

**CONVENTION ON BIOLOGICAL  
BIODIVERSITY  
(CBD)**

**VANUATU NATIONAL REPORT  
TO  
CONFERENCE OF THE PARTIES  
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## Abbreviations

<b>AUSAID</b>	Australian International Aid Organisation
CAP	Conservation Area Project
CBD	Convention on Biological Diversity
<b>CIRAD</b>	Centre for research in Agricultural Development
COP	Conference of the Parties
FSP	Foundation of the Peoples of the South Pacific
GDP	Gross Domestic Product
GEF	Global Environment Facility
NCS	National Conservation Strategy
NDP	National Development Plan
<b>NGOs</b>	Non-government Organisations
ORSTOM	French International Research Agency
<b>PICCAP</b>	Pacific Islands Climate Change Assistance Programme
SPBCP	South Pacific Biodiversity Conservation Programme
SPREP	South Pacific Regional Environment Programme
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VNBSAP	Vanuatu National Biodiversity Strategy & Action Plan Project
VSFUP	Vanuatu Sustainable Forest Utilisation Project
WWF	World Wide Fund for Nature

## **1. Executive Summary**

Vanuatu has taken significant steps to manage biodiversity, however these are neither a response to nor a consequence of ratifying the Convention on Biological Diversity (CBD).

Local level action to manage biodiversity is common, and is a response to local people's perception of changes in biodiversity or resource stocks. These measures employ traditional **tabus** and involve permanent or temporary closure of areas or bans on harvesting particular resources. It would be reasonable to estimate that at least half the villages in Vanuatu have local actions in place at any one time. However there has been no opportunity to assess the impacts and effectiveness and adequacy of these measures for biodiversity conservation.

Prior to independence in 1980 the Colonial powers had made limited attempt to promote conservation of biodiversity. The few measures, such as the Wild Bird Protection ordinance of 1967, reflected European values and were imposed with little consideration for local practices and needs. They have rarely been enforced and are largely ignored. As are early reserves designated to allow Europeans recreational access to attractive coastal areas.

Since Independence the government has taken a number of important initiatives to manage biological resources. These have been sectorally based and narrowly **focussed** on specific resources, usually those of commercial value and vulnerable to local overharvesting. Many of these measures were implemented prior to signing the CBD. Newer initiatives, such as the ADB funded Review of Environmental Legislation, would have been implemented regardless of the Treaty.

The most significant opportunities for Vanuatu as a result of the CBD have been in the opportunity to participate and learn from participation in regional and donor funded biodiversity projects. These have included the **GEF/SPREP** South Pacific Biodiversity Conservation Project (SPBCP), the **UNDP/SPREP** Capacity 21 Programme, the **AusAID/SPREP** Bibliography of Environmental Literature Programme and **AusAID/SPREP** Environmental Education Awareness project.

## **2. Background**

### **a. Introduction**

Vanuatu signed and ratified **the CBD** without considering the practicality or **priority of** meeting the treaty's obligations. Until receipt of funding from UNEP to assist with Biodiversity Conservation Planning in 1997 there had been no resources, staff or budget at either a national or provincial level dedicated to the CBD. With Vanuatu's current financial situation, it is unlikely that Vanuatu will have the resources or political priority to continue this work unassisted.

The current biodiversity conservation planning project commenced in June this year and employs a staff of 2 graduates and a trainee. Work is still in the preliminary stages of reviewing the status of biodiversity in Vanuatu. As a consequence this report will be brief, and it is hoped we will be better able to report to the COP at future meetings.

### 3. Conservation of Biodiversity in Vanuatu

#### a. The national policy framework

There are four (4) separate documents that set out Vanuatu's goals for the conservation of the environment in general and biodiversity in particular, the Constitution, the National Development Plan (NPD3), the National Conservation Strategy (NCS), and the Comprehensive Reform Policy.

Reflecting the economic and cultural importance of the environment to ni-Vanuatu Vanuatu's Constitution states: "Every person has the following fundamental duties to himself and his descendants and to others:....(d) to protect Vanuatu and to safeguard the national wealth, resources and environment in the interests of the present and future generation". (*Constitution of the Republic of Vanuatu*, article 7 (d)).

The multisectoral National Development Plan (NDP) makes general policy statements for national environment priorities. NDP3 1993-1996 stated the Vanuatu governments commitment to economic growth and development which has minimal negative environmental impact. NDP 4 has yet to be finalised. Progress has been made on three environmental objectives of NDP3 that address biodiversity conservation:

- I. "Complete Environmental Legislation". A consultation process has been started to prepare comprehensive environmental legislation. It is anticipated that biodiversity conservation legislation will be drafted during 1998.
- II. "Formulate an Environmental Masterplan to guide future development activities". The National Conservation Strategy was adopted by government in 1994. This is the government's main environmental policy document and provides guidance to government and non-government organisations to ensure environmentally sound development (Attachment 1). To conserve biodiversity the strategy gives priority to **sectoral** and local measures to promote environmental education and awareness, develop appropriate environmental legislation, preserve biodiversity and tabu places and promote sustainable and efficient use of natural resources. Progress has been made in implementing many of the specified activities.
- III. "Provide community extension programmes that assist individuals to see the importance of a healthy environment and enables community leaders and landowners to establish their own policies of landuses, resource protection and sustainable development." In recent years the Environment Unit has set up a library and reference service, networked and set up information sharing with other Environmental Departments in the region, held training workshops and awareness raising activities targeted at communities, media organisations, churches and other **NGOs**.

Most recently the Comprehensive Reform Programme (1997) has set common visions for Vanuatu in the next 20 years. One of the visions is to protect the natural environment for the sake of ourselves and our future generations.

The Vanuatu National **Biodiversity** Conservation Strategy and Action Planning Project (VNBSAP) will extend earlier work by preparing a specific biodiversity conservation strategy and action plans that set priorities for conservation and sustainable use of living resources. Consultations and information gathering will be undertaken during 1998 with a view to finalising an action plan in mid 1999.

Table 1 - Environmental treaties that have been ratified by Vanuatu.

Convention	Ratified	Authority responsible	Activities to meet obligations under treaty
<p>Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES)</p>	<p>1989</p>	<p>Environment Unit</p> <p>Environment Unit 8 Fisheries Department</p> <p>Fisheries Department</p>     <p>Quarantine</p>	<ul style="list-style-type: none"> <li>• Day- today <b>monitoring</b> of <b>CITES</b> -trade is taken care of by the <b>Environment Unit</b>. Other relevant departments such as Forestry, <b>Agriculture</b> and Horticulture, <b>Fisheries</b>, Cultural Center and Customs have their own trade monitoring <b>programmes</b> that are specified under their <b>specific</b> acts.</li> <li>• In <b>1990 CITES law</b> was brought to the attention of the public and responsible government <b>institutions</b> who are responsible for regulating and monitoring <b>wildlife</b> species through an awareness campaign.</li> <li>• As implementing agent the Environment <b>Unit</b> has <b>raised</b> general environment awareness on species that are <b>internationally</b> endangered. These include dugong, marine turtles, iguana, <b>flying</b> foxes, saltwater crocodile, black corals, orchids, giant clams and tree ferns. Two posters on buds and coral reefs and a newsletter were <b>distributed</b> throughout the country. A CITES brochure in English, French and <b>Bislama</b> (Vanuatu national language) and a poster were produced <b>with</b> the financial assistance of South <b>Pacific Regional Environment</b> Programme (SPREP)</li> <li>• Protection of marine turtles is vested in an order for the protection of turtles, pursuant to Article 9 of the Joint <u>regulations for the prevention of cruelty to Animals 1973</u> and the <u>Fisheries Regulation of 1983</u>. Under <b>this</b> regulation and order it is prohibited to sell, expose for sale, or export stuffed turtles; to collect turtle eggs; to <b>kill</b> or capture turtles on land, and to sell, expose for sale, or attempt to do so. any turtle, <b>alive</b> or dead, or its eggs</li> <li>• The Fisheries Act 1982 provides for the control, development, and management of fisheries and related matters. It is <b>prohibited</b> to fish for marine mammals, and <b>it</b> is stipulated that any marine mammal caught <b>accidentally</b> must be returned to the water <b>immediately with</b> least possible <b>injury</b>.</li> <li>• Part 4 of the Fisheries regulations relates to conservation measures. These outline conservation measures for: rock lobster (<i>Panulirus spp</i>), slipper lobster (<i>Pambacus caledonicus</i>), Coconut Crab (<i>Birgus latro</i>), green snail (<i>Turbo marmoratus</i>), trochus (<i>Trochus niloticus</i>), trumpet shell (<i>Charonia tritonis</i>), corals (<i>Scleractinia spp</i>) and <i>Antipatharia spp</i>), marine aquarium fish and bech-de-mer.</li> <li>• The Animal Importation and Quarantine Act 1988 provides for the regulation and control of importation of animals, animal products, and biological products. Animals are defined under the <b>act</b> as 'any living stage of any member of the animal kingdom except human <b>beings</b>'.</li> </ul> <p>Importation of any <b>live</b> animal, animal product, or biological product is prohibited without a <b>permit</b> unless the specimen is one that has been exempted from control by regulations under the act or except through a <b>prescribed</b> port</p>
<p>Convention on the Prohibition of Fishing with long drift nets in the South Pacific</p>	<p>1991</p>	<p>Fisheries Department</p>	<p>Large scale fishing has impacted on <b>pelagic species</b>.</p> <ul style="list-style-type: none"> <li>• Foreign fishing vessels are not allowed to use drift nets or <b>practice</b> using such gear.</li> <li>• Proposed changes to Fisheries <b>legislation</b> will make the use of drift nets <b>illegal</b></li> </ul>

Convention	Ratified	Authority responsible	Activities to meet obligations under treaty
United Nations Framework Convention on Climate Change (UNFCCC)	1993	Meteorological department <b>Meteorological department, National Planning Office and Environment Unit</b>	Some of the Impacts of global climate change could affect the biodiversity of lowlying islands and of coastal areas on higher islands. Through the UNFCCC Vanuatu is involved in <ul style="list-style-type: none"> <li>Monitoring of sea level changes.</li> <li>Establishment of National Coordinating Committee on Climate Change to implement activities set by Pacific Islands Climate Change Assistance Programme (PICCAP), a regional Climate Change Enabling Activities project</li> </ul>
Convention on biological Diversity (CBD)	1993	Environment Unit	<ul style="list-style-type: none"> <li>Vanuatu is in the initial stage of preparing the national biodiversity strategy and action plan</li> <li>Vanuatu is participating in the South Pacific Biodiversity Conservation Programme.</li> </ul>

### b. Measures in accord with international obligations

Vanuatu has ratified a number of international treaties and programmes that relate to Article one (1) of CBD. The table below summarises some of the activities undertaken or in progress that meet obligations of conventions relevant to conservation and sustainable use of biological resources. Most activities have been undertaken at a **sectoral** level by government departments, and address local priorities as well as international obligations.

### c. Participation in Regional projects

Since signing the CBD Vanuatu has participated in a number of regional programmes that promote sustainable management of biodiversity:

- i. Environmental and Education Awareness raising project. This project is funded by **AusAID** and managed by SPREP. It promotes environment awareness including biodiversity at four (4) different levels. These included formal education, **NGOs** and churches, communities and media organisations. It produced a range of resource materials.
- ii. Environmental Education and information Programme. The environmental bibliography programme is managed by SPREP and funded by **AusAID**. It sets up cataloging system for the Environment Unit's library and linked with all environment libraries in the region.
- iii. South Pacific Biodiversity Conservation Programme (SPBCP). This programme assists Pacific Island nations to implement the three main objectives of Article one (1) of the CBD: conservation of biodiversity, sustainable development and equitable sharing of benefits arising out of the resources. Vanuatu's participation in this project has **centred** around the **Vatthe** Conservation Area Project (CAP) project. This integrated conservation and community development project is establishing a large conservation area on Santo, the most biologically rich island in Vanuatu, and is one of only two conservation areas managed by government. The second is a forest reserve on Erromango to protect stands of kauri, *Agathis macrophylla*.
- iv. Capacity 21. This regional programme funded by UNDP and managed by SPREP aimed to strengthen the capacity of people in the South Pacific and the formal and informal institutions to achieve sustainable development of a form suitable to their circumstances. This project Involved national workshops, training activities, information sharing and promotion of environmental planning techniques over a 2 year period. A second phase of capacity building will commence in 1998.

- v. State of Environment Project . In 1996 the Environment Unit and the Statistics Department started to gather statistical information on social, physical environment, natural environment, land use etc. This is being used to set up a database of environmental information that can be regularly updated and used to describe changes to Vanuatu's social and natural environment. This work is still in preliminary stages and the final database is unlikely to be completed before 1999.

#### **4. Issues for biodiversity conservation**

##### **a. Status/trends in biodiversity**

At present little is known about the full range of flora and fauna of Vanuatu. In collating existing information for the VNBSAP project it is apparent that most information is about commercial resources. These include marine resources such as **trochus** (*Trochus niloticus*), green snail (*Turbo marmoratus*) and coconut crab (*Birgus latro*); forest resources such as kauri (*Agathis macrophyllum*) and sandalwood (*Santalum austrocaledonicum*); and agricultural resources such as kava (*Piper methysticum*). Additional studies have commenced into the varieties of staple food crops such as taro, kumala, bananas, and yams which are the **staple** foods.

There is not enough information about biodiversity nationally to scientifically describe the status and trends. As a result of changing landuses, most significantly increased commercial and subsistence agriculture, and forest activities, the area of primary and secondary forest has declined. It is accepted from anecdotal information and from studies on commercial species, such as those listed above, that many species are vulnerable to overharvesting and have probably declined over the past few decades. However there is little baseline data against which this change can be quantified and its significance assessed.

A goal of the VNBSAP project is to establish a baseline against which future changes can be monitored.

In addition the State of Environment Reporting Project being jointly implemented by the Environment Unit and the Statistics Department has started to gather information on relevant statistical indicators describing the social, physical and natural environment. This will be used to set up a database of environmental information that can be regularly updated and used to describe changes to Vanuatu's social and natural environment. This work is still in preliminary stages and the final database is unlikely to be completed before 1999.

##### **b. Value of biodiversity**

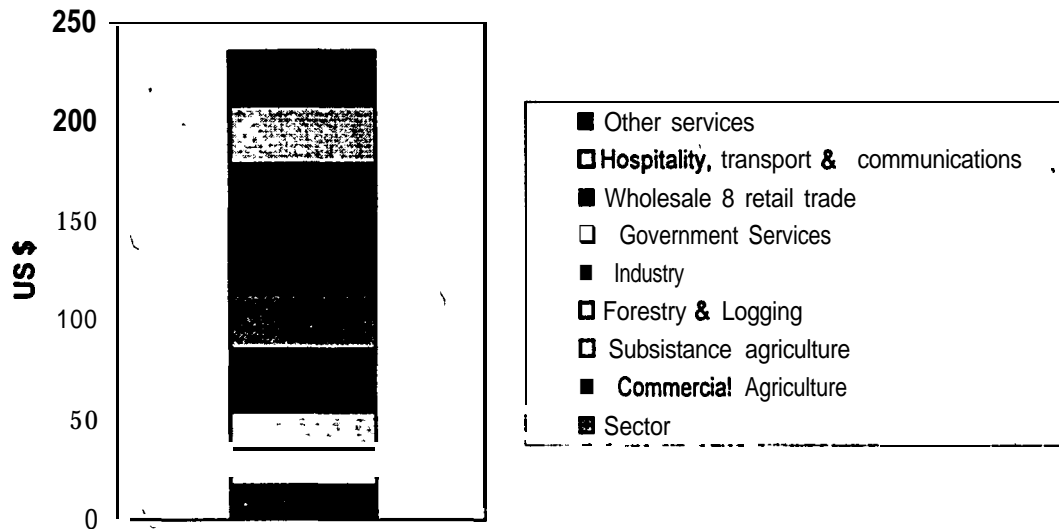
Eighty percent of the Vanuatu population live a rural subsistence lifestyle. These people are almost wholly dependant on their environment for food, building materials, water and other resources. While there has been no attempt to quantify the economic, social and cultural value of biodiversity to these people it is clear that the value is significant and of national importance.

Vanuatu's small cash economy is heavily reliant on biological resources. In 1995 23% of the national GDP was directly from subsistence and commercial agriculture, fishing and forestry. Tourism is another major contributor to GDP, while the small manufacturing sector depends on a range of locally available resources e.g. timber and furniture production. The value of biodiversity, and agricultural and forest ecosystems in particular, is further emphasised by looking at overseas trade figures. In 1996 69% of the total value of national exports was earned from only 7 products: **copra**, beef, cocoa, shells, timber, cowhides, kava.

The VNBSAP project has commenced gathering additional information that will enable the subsistence use of resources to be better quantified, and show the relative values of different ecosystem types. A report will be finalised by end of 1996.



### Vanuatu GDP 1995 (million US dollars)



#### c. Legal and policy frame work for biodiversity conservation

Vanuatu's law for environmental management is fragmented and undeveloped, while much of the existing legislation is neither applied nor enforced (Attachment 2). Some environmental laws have been carried over from the colonial administration and do not reflect post-independence government structure. The existing laws do not address many of the new environment issues. A major weakness is that responsibility for environment matters are scattered between five ministries and fifteen departments. There needs to be improved co-operation and co-ordination to facilitate biodiversity conservation.

In 1997 the government commenced a review of environmental legislation and has begun to prepare Comprehensive Environmental and Resource Management Legislation. The review's first report stated that additional laws and regulations are needed to complement the Act for the Ratification of the United Nations Convention on Biodiversity (1993) to ensure that Vanuatu meets its obligation under the convention. This includes biodiversity, wildlife conservation and protected areas legislation.

With the spread of responsibility between government departments planning and resource conservation measures to date have been developed at a **sectoral** level with a focus on management of specific resources of commercial value.

#### d. Institutional capacity to conserve biodiversity

Conservation responsibilities are shared by many organisations and the community. All are limited by lack of skilled staff, lack of staff, lack of equipment and limited resources. With today's economic and financial situation political priority is given to economic growth and these problems will continue.

#### **e. Threats to biodiversity and its management, both direct and indirect**

The most **common** threats to biodiversity are: over-exploitation of marine and terrestrial resources for commercial purposes; unsustainable logging and commercial agricultural practices for plantations and animal grazing; natural disasters including cyclones, volcanic eruptions, earthquakes and tectonic uplifts; and the introduction of exotic and new species that have become pests or weeds; and expansion of slash-and-burn practices of traditional gardening. In many **localised** areas resources have also been depleted by subsistence harvesting for food or other household uses and clearing of bush for subsistence gardens.

The threats to biodiversity and the management measures in place or planned are listed in table 2.

Due to the limited resources at a government level for land and resource management, and conservation, local level initiatives through which customary landholders, village chiefs and local communities cooperate to manage resources at a local level will continue to be important. As set out in the National Conservation Strategy low cost awareness raising and education, and measures that enable local people to better manage and control their resource use, are a realistic priority. Within the VNBSAP it is hoped to monitor introduction of environmental management measures by an island Council of Chiefs to learn whether this is an appropriate model of environmental control to promote in other islands of **Vanuatu**.

### ***5. National Biodiversity Strategy and Action Planning Process***

#### **a. NBSAP time frame**

A national biodiversity action planning process only commenced in August 1997, following financial assistance from GEF. A team of 3 officers within the Environment Unit has been contracted for 2 years to prepare the VNBSAP. The team is reviewing existing **information**, organising additional surveys of priority areas and undertaking consultation **with** government and **community** representatives at a national and provincial level. The team is advised by an advisory committee containing **representatives** of key government Departments, **NGOs** and locally based biological research organisations.

It is anticipated that the strategy will be drafted and submitted to the government by mid 1999. The strategy is to include an action plan for implementation of priorities

It is **recognised** that this time frame is tight given the resources available, and additional technical support from neighbouring countries has been requested.

Table 2. Threats to biodiversity by sectors and their management measures

SECTOR	THREATS	MANAGEMENT
Forestry	<ul style="list-style-type: none"> <li>timber harvesting and bad logging practices in particular</li> <li>Conversion after logging to agriculture and other non forest land uses</li> <li>Failure to regenerate forest after logging</li> </ul>	<p>Code of Logging Practice introduced in 1995 and to be fully enforced by 2000</p> <p>Reforestation naturally awareness raising and training project</p> <p>Raising awareness of the economic value of forests (compared with other land use systems) and looking at non-timber income generation from forests.</p>
Fisheries	<ul style="list-style-type: none"> <li>Commercial fishing</li> <li>Subsistence fishing in areas of high population</li> <li>Limited knowledge of some resources</li> </ul>	<p>Improving controls on commercial fishing.</p> <p>Targeting <b>community</b> and industry to raise awareness about fisheries and resources</p> <p>Planning a fishery census</p>
Land Use	<ul style="list-style-type: none"> <li>Bad land use practices and inappropriate development</li> <li>Unsustainable agricultural practices</li> <li>Expansion of subsistence gardening</li> <li>Overexploitation of terrestrial resources and wildlife for both commercial and local needs</li> </ul>	<p>Awareness raising and training (individuals, organisation &amp; government).</p> <p>Preparing National Land Use Policy</p> <p>Preparing Provincial Land Use Strategies</p> <p>Stipulating planning approval conditions for development proposals.</p> <p>Bush <b>Clearing</b> Guidelines</p>
Others	Natural disasters ( cyclones, volcanic eruptions, earthquakes, droughts etc)	Awareness raising with organisations and communities

#### b. Participatory processes.

To be successful the NBSAP needs the long term commitment of stakeholders, chiefs and key **NGOs** as well as the national government. The planning team is committed to a gradual planning process that makes sure people are aware of the issues being **discussed and** have an opportunity to participate. Several levels of participation will occur:

- government departments, peak level **NGOs** and key research organisations are represented on a project advisory committee that is consulted on project direction and work activities.
- provision has been made for consultation with provincial governments.
- planning workshops within each province will contribute to drafting the biodiversity conservation strategy
- the draft strategy will be circulated for comment and revision.
- the final strategy will be reviewed-by the advisory committee before being submitted to government.

## 6. Collaboration and Partnership in managing biodiversity

### a. In country management of biodiversity

With government organisation and legislation, the responsibilities for managing and conserving biodiversity are shared among the relevant government and non-government organisations. The activities of different **organisations** that are addressing national responsibilities under the CBD are summarised in table 3.

Table 3. Summary of programmes and projects that each government and non-government sectors are doing to manage and conserve biological diversity.

SECTOR	MAIN PROGRAMMES/PROJECTS	IMPACT ON BIOLOGICAL RESOURCES	MANAGEMENT MEASURES
Fisheries	<ol style="list-style-type: none"> <li>1. Trochus management <ul style="list-style-type: none"> <li>• reseeding research</li> <li>• Trochus translocation,</li> <li>• stock assessment,</li> <li>• revive community management</li> <li>• enforce legal size limits</li> </ul> </li> <li>2. Process local and foreign licenses</li> <li>3. Fisheries management areas</li> <li>4. Collection of Fisheries data</li> <li>5. Enforcement of fishing regulations</li> </ol>	<p>Replenish <b>trochus</b> depleted reefs. Prevent depletion through improved local management.</p> <p>Monitor local and foreign fisheries catch.</p> <p>Set up in cooperation with landholders marine protected areas / fisheries management areas.</p> <p>Monitor catches. Better understand availability of stock.</p> <p>Ensure Fisheries management regulations are complied with.</p>	<ol style="list-style-type: none"> <li>1. Licensing</li> <li>2. Size Limits'</li> <li>3. Closed seasons</li> <li>4. Fish database</li> <li>5. Stock assessment</li> <li>6. Management areas</li> <li>7. Better use of biological resources</li> <li>8. Local management measures and <b>tabus</b></li> </ol>

SECTOR	MAIN PROGRAMMES/PROJECTS	IMPACT ON BIOLOGICAL RESOURCES	MANAGEMENT MEASURES
Forestry	<ol style="list-style-type: none"> <li>1. Forest Conservabon Unit</li> <li>2. Forest research and technical</li> <li>3. Vanuatu sustainable forest utilisation project (VSFUP)</li> <li>4. South Pacific initiative on forest genetic resources (SPRIG)</li> <li>5. South Pacific Commission/Pacific German regional forestry project</li> <li>6. Aneityum Erosion Control Project</li> <li>7. Sandalwood Inventory</li> </ol>	<p>Raise awareness of forestry-management issues, encourage natural reforestation, draft a mangrove management plan &amp; encourage protected areas including the Kauri Reserve.</p> <p>Improve understanding of forest ecology, sustainable use, regeneration etc</p> <p>Improve management and control of forest operations</p> <p>Develop Code of Logging Practice, reduced impact logging guidelines, improve capacity of the department and its staff, training of industry workers and ensure forest use and timber harvesting are sustainable.</p> <p>Identify priority species for community forestry work, provide information to support conservation strategies, to support seed collection and to set up a genetic resource database for priority species.</p> <p>Demonstrate and adapt <b>agroforestry</b> and indigenous forest management methods</p> <p>Stabilise severe soil erosion on Aneityum.</p> <p>Describe distribution &amp; status of Sandalwood in Vanuatu</p>	<ol style="list-style-type: none"> <li>1. Licensing</li> <li>2. Harvest rates/logging volumes</li> <li>3. <b>Size</b> limits</li> <li>4. Code of lodging practice (<b>COLP</b>)</li> <li>5. Reduced Impact Logging Guidelines</li> </ol>
Environment	<ol style="list-style-type: none"> <li>1. National Conservation Strategy</li> <li>2. Biodiversity Conservation</li> <li>3. Environmental 8 Resource Management Legislation 8 administration (eg. EIA)</li> <li>4. Environment Education &amp; <b>Coordination</b></li> <li>5. CITES</li> </ol>	<p>Programmes are targeted to developers and resource stakeholders to ensure that sustainable uses of biological resources are achieved through an integrated conservation and development approach.</p>	<ol style="list-style-type: none"> <li>1. Incentive programmes</li> <li>2. Project to improve use of biological resources</li> <li>3. Extension and Awareness</li> <li>4. Biodiversity Conservation</li> </ol>

SECTOR	MAIN PROGRAMMES/PROJECTS	IMPACT ON BIOLOGICAL RESOURCES	MANAGEMENT MEASURES
<b>Agriculture including quarantine</b>	<ol style="list-style-type: none"> <li>1. Quarantine protection</li> <li>2. Improve management and productivity of agricultural lands</li> <li>3. Pacific Regional Agricultural Programme (PRAP)</li> <li>4. Research into priority crops</li> </ol>	<p><b>Protect</b> the environment and primary production from exotic plants or animals, pests and diseases and from contaminants.</p> <p><b>Reduce</b> the incidence of plant pests, diseases and weeds.</p> <p>Promotion of environmentally sustainable cropping systems (intercropping, use of legumes etc)</p> <p>Promotion of biological pest control rather than chemicals</p>	<ol style="list-style-type: none"> <li>1. Biological control in pest management</li> <li>2. Quarantine awareness mainly geared towards tourism</li> <li>3. Plant protection service</li> <li>4. Bushclearing guidelines</li> <li>5. Extension and training programmes</li> </ol>
<b>Landuse Planning Office</b>	<ol style="list-style-type: none"> <li>1. National Land Use Plan</li> <li>2. Provincial Strategic plan</li> <li>3. Community Plans</li> </ol>	<p>Programmes to maintain sustainable use and management of land and resources.</p>	<ol style="list-style-type: none"> <li>1. National Land Use Policy</li> <li>2. National Land Use Plan</li> <li>3. Provincial Plans</li> <li>4. Land Suitability Criteria</li> <li>5. Dominate Use Approach</li> <li>6. Preferred Land Use Options</li> <li>7. General Land Use Planning Awareness</li> </ol>
<b>Vanuatu Environment Organisation (VEO)</b>	<ol style="list-style-type: none"> <li>1. Mining Awareness Rights</li> <li>2. Ecotourism activity</li> </ol>	<p>Minimise the impacts of mining on biological resources</p> <p>Protect and promote Vanuatu's biological resources both locally and internationally</p>	<p>General Environment Awareness</p>
<b>ORSTOM (The French overseas scientific research institute)</b>	<p>Has conducted research on fisheries, mangroves, and ethnobiology.</p>		<ol style="list-style-type: none"> <li>1. Work cooperatively with other NGOs and government departments to address environmental issues of common concerns.</li> <li>2. Environmental Awareness</li> </ol>

## **b. International cooperation**

Linkages have been established through the project advisory committee with international organisations based in Vanuatu including ORSTOM, **CIRAD** and Foundation of the Peoples of the South Pacific (FSP) . Contact has been made with UNEP, WWF, University of the South Pacific, Australia and New Zealand Museums, and Research Institutes in Australia and New Zealand. Initial approaches have **focused** on obtaining biological information held overseas but never made available in Vanuatu. Through regional organisations such as SPREP and WWF awareness of parallel **biodiversity** planning activities in neighbouring countries can be maintained.

International cooperation, often channelled through SPREP, has been instrumental in enabling most recent conservation activities.

## **7. Resources for *biodiversity* conservation**

### **a. Budget required for implementation of strategies and action plans**

The approved budget for the VNBSAP planning project is insufficient to meet all the activities identified as important for the planning process. Additional support is being sought from other agencies, especially to provide short term technical assistance to train local staff in field work and establish practical monitoring programmes. These funds are not yet confirmed.

While the strategy will not be prepared for a further 18 months, it will be important for funding and resources for implementation activities to be identified in advance. The Environment Unit does not have the manpower, budget or resources to assume additional responsibilities. It is anticipated that the Unit's 1998 budget will be half that of the previous year, and following annual cuts in real terms every year since 1991. This restricts the Unit's ability to take on new work. However all Departments in Vanuatu are in a similar position. As a consequence any additional work required to meet biodiversity conservation priorities will need to be **resourced** externally or include clear cost recovery mechanisms.

### **b. Sectoral problems and limitations**

Common problems identified by all sectors involved in the NBSAP process are:

- lack of resource people to undertake resource management responsibilities,
- inadequate finances to support priority programmes and activities that focus on conservation of resources
- the need for good cooperation and a strong working relationship between all natural resource sectors.
- the need to establish environment or natural resource offices within Provincial governments (No province has dedicated environmental staff, and most employ only a handful of office staff)
- the need to have enough space for storage of specimens collected and laboratory facilities to accommodate more scientific work eg. water quality monitoring in urban areas etc.

## **8. Monitoring and Evaluation**

### **a. Biodiversity monitoring**

The VNBSAP will initiate a practical (low budget, low technology) long term monitoring programme for both terrestrial and marine habitats. This will provide a baseline against which future biodiversity trends can be measured. External technical assistance is being sought to advise upon appropriate indicator species and ecosystems, and to design these projects so that we can increase knowledge of population structures, species distribution and the long term changes in terrestrial habitats and fauna.

These will commence by mid 1998. VNBSAP is still at its early stages, therefore targets and indicators will not be set until mid 1999.

### **b. Sectoral monitoring**

#### **i ) Forestry Department:**

The department monitors forest harvesting operations, and to a limited extent conversion of forests to other land uses. It is monitoring the achievements of a soil erosion control project it is coordinating on Aneityum. The project is also monitoring soil erosion associated with forest activities on other islands but has not expanded its management programme to these areas.

#### **ii) Fisheries Department:**

The department monitors fish species and quantity caught by foreign licensed fishing boats and monitors vessels operating in Vanuatu waters by using satellite cooperatively with other countries in the region. Specific projects are monitored locally including the marine management area on Aneityum, **trochus** restocking sites, Green snail, etc.

#### **iii) Agriculture including quarantine:**

The main ongoing monitoring programmes within Quarantine Section of the Department of Agriculture include spot check search on arriving passengers; pest and disease surveys for particular crops; surveillance programmes for exotic pest species and pest and diseases surveys once a year.

#### **iv) Environment Unit:**

The Unit does not have an overall environmental monitoring programme in place. However it monitors the implementation of specific projects, for example the SPBCP project on Santo. Under CITES the Unit regulates and monitors the movements of threatened and endangered species of wild fauna and flora. The International Trade of Flora and Fauna Act (1991) regulates and monitors the exportation and importation of species listed in the CITES appendices. As mentioned above, it is anticipated a long term monitoring programme will be set up by the VNBSAP; and that this will be completed by the State of the Environment , database.



**Attachment 2**

LAWS.XLS

<i>Environmental Legislation in Vanuatu.</i>			
Legislation	scope of Act	Responsible Agencies	Comments.
Wildbird Protection Regulation, (1962)	Protects a number of wild birds in Vanuatu by setting controls on their hunting and prohibiting their sale or export	Director of Agriculture	An outdated law that has not been applied effectively. Best replaced with legislation that protects wildlife, endangered species & habitat. It would be appropriate for these controls to be vested in the Environment Unit.
Prevention of the Spread of Noxious Weeds Regulations, (1966)	Prohibits the importation of listed noxious weeds and obliges land occupiers to manage and remove noxious weeds.	Department of Agriculture.	Does not regulate to prevent the transmission of noxious weeds on trucks, heavy equipment, barges and other means of transport.
Foreshore Development Act (1975)	Prohibits any development beneath the highwater mark anywhere in Vanuatu without written consent of the Minister of Home Affairs.	Ministry of Home Affairs. Physical Planning Unit	A neglected law that has rarely been applied. Does not place development controls on the ecologically sensitive strip of foreshore land above the high-water mark. The Physical Planning Unit should be strengthened and the Law amended to enable it to be better applied and enforced.
Shipping Act (1968)	Sets conditions on dangerous goods shipped through Vanuatu ports	Department of Ports and Marine.	
Decentralisation Act (1980) as amended	Gives Local Government Councils responsibility for planning and land-use, regulation of fishing within 1 nautical mile of the coast, and indirect responsibility for public health and preparation of regional development plans	local Government Councils Department of Local Government Ministry of Home Affairs.	Local Governments have little technical capacity so many responsibilities still rest with the Central Government. Local governments need additional resources, qualified staff and greater administrative flexibility to effectively address these responsibilities.

Legislation	Scope of Act	Responsible Agencies	Comments
<b>Maritime Regulations (1981), (1982) and (1986)</b>	<b>Incorporate into Vanuatu law the requirements of the OILPOL convention on discharges of oil into the sea.</b>	Department of Ports and Marine Ministry for Transport, Public Works Ports and Marine and Urban Water Supply.	<b>Consideration could also be given to ratification of the non oil MARPOL Annexes, international conventions on Intervention in Cases of Oil Pollution and Marine Pollution by Substances other than Oil, the London Dumping Convention, SPREP Protocols for the Prevention of Pollution of the South Pacific, and co-operation in Combating Pollution Emergencies in the South Pacific</b>
<b>Forestry Act (1982)</b>	<b>Sets controls for forestry activities relating to timber production. Logging Agreements include requirements for compensation to land owners for damage to fruit trees, water supplies or pollution; and require minimal damage to the forest. Licensees must undertake rehabilitation or pay a rehabilitation tax. The Minister can also protect particular tree species or restrict activities that are damaging to the environment. Areas can be set aside to protect important features or species.</b>	Minister of Forests Department of Forestry	<b>Despite the requirements for rehabilitation little rehabilitation has been undertaken and the tax contributions are held in trust by the Department of Forestry. This Act contains strong provisions for the Minister to act in the interests of conservation but there has been some reluctance to apply these provisions.</b>
<b>Fisheries Act (1982)</b>	<b>Allows the Minister of Fisheries to implement fishery conservation measures, controls on collecting of coral and aquarium fish and to protect turtles and marine mammals.</b>	Minister of Fisheries Department of Fisheries	<b>Additional consideration could be given to controls on sport fishing, and controls to prevent damage to reefs from mooring, anchoring and other detrimental activities.</b>
<b>Fisheries Regulations (1983)</b>	<b>Sets size limits on Trochus, Green snail, Bubu shells, Lobsters and Coconut Crabs and sets quotas on Beche-de-mer and restrictions on coral and turtles.</b>	Director of Fisheries	<b>Stricter measures are needed to enforce the existing size limits. The regulations could be strengthened by additional provisions to set quotas according to the status of the resource within individual regions. Local Government Councils have responsibilities under the Decentralisation Act to assist with management of coastal fisheries.</b>

Attachment 2

Legislation	Scope of Act	Responsible Agencies	Comments
Land Leases Act (1983)	Leases for the use of land other than by the custom owner contain covenants which require the lessee to avoid degrading the environment	Department of Lands Minister of Natural Resources Consultation with the Departments of Agriculture, Livestock and Forestry	Currently one of the most important and widely applied environmental controls in Vanuatu. However the Lease covenants are rarely monitored
Vanuatu National Cultural Council Act (1985)	Makes provision for the preservation, protection and development of the cultural heritage of Vanuatu	Minister for Justice, Culture and Women's Affairs, Vantralu Cultural Centre	
Health and Safety at Work Act (1986)	Legislates to ensure health and safety provisions in the workplace and to ensure that goods imported or manufactured are safe and without risks to health when properly used. Clause 8 also enables The Minister to prescribe regulations to control the use of dangerous substances	Ministry of Home Affairs	
Physical Planning Act (1986)	Within any designated Physical Planning Area development must be in accord with a valid planning permit from the Municipal or Local Government Council	Local Government and Municipal Councils Department of Physical Planning Minister of Home Affairs	An amendment is suggested so that important areas such as water protection areas, foreshore areas and other protected areas are automatically PPA's
Mines and Minerals Act (1986)	Includes requirements for reclamation and rehabilitation plans to be lodged with the Department, and that environmental impacts during mining are minimised. The Minister may issue regulations on the control of pollution or environmental degradation from mining activities	Minister of Natural Resources Department of Geology, Mines and Water Resources	As yet no regulations have been issued under the Act. Amendment could be considered to require all lessees to rehabilitate mineral leases or place funds in trust for rehabilitation, and to require social and environmental assessment prior to mining activities. Previously the exclusion of sand and coral aggregate from the provisions of Quarry permits led to coastal and stream-bed erosion. These are now included in the provisions of the Act

**Attachment 4**

<b>Legislation</b>	<b>Scope of Act</b>	<b>Responsible Agencies</b>	<b>Comments</b>
Geothermal Energy Act (1967)	Similar provisions to the Mines and Minerals Act but that apply to the extraction of energy from subterranean heat sources	Department of Geology, Mines and Water Resources Energy Unit	
Animal importation and Quarantine Act -1988	Animals, animal products, or products that could cause disease in animals can only be Imported subject to a permit under the Act	Department of Livestock.	
Maritime (Protection of Mammals) Regulations (1988)	Controls to prevent accidental catches of marine mammals from ships sailing under the Vanuatu flag	Department of Ports and Marine Fisheries Department	
International Trade (Flora and Fauna) Act (1989)	Ratification of the Convention on the International Trade in Endangered Species of Wildlife, under which listed species cannot be imported or exported without permits under the act	Environment Unit Minister of Natural Resources	'A regulation under the Act could be made to differentiate between permit fees for personal or commercial purposes,
Fisheries Regulations of 1992	Sets closed seasons for coconut crabs in the Banks/Tones and Santo/Malo Local Government Areas	Director of Fisheries	The closed seasons are quite brief and consideration could be given to their extension. Similar measures should be considered for other areas or resources
Act for the Ratification of the Biodiversity Treaty (1992)	Ratifies the Government's Agreement to the United Nations Treaty to Conserve Biodiversity	Environment Unit Minister of Natural Resources	Additional laws and regulations will need to be established to ensure Vanuatu meets its obligations under the Treaty to protect Vanuatu's biodiversity
Act for the Ratification of the Framework Convention on Climate Change (1992)	Ratifies the Government's agreement to the United Nations Convention on Climate Change.	Environment Unit Minister of Natural Resources	Additional laws and regulations will need to be established for the import, use and management of substances affecting the atmosphere and that are possible factors in accelerating climate change, to ensure Vanuatu meets its obligations under the Convention

## Attachment 2

Legislation	Scope of Act	Responsible Agencies	Comments.
<b>Pesticide (Control) Act (1993)</b>	<b>Regulations prepared under the Health and Safety</b> ● <b>Work Act to regulate the import, use and management of pesticides, herbicides, fungicides and other chemicals used in primary production.</b>	<b>Ministry of Agriculture, Livestock Forestry and Fisheries.</b>	
<b>Petroleum Act (1993)</b>	<b>Legislation to control natural gas and petroleum</b> ● <b>exploration and extraction</b>	Department of Geology, Mines and Water Resources <b>Ministry of Natural Resources.</b>	
<b>National Parks Act (1993)</b>	<b>Protection of the natural, scenic, scientific or cultural heritage of Vanuatu, through the</b> ● <b>establishment of conservation reserves.</b>	<b>Ministry of Agriculture, Livestock, Forestry, and Fisheries.</b>	
Draft laws in Preparation. <b>Draft Water Resources Act.</b>	<b>Legislation to provide for the management of ground and surface water resources, including provisions to control pollution and protect water catchments.</b>	Department of Geology, Mines and Water Resources.	
<b>Draft Public Health Act</b>	<b>Includes controls on the disposal of waste in public places and controls on litter.</b>	Environment Health Unit. <b>Minister for Health.</b>	
Areas covered by guidelines without legislative support.			
<b>Environmental impact Assessment of Development Guidelines</b>	<b>Guidelines for the preparation of Environment impact Statements as required by the Environment Unit were issued in 1987. The National Advisory Committee on the Environment was established to review EIAs where required.</b>	Environment Unit Minister of Natural Resources.	These guidelines are widely overlooked and urgently require statutory backing. Provisions should be made for mandatory EIA for both private and Government developments; for <b>environmental guidelines</b> issued as a result of the EIA to be included as covenants in lease agreements; and to enable the Environment Unit to monitor and <b>enforce environmental safeguards.</b>

## Attachment 2

Legislation	Scope of Act	Responsible Agencies	Comments
Guidelines for Bush Clearance	Guidelines for the clearing of land for agriculture were issued in association with provisions for exemption from fuel excise They set clear measures to protect the natural environment and to prevent erosion of water sources.	Department of Agriculture. Department of Lands	These guidelines are also frequently overlooked and could be made a mandatory inclusion in agricultural leases Measures should allow for the monitoring and enforcement of these guidelines

Areas where legislation is as yet undeveloped.

Control of Hazardous Substances and Chemicals.	There is a need for regulation of the import, use, application, labelling, storage, transport and disposal of dangerous goods including chemicals, radioactive materials and explosives The use of such goods will continue to expand, and controls can help prevent dumping of goods banned from other countries and prevent accidental human exposure or environmental contamination	Departments that could be involved in developing these laws include the Environment Unit, Physical Planning Unit, Disaster Management, Agriculture Dept. Forestry Dept. Livestock Dept, Health Dept and Industries Dept
Introduction of Plants and Animals into Vanuatu for biological control purposes.	The African snail introduced into Vanuatu and the subsequent introduction of a predatory snail is one incidence of biological control in Vanuatu There is a need for controls to ensure that introduced species are carefully selected and do not degrade ecological systems	Departments that could be involved in developing these laws include Ouaranline, Livestock, Agriculture and Environment
Plant Importation and Quarantine	There is a need for legislation that parallels the Animal import provisions to control the import of plant species, products or substances capable of causing disease in plants	Department of Agriculture Department of Livestock
Waste Management	Management of domestic, industrial and human wastes is singularly undeveloped and there is a need for management procedures and regulations to be established	Departments that could be involved in developing appropriate legislation include Local Government, Physical Planning, Public Works, Environment Unit, Agriculture Geology, Mines and Water Supplies and Municipal and Local Government Councils.