-operation in Combatting Pollution Emergencies in the South Pacific Region. Accession by Fiji on the 18 September 1989.

- 1987 Treaty on Fisheries between certain Pacific Island States and the United States of America.

Fiji is not a Party to the:

- International Convention for the Prevention of Pollution from Ships 1973/78 (MARPOL).
- The Convention for the Prevention of Marine Pollution by Dumping of Waste and other Matters 1972 (commonly known as the London Dumping Convention).
- Convention for the Prohibition of Fishing with Long Drift Nets in the South Pacific 1989 (commonly known as the Wellington Convention).

9. WATER QUALITY



There is no accurate inventory for the different types of water supply systems in Fiji but generally the sources of water supply in the public, private and agricultural sectors are drawn from such sources as catchment impoundment, river abstraction, borehole and the Vaturu Dam supplying the Nadi and Lautoka urban areas.

Fiji's Ninth Development Plan, 1986-90 makes the statement that by the end of 1984 approximately 75% of Fiji's population had clean piped water and 25% had non-piped water compared to 61% and 39% respectively in 1977. The Plan further states that although there had been a satisfactory expansion in the provision of water supplies to rural areas during D.P.8, the quality of water supplies in rural the area was below standard (DP 9 p.112).

The 1991 State of the Environment Report observed that "all twelve major urban centres in Fiji are supplied with piped water with completely satisfactory physical and chemical treatment to comply with health requirements". All metered supplies receive some sort of treatment from minimum chlorination to comprehensive dosing, sedimentation and filtration. The Report points out that although water quality in major urban centres is bacteriologically satisfactory, at times when there are shortages due to prolonged droughts, there are technical failures as a result of very high sediment loads in rivers following inappropriate logging in the catchment areas.

Whilst water uses are increasing with the rise in population and tourism development, the stress on water supplies and resources have become more critical during times of prolonged drought; the Western Division and the outlying islands being particularly vulnerable to water shortages during these times. "In most areas, water is not regarded by the public as a scarce resource and waste is commonplace. Even in areas subject to frequent water shortages, water conservation is sometimes lacking". It is essential that consideration be given to developing policies to balance conservation values against traditional consumptive water needs.

The traditional approach to water shortage problems is to build dams such as the Vaturu dam to take water from areas of abundance to areas of water shortage. But one of the major obstacles is the

cost as such facilities are extremely expensive to construct. The other approach is to make existing supplies go further by conserving water. Conservation of the domestic, agricultural and industrial supplies must be an integral part of water management. Conservation alone will not solve water problems but it will make a significant impact during times of shortages.

Water Wastage

The prevention of water wastage has been given some attention under section 25 of the Water Supply Act which specifies that a person who opens any water apparatus such as a pump, fountain, valve or cock or wilfully without the consent of the Commissioner or negligently interferes with any water apparatus or makes any alteration in a service pipe or syphons water off to other premises without authorization, uses water for other unauthorised purposes or is found within an enclosure of any reservoir without reasonable excuse is guilty of an offence and liable to a fine of up to \$20. Water wasted through disrepair is provided for under section 26. If a person wilfully or negligently causes any water fitting to remain out of order or constructed or used in such a way that the water from the waterworks is wasted or contaminated before use or foul air or impure matter is likely to return to any pipe will be guilty of an offence and fined up to a maximum of \$20. The fines specified are quite inadequate and some consideration needs to be given to review the penalties under these sections.

Water Quality

Fifty-two per cent of Fiji's population live in rural areas and water supplies are not normally treated. Health problems arising in rural water supply schemes are normally due to a number of factors such as the build up of sediments in the catchment area during heavy rains, improper filtration method including the lack of quality control (State of the Environment Report 1991). Water supplies in rural areas are either communally or individually owned and the management role is not under ministerial responsibility although the Ministry of Infrastructure and Public Utilities (MIPU) undertakes technical responsibility.

The surveillance of water quality is the responsibility of the Ministry of Health. The Ministry's pathology laboratory at CWM Hospital carries out regular bacteriological monitoring of drinking water supplies. Chemical monitoring is carried out by the National Water Quality Laboratory of the MIUP located at Kinoya, on the outskirts of Suva. World Health Organisation (WHO) Drinking Water Quality Guidelines are applied in the absence of national drinking water standards. Similarly, there are no

national standards for recreational and other classes of water (State of the Environment Report).

The WHO Guidelines however, can only be applied to those areas where the water samples are tested and monitoring to maintain water quality is also limited by the lack of resources. There is an obvious need for a Fiji Drinking Water Quality Standards and such standards to be supported by anti-pollution legislation.

Pollution

The primary law regulating water supplies in Fiji is the Water Supply Act 1955, as amended. One of the objects of the Act is to preserve the purity and prevent the pollution of water in catchment areas and waterworks (s.24). The broad coverage of section 24 provides that anyone who washes animals, clothes, wool leather or skin of any animal or any noisome (i.e. harmful, noxious) or offensive thing or throws any of these matters or bathes in any water in the waterworks will be guilty of an offence and liable to a fine up to a maximum of \$100. A person will be equally guilty if any sewer or drain discharges are run into waterworks or into a water catchment area or if the waterworks or a water catchment area is polluted in any way. Section 24 needs specific definitions of pollution. It is also unclear whether the provision also covers those who bathe and wash clothes in rivers and streams in rural areas.

Under section 11(g) of the Mining Act 1966 "any land within 60m of any spring in use as a source of water supply or any area declared as a catchment area for water supply purposes or any artificial reservoir, water-works or water supply buildings" shall be closed to prospecting or mining, entry or occupation under a prospector's right or mining tenement except with the consent of the Commissioner of Water Supply.

Under the Public Health Act 1936, as amended, a person is liable to a fine of up to ten dollars for wilfully destroying or damaging any water supply apparatus or interfering or improperly using water supply apparatus, pipe or work connected with it if such matters cause a nuisance or is injurious to health (s.66). The fines specified under the Water Supply Act and the Public Health Act are low given the importance of this precious resource and particularly where a person actively discharges, deposits or permits pollutants he/she is in a position to control.

According to the State of the Environment Report 1991 'pollution of surface and ground water from agriculture, domestic and industrial activities has not been recorded as a problem but this may be due to non-detection rather than the absence of a problem. The contamination of coastal aquifers from saline water intrusion

is a major threat to resource management as this can occur from over-pumping of boreholes and wells in coastal areas and on small islands'.

Water quantity is no longer enough to assure a water supply, the quality of water must also be adequate to serve the purpose for which it is required. The growing competition between consumptive demands, urban and rural potable needs, agricultural requirements and conservation values including the maintenance of river and stream flow and natural resource values makes for difficult decisions on how much of Fiji's water resources must be put to reasonable and beneficial use.

Water and Land Resources Management Legislation

A new comprehensive Water and Land Resources Management Bill for Fiji was drafted in 1976 by Professor Sanford Clark, University of Melbourne. Although not much progress has been made on the draft Bill, it is suggested that the Bill be further examined to cure those aspects that are unacceptable and up-dated where appropriate with the view of bringing it into effect. There are some portions of the draft Bill that have environmental significance which are worthy of consideration.

The Bill provides for the establishment of Water Districts for the purpose of promoting the better investigation, use, control, protection, management or administration of water and related land resources although the words 'related land resources' have not been defined. The District may be established for all or any one of the following purposes:-

- to facilitate the systematic gauging and recording of the flow of water in any water course and the collection and dissemination of other hydrological and hydrometeorological data;
- to facilitate exploration and drilling to ascertain the existence and location of groundwater and its physical characteristics, behaviour, quantity and quality;
- to facilitate the provisions of adequate supplies of suitable water for domestic use, watering of animals, irrigation and agricultural purposes, urban and industrial use, for the generation of hydro-electric power or for transportation, navigation or recreation;
- to facilitate and co-ordinate detailed planning for the investigation, use control, protection, management and administration of water and related land resources and for the co-ordinated execution of approved plans and projects by public authorities;

- to facilitate adequate drainage, the safe disposal of sewage, effluent and water-borne wastes and the control and prevention of pollution and disease;
- to facilitate the control or prevention of flooding, soil erosion or of damage to the bed or banks of the surface water sources or to water-shed areas;
- to facilitate the reclamation of land or the protection of inland fisheries, flora and fauna;
- to facilitate the registration of existing users of water or existing hydraulic structures;
- to facilitate the issuing of licences, for investigation or the use of water, or for the construction, maintenance or operation of any hydraulic works or for the discharge of any waste, sewage, effluent or water-borne waste.

The draft Bill Water and Land Resources Management also makes provision for conservation purposes by giving power to the Water Board to define the amount to be taken in times of actual or anticipated water shortage (s.16(b)) and to temporarily or permanently prohibit the taking or use of water from any source if the Board considers it would be dangerous to health (s.16(c)). The Board also has power to examine and licence well and bore operations (s.17).

Commenting on the draft Water and Land Resources Management Bill in the paper Water Resources legislation A Basis in the Context of Fiji, 1983, D.W. Peach (Acting Principal Geologist of the Mineral Resources Department) feels that the Bill 'is not based on fundamental concepts, such as a national water policy and basic legislative objectives...but rather tries to legalise the status-quo with some additions and consequently may outlive its usefulness in the short term'. The example quoted by Peach to illustrate his comments is in connection with drilling operations. 'The law should allow scope for conditions of construction, testing, safeguarding aquifers etc. and thus control the development of groundwater sources in this way'. Peach considers that although many of the regulations are valid, it is essential they be redrafted using long term ideas.

Although the draft Bill may not have gained widespread acceptance as it may be overly complex and not based on long term concepts, at the same time it contains many beneficial changes with protective and desirable provisions that could be incorporated in the existing Water Supply Act or new water resources legislation.

In 1983 another report was also prepared, the "Report on Fiji's Water and Land Resources Legislation, Organisation and Administration as it effects the management and use of the Water and related Land Resources" by R.C. Dixie. The Report made a number of recommendations with regards to water and land resources, such as:-

- that the Land Conservation Board accept the Catchment Control concept and consider priority catchment areas and gazette these for an immediate start of the Water and Soil Conservation catchment control projects;
- that no new leases be approved, unless land use capability recommendations and conditions are enforced, to ensure that the water and soil resources will be protected from soil erosion;
- that the Land Conservation Board investigate soil and water losses that are now occurring, under various land use practices;
- that the Land Conservation Board should issue information and publicity materials regarding Water and Soil Conservation and Management.

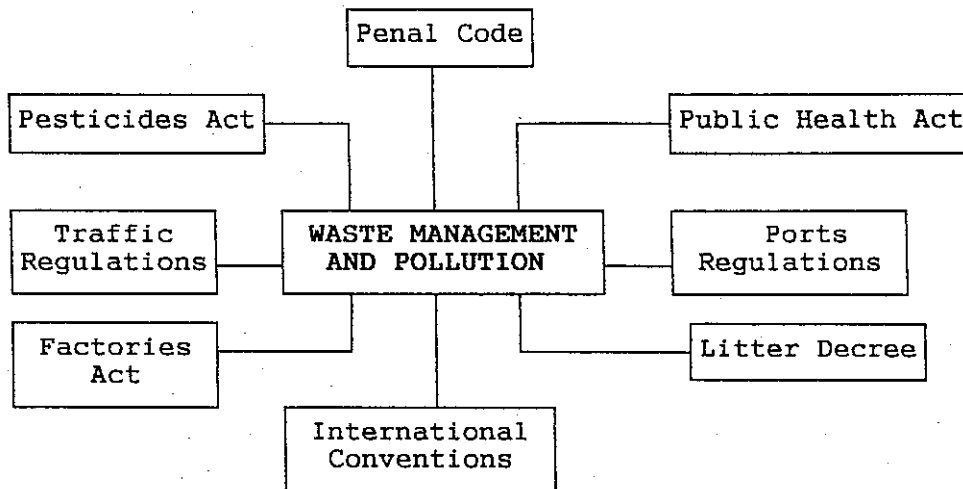
There are a number of other recommendations in the Report for the protection of water and soil resources that are worthy of consideration.

Conclusions and Recommendations

1. Deficiencies in the present Water Supply Act have been recognised. Comments have also been made that the scope of the Water Supply Act needs to be expanded to incorporate those aspects of water protection that are currently inadequately protected or not protected at all. Other comments relate to the following issues:
 - that there is a necessity to categories water resources for management purposes for example, that distinctions must be made between ground water and surface water;
 - that it is crucial to define protection zones for public water supply boreholes with the view to protecting them from industrial and agricultural activities;
 - that licences should be issued for the abstraction of any ground water except for domestic use;

- that a Water Authority be established to manage all water resources in Fiji and that a Fiji Drinking Water Quality Standards be also established.
2. It is also suggested that the Reports by Professor Sanford Clark and by Mr. R.C. Dixie and the Report by D.W. Peach be reviewed with the view to implementing the recommendations made.

10. WASTE MANAGEMENT AND POLLUTION



Virtually all urban areas in Fiji have problems with solid waste disposal sites. The State of the Environment Report 1991 states that the most pressing problem is the Suva city dump. The smell pervades Delainavasi and the surrounding areas and the water leaching from the dump carries pollutants (including pesticides used daily at the dump to control vermin) directly into the sea in an area heavily used for recreational and fishing purposes. The Suva city dump has exceeded normal capacity limits and is merely increasing in height. The Nausori dump, upstream on the banks of the Rewa pollutes the river through lechate and run off. The characteristic of all municipal dumps in Fiji is their unwise location in former mangrove habitats. No municipal garbage dump is managed to acceptable international standards and none could be described as a 'sanitary landfill.' Open dumping and burning is the most fitting description.

The Report highlights the difficulties of cities and towns from dealing with growing mountains of municipal rubbish. Municipal landfills have demonstrated that these sites also present serious problems of environmental degradation and possible threats to health. Because the volume of refuse is so high and the area of municipal landfill so large, the cost of addressing these problems will be horrendous but it is a challenge that Fiji has to face.

The Report further states that there is no information available on the generation, storage and disposal of hazardous wastes and no specific regulations available to deal with safe storage, transportation and disposal of this material. The existing laws and regulations are quite inadequate.

Part VI of the Public Health Act 1936 does provide some remedies for a host of environmental problems under the law of public nuisance. A public nuisance is a situation that interferes with a public right and describes the effect of conduct that gives rise to the creation or maintenance of the nuisance. The local authority is empowered under the Act, for reasons of public health and safety, to abate the nuisance either through direct action or through resort to the courts for an order compelling the person who created or maintains the nuisance, to abate it.

Every local authority is charged with the duty to conduct inspections in its own district from time to time "to ascertain what nuisances exist calling for abatement" and to abate the nuisance. In addition, local authorities in each district are vested with powers relating to public health and charged with the duty to secure the proper sanitary condition of all premises (s.54). The local authorities have an unfettered discretion to use or not to use the powers given them although the officials administering Part VI of the Public Health Act have a statutory duty to take action in specific situations.

Section 56 describes the conditions, if they exist in a locality and may become injurious to health or offensive to the public, which are deemed to be a nuisance within the meaning of the Act. Section 56 continues (without limiting the generality of the definition) to deem a number of specific situations to be a nuisance. These include unsanitary streets, improperly kept water supply, buildings, refuse deposits, animal and bird shelters, factories, businesses, chimneys, overcrowded houses, overcrowded cemeteries, and polluted harbours, rivers, ponds, ditches and foreshore.

An occupier is singled out under the Act and will be liable if the premises is kept in such an unsanitary condition particularly where the waste, stagnant or slop water or the accumulation or deposit of filth is allowed to remain under or near the premises for more than twelve hours after a medical officer of health or sanitary inspector has ordered the occupier to remove the waste, or where the contents of the privy or drain have been permitted to overflow or escape (s.55).

The local authority in each District is charged with the responsibility for taking action on such nuisances, but a defence against certain charges would lie in cases where any accumulation or deposit is necessary for carrying out any business and the deposit has not been kept longer than is necessary or if the best available means have been employed for preventing injury to public health and no serious danger to health exists (s.56(i)). A defence would also lie in cases where, in the conduct of any business under section 56(f) the 'offensiveness' is not greater than might reasonably be expected and that the best practical means have been used to minimise and abate the nuisance.

In a local authority district, the health officer or sanitary inspector have the right to enter premises to examine the existence of a nuisance at any hour of the day; and in cases with respect to overcrowded premises, may enter at any time during the day or night (s.63(a)).

On complaint to a local authority of the existence of a nuisance, the local authority is empowered to serve a notice on the person whose "act, default and sufferance" the nuisance arises or continues; the notice require the abatement of a nuisance within the time specified and the execution at such work considered necessary and desirable particularly if the nuisance is likely to re-occur on the same premises (s.57(1)(2)). Any cost and expenses incurred can be recovered (s.64). Any failure to comply with the notice shall lead the local authority to lay a complaint before a magistrate to obtain a Nuisance Order (s.58).

Where a nuisance exists or a Nuisance Order obtained, the health officer or sanitary inspector is authorised to enter at all reasonable hours to execute the Order (s.63(c)). Persons failing to comply with the Order or obstructing any police officer can be liable to a fine for up to \$40 (s.63(2)).

The local authority is also empowered under section 62 to "remove any matter or thing" necessary to prevent the recurrence of a nuisance and may sell or dispose of the matter without sale. Any money received from the sale may be retained by the local authority to defray any expenses incurred and any surplus must be paid to the owner on demand.

Complaint of the existence of a nuisance can also be made by anyone to a magistrate and the magistrate may authorise the entry of a police officer or some other person to examine the premises where the nuisance is alleged to exist and where necessary to execute an order to abate the nuisance and recover any expenses incurred (s.65).

Orders

The Nuisance Orders that can be obtained under Part VI of the Public Health Act include:

- (1) Abatement Order - which requires the person to comply with the requisitions of the notice to abate the nuisance within a specified time (s.59(2)).
- (2) Prohibition Order - prohibits the recurrence of the nuisance (s.59(3)). Both Orders may specify work to be executed to abate or prevent the recurrence of the nuisance (s.59(4)).
- (3) Closing Order - is only made where it is proved to the satisfaction of a magistrate that because of the existence of a nuisance, a building is unfit to be occupied (s.59(5)).

The magistrate has the power to prohibit the use of a building (s.59(6)). But a Closing Order may be cancelled if a magistrate is satisfied the building has been rendered fit for occupation (s.59(7)).

In addition to the Orders, a magistrate may impose a fine in cases where there is a failure to comply with a Nuisance Order at the rate of \$2 a day for each day in default, unless "due diligence to carry out the Order" is evident (s.59(8)). The local authority may also enter the premises where a person knowingly and wilfully acts in contravention of the Order to abate or remove the nuisance and do what ever is necessary to execute the Order (s.59(9)).

In cases where a person knowingly and wilfully acts in contravention to a Prohibition or Closing Order, the Court has the power to order a fine unto a maximum of \$4 a day for each day in default (s.59(9)).

Appeals

A person can appeal to the High Court against a Nuisance Order (s.60(1)) but the appeal will not be allowed unless it includes a Prohibition or Closing Order or where the Order requires structural work to be executed (s.60(2)). In cases where a Nuisance Order has been made and a person does not comply with it, but appeals to the High Court and the appeal is dismissed or abandoned, the appellant can be liable to a fine of \$2 for each day there is non-compliance with the Order unless the Court is satisfied that substantial grounds exist for the appeal and not brought merely for the purpose of delay (s.60(3)). The Court on appeal against a Nuisance Order where no steps have been taken to abate the nuisance or where the Court is of the opinion that the continuation of the nuisance will be injurious to health, may order the local authority to abate the nuisance and recover the cost of abatement from the appellant. But if the appeal is successful, the local authority is liable for the cost of abatement and any damages sustained by the appellant (s.60(4)).

The principles of public nuisance liability are uniquely capable of application to abate nuisances, clean up unsanitary and contaminated sites, water and buildings, control pollution and enforce compliance with the various Orders. These laws can accomplish a great deal and deserve closer attention.

The problem of definition of the various types of waste is still a problem. One facet of the problem that attracts immediate attention is solid waste and municipal rubbish dumps. If the first priority is to simply control immediate threats, national strategies with the goals to adopting a programme that will be sufficiently permanent to deal with these long term problems is

necessary. Appropriate levels of fines should be set to stimulate efforts to reduce waste through a variety of processing and operational changes. With the exception of soft drink bottles and cans there is only one recycling company (for metals, cardboard and white paper) that has recently started in Wailada in Lami called Tiko Industries, despite the new prominence the environment has attained in more than a decade.

Beyond the boundaries of the public nuisance laws, the growth of other environmental statutes to regulate specific forms of waste and pollution, with the exception of the Litter Decree, have lagged.

Litter

The Litter Decree 1991 (No.29) defines litter as:

"any refuse, rubbish, garbage, debris, dirt, rubble, ballast, stones, empty receptacles, items which are likely to hold water, earth, waste matter, containers, derelict vehicles, derelict vessels, sputum or nasal fluid, animal remains, or any other matter of a like nature" (s.2).

"Dangerous litter" includes litter deposited in a public place which is likely to cause physical injury, disease or infection when coming into contact with it and "offensive litter" describes litter, if deposited in a public place which defaces, defiles or pollutes or spoils the amenity of that place (s.2). These definitions prevent the Decree from applying to private property except in the case where any person commences the act of depositing dangerous or offensive litter in a public place and the litter comes to rest in a place other than a public place, that person will nevertheless be liable and may be convicted of an offence (s.8(4)).

The Litter Decree provides that anyone who deposits and abandons dangerous litter in any public place is liable to a maximum fine of \$1,000 and/or six months imprisonment and in the case of a corporate body, a maximum fine of \$2,000 (s.8(1)). There is a maximum fine of \$400 for depositing or abandoning offensive litter but for a corporate body, the fine is set at a maximum of \$1,000 (s.8(2)).

A fine of \$400 and/or three months imprisonment can be made against any person who wilfully breaks any bottle, glass or article made of glass, in any public place (s.9).

The Litter Decree also makes provision for the court, instead of or in addition to imposing a fine, to order the offender to clear up and remove litter from a specified area; and after failure to

comply with the order, the person will be liable (in addition to any fine imposed under section 8) to a further penalty of \$200 (s.12(1)). A court may also order, by way of compensation to the public authority having the control or management of the place where the offence was committed, a sum considered reasonable to cover the cost of removing the litter (s.13). The wilful damage and destruction of a litter bin is an offence and anyone convicted is liable to a fine of up to \$500 and imprisonment for a period up to the maximum of six months. In addition, the court has power to order the convicted person to pay the cost of restoring the litter bin (s.14).

Pollution

The Ports Regulations 1990 made under section 63 of the Ports Authority of Fiji Act impose a duty on the master of vessel to ensure that:

- no sewerage is discharged into the waters of a port except in accordance with Annex IV (r.8(1)(b)) of the International Convention for the Prevention of Pollution from Ships 1973; or where the master of the vessel holds a current International Sewage Pollution Prevention Certificate (1973) but the vessel is not equipped with a sewage treatment unit, no sewage is discharged except into port reception facilities (or if facilities are not available) into the water with the prior approval of the Authority (i.e. a person authorised by the Ports Authority to exercise the powers and functions on its behalf) (r.91(3)(4)(5));
- no garbage or contaminated ballast is discharged into the waters of a port (r.91(6));
- the discharge of any oily mixture, galley, bathroom or laundry wastes not coming within the definition of oil, oily mixture, noxious liquid substances or sewerage (r.91(8)).
- contaminated tank or cargo washing are not discharged from the deck into the water (r.91(9)).

The master of a dry bulk cargo vessel, may with the Authority's permission, discharge effluent from the deck or hold but the discharge of bilge matter contaminated with oil is prohibited (r.91(10)(11)).

A fine up to the maximum of \$400 may be imposed for any breaches of these regulations.

Regulation 92 requires the master of the vessel to immediately advise the Authority of any incident which falls within the definition of 'undesirable substances'. The definition includes rubbish, gravel, earth, stone, wreck, any flammable, corrosive, offensive or dangerous substances that are hazardous to navigation and could prevent the proper use of a port. Oil is excluded from the definition (r.92(1)).

Where solid ballast, ash or undesirable substances is discharged into a port, the Authority must be immediately notified and attempts must be made to remove the waste material (r.92(2)). The Authority may remove the waste if there is failure on the part on the master of the vessel to remove it and any expenses incurred may be recovered (r.92(4)).

A duty is also imposed on the master of the vessel to ensure that no refuse or scuppers are discharged overboard whilst in port (r.93(1)) and all overside discharges are kept effectively screened to ensure no fluid refuse falls onto the wharf, structure or vessel along side the wharf (r.93(2)). Departure of a vessel may be delayed until the site has been cleaned (r.93(3)).

Regulation 94(1) also imposes a duty on the owner or occupier of a property to ensure that no oil, spirit, inflammable or harmful substances are discharged from the property into port, or into waters flowing and ebbing into a port or onto a wharf, road or land within a port. The discharge of any sewer or drain into a port is prohibited except with the approval of the Authority (r.95(1)). A fine of \$400 can be imposed for any breaches and \$10 for each day can be imposed if the discharges continue (r.95(3)). An occupier is also under a duty to ensure that no refuse, garbage, corrosive substances, filth or objectionable vegetable and animal matter is deposited on land where it can be washed by rain into a port (r.96(1)).

The dumping of rubbish, waste, soil, rock or other material on the foreshore or port is prohibited except with the prior permission of the Authority (r.97). Costs incurred by the Authority to remove the waste material and restoring the amenity of the foreshore and seabed are recoverable through a court (r.97(4)(5)).

In August 1990 the Ports Authority produced a set of "Standards for Effluent Discharge to Ports". The Standards apply to all Fijian ports and require all companies discharging effluent directly: to Fijian port waters to obtain a permit for their discharge or face prosecution under the Ports Authority Act (see Table 1).

Pesticides

As the misuse of pesticides is likely to cause damage to property, plants and animal life, adversely affect the health and safety of any person and generally impair the quality of the environment, the availability and use of pesticides is regulated by the Pesticides Act 1972. No pesticide may be used, offered for sale or sold in Fiji unless the pesticide is registered with the Registrar of Pesticides (s.4). Any one who contravenes this provision is guilty of an offence and liable on conviction to have any registration held, cancelled, and in addition, to a fine of up to \$200 and a further fine of up to \$10 for every day the offence continues (s.10).

Hazardous Waste

The Highly Inflammable Liquids Regulations 1970 (Factories Act 1972) provides that any cotton waste or any material contaminated with highly inflammable liquid must be deposited without delay in a covered metal container or be removed without delay in a safe place (r.11). The deposit of any inflammable solid residue left on any wall, partition, door, window, ceiling, top, plant, apparatus, effective steps must be taken to prevent danger by removing all residues and deposit them in a safe place (r.10).

Air Pollution

There is at present no specific statute which regulates air pollution except the Traffic Regulations 1974, as amended. The Regulations prohibits the use of a motor vehicle which emits smoke, visible vapour, grit, sparks, ashes, cinders or oily substances, particularly if the emission is likely to cause damage to property or causes injury or is a nuisance and a source of annoyance to any person (r.49(1)(a)). A person is liable if the exhaust outlet of the vehicle is attached in such a manner that it projects directly on to the road (r.49(1)(b)). Any person contravening these provisions or wilfully fails to comply with them is guilty of an offence and liable to a fine of up to \$100 or to imprisonment for up to a maximum term of three months (r.49(2)). The penalties under the Traffic Regulations are quite low and although there is some enforcement of the regulations, the enforcement process needs to be consistently and regularly applied.

Under regulation 50, every motor vehicle using solid fuel must be fitted with an efficient appliance to prevent the emission of sparks or grit and a tray or shield to prevent ashes and cinders from falling on to the road.

A major problem also exists from heavily polluted smoke emitted into the atmosphere. For example, sand mining operation for cement manufacture is carried out by Fiji Industries Ltd. which is processed at the cement operating plant at Lami on the outskirts of Suva. The State of the Environment Report 1991 states that the main environmental hazard of the cement manufacturing plant is the emissions of smoke which is heavily polluted and the damage caused to surrounding habitats by the mining/dredging operations.

Section 23 of the Factories Act 1972, provides that every factory where there is any dust, fumes or impurities given off with any processes carried out there, all practical measures must be taken to protect persons against inhalation and the accumulation of such matters in the work place must be prevented.

The Penal Code 1945, as amended also provides that any person who voluntarily vitiates the atmosphere in any place so as to make it noxious to the health of any person "in the general dwelling or carrying on business in the neighbourhood or passing along a public way is guilty of a misdemeanor" (s.196).

Conclusions and Recommendations

1. This brief review provokes fresh thought on the whole issue of pollution and waste management and the goals and strategies that should be adopted. The generation of waste material and the air and water pollution which commonly results from waste disposal focuses attention on the waste itself and the affected environment. Most wastes in Fiji are generally disposed of by landfill except for some medical wastes which are disposed of by incineration.
2. The categories of waste are undefined and it is essential that certain categories, such as hazardous, commercial, industrial, chemical and medical wastes be specifically defined and stringent controls imposed. Technological controls on land disposal facilities, incinerators or storage containers also need specific permitting requirements. Any new law introduced should in addition to providing for separate categories of wastes, the law must also provide for EIA requirements for waste disposal.
3. In a more practical and immediate sense, the present municipal land fill disposal system on ill selected sites is seriously affected by the difficulties in finding alternative sites, particularly in Suva where a proposed site on native land has not received all the necessary

approvals from the landowning group. One of the difficulties is the uncertainties surrounding waste disposal as the problems associated with the Lami and the Rewa river dump site is obvious.

4. Waste management Plans as well as inspection and monitoring should be the central features in any new law and close attention to trade, agricultural and waste from tourist establishments should receive close attention.
5. Public nuisance law is an important tool that can be applied to a range of environmental problems and it is important that this area of law be closely examined and vigorously applied.
6. The maximum levels of fines in the Ports Regulations 1990 are incredibly low in the light of the damage that could result in the marine environment from oil spills and any other type of marine pollution. It is suggested that the maximum levels of fines be reviewed.
7. That the provisions of the Traffic Regulations against polluting motor vehicles needs to be regularly and consistently applied.

PORT AUTHORITY
STANDARDS FOR EFFLUENT DISCHARGE TO PORT
AUGUST, 1990

Conditions for Discharge of Effluent to Fijian Ports

All companies discharging effluent directly to Fijian port waters are required to obtain a permit for their discharge by 1st January, 1991 or face prosecution under the Ports Authority Act. Permits will be granted to companies on the following conditions:-

- a) The company provides the Ports Authority with its volume of discharge as follows: maximum flow; minimum flow; average daily flow; pattern of daily flow discharge.
- b) The company provides the Ports Authority with an analysis by an independent laboratory of their effluent under average flow conditions.
- c) The effluent meets the standards listed below. (Effluent which fails to meet these standards will be permitted at the discretion of the Ports Authority on a case by case basis.)

Standards for Discharge of Effluent to Fijian Ports

Size	Solids to pass 1.5 mm screen
pH range	6.0 to 10.0

Metals:-

Cadmium	Less than 2 mg/L
Chromium	Less than 2 mg/L
Cobalt	Less than 2 mg/L
Copper	Less than 2 mg/L
Iron	Less than 20 mg/L
Lead	Less than 2 mg/L
Manganese	Less than 2 mg/L
Mercury	Less than 0.02 mg/L
Molybdenum	Less than 2 mg/L
Nickel	Less than 2 mg/L
Silver	Less than 2 mg/L
Tin	Less than 2 mg/L
Zinc	Less than 2 mg/L

Suspended Solids	Less than 100 mg/L
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Emulsified Oil	Less than 50 mg/L
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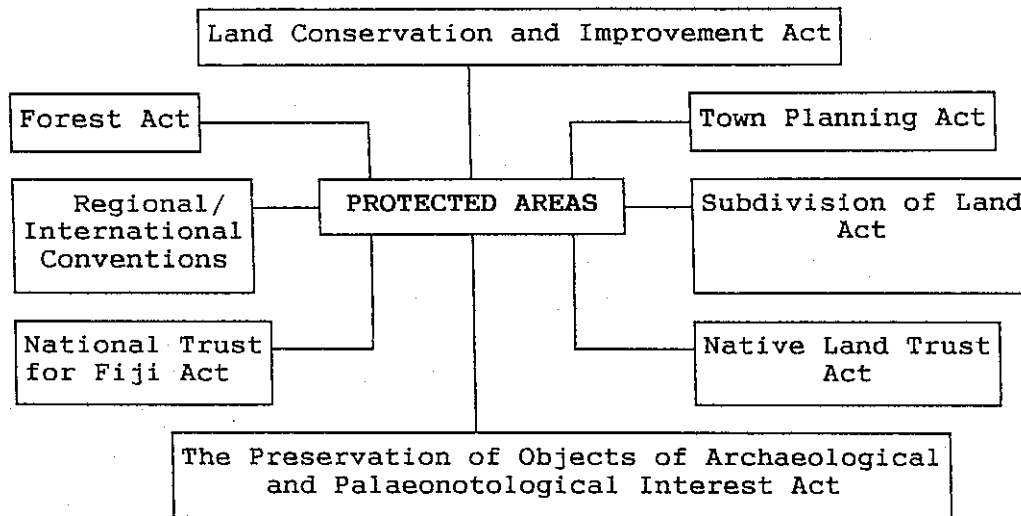
B.O.D. (5 day)	Less than 100 mg/L
Chlorine as Cl ₂	Less than 5 mg/L
Cyanide as CN	Less than 1 mg/L
Formaldehyde as HCHO	Less than 5 mg/L
Phenols	Less than 5 mg/L
Ammonia	Less than 10 mg/L
Sulphate as SO ₄	Less than 10 mg/L
Nitrate as NO ₃	Less than 10 mg/L
Phosphate as PO ₄	Less than 10 mg/L

No free or floating layer of oils/grease.

Other 'priority pollutants' as per US EPA schedule to be promulgated later.

Colour - by approval of Ports Authority on a case by case basis.

11. PROTECTED AREAS



Fiji does not have a clear policy on protected areas or what the national priorities and goals for protected areas should be. The Ninth Development Plan (1986-90) provides for an objective to be reached in the Plan period in the following words to "protect and conserve unique features of Fiji's environment" (p.157). Although this may provide an important element in the establishment of a legal framework to protect and conserve unique features, the long term legal protection continues to be insufficient. DP 9 points out that legislation in Fiji concerning the conservation of the environment and the protection of the national heritage are inadequate or obsolete and that laws which have been uncoordinated will be brought together and new laws enacted to cover all aspects of environmental management (p.157).

There is no comprehensive legislation in Fiji for protected areas but there are a number of 'piecemeal' legislation covering different types of protected areas. Protection through the regulation of activities, the imposition of prohibitions and penalties are the techniques used in all these laws for the management of such areas. Some areas are given a protected status by Ministerial declaration, such as the Sigatoka Sand Dune National Park (although the Sand Dunes are currently not legally protected), but without the provision of long term legal support. Customary law also plays an important role in the management and preservation of traditional protected areas such as sacred sites, old village sites, burial grounds and areas protected for one reason or another having both spiritual and cultural significance.

The existing legislation recognises different types of protected areas. The National Trust for Fiji Act 1970 requires the National Trust to promote the permanent preservation of lands and reefs of every description having natural, historic or natural interest or beauty; the protection and augmentation of the amenities of such land to preserve their natural aspect and features and to "provide for the access to and enjoyment by the public of such lands..."(s.3).

The Preservation of Objects of Archaeological and Palaeontological Interest Act 1940 provides for the preservation of sites on which objects of archaeological or palaeontological interest are discovered or exist. The Act provides for the protection of any portion of land adjoining the site as may be required for fencing or covering to preserve the object and any means of access to the site (s.2).

The Town Planning Act 1946, General Provisions, 9 Schedule G(3) provides for the local authority or the Director of Town Planning, in consultation with the National Trust to "order the conservation of a site, object or area of natural beauty". This is a requirement for all zones. The zoning laws and town planning schemes make provision for open spaces and park land. Under the Subdivision of Land Act 1937 if the Director of Town Planning considers that the establishment of offensive trade, business or manufacture will affect the health, amenity or convenience of any neighbourhood, the offensive trade will not be permitted or if permitted, "that a portion of land being subdivided not exceeding in any case one-twentieth of the total area...should be reserved as an open space" and the Director may, in approving the application in whole or in part, impose any condition considered necessary (s.8(3)). Open space is defined under section 3 of the Act to include a public garden, recreation ground, playing field or other land intended to be used for any such purpose.

Under the Forest Act 1953, nature reserves may be declared as part of the reserved forest (s.7) and governed by the same regime as reserved forests but with a few exceptions. Access to nature reserves is restricted to the hours of 6 a.m. to 9 p.m. and a licence is required for the cutting, grazing or removing of forest product and hunting or fishing in nature reserves will only be permitted for conservation purposes.

Native land leased under the Native Land Trust (Leases and Licences) Regulations automatically excludes from the lease those areas of archaeological and historical importance and creates protected areas such as nature reserves to protect a particular species of forests or important natural features. The forest species *dakua* at Waisale is protected under the leasehold system. Apparently the reserve is to be managed by the National Trust.

There is potential under the Land Conservation and Improvement Act 1953 to create protected areas. Under section 8 of the Act, the Land Conservation Board may issue a Closing Order for any land that is or "has become despoiled". In effect, the Closing Order applying to any area of land prohibits the occupation, cultivation, the grazing of cattle, the cutting down and destruction of vegetation. Section 7 of the Act also makes provision for Conservation Orders, which could be either a general order or a particular order and could prohibit or regulate a number of activities e.g the break up or clearing of land for cultivation, the cultivation of crops, the use of sledges and the lighting of fires and burning of vegetation, in a particular area.

Regional/International Conventions

Fiji acceded to the Convention on the Conservation of Nature in the South Pacific 1976 (Apia Convention) on the 18th. September 1989. The Convention provides that each Contracting Party "shall to the extent that it is itself involved, encourage the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural or scientific value" (Art. II(1)). Each Contracting Party must notify the South Pacific Commission, the body charged with the bureau duties of the establishment of any protected area and of the legislation and the methods of administrative control adopted in connection with it (Art.II(2)).

The Convention further requires that the boundaries of national parks must not be altered and the resources must not be subject to exploitation for commercial profit without the fullest examination. The hunting, killing, capture, collection of specimens, eggs and shells of the fauna and the destruction of the specimens of the flora is prohibited except under the direction or control of appropriate authorities or for authorised scientific investigation (Art.III). National reserves "shall remain inviolate" except for carrying out scientific investigations (Art.IV).

The Convention for the Protection of the Natural Resources and Environment of the South Pacific Region 1986 (SPREP Convention) makes provision for specially protected areas and the protection of wild flora and fauna under Article 14. This Article requires the Contracting Parties to individually or jointly, take all appropriate measures to protect and preserve rare or fragile ecosystems and depleted, threatened or endangered flora and fauna as well as their habitat in the Convention Area. To meet this objective, the Contracting Party, as appropriate, must establish

protected areas such as parks and reserves, and prohibit or regulate any activity likely to have adverse effects on the species, ecosystems or biological processes that such areas are designated to protect. Fiji acceded to the SPREP Convention and its related protocols on the 18th September 1989.

Existing Protected Areas

The Sigatoka Sand Dune National Park is the only gazetted national park at present but current management of the Sand Dunes is insufficient for it to be classed a national park by international standards. The Sand Dune covers an area of 240 ha. (163 ha. is State land).

There is no legislation nor clear guidelines to manage national parks in Fiji. In 1980, a report on "A National Parks and Reserves System for Fiji" was published. The report prepared by Richard Dunlap and assisted by Birendra Singh was funded by IUCN, WWF and UNEP. A National Parks and Reserves Bill was also drafted in 1980; yet despite the critical need to provide for long term protection for such areas and to comply with the legal obligations under the Apia and SPREP Conventions, there is a serious lack of protected area legislation for both the terrestrial and the marine environment. The 1980 Bill requires updating where appropriate with the view to bringing such legislation into effect.

The Ministry of Forestry established its first nature reserve in 1956 at Nadarivatu which contains a land area of 100 ha and forming part of the Nadarivatu Forest Reserve. The other nature reserves include:

- Tomaniivi proclaimed in 1958 and covering approximately 3,2678 ha. situated in the Tikina of Tavua, Province of Ba, being a portion of the Nadarivatu-Nadala Forest Reserve;
- Nagaranibuluti proclaimed in 1958 and covering approximately 300 ha. and situated in the Tikina of Tavua, Province of Ba and being a portion of the Nadarivatu-Nadala Forest Reserve;
- Draunibota and Lakibo proclaimed in 1959 is an area of land situated in Suva harbour and known as Draunibota or Cave Island and Lakibo or Snake Island containing estimated areas of four and three quarter acres and two thirds of an acre respectively and being parts of Suva and Namuka Harbours Forest Reserve;
- Taveuni proclaimed in 1959 is land extending to 4317 ha. more or less and being the whole of the Ravilevu Forest Reserve;

- Vuo, proclaimed in 1960 is that parcel of land situated in Suva harbour and known as Vuo or Admiralty Island containing an estimated area of 1.2 ha. being part of the Namuka Harbours Forest Reserve;
- Vunimoli, proclaimed in 1967 covers land situated within the Tikina of Vaturova in the Province of Cakaudrove, the whole of the reserved forest and containing an area of some fifty acres.

The Ministry of Forests has also established outdoor recreation and amenity areas in Colo-i-Suva, Saweni Beach and Lomolomo. In addition, Fiji Pine Ltd. is responsible for the Forest Amenity Areas at Lololo and Tavakubu (Cabaniuk et al 1986:25).

Yadua Tabu Iguana Sanctuary is located off the coast of Bua, Vanua Levu. There is no legislation to provide for the long term protection of the Yadua Tabu sanctuary but protection is provided by the local community under an agreement between the National Trust and the Chief of the landowning mataqali.

The National Trust also manages:

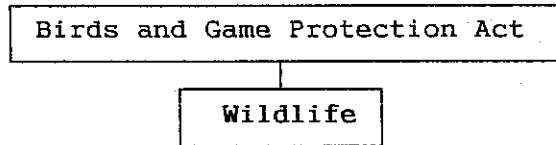
- the Laucala Beach Ring Ditch Fort on the outskirts of Suva. The fort is the site of an old village with a circular mote crossed by four causeways;
- the Momi Gun Site in Momi Bay. This is an old defence battery site established in World War II. The 4.8 ha. site of freehold property was gifted by its owner, an American, Mr. Trammel Crowe because of its historic value;
- Patterson Memorial Gardens, Levuka. This garden was bought as part of the Bond store and is situated between Morris Hedstrom's buildings and the Bond store. The garden is maintained by the Levuka Historical and Cultural Society.
- Garrick Memorial Park, a large area of forest land in the Navua area was gifted by the Garrick family to the National Trust in August 1983.
- Waisale Dakua Reserve. In March 1981, the National Trust sought assistance from the Native Land Trust Board to establish a Reserve in an area of Waisale containing a particular forest species, dakua. The National Trust is to manage the Reserve with funding from New Zealand and from the Ministry of Forestry.

Conclusions and Recommendations

Protected areas are established to provide lasting conservation of species and ecosystems and there are a number of ways in which protected areas can be established or created. The status of land to be designated as a protected area is critical because of the variation of land uses and ownership rights.

- (a) Under the State Acquisition of Lands Act 1940, an acquiring authority (i.e. a government Minister or any person empowered to compulsorily acquire property) may compulsorily acquire any land required for any public purpose(s.3). Public purpose as defined by the Act includes 'the utilisation of any property in such a manner as to promote the public benefit'(s.2) which appears broad enough for application to protected areas.
- (b) The creation of protected areas through the leasehold system such as the Waisale Dakua Reserve requires some attention as the lease could have potential for flexibility than protected areas established by statute. Reserves established by lease could also allow for the active participation of the landowners. In creating protected areas through this system it is important that the traditional landowners perceive the benefits in order to actively support the programme.
- (c) The establishment of a protected area by agreement is also possible as demonstrated by the Yadua Taba Iguana sanctuary. The agreement between the National Trust and the chief of the landholding mataqali serves a wider purpose than protecting the iguanas as the whole island of Yadua Taba is protected.
- (d) The Garrick Memorial Reserve is an important example of the creation of a protected area on freehold land. The gifting of the Reserve by the Garrick family for conservation purposes has no legal constraints for management purposes compared to native land protected through a leasehold system where the customary authority and communal organisation must be taken into account.
- (e) As Fiji is a Contracting Party to the APIA and SPREP Conventions, domestic legislation must be consistent with the obligations incorporated in the Conventions. Where there is an absence of such legislation, new laws need to be formulated to give effect to the Conventions.
- (f) A comprehensive National Parks and Reserves legislation to cover both terrestrial and marine areas need urgent consideration.

12. WILDLIFE



The State of the Environment Report for Fiji 1991 states that a characteristic of oceanic islands is the limited wildlife and Fiji is no exception. Birds are the most conspicuous form of wildlife and 60 indigenous breeding land birds survive. This number is approximately doubled when seabirds, migrants and introduced birds are included. Fiji has no indigenous terrestrial mammals with the exception of six species of bat. Twenty four species of terrestrial reptile occur which are two snakes, two iguanas, ten geckos and ten skinks. There are also two native species of frog, four species of seasnake and four species of marine turtle which occur in Fiji waters.

"The level of endemism is high with 39% in the avifauna including two endemic genera (Phigys and Trichocichla), 35% of the reptiles and 100% in the amphibian. Of the mammals, one of the six species of bat, the Fiji flying fox (Pteralopax acrodonta), is endemic (17%)". The Report further states that Fiji's flora is inadequately known and a few species are known to be endangered.

Statutory Background

The only piece of legislation providing some measure of protection is the 1923 Birds and Game Protection Act. The Act protects all birds other than those listed which are all introduced species (Malay Turtle Dove, House (or Brown) Mynah, Java Rice Sparrow, Red-vented Bulbul, Field or Grey Mynah, Strawberry Finch, European Starling) in the First Schedule. Protection does not extend to any tame or domestic bird or to any bird defined as 'game' (Fijian Wood Pigeon (Peale's Pigeon or Barking Pigeon) and Fruit (or Chili Pigeon) in the Second Schedule of the Act.

The legal protection applying to birds also extends to nests and eggs and a person will be guilty of an offence and liable to a fine of up to fifty dollars or imprisonment of up to three months, if a protected bird is wilfully killed, wounded or taken or the nest is taken, removed, injured or destroyed. A person is equally guilty if a protected bird is offered for sale, or is wounded or taken or the nests, eggs, skin or plumage have been taken or exported (s.3). The taking of protected birds for

scientific purposes is exempted but the written authorization of the Minister for Primary Industries is essential. The Minister may impose any condition considered appropriate (s.5).

The principle rule governing protection is laid down in the form of offences i.e. a series of prohibitions depending on the protection granted. Activities are generally forbidden unless authorised by licence pursuant to section 9 applying generally to taking or killing of game that may be granted by the Minister subject to the "payment of such fee...as the Minister may by notice in the Gazette prescribe"(s.9(1)). The power of the Minister under the Act has been delegated to the Permanent Secretary by notification on the 11th November 1965.

The Act imposes a close season for game. The close season for Fijian Wood Pigeon and Fruit Pigeon extends to the whole year (Notice 17th. February 1975) but the Minister may give written authority for the killing, wounding or taking of game or for the purchase of game during the close season (s.7(1)).

The Minister for Primary Industries may also by order define areas that are specifically reserved for protection of game where it would be "unlawful for any person without the written permission of the Minister to shoot, capture, take or destroy any particular kind of game...nest or egg"(s.11(1)).

Game rangers may be appointed by the Minister (s.10) to prevent and detect offences and to enforce the provisions of the Birds and Game Protection Act. The game ranger has power of search and seizure under section 18. If there is suspicion on reasonable grounds that an offence against the Act has been committed, the game ranger has power to inspect and search baggage, package, vessel or vehicle and if any protected bird or game, nest or eggs of such birds are found "the same may be seized and taken before a court" (s.18(1)). A game ranger may also enter land for the purpose of carrying out the provisions of the Act or to prevent or detect offences (s.18(2)).

The very real practical problem with the Act is the exemption for "tame or domestic birds" as potentially any kind of bird, if kept in a cage for a time can be regarded as "tame or domestic" and thus escape the protection of the Act. At some (unknown) stage, an offence i.e. the taking of the protected bird does not become an offence as the caged bird could be classified as a "tame or domestic" bird. The question does arise whether Fiji's special birds such as the Kadavu Parrot or the Peregrine Falcon, once caged, may (at some unknown point in time) be classified as "tame and domestic" and escape the protection of the Act. Another difficulty with the present Act is that it is illegal to export the skin and plumage of a protected bird (alive or dead) under section 3 but it is not illegal to export any bird which may be deemed to be tame or domestic. Thus a person leaving Fiji by sea

or air or in port on an ocean going yacht with a caged protected bird which at some unknown point has become "tame or domestic" could not be accused of smuggling the bird out of Fiji. The export of animals, birds and particularly Fiji's endangered species must be subject to and regulated by appropriate permits and certificates.

The Birds and Game Protection Act is grossly and clearly deficient in protecting other forms of wildlife such as the crested iguana as the Act does not extend to reptiles, mammals and amphibia. There is some protection for turtles under the Fisheries Act. Some consideration must be given to expanding the scope of the Birds and Game Protection Act to include other forms of wildlife that presently remain unprotected; or new comprehensive legislation should be considered to protect Fiji's rapidly declining rare and endangered fauna and flora. In 1979, a Wildlife Protection Bill was drafted in the Department of Agriculture and Fisheries and forwarded to the Office of the Solicitor-General. On the 16th. April 1980, the Bill was forwarded for Cabinet discussion and it would appear that Cabinet decided not to proceed with the Bill at that time.

In 1984, Wildlife legislation was drafted by Mr. David Clarkson, Senior Veterinary Investigation officer from the Ministry of Primary Industries. The Bill makes provision for the "protection, control, harvesting and destruction of fauna and for related purposes". The Bill provides for protected fauna, sanctuaries, protected areas, wildlife management areas with wildlife management as the core feature of the Bill. The Bill was submitted to the office of the Solicitor-General in May 1984 but the Bill was returned to the Ministry of Primary Industries in July 1984 for further action. It is possible that there has been a decision not to proceed with the Bill at that point in time. It is suggested that the wildlife legislation drafted in 1979 and 1984 be reviewed and updated, if necessary, with the view to bringing such a framework legislation into effect. In view of the deficiencies in the current Birds and Game Protection Act and the lack of legal protection given to Fiji's crested iguanas and other reptiles, mammals and amphibia, the need to provide legal protection is vital.

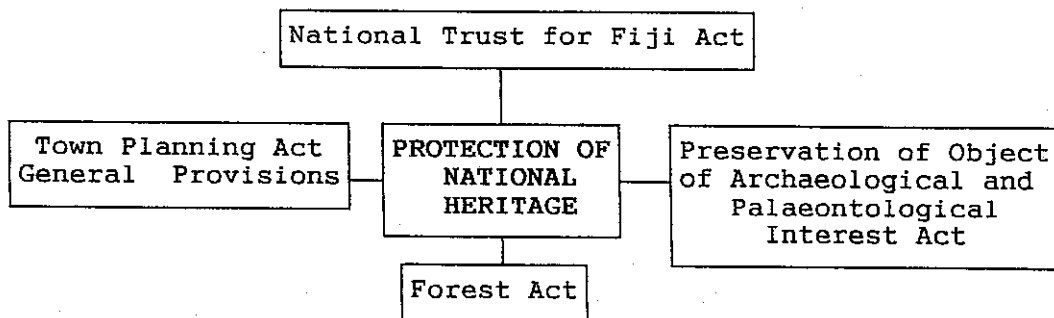
Fiji is not a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Briefly, the Convention has three Appendices which are of interest in view of Fiji's very special crested iguanas and peregrine falcon and other rare and endangered wildlife. Appendix I deals with all species threatened with extinction which are or may be affected by trade. Trade in specimens is also subject to strict regulation. Appendix II deals with specimens although not necessarily threatened with extinction, but may become so, unless trade in specimens of such species is strictly regulated. Trade in other species are also subject to control. Appendix III deals

with all species which any Contracting Party identifies as being subject to regulations within its jurisdiction for the purpose of preventing or restricting exploitation and in need of the cooperation of other Contracting Parties in the control of trade. In the past, it has been suggested that Fiji become a Contracting Party to CITES and this suggestion is strongly endorsed.

Recommendations

1. The wildlife legislation drafted in 1979 and 1984 be reviewed and updated with a view to bringing a framework legislation into effect. The current deficiencies are such - both in relation to unspecified rare species (e.g. Fiji's crested iguana) and in relation to the smuggling trade as to make it vital that urgent action be taken.
2. Urgent consideration be given for Fiji to become a Contracting Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

13. PROTECTION OF NATIONAL HERITAGE



Statutory Background

The four main statutes that provide for Fiji's national heritage is the National Trust Act for Fiji 1970 administered by the National Trust for Fiji, the Preservation of Objects of Archaeological and Palaeontological Interest Act 1940 administered by the Fiji Museum, the Town Planning Act 1937 - General Provisions 1980 and the Forest Act 1953. These statutes and General Provisions are designed to conserve the built or cultural environment and natural resources and extend a protective status to them provided they have been identified as possessing unique or distinctive features. Various forms of approvals are required if there are any development or alteration to these resources, but in some cases, the legislation provides for outright prohibitions.

The National Trust for Fiji Act provides for the establishment of the National Trust as a statutory body for the following purpose:-

- (a) to promote the permanent preservation for the benefit of the nation of lands (including reefs), buildings, furniture, pictures and chattels of every description having national, historical, architectural or natural interest or beauty;
- (b) the protection and augmentation of the amenities of any such land or buildings and their surroundings and to preserve their natural aspect and features;
- (c) to protect animal and plant life;
- (d) to provide for the access to and enjoyment by the public of such lands, buildings and chattels (s.3).

The scope of section 3 is broad and includes both cultural and the natural heritage with the natural environment embracing both the terrestrial and marine sectors.

The Town Planning Act - General Provision 9 (Schedule G) which is applicable to all town planning schemes in all zones, provide for the preservation of buildings of historic or architectural merit, the conservation of sites, objects and areas of natural beauty. The preservation of monuments and objects and other vulnerable cultural property is the objective of the Preservation of Objects of Archaeological and Palaeontological Interest Act.

The Protection of Cultural Heritage

Historic Sites - Fiji has a rich heritage and there are a large number of historic sites that are worthy of protection. The State of the Environment Report for Fiji 1991 states that 'at present the Fiji Museum holds files on different sites in conjunction with marked up 1:50,000 maps on which the known sites are located. This coverage is highly localised and even in areas apparently quite well covered, a large number of the existing sites are not included. For instance, in 1987, a brief survey of the lower and middle Sigatoka Valley, (an area comparatively well researched according to Museum files), revealed that 19 of the 40 sites surveyed were not recorded in the Museum's files". The Native Lands Trust Board is in the process of map recording heritage sites that are of historical, archeological and cultural significance aimed mainly at the tourism market for visitor attraction. Parts of the Eastern Division and Kadavu have been mapped and the NLTB is in the process of mapping other parts of Fiji. This service is important not only for visitor attraction but for providing heritage information for the National Trust for Fiji, Department of Town and Country Planning and the Fiji Museum.

"The categories of historic sites that are of major interest to the National Trust are those sites with structures of proven historic value, sites associated with historic events such as explorer's camps, battle sites, early colonisation camps or farms and buildings and sites of major historic importance" (Director's Paper 1989). There are at present three historic sites (Momi Gun Site at Momi Bay, Laucala Beach Ring Ditch Fort at laucala Beach Estate in Suva and the Patterson Memorial Gardens in Levuka) that are under the protection of the National Trust. In October 1991, the National Trust sought the co-operation of the Ministry of Fijian Affairs in an attempt to establish closer co-operation with them and the Native Land Trust Board in a programme to preserve Fijian traditional sites in rural areas.

Under the General Provisions 1980, Provision 9 Schedule G(3), Town Planning Act, the local authority or the Director of Town and Country Planning after consultation with the National Trust may order the conservation of a site.

The absence of a National Register of historic and archaeological sites is a major concern. Such sites are regularly being lost to development and agriculture through oversight and lack of appreciation of their significance (State of the Environment Report). According to the Fiji Museum, a national site survey was initiated in 1964 which contain records of 632 sites, but the site survey has not been kept up to date.

The Preservation of Historic Buildings - has generated considerable interest and according to the State of the Environment Report for Fiji 1991, this is being gradually reflected in regulations and development approvals. The National Trust is entrusted with the protection and preservation of 3 historic buildings (Borron House in Suva, Morris Hedstrom's Building, Levuka and the old Bond Store, Levuka). Under the Town Planning Act, the local authority or the Director of Town and Country Planning, in consultation with the National Trust, may order the preservation of buildings considered to be of historic interest or architectural merit. According to Francis (unpub. paper 1991) these provisions have been used and will continue to be heavily used in the future to protect historic buildings as illustrated recently with Levuka. Under the approved Town Planning Scheme, the whole of Levuka, the old capital of Fiji was declared a historic town taking in the area from St John's school in Cawaci in the north part of the island to the Levuka cemetery in the south. This whole area has been declared a conservation area. The erection of new buildings and the demolition or alteration of old buildings require planning permission. The City of Suva has recently requested an amendment to its Planning Scheme to protect some 50 historic buildings and the recently approved Nausori Town Planning Scheme identifies five different areas of buildings belonging to the Methodist church and the early sugar industry, stating that their demolition should be discouraged. A change to a large area of park zone to a historic site has also occurred as an early burial ground has been identified there.

Monuments - the protection of monuments is the responsibility of the Fiji Museum under the Preservation of Objects of Archaeological and Palaeontological Interest Act. Monument is defined as "any object of archaeological or palaeontological interest and any area of land in which such object is believed to exist. An object of archaeological or palaeontological interest is defined in the Act to mean any structure, erection, memorial, tumulus, cairn, place of internment, pit-dwelling, trench,

fortification, irrigation work, mound, excavation, cave, rock, rockdrawing, painting sculpture, inscription, monolith or any remains, fossil remains of man, animals or plants or any bed containing fossil remains or any object or remains which are of archaeological, anthropological, ethnological, prehistoric or historic interest, The definition includes the site on which the object was discovered, the land adjoining the site which may be required for fencing, covering or preserving the object and the means of access to the object (s.2).

Under the Act, the Minister may declare by order in the Gazette, any object and any land on which the object exists, to be a monument (s.6(1)). The Board of Trustees for the Museum may with the sanction of the Minister, purchase or take a lease, accept a gift or bequest of any monument. The owner of any monument may by written instrument constitute the Board as legal guardians. Where the monument is without an owner, the Board may, with the sanction of the Minister, assume the guardianship of the monument (s.7). Where a monument is in danger of being destroyed, injured or allowed to fall into decay, the Minister may acquire the monument under the provisions of the State Acquisition of Lands Act as if the preservation of such a monument were for a "public purpose". But the powers of compulsory purchase cannot be exercised where any monument is periodically used for religious observances or where there is an agreement between the Board and the owner of a monument. Further, the powers of compulsory purchase will not be exercised unless the owner or other persons are competent to enter into an agreement to protect or preserve the monument (s.11).

The Board may also, with the sanction of the Minister, enter into written agreement with the owner of any monument for its protection or preservation. The agreement may provide for such matters as the maintenance and custody of the monument and the duties of persons who may be employed in connection with it. The agreement could contain restrictions of the owner's right to destroy, remove, alter or deface the monument or to build on or near the site of the monument. Public access facilities could also be incorporated in the agreement (s.8). If an owner or occupier intends to build on or near the site of the monument in contravention of the terms of the agreement, the Board may make an order prohibiting the contravention. Any failure to abide by the terms of the agreement, the Minister may exercise the powers of acquisition under section 11 of the Act.

For the purposes of maintaining any monument that has been acquired or entrusted to the care of the Board, the Board must have access at all reasonable times to inspect or to carry out any necessary maintenance (s.12). Further, the Board or any person authorised by the Minister may inspect work being done and may order the cessation of work pending further orders of the Minister (s.20(1)). Any person who fails to comply with the order

is liable to a fine of \$200 and/or six months imprisonment (s.20(2)).

A permit is required for any excavations or surface operations to search for objects of archaeological or palaeontological interest. The permit will only be issued where the Board is satisfied that the applicant is competent both by training or experience to carry out exploration or excavation using the most recent scientific methods (s.3(1)(2)). The permit may contain protective conditions and limitations as considered necessary by the Board. A permit is also required for the removal of any object or monument out of Fiji (19). Where the Board is of the opinion that the excavation or removal of any monument is desirable in the interests of archaeology, science, history or art, a permit may be granted by the Board for excavation or removal to a place within Fiji (s.18).

The only land and structure declared so far to be a monument is Wasavulu located on the outskirts of Labasa. Since the declaration in 1969 by the Minister of Social Services, the monument was entrusted to the care of the National Trust in 1986 "because of its long term preservation programme" (S. Matararaba:15 Nov.91), but this transfer according to the National Trust has not been formalised in accordance with the provisions of the Preservation of Objects of Archaeological and Palaeontological Interest Act. The Board of Trustees for the Fiji Museum may relinquish any rights or guardianship with respect to any monument, but the relinquishment is subject to the sanction of the Minister (s.15).

Archaeological sites and monuments currently receive inadequate attention and protection under the Preservation of Objects of Archaeological and Palaeontological Interest Act. The Fiji Museum at present lacks archaeological and palaeontological expertise and is dependant on visiting archaeologists and other experts who are available only on a short term basis. Clearly, there is urgent need for local training in these matters. The Wasavulu monument, from all accounts, has been damaged since its gazetting and positive steps need to be taken by the Fiji Museum and the National Trust to enforce the provisions of the Act. Whilst it is vital to have constructive legislation, it is imperative that legislation is effectively enforced. The Fiji Museum is clearly in need of financial and technical support as the legal responsibilities of the Museum extends beyond the "storehouse" but the support must be both adequate and appropriate.

There has also been little financial support for the preservation of historical and archaeological sites. According to Fullman (UNESCO paper) "Fiji cannot afford to be complacent about safeguarding her cultural heritage whether it is living, fixed or portable. Fiji will first need to tidy up her local policies and strengthen their enforcement before she can seriously adopt

international commitments". The preservation of areas of cultural significance is an urgent need.

Natural Heritage

The most common legal technique used to establish protected status on natural resources is to designate them as reserve areas and certain safeguards are usually incorporated in the legislation to protect the areas reserved. There is normally a presumption against alteration to the resources or development within the reserve areas if not an outright prohibition. Generally there is separate legislation concerning national parks, nature reserves, marine parks, wildlife sanctuaries but in Fiji there is a serious lack of appropriate legislation and institutions to provide for long term protection. The existing legislation does not allow for the establishment of different types of protected areas e.g the Sigatoka Sand Dune National Park was declared in 1988 and has been placed under the management of the National Trust without the appropriate legal support of a National Park legislation.

There are a number of nature reserves established under the Forest Act but as part of a reserved forest (s.7(1)). Since these areas remain part of the reserved forest the same regime established for reserved forests also apply to nature reserves and the same activities prohibited in reserved forests also apply to nature reserves. But stricter controls apply to nature reserves particularly in relation to issue of licences. Licences for cutting, grazing or removing forest produce and hunting or fishing in nature reserves can only be issued only if desirable for conservation purposes (s.35(5)(6)). Access to the nature reserve is also limited between the hours of 6 a.m. and 9 p.m.

The National Trust for Fiji is also entrusted with the responsibility for administering nature reserves. The Garrick Memorial Park, a large area of forest land was gifted to the Trust by the Garrick family in August 1983. The Waisale Dakua Reserve protected for a particular forest species, dakua, is also managed by the National Trust. The National Trust Act for Fiji is inadequate to give long term protection to nature reserves entrusted to the National Trust.

Fiji has no legally established marine reserves.

There is also inadequate legislation to protect rare and endangered species or species threatened with extinction. The Yadua Taba Crested Iguana sanctuary located off the coast of Bua in Vanua Levu was established in 1981 and managed by the National Trust with the assistance of the landowners. There is no existing wildlife legislation except for the Birds and Game Protection Act 1923 but this Act does not extend to reptiles.

Conclusions and Recommendations

There is clearly a need for comprehensive legislation to be established for long term legal protection of:

- national parks and reserves. A National Parks and Reserve Bill was drafted in 1980 following the 1980 report on 'A National Parks and Reserve System for Fiji' by Dunlap and Singh. It is suggested that the report be reviewed and the Bill be updated, if necessary. Some consideration is necessary to bring the Bill into effect. This is an urgent need;
- comprehensive wildlife legislation is urgently needed to cover wildlife management, habitat and sanctuaries to respond to the protection of Fiji's wildlife such as the crested iguanas. In 1984, a Fauna (Protection and Control) Bill was drafted by Mr. David Clarkson, Senior Veterinary Investigation Officer, Ministry of Primary Industries. The Bill was submitted to the Office of the Solicitor-General in May 1984 but the Bill was returned to the Ministry of Primary Industries in July 1984 for further action. A similar Bill was drafted in 1979. It is suggested that the draft Bills be reviewed and updated urgently with the view to bringing such legislation into effect;
- that comprehensive legislation be enacted for the protection of places of cultural significance; and
- that urgent consideration be given to the establishment of a National Heritage Register.
- that consideration be given for Fiji to become a party to:
 1. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and
 2. the Convention on the Conservation of Migratory Species.

14. Institutional Structure for Environmental Matters

The Environmental Management Unit

Fiji's Seventh Development Plan (1976-1980) makes mention for the first time a plan for a National Environment Council in the following words:

"An environmental administration structure will be developed in such a way as to link, through a central co-ordinating unit, various Ministries whose activities bear on the environment. Also, an advisory Fiji Environment Council will be established. The membership of this Council will reflect Government's determination not to centralise responsibility for the environment but to retain the existing commitment of several Ministries in this field, and will include appropriate non governmental representatives".

In 1982, approval was given by the Public Service Commission for the Department of Town and Country Planning to establish an Environmental Management Unit (EMU) to implement government's commitment to environmental planning and management. The Unit became operational in 1989 with the recruitment of an expatriate environmental planning specialist and a local graduate assistant. A local senior environmental planner was appointed in October 1991 and the officer position for the Unit remains unfilled.

The role of the EMU is to provide policy advice to government on environmental matters. "In 1989, the EMU successfully put forward proposals to Cabinet to accede to three international environment conventions [and] has formulated environmental policy for inclusion in the Native Land Trust Board's new five year tourism policy and [has] provided policy advice for the government representation at the South Pacific Forum" (Chape:unpub.paper p.7).

The Environment Management Committee

The Environment Management Committee (EMC) an inter-ministerial management committee chaired by the Director of Town and Country Planning has been operating since 1980. EMC has a co-ordinating and advisory role and one of its primary functions is to advise the Director of Town and Country Planning on environmental implications of various development proposals. The EMC has also functioned as a technical committee providing a range of technical expertise drawn from the Ministry of Primary Industries (Land Use, Drainage & Irrigation, Fisheries) Forestry, Lands and Mineral Resources, Health, and statutory bodies such as the Native Lands Trust Board, University of the South Pacific,

Bureau of Meteorology, the National Trust for Fiji and the Fiji Museum.

Regional environmental issues, particularly those involving the South Pacific Regional Environment Programme (SPREP) are dealt with by EMC and EMC has been used as a "forum for deciding appropriate representation to various conferences and training activities. In 1989-90 EMC also played a major role in the development of the framework for the National Environment Strategy" (Chape:unpub. Paper 1990).

During the last eleven years a number of other committees - the Mangrove Management Committee, the National Oil Pollution Committee, the Rubbish Dump Committee, NLTB Steering Committees for landowner tourism projects, the CFC Control Committee and the Land Conservation Board (see Table 1) have been or are being established to provide technical advice on those matters within their respective areas of responsibility. Under the proposed National Environment Council Structure the EMC is proposed to take on the role of technical advisory committee to the Council.

National Environment Council

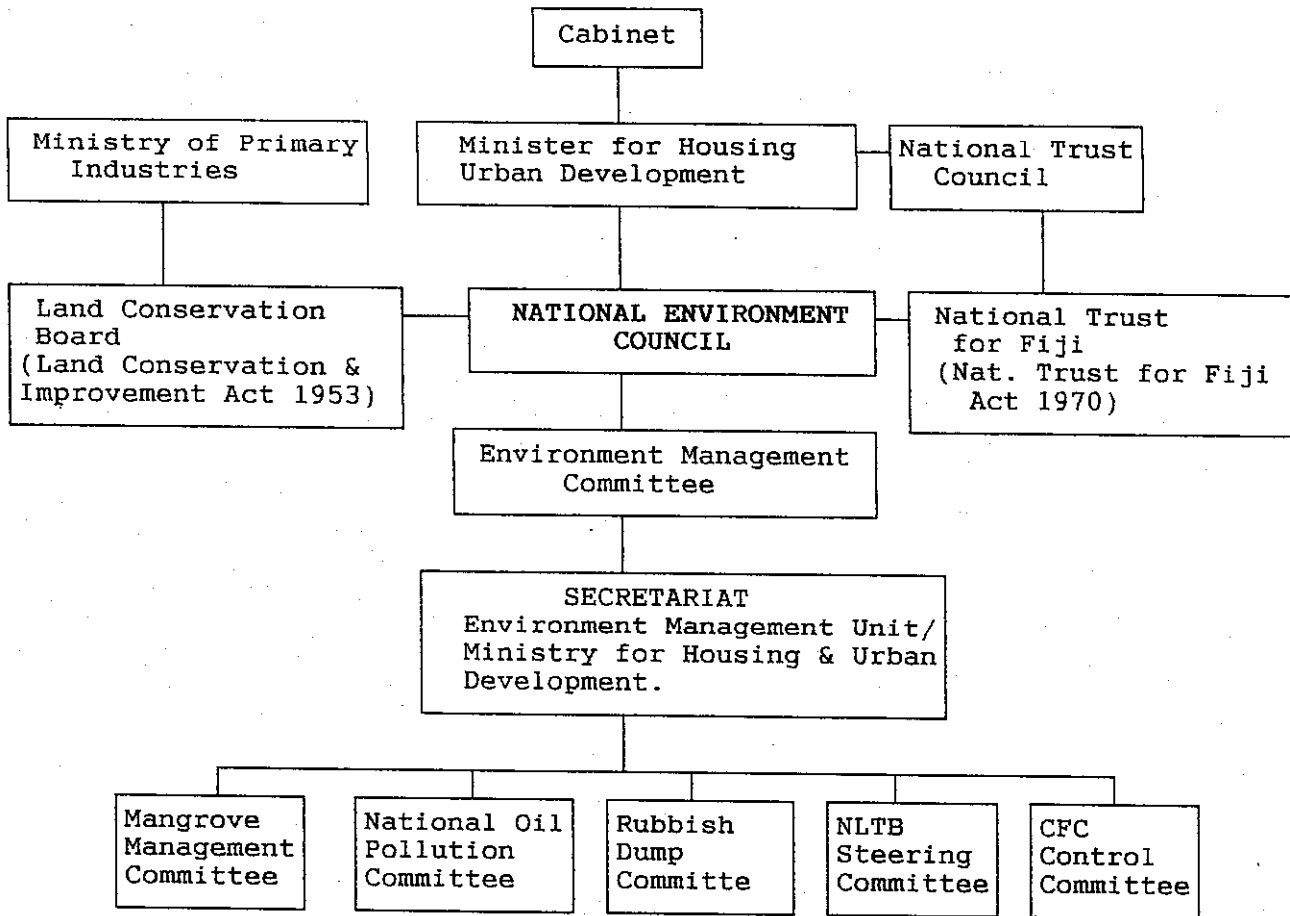
In July 1991, the National Environment Council was recommended for establishment after a resolution from the National Environment Steering Committee that the Committee be transformed into a Council to act as a national co-ordinating body embracing all bodies concerned with the environment and to monitor environmental issues in both the public and private sector. With Fiji's increasing involvement in environmental issues in the regional and international arena, the National Environment Council is also seen as the appropriate body to co-ordinate regional and international representation, obligations and commitments.

Membership for the Council would include Permanent Secretaries from eight Ministries, and representatives from statutory bodies such as the Native Lands Trust Board, the National Trust for Fiji, the Consumer Council of Fiji, the Chamber of Commerce and Industries and from Women's Groups (see Table 2). It is understood that the membership of the Council would be expanded to include all government Ministries and selected NGOs. The Council is to be chaired by the Minister for Housing and Urban Development.

There is at present no legislation to legally establish the Council and to define its functions. There are however a number of models in existence for legally establishing a Council of this nature. The South Australian Environmental Protection Council Act, 1972 is one such example. A brief summary of this Act is attached at Table 3 for information purposes only.

Table 14.1

PROPOSED OPERATIONAL STRUCTURE OF THE NATIONAL ENVIRONMENT COUNCIL



N.B. Other specific committees, working groups, task forces, as required

PROPOSED MEMBERS OF THE
NATIONAL ENVIRONMENT COUNCIL

1. Ministry of Primary Industries
2. Ministry of Forests
3. Ministry of Lands and Mineral Resources
4. Ministry of Fijian Affairs and Rural Development
5. Ministry of Trade and Commerce
6. Ministry of Infrastructure and Public Utilities
7. Ministry of Housing and Urban Development
8. Ministry of Health
9. Native Land Trust Board
10. National Trust for Fiji
11. Directorate of Town and Country Planning
12. Consumer Council of Fiji
13. Women's Group
14. Chamber of Industry and Commerce

ENVIRONMENTAL PROTECTION COUNCIL ACT, 1972

Commenced Operation: 23 November, 1972

Amendments: No. 9/80

Regulations: Nil

Description: This Act establishes the Environmental Protection Council and provides for its powers and functions.

The nine members of the Council, appointed by the Governor, comprise a person with knowledge of biological conservation; a person engaged at a university in teaching or research related to environmental protection; a representative of the Conservation Council of South Australia Inc; a person having a special interest in environmental protection; three persons with knowledge of and experience in each of manufacturing or mining industry, rural industry and local government, and two public service officers with knowledge of and experience in environmental protection and public health.

The Council is charged with the responsibility of consideration and reporting on matters which, either in its opinion or referred to it by the Minister, affect the environment of the State.

Matters are considering with regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiographical features of special interest and protecting buildings and other objects of architectural or historical interests.

The Council may

- investigate and report upon existing and potential problems of environmental deterioration and protection and suggest methods for the control or elimination of these problems;
- consider, develop and report on means of enhancing the quality of the environment and means of preventing or controlling mitigating pollution;

- . consult with and obtain advice from persons having experience in environmental protection;
- . recommend and promote research on matters connected with the environment and coordinate any such research whether or not carried out under the auspices of the Council.

The Council may be given the powers of a Royal Commission in relation to certain matters as proclaimed by the Governor.

Source: Guide to Environmental Legislation and Administrative Environment Council. Report No. 18.

ATTACHMENT I

ATTACHMENT I

REFERENCES

For Further Information:

1. State of the Environment Report 1991.
2. Manual. Clare Environmental Law in Fiji Law Talk Vol.2 No.3 p. 5-6.
3. "Fiji's Rainforests, our Heritage and Future" Proceedings, The Second National Conservation Congress, Suva, Fiji. 9-10 June 1988.
4. "Managing Protected Areas in the South Pacific, A Training Manual" compiled by Rex Mossman for SPREP, 1987.
5. Salm. Rodney V. assisted by Clark. John R. "Marine and Coastal protected Areas: A Guide for Planners and Managers, 1982.
6. "Handbook on the Use of Pesticides in the Asia-Pacific Region" Asian Development Bank, November 1987.
7. "UNDP Regional Workshop on Environmental Management and Sustainable Development" 17-21 April, 1990 Final Report.

ATTACHMENT II

ATTACHMENT II

PERSONS INTERVIEWED:

Ratu S.T. Cavuilati- Deputy Permanent Secretary, Ministry of
Primary Industries
Mr. Vuluma Tora - Senior Research Officer,
Land Use Section, Koronivia, Ministry of
Primary Industries
Mr. Vilisoni Fauro - Plant Protection
Mr. Moti Lal Autar - Registrar of Pesticides
Dr. Bob MacFarlane - SPC Plant Protection Specialist
Mr. Ilisoni Tauba - Fiji Development Bank
Mr. Apaitia Seru - Chief Magistrate
Mr. Timoci Waqaisavou- Senior Estates Officer, NLTB
Mr. Netava Bakaniceva- Land Use Planner, NLTB
Mr. Koroi Toronibau - Senior Estate Officer (Tourism) NLTB
Mr. Eparama Ravaga - Estate Assistant Officer (Forestry) NLTB
Mr. Baskaran Nair - Deputy Secretary, Ministry of Housing
and Urban Development
Mr. Stuate Chape - Principal Environmental Planner and
Project Manager
Mr. Epeli Nasome - Senior Environmental Planner
Mr. Peter Watkinson - Senior Town Planner
Mr. Justin Francis - Senior Town Planner
Mrs. Nazra Khan - Technical Officer, Department of Town
and Country Planning
Mrs. Maria Umbitau - Technical Officer, Department of Town
and Country Planning
Mr. Luke Rokomokoti - Senior Surveyor, Department of Town and
Country Planning
Mr. Sefanaia Dakaica - Senior Town Planner
Mr. Mohammed Jaffar - Assistant Director of Surveys, Lands
Department
Mr. Isimeli Waqanika - Senior Surveyor, Lands Department
Mr. Samu Levu - Principal Technical Officer, Lands
Department
Mr. Suruj Ram - Project Draughtmans, National
Environment Management Project
Mr. Alex Chang - Conservator of Forests
Mr. Martin Homola - Fiji-German Project - Forestry Adviser,
Ministry of Forestry
Mrs. Asenaca Ravuvu - Environment Education Officer, Ministry
of Forestry
Mr. Alifereti Bogiva- Forest Park and Amenities Officer,
Ministry of Forestry
Mr. Sean Weaver - Resource Person, National Environment
Management Project
Mr. Abdul Rahiman - Director, Department of Mineral
Resources

Mr. Stuart Chape
Project Manager
National Environment Management Project, Fiji

Dr. Dick Watling
IUCN Team Leader
National Environment Management Project, Fiji

The written comments received and comments and suggestions made at the public seminar on environmental legislation conducted on the 12th. February 1992 were considered in the preparation of the Final Report.