



## REPUBLIC OF VANUATU

### THIRD NATIONAL REPORT TO THE UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (UNCCD)



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## *Acronyms and Abbreviations*

<b>ADB</b>	Asian Development Bank
<b>AusAID</b>	Australian Aid
<b>BOM</b>	Bureau of Meteorology
<b>CIDA</b>	Canada International Development Assistance
<b>DESP</b>	Department of Economic and Sector Planning
<b>DARD</b>	Department of Agriculture and Rural Development
<b>DSAP</b>	Development of Sustainable Agriculture in the Pacific
<b>EIA</b>	Environmental Impact Assessment
<b>EMC</b>	Environment Management and Conservation Act
<b>EU</b>	Energy Unit (of the Government of Vanuatu)
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organisation of the United Nations
<b>Forsec</b>	Forum Secretariat
<b>GEF</b>	Global Environment Facility
<b>GIS</b>	Geographical Information Systems
<b>GoV</b>	Government of Vanuatu
<b>IBSRAM</b>	International Board of Soil Research and Management
<b>INC</b>	Initial National Communications
<b>ISDR</b>	International Strategy for Disaster Reduction
<b>JICA</b>	Japan International Cooperation Agency
<b>kW</b>	Kilo-Watt (Thousands of Watts of power)
<b>kWh</b>	Kilo-Watt-Hour (Thousands of Watt Hours of energy)
<b>LDC</b>	Least Developed Country
<b>LMPC</b>	Land Management Planning Committee
<b>LUPO</b>	Land Use Planning Office
<b>NACCC</b>	National Advisory Committee on Climate Change
<b>NAPA</b>	National Adaptation Programme of Action
<b>NAP</b>	National Action Plan
<b>NBSAP</b>	National Biodiversity Strategy Action Plan
<b>NCAP</b>	National Capacity and Action Plan
<b>NCSA</b>	National Capacity Self Assessment Project
<b>NIWA</b>	National Institute of Water and Atmospheric Research
<b>NZAID</b>	New Zealand Aid
<b>ODA</b>	Official Development Assistance
<b>PAA</b>	Priorities and Action Agenda (for the GoV)
<b>PRAP</b>	Pacific Regional Agriculture Programme
<b>PV</b>	Photovoltaic
<b>SLM</b>	Sustainable Land Management
<b>SOPAC</b>	South Pacific Applied Geoscience Commission
<b>SPBCP</b>	South Pacific Biodiversity Conservation Programme
<b>SPC</b>	Secretariat for the Pacific Community
<b>SPREP</b>	Secretariat for the Regional Environment Programme

<b>STAP</b>	Scientific and Technical Advisory Panel
<b>NSO</b>	National Statistics Office
<b>TV</b>	Television
<b>UN</b>	United Nations
<b>UNCBD</b>	United Nation Convention on Biological Diversity
<b>UNCED</b>	United Nations Conference on Environment and Development
<b>UNCCD</b>	United Nations Convention to Combat Desertification
<b>UNDP</b>	United Nations Development Programme
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VEU</b>	Vanuatu Environment Unit
<b>VLUPP</b>	Vanuatu Land Use Planning Project
<b>VMS</b>	Vanuatu Meteorological Services
<b>WED</b>	World Environment Day
<b>WMO</b>	World Meteorological Organisation
<b>WPZs</b>	Water Protection Zones
<b>WWD</b>	World Water Day
<b>WWD</b>	World Weather Day

## **Executive Summary**

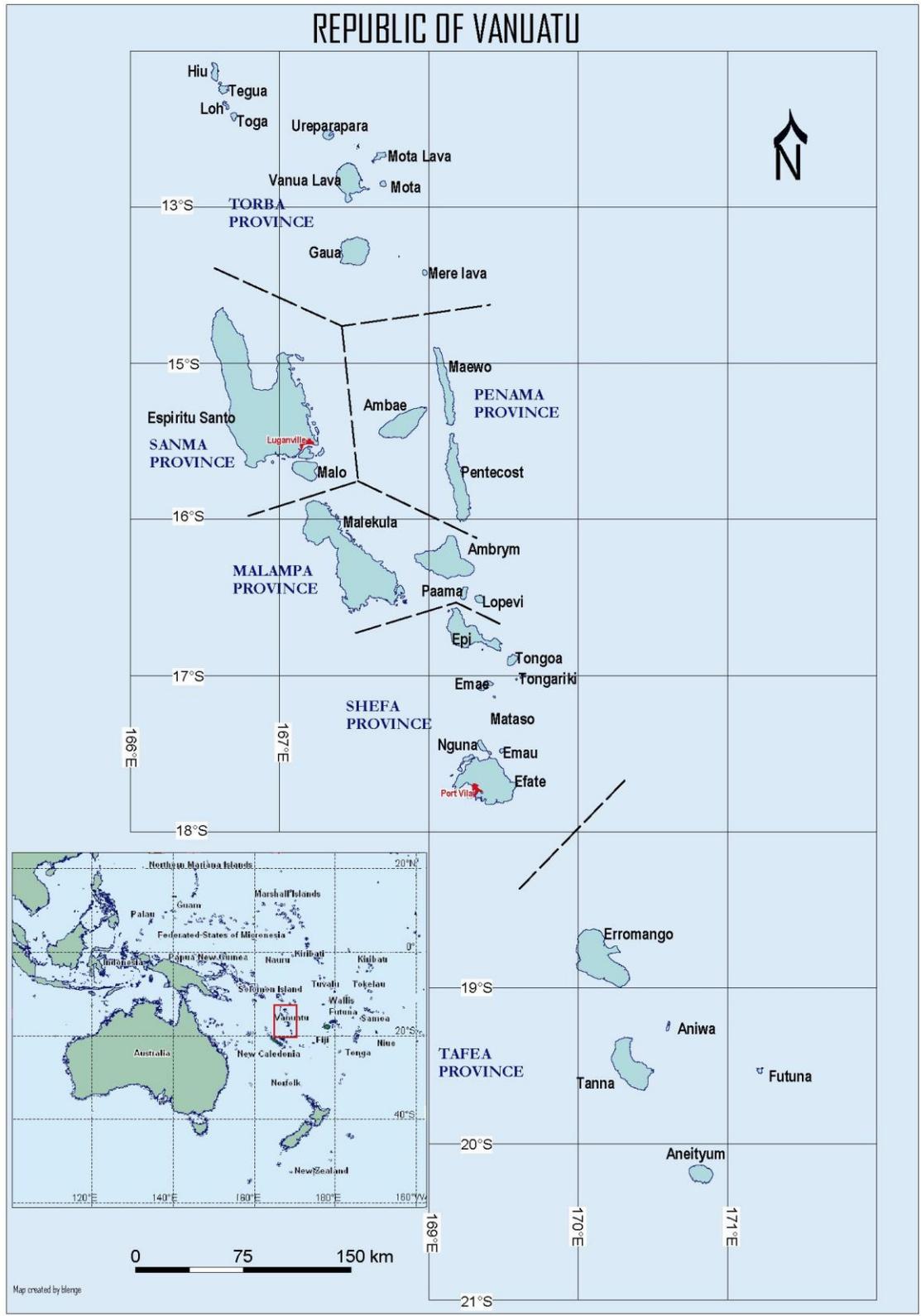
Land degradation is broadly defined as “.any form of deterioration of the natural potential of land that affects ecosystem integrity either in terms of reducing it’s sustainable ecological productivity or in terms of its native biological richness and maintenance resilience.”(GEF,1999)

Vanuatu is a signatory of many major international conventions such as the United Nations Convention on Biological Diversity (UNCBD), the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification. In 1998, Vanuatu acceded to the United Nations Convention to Combat Desertification (UNCCD). The UNCCD aims to guarantee a long term commitment to the parties concerned through a legally-binding document. Its aim is to combat desertification and alleviate the effects of drought on seriously affected countries, those in Africa in particular, through measures that take effect at every level.

As part of its commitments under this (UNCCD) international convention, Vanuatu has an obligation to report to the Convention Secretariat on the progress of implementing the convention. It is commonly recognized that if this convention is implemented effectively by parties, it would contribute significantly to achieving the goals of sustainable land management and prevent land degradation. This is not always possible particularly for country parties like Vanuatu which have limited systemic, institutional and individual capacity to fully implement the obligations and requirements of the convention and to benefit from involvement in it.

This international legal instrument is the principle means by which the world community expresses and implements consensus on measures to protect and preserve the environment for the benefit of the present and future generations in the context for sustainable development. The Constitution of Vanuatu reiterates the same principle in Article 7(d).

Vanuatu is an LDC and access to the UNCCD and the other international conventions, agreements, and other legal instruments is essential for taking the appropriate measures at the national level to translate these accords into action, as well as participating effectively in the progressive implementation of the conventions. As an LDC, Vanuatu has limited technical and financial resources to implement the UNCCD and it will continue to work closely with its technical and donor partners to fulfill its obligation requirements. Raising awareness at various levels from political to individual is an important agenda for the government agencies. It is also necessary to consolidate the traditional knowledge on agricultural practices and involving the custom landowners in the implementation of the convention. Lastly and importantly, Vanuatu must continue to conduct a land use survey urgently to document the current land use patterns and the areas that are severely affected from the different land uses.



**Figure 1. Map of Vanuatu**

## **Background**

Vanuatu acceded to the United Nation Convention to Combat Desertification (UNCCD) in 1998 to be part of the global agreement to combat land degradation. And “Land degradation is broadly defined as “...any form of deterioration of the natural potential of land that affects ecosystem integrity either in terms of reducing it’s sustainable ecological productivity or in terms of its native biological richness and maintenance resilience.”(GEF, 1999)

### *Topography*

The Republic of Vanuatu comprises of over 80 coral and volcanic islands that forms a total land area of 12, 200 km<sup>2</sup> and a maritime exclusive economic zone of 680,000 km<sup>2</sup>, with an additional 240,000 km<sup>2</sup> surrounding the most southern islands of Matthew and Hunter (NSO,2002) in dispute with France. The country is located between latitude 12° and 23° south and longitude 166° to 177° east, some 1,300 km<sup>2</sup> from north to south in the Western Pacific Ocean (Figure 1). About 41 per cent of the land is undulated lowland areas with the average slopes of 20° ; 22 per cent are raised reef terraces and plateau that are highly dissected by creeks and 47 per cent is high mountainous areas that forms the interior of the islands with slopes of 40° and over.

### *Climate*

The islands are situated on active tectonic plates and the cyclone-prone, tropical southwestern Pacific Ocean that they are subject to natural disasters such as cyclones, movements of plate tectonics and volcanic activities. The average rainfall is about 2,290mm per year but, are highest during cyclone seasons from November to April every year causing floods that result in landslides on some islands.

### *Land use*

About 70 per cent of the land area has significantly been used for agricultural activities and human settlement. The highest levels of land use are within the lowland fertile areas including the major flood plains on larger islands such as Efate.

## **The Status of Land Degradation in Vanuatu**

The major threats towards land degradation in Vanuatu are; the lack of land use planning due to the lack of knowledge on the capacity and complex function of the islands land ecosystem. The increasing human population put increasing pressure on the islands limited arable land areas and that unsustainable agriculture, logging and urban development practices are employed, that the latter is the loss of Vanuatu land integrity through soil erosion and loss of soil fertility threatening food production and people’s livelihood.

More than 80 per cent of Vanuatu’s population live in rural villages and obtain the bulk of their diet from subsistence production systems. Throughout the country, root crops are the main source of food. They are produced by a variety of gardening practices, but most

commonly the production is based on a forest fallow of about 2 to 5 years, or grass fallows of shorter durations. Only rarely is land kept in permanent cultivation.

Land pressure is clearly greatest where there is little or no room for expansion, yet population continues to increase rapidly, for example, on Tanna, Paama and Pentecost. The effect of pressure in such islands is to force crop production to expand into marginal land which is more susceptible to soil erosion, or has lower natural fertility levels; or to use some of the land traditionally retained for other purposes.

#### *Poor Land Use*

Vanuatu does not have land capability information system, which includes the physical and biological characteristics of land; its climate, soil, geology, geomorphology, soil drainage characteristics as well as existing land use. Farmers and planners are not well informed to make wise decisions on how best to use their land.

The Vanuatu Land Use Planning Project (VLUPP) which commenced in 1995 under the Department of Lands with the AusAID funding support, was intended to develop mechanisms to improve the existing land use practices in Vanuatu. The expected outputs and outcomes of the project was not up to expectation of many stakeholders. The information focused on forest resource mapping unit from aerial photographs taken in 1986. This information has not been updated since the project was completed in 2000.

#### *Urban development pressure*

Increasing development pressure within the islands coastlines, and in particular around Port Vila and Luganville, result in increasing sedimentation into waterways causing degradation of the lagoons, threatening subsistence fishing and major economic activities such as tourism. With the impacts of climate change, coastal erosion is obvious in some parts of the islands causing damage to existing infrastructures and local settlements within coastal areas.

#### *Unsustainable agricultural practices*

Vanuatu's very high rate of population growth influences the effectiveness of every development initiatives and the sustainability of natural resources. The increase in the population growth has also placed the land and traditional farming systems in very heavily populated islands under pressure. The traditional farming slash, burn and clearing and loosening of soil in subsistence gardening encouraged loss of nutrients through leaching and burning and the soil becomes vulnerable to erosion during heavy rain. (Pers.com,2007).

Much of the lowland areas are coconut and livestock areas displacing subsistence gardening into marginal land areas of the islands. Further loss of nutrients and soil erosion is encouraged with the increasing population in the rural areas putting pressure for cultivation into steep slopes and areas with shorter fallow periods of average 2 years.(Ibid,2007). Though the impacts of unsustainable agricultural practices were not

well quantified, there are local anecdotal reports on low yield of garden crops in recent years, and limited land areas for subsistence staple food crops such as taro.

### *Unsustainable logging*

Forestry activities provided cash for many rural communities. Forest product export in 1998 was USD 5.168 million. Over 500 people are employed in the forest sawmill operations and wood processing industries. Forest cover is 36 per cent of the total land mass of Vanuatu with much of it is invaluable for timber production and little forest pockets hold valuable timber forest stock are often situated on steep slopes. Severe soil erosion on the island of Aneityum contributed to the dying of coral reefs. This is a result of intensive logging operations and burning of grasslands on uplands of the island.

## **1.0 Strategies and priorities established within the framework of national Sustainable development plans and policies**

### ***1.1 The Constitution of the Republic of Vanuatu.***

The Constitution of the Republic of Vanuatu provided the overall administrative and legal mandate for the protection of all Vanuatu lands and other associated environmental resources that;

*“All land in the Republic of Vanuatu belongs to the indigenous custom owners and their descendants.” (Constitution, 1980. Article 73)*

*“Every person has the following fundamental duties to himself and his descendants and to others to protect Vanuatu and to safe guard the national wealth, resources and environment in the interest of present and of future generations” (Constitution, 1980. Article 7(d))*

Sustainable land management in Vanuatu is addressed as an integral within existing Vanuatu national laws and policies that supports economic development.

The protection of land and all associated environmental resources, for the future generations is a fundamental responsibility for all people of Vanuatu mandated by the Vanuatu constitution. Therefore the sustainable use and management of land is addressed as an integral within existing Vanuatu national laws and policies supporting economic developments.

### ***1.2 Land Lease Act (CAP. 163)***

The Act provides for the creation and disposition of leases on land, their registration and associated dealings with leases. Standard agriculture, forestry, residential and commercial lease agreements have indirect contributions to environmental protection that they can impose conditions for protection of water catchments and prevention of soil erosion.

### ***1.3 Vanuatu National Forest Policy 1997***

The Policy provides for the protection, development and sustainable management of forest and the forest industry that also provides for sustainable land management within these policy objectives;

1. Development of land use planning for forest development.
2. Afforestation of forest after logging operation programme.
3. Agro-forestry.
4. Assessment of forest land best suited for timber production, conservation and conversion.
5. Rehabilitating degraded land areas as a result of soil erosion.
6. Fire management.
7. Establishment and implementation of code of Logging Practice.
8. Conduct Environmental Impacts for forestry development prior to issuing logging permits and licenses.
9. *Code of logging Practice 1998*; a legally enforceable mechanism to minimize soil erosion, river pollution and degradation of water catchment areas as these are likely consequents of poor planning for logging operations on steep slope terrain.

### ***1.4 National Biodiversity Strategy and Action Plan, 1999***

The strategy is to ensure protection or wise use of Vanuatu biodiversity (species and habitats) that has some bearings to sustainable land management. The objectives provide for the protection of Vanuatu significant biodiversity such as wildlife, water catchment areas, cultural sites, and the establishment of Environment Impact Assessments for developments to ensure wise use of biodiversity, which all have indirect impacts in sustainable land management.

### ***1.5 Forestry Act No. 26 of 2001.***

The Act provides for commercial forestry operations in Vanuatu that is only permissible through the consent of the National Forest Board that sets selection criteria on the operations which hinders unsustainable deforestation.

The Act provides that custom owners may apply in writing to the Minister responsible for Forests to declare a forest located on their land, a Conservation Area if the Minister is satisfied that the particular area of forest has particular scientific, cultural, social or other special value for the community and future generations. The effects of such declarations has some direct implications to sustainable land management.

### ***1.6 Water Resource Management Act No. 9 of 2002***

The Act provides for the protection, management and use of water resources in Vanuatu. The Minister responsible for Water Resources has the power to (amongst other things) declare Water Protection Zones (WPZs) in the rural and urban areas (GoV, 2002) which provides restrictions to human activities within stream fed land areas and to protect

any significant water resource which also helps address land degradation in WPZs.

### ***1.7 Environmental Management and Conservation Act No.12 2002***

The stated objectives of this Act is “ *to provide for the conservation, sustainable development and management of the environment of Vanuatu and regulation of related activities.*” *In short, it builds on existing laws and is regarded as the main legislation that will foster sustainable use of resources and due protection of the environment of Vanuatu, including its lands, air and waters.*” (GoV,2002)

The Act also has provisions for the undertaking and administering the EIA on all development activities to ensure none or minimal threats to environmental resources and the livelihood of the people. The EIA undertaking requires description of management procedures on potential threats to developments such as soil erosion, coastal erosion and natural disasters.

### ***2.0 Links between NAP and existing strategies***

Ensuring sustainable use of natural resources is a national priority of Vanuatu and is stated in the Priorities and Action Agenda (PAA) for Vanuatu for the period from 2006 to 2015. The objectives of the PAA were derived from the existing national policies such as the National Forest Policy (2002) that has more focus on forest productivity and little emphasis on land management, and therefore specific targets for productive land areas have not been set for other land uses.

The Departments of Lands and DARD are currently undertaking consultations for their sector policy developments. While Vanuatu is yet to develop its NAP for sustainable land management, it is considering the inclusion of the recommendations of the NAP into the existing and newly developed sectoral policies and to link them with the development priorities set out in the PAA.

### ***3:0 Institutional arrangements to implement UNCCD in the country***

The Vanuatu Environment Unit (VEU) is the UNCCD National Focal point and the Head of the VEU is the Coordinator for UNCCD implementation in-country. The VEU, with the support of external funded project activities provided secretariat support to a number of National Environmental Advisory Committees such as the National Biodiversity Strategy Advisory Committee (NBSAP), the National Advisory Committee on Climate Change (NACCC), National Capacity Self Assessment Project (NCSA) Steering Committee and the Local Conservation Initiative (LCI) Steering Committee.

Currently the NCSA Steering Committee is providing the advisory role in the assessments and identification of country capacity needs to meet its obligations under the UNCCD, UNCBD and UNFCCC. The function of the NCSA Steering Committee is

supported for the duration of the project, and is expected that once funding for

implementing the National Capacity Development and Action Plan for Environmental Management (NCAP) is finalized, the advisory committee would continue to function.

The Land Management Planning Committee (LMPC) of the Ministry of Lands and Natural Resources is yet another technical advisory committee whose role is to facilitate land lease applications for land owners who want to lease their land for developments. The LMPC screen land lease applications for all developments in Vanuatu and make recommendations to the Minister of Land for consideration and approval. The Minister also has the overall power to approve and grant land lease applications to anyone who has an interest any particular land area without the recommendation of the LMPC.

All these technical committees have higher representations of government officials, however, the advisory role for land productivity are not specified in all their mandatory role, and that the many technical committee meetings puts increasing demands on existing limited government officers, particularly for those officers who are represented on more than one technical committees. It is appropriate to assess the need and role of a Vanuatu UNCCD National committee to effect sustainable land management. However, because of the linkages that UNCCD has with the UNFCCC, it is recommended that the NACCC act as the national committee for sustainable land management.

#### ***4:0 Partnership arrangements and stakeholder participation***

The national implementation of the UNCBD and UNFCCC had contributed to some components of the national obligations of UNCCD. Numerous stakeholders consultations reports that were undertaken for the development of National Biodiversity Action Plans, Climate Change policy and the National Capacity Self Assessment Strategy (NCSA) will provide the basis for the development of National Action Plan for sustainable land management in Vanuatu.

The NCSA project implementation with funding support from UNEP undertook assessment of the Vanuatu capacity needs to effect environmental management within the three United Nations environmental conventions; the UNCCD, UNCBD and UNFCCC. The NCSA consultations were undertaken at the community, provincial and national levels in 2006 and 2007. The outcomes of these consultations formed the basis for the development of the National Capacity Building and Action Plan for Environmental Management.

The NCSA stakeholders' consultations were conducted during the following periods:

**Table 1.**

National stakeholders (Governments & NGOs) consultations for the stock take assessment on national activities in the 3 conventions	March-June 2006
National stakeholders (Governments & NGOs) consultations for consensus on the constraints and difficulties in implementation of UNCCD, UNCBD and UNFCCC in Vanuatu	June 2006
National stakeholders (Government, NGOs and Private Sector) in identifying priorities for the Vanuatu National Capacity Needs strategy and Action Plan, for the implementation of the UNCCD, UNCBD and UNFCCC.	August 2006 & February 2007
Provincial government and local community stakeholders' consultations for consensus on the priorities for the Capacity Needs strategy for the implementation of UNCCD, UNCBD and UNFCCC.	April 2007
National Stakeholders (Government, NGOs and Private sector ) consultations in the establishment of the Monitoring and evaluation of the Vanuatu National Capacity Needs Strategy and Action Plan.	May 2007

The National Land summit supported by the Government of Vanuatu through the Ministry of Lands and Natural Resources held in September 2006, brought together representatives from the government, provincial authorities, private sector, community leaders, and members of the civil society to review the Government land policies and their implementation for sustainable economic development.

The objectives of the National Land Summit was to provide an opportunity for the people of Vanuatu to discuss, decide and agree on how they want to see Vanuatu as a nation progress with its economic developments in accordance with the principles of sustainable land management and development and equitable sharing of the benefits of the resources and developments.

Vanuatu is currently preparing its National Action Plan for sustainable land management. The outcomes of the NCSA and the National Land Summit consultations and discussions provided appropriate information and would be the major integral part of the NAP.

### **5:0 *Information management and dissemination***

Information management related to land management in country is scattered and patchy due to the fact that land management is an integral of many different development activities hosted within different ministries and departments and information are not easily accessible and in some cases are in poor conditions.

The Ministry of Lands and Natural Resource has embarked on a project in 2005 to improve the lands data base management however, financial and human resources are major constraints.

Access to remote technical aids such as GIS, satellite mapping is so expensive. Similar activities were undertaken through donor funded projects with information and results either not readily available in country or they are being kept by specific agencies nationally without making it available to others.

### **6:0    *Legal and regulatory framework***

The government of Vanuatu clearly stated its objectives in the 'Priorities and Action Agenda' 2006 to ensure sustainable economic development growth in the primary sector of agriculture, forestry and fisheries and tourism. Specific objectives to sustainable land management are;

- To implement the Environmental Management and Conservation Act No.12 of 2002 through the application of EIA on all development activities,
- To ensure ecosystem must be managed to support development activities such as ecotourism,
- To establish urban development plan for tourism development,
- Develop a sustainable agriculture policy,
- To implement the forest policy to ensure sustainable forestry through the enforcement of code of logging and promoting agro-forestry development, and
- To promote the use of renewable energy sources

Most government and non-government organizations face financial and human resource constraints that limits their ability to convert their established policies into practices. The national budgets to the natural resource sectors such as forestry, fisheries, agriculture and environment are so inadequate to allow undertaking land management field research throughout the islands to understand better the problems, issues and concerns and how they are addressed, for policy decisions.

### **7:0    *Land tenure issues***

All land in Vanuatu belongs to indigenous Ni-Vanuatu. Government does not own agricultural land or forestland. While land can be leased, ownership of land is inalienable. Consequently decision on land management can only proceed with the consent of traditional landholders.

*“The land to which a person belongs is part of who they are and helps to define their relationships with others. The land is the basis for subsistence activity, the resources needed for daily life. Any changes to the customary tenure systems will influence the chiefly institutions and the associated subsistence systems which have for generations been the source of family identity, social protection and livelihood. The customary sovereignty of land also reinforces community responsibility for maintaining the integrity of the natural resources.*

*“Land is a primary factor of production. It is also the predominant form of individual*

*wealth in all market economies that have developed economically. The land provides the resources that are used for commercial agriculture, forestry, fisheries and manufacturing production and trade. It provides resources that offer opportunities for future development.*

*Given the various ways of claiming land in Vanuatu, which is acceptable, it is hard to state affirmatively that land ownership and sustainable land management are complementary”.* (President of the Malvatumauri, National Council of Chiefs, Speech to the 34<sup>th</sup> South Pacific Conference, Port Vila 1994 in UNDP,1996).

Land tenure systems in Vanuatu are complex and vary considerably amongst different islands.

Under increasing development pressure, land tends to be seen more recently in some areas as a commodity that can be leased in return for cash. In addition, many coastal areas have been leased from traditional owners and developed as residential in areas prone to cyclone damages, storm surges, flooding and sea-level rise. Agricultural leases have been converted to residential leases without consultation with traditional owners or considering land use implications such as the loss of prime agricultural land and flooding of low lying areas.

The 2007 National Land Summit has considered sustainable development important for the future development of this country and recommended that sustainable development and land use planning must be integrated in all land lease applications and developments. It is recommended that appropriate recommendations from the 2006 National Land Summit be implemented to strengthen effective land use planning and sustainable development in Vanuatu.

### ***8.0 Status of awareness raising and specific needs***

Nothing has higher priority in the development of strategies of Vanuatu than the education and training of its people and much effort has been directed to that end formally and informally. Education is the key to development, the means to good health, economic security, wise use of natural resources, and for acquiring the capacities which can be used in cultural, social and political activities (UNDP,1996).

While Vanuatu has not developed a communication, education and public awareness strategy for national ,regional and international environmental treaties, agreements and conventions, including the UNCCD, objective 5 of Vanuatu’s National Biodiversity Strategy and Action Plan (NBSAP) focused on environmental education, awareness and information sharing. Achievements towards this objective include:

- Sectoral activities such as the World Environment Day (WED), World Weather

Day (WWD) and the World Water Day (WWD) have provided a means for education about land degradation, sustainable land management and forest management. These and many other similar world observance days have had excellent impact.

- Collaboration between the Vanuatu Environment Unit, Vanuatu Meteorological Services and the Departments of Forestry and Agriculture and Rural Development to raise awareness at community and government levels about the commitments and obligations of Vanuatu under the UNCCD.
- Use of other organized workshops to facilitate awareness of environmental issues affecting rural communities.
- Work in collaboration with SPREP, UNDP and the Regional Office of the UNCCD Secretariat in Bangkok, Thailand to provide information that can be disseminated for awareness activities and in a language that can be read and understood.

The mass media also plays an even greater educational and awareness raising role. Ni-Vanuatu educators are learning the educational importance of radio, posters, pamphlets and TV for information dissemination and public are starting to rely on the media for information.

Vanuatu's natural resource sectoral agencies have all produced awareness materials aimed at government and community level including pamphlets, workshops and brochures. Newspapers are used on an occasional and opportunistic basis, in part because they have limited reach beyond the urban areas. Radio communications has widest coverage although it does not reach all locations. There is a fortnightly environmental programme that is used to promote awareness of the multi-lateral environmental agreements and national priorities. (Environment Unit, 2006). This programme has not been fully utilized because of lack of staff and initiative to produce the programme by the sectoral agencies.

There are some concerns about the quality of information and the methods and approaches used in raising awareness. Environmental awareness is one facet of the broader process and throughout Vanuatu, there is considerable emphasis on environmental issues for the general public, but this is constrained by the lack of financial resources and technical information. However, there are still weaknesses in how the awareness programmes are conducted and received. The weaknesses are:

- The need to motivate facilitators, producers and organizations and change their attitudes towards environmental subject matters.
- The need to train more people who are well informed about the environment degradation and how to communicate and disseminate the appropriate information to the targeted audience.

- The need for Vanuatu to strengthen the management of reference information and exchange information on land degradation within and between the government agencies.

However, awareness related to land degradation is minimal and ad hoc and are mainly supported by external funding. The DARD is currently promoting through fliers and farm demonstration techniques for improvement of soil fertility and control soil erosion. The Department of Forestry through their assistance of NZAID had established community soil erosion control on heavily affected islands such as Aneityum.

### ***9.0 Technology Development***

Vanuatu is not well endowed with the infrastructure necessary to achieve either technology development or effective transfer of appropriate technologies to combat environmental degradation. Even when dealing with established technologies, Vanuatu lack the capability needed to provide ongoing maintenance and repair. We also find that management and technical expertise relevant to the ecologically sustainable development of natural resources is scarce.

Vanuatu welcomes the increased technical cooperation with the industrial countries and also with other developing countries in order to adapt Vanuatu's practices to technologies which are even more productive and are also environmentally sound.

There is a need to facilitate the technology development in Vanuatu which is affordable and appropriate, along with the associated development of human resources, skills and training, research and information sharing. Vanuatu should also develop guidelines and implement procedures for Environmental Impact Assessment and take into account the probable impacts on other resource users and environments when evaluating particular development proposals.

### ***10.0 Promotion of traditional knowledge and role of educational institutions***

Traditionally certain rules and procedures had to be followed in agriculture. Ni-Vanuatu have evolved methods of maintaining soil fertility such as shifting cultivation with bush or grass fallow, composting associated with the production of pit-grown taro on some islands like Maewo and Aneityum, irrigation and terracing cultivation on steep slopes and soil mound building and prohibitions were strictly enforced on felling of certain trees. It is also recognized that some traditional practices, including excessive use of fire, has adverse environmental effects, to which the large areas of man-induced, infertile grassland of places like in north Pentecost bear witness.

Within the past few years, awareness of the importance of local knowledge and management systems has grown rapidly within the international development and conservation agencies (Forum Secretariat, 2002).

The Sustainable Agriculture Programme, Food Security Programme and Farming Systems, programmes of the Department of Agriculture and Rural Development share common purpose of conserving and reviving traditional farming systems and integrating traditional practices of cultivation, control of pests and diseases and related activities into improved farming systems. This work with local communities helps to reinforce and strengthen local resource capacity to recognise and preserve traditional knowledge and to use available environmental resources in a sustainable manner.

Soil degradation is an increasingly important issue affecting agriculture. The traditional practice of shifting cultivation that has allowed the soil to go through a process of regeneration by being left idle for extended periods ranging for 5 to 10 years is no longer possible. The fallow periods are being shortened as population pressure on land grows. This has contributed to a significant rise in soil degradation. This has been addressed through pilot projects on various islands and through dissemination of information on crop varieties and appropriate farming practices. (DESP,2006)

Agro-forestry is also being promoted, although only in a limited way, with the use of intercropping to reduce soil erosion. (ibid, 2006)

Language capacity is often essential for the on-going transmission and application of traditional knowledge. The Vanuatu Cultural Centre has been active with the Department of Education to trial introduction of indigenous languages and traditional knowledge into the primary school curriculum. The women field workers of the Vanuatu Cultural Centre have put together a report on the language names of each month of the year and, also provided reasons for what agricultural activity can be practiced during each month. If this is enforced, it would promote sustainable land management in rural communities of Vanuatu.

Land degradation issues have also taken place under the auspices of planning to address Vanuatu's responsibilities under the UNCCD. However, many of the concepts involved are scientific and complex and are difficult to relate to traditional knowledge. (Environment Unit, 2006)

The Aneityum Soil Erosion Control Project conducted on Aneityum with the communities and the Department of Forestry to minimise the impacts of soil erosion on the terrestrial and marine environment is an example to be replicated in other islands in Vanuatu. The project which was funded by the NZAID for a period of over five years has encouraged the chiefs and people of Aneityum to take responsibilities to ensure that no uncontrolled burning of grasslands on steep slopes continue, as this has been the main causes for soil erosion on the island.

The DARD has over the past years implemented the PRAP and IBSRAM. PRAP was funded by the EU with a focus on gardening systems on steep slopes and on lowland areas, while IBSRAM focused on the improvement of soil fertility. Both projects have been implemented in Vanuatu on selected islands and have proven successful, however,

the real impacts of the projects have not been realised in allowing communities to improve their farming practices on steep slopes and in lowland areas.

Since 2003, DARD has also been implementing another agriculture project, the Development of Sustainable Agriculture in the Pacific (DSAP). The objectives of DSAP are to:

- Identify farmers' production problems and offer solutions;
- Identify appropriate technologies and apply them to farming communities;
- Facilitate scaling-up technologies by enhancing national extension capacity; and
- Strengthen national capacity to produce extension materials.

DSAP promotes and implements sustainable agriculture that will improve food production thereby enhancing food security and income generation in the Pacific. Funded by the EU, the programme commenced in 2003 in ten Pacific countries and will be implemented until 2008.

### ***11.0 Monitoring and evaluation in the implementation of land degradation programs and initiatives***

Effective design, inception, implementation, monitoring and review of land degradation programs are integral to the sustainable development of Vanuatu. On land degradation, the government through the Departments of Forestry and Agriculture and Rural Development have conducted for trials sustainable land management on north Pentecost for agriculture and on Aneityum for forestry.

There has been very little to no monitoring done since the programmes financial periods have ended. This is due to very little commitment by the communities in which the trials have been conducted and the lack of continued financial and technical support by the government.

As it is widely recognised, monitoring and assessment of land degradation have dual objectives. Firstly they measure and evaluate the degree of land degradation in order to diagnose the seriousness of the problem. And secondly they measure the impact of action undertaken.(Barbault, R. et al, 2002)

The extension and increase in cases of land degradation have created the need to perfect evaluation and surveillance tools. However, this has not happened as there was not enough data and the criteria implemented for maintenance of local land use systems.

There is still a lot more to be learned from monitoring and evaluation of land degradation. Tropical agriculture in particular is often based on plants which are disease-and-pest prone. They often require fertilizers, resulting in soil degradation. Much applied research still needs to be done in natural systems for stable, high productivity on poor soils.

A proposal will be developed for GEF funding, and will be allocated according to the activities and outcome, to be determined during the project development phase for new programmes and initiatives.

### ***12.0 Involvement of regional and international partners***

Vanuatu's continued support for multilateral environmental treaties/agreements/conventions has enabled it to be able to receive the financial and technical support required to implement its commitments under those agreements. Vanuatu has received support from NZAID, FAO, SPC and other historical donor partners, UN agencies and regional organisations have contributed and involved in the land degradation issues in Vanuatu.

Vanuatu is heavily dependent on ODA both in terms of financing development priorities and technical assistance and capacity building.(UNDP,2005). While regional and international environmental organizations contribute significantly to environmental programmes in Vanuatu, there has been very little specific contribution to sustainable land management and land degradation. Table 3 of this report provides a list of some projects funded in Vanuatu which have some direct impacts on sustainable land management. Any follow up of the recommendations of those projects would contribute to further financial assistance from regional and international donor partners.

It is expected that the GEF will be requested to provide fund for the proposed Medium Size Project on Sustainable Land Management to enable Vanuatu address the specific issues on land degradation.

### ***13.0 Renewable energy***

Less than 20% of the total households enumerated in the 1999 National Census reported having access to electricity. The remaining households indicated other sources of light such as gas, kerosene and wood. (DESP, 2006). Apart from the main national and provincial administrative centres which have access to electricity networks and other privately operated sources of power supply, more than 80% of the population of the country living in rural areas do not have access to electricity and are still using traditional means for their sources of light.

Vanuatu is overwhelmingly dependent on imported petroleum for commercial energy. Biogas probably provides over 50% of gross national energy production, and solar and hydro together less than one per cent. (Peter, J. 2005)

The technical potential for energy production from renewable energy technologies from local renewable resources in Vanuatu is considerable. However, in practice most of this potential cannot be exploited and much has not been accurately assessed. The following is a list of some potential and experiences for renewable energy technologies in Vanuatu:

**Geothermal.** Twelve islands have thermal springs and possible geothermal potential, the best probably on Efate where two prospective sites have been identified and deep drilling has been recommended.

There has been some study of the geothermal resource but no geothermal power has been developed in Vanuatu.

**Hydro.** Vanuatu has some hydro potential for supplying urban grids and small rural demands. Currently, the government's only hydro plant is the 600 kW Sarakata system, which could be increased to 1,200 kW.

**Ocean Based.** In early 1990s, Oceanor of Norway monitored Vanuatu's sea wave potential. Data from buoy suggest an average of 14.4 kW per metre of wavefront off Efate. Satellite data suggest 9-20 kW /m at various sites.

There has been no Vanuatu experience with sea wave, tidal or other ocean based energy.

**Wind.** There is very limited data on wind energy potential. There have been no wind energy systems in Vanuatu until June 2007, when the first wind mill was completed and launched on Efate. It is expected that by 2010, nine more wind mills will be constructed in the same area on Efate to provide about 15 per cent of the total energy supply for Port Vila alone. This is the first wind farm for Vanuatu.

**Solar.** Solar energy offers substantial technical potential in Vanuatu. Annual sunshine hours range from 2000 to 2300, averaging 6 kWh/m<sup>2</sup>/day.

A hundred or so solar water heating systems have been imported for home and hotel use since 1999. Since 1992, the EU has been involved in at least eight rural PV projects with a total of about 63 peak kilowatts of output. There have been problems due to poor choice of regulators and controllers (not suitable for tropical conditions) and poor battery maintenance. From early projects, support from the service company was poor and there was no technicians near the site. (ibid, 2005).

**Biomass.** Vanuatu is heavily forested. Some 36,000-41,000 cubic metres of timber was cut annually from 1996-1999.

A 25 KWe wood fuelled biomass gasifier was installed at the Onesua Prebyterian College in the 1980s, but this has stopped operation. Coconut oil is a substitute for diesel fuel for power generation and transport which is being developed on a small scale. In

2002, about 200 mini-buses used it daily with no serious technical difficulties. Government legislation and regulation in 2003 dramatically reduced the use of coconut oil as a diesel fuel substitute. (ibid, 2005)

#### ***14.0 Sustainable land use management.***

Land in Vanuatu is limited and so careful planning and management of its use is essential. For Vanuatu societies, land resources and closely linked coastal systems are the basis of most subsistence and commercial production.

Land management and planning problems are widespread and in some cases very urgent where the potential for ecological sustainable development and/or opportunities for the protection of coastal resources is being permanently lost or compromised ( Forum Secretariat, 2002) Land resources are the basis for the majority of subsistence and commercial production in Vanuatu. High population growth and/or density rates, displacement of traditional land and resource management systems, introduced agricultural systems and forest utilisation have placed stress on land resources and management in Vanuatu.

Moving from traditional farming practices to cash cropping has posed some problems in Vanuatu by adding to land requirements. Most optimum agricultural land has been turned into residential and industrial areas. Coupled with the increase in the land use patterns, between 1998 and 1999, the government through the Department of Lands drafted a Land Use Planning Policy with financial assistance of AusAID to develop a National Land Use Plan. The objectives of the plan are to:

- 1) Produce a National Land Use Planning Policy for Vanuatu;
- 2) Produce a strategic and sectoral planning guideline for all the major land use zones; and
- 3) Produce guidelines for land use planning implementation. (LUPO,1999)

In September 2006, a National Land Summit was held in Port Vila to review the current land use systems in Vanuatu. The government through the Ministry and Department of Lands have conducted a nation wide awareness about the Land Summit and to get the views of the public about land uses and land issues in general. The summit concluded with twenty resolutions under the following sub-heading:

- 1) Land Ownership
- 2) Fair Land Dealings
- 3) Sustainable Development.

Under the sub-heading on Sustainable Development, the following resolutions reflect development impacts and concern for sustainable land management and land use planning :

**Resolution 13:** Environmental Impact Assessments and Social Impact Assessments must be prepared before any development takes place and land lease application is executed.

**Resolution 14:** There must be land use zoning and physical planning before any land lease is executed.

**Resolution 15:** Every land leases must have conditions to:

- Protect cultural sites;
- Protect the environment (biodiversity);
- Must have access road

**Resolution 18:** The government must strengthen laws for physical planning and land use zoning.

**Resolution 19:** The government must put in place a National Subdivision Policy, a Provincial Development Plan and an Area Land Use Policy. (GoV,2007)

### **Range of Land Use in Vanuatu**

Land use patterns in Vanuatu have changed rapidly over the past decade due to the increase in population and for development purposes. The main land uses are listed below

**Table 2.**

<b>Location</b>	<b>Economic Productive Sector</b>	<b>Infrastructure</b>	<b>Energy</b>	<b>Social Development</b>
Urban (Port Vila and Luganville where 20% of the population live)	Industry Commerce Retailing Financial Institutions Mining	Transport Network Sewerage Housing Airport Roads Rubbish Dump	Power Generation and Distribution	Education Health Recreation
Rural (Where 80% of the population live)	Agriculture Forestry Minerals Tourisms Agro-business Reclamation	As above	As above	As above

(Source: Report of Regional Training Workshop on the GEF Sustainable Land Management Approach, 2001)

### ***15.0 Early warning systems for food security and drought forecasting***

The Department of Meteorology is the responsible agency for weather monitoring in the country. Daily weather forecasting is currently being broadcast live on the national radio but, only restricted to some islands in the country. The set-up of the Radio Internet (RANET) system will address some of the issues of information dissemination to rural farmers and can be utilized by other government agencies. This system is also restricted to only a few islands.

The Vanuatu Meteorological Services (VMS) provides seasonal rainfall prediction services to various agencies in Vanuatu with funding assistance from AusAID and also provides the opinion of the Bureau of Meteorology (BOM) in Australia, the National Institute of Water and Atmospheric Research (NIWA) in New Zealand and other institutions under the umbrella of the World Meteorological Organization (WMO).

The geographical location of Vanuatu is one that is regularly traversed by tropical cyclones. It receives the highest number of tropical cyclone compared to the other southwest Pacific neighbours (excluding Australia) of around 2-3 tropical cyclone each cyclone season (November to April). The arrangement of islands from north to south (Y-shape of the archipelago) exposes all the islands to cyclones that mostly travel from north to south direction.

El Nino is translated to below average rainfall in most western Pacific including Vanuatu. These periods often causes stress to agricultural practices in rural communities who strive on subsistence farming. The recent El Nino of 1982/83, 1992/95 and 1997/98 created a lot of problems especially in rural communities. It resulted in shortages of water in most islands and communities, food shortage (root crops and no formal modern/irrigation systems), increased bush fires, loss of livestock (feed on open pasture), soil erosion and land degradation.

The current scientific knowledge of El Nino and early warning systems set up by different institutions gives sufficient information for the department to give drought warnings especially those associated with El Nino. However, dissemination of information to the whole population through radio Vanuatu and the conflict of scientific and traditional knowledge are a major setback.

### ***16.0 Financial mechanisms***

Since its accession to the United Nations Convention to Combat Desertification (UNCCD), the government has not allocated any specific funds for sustainable land management programs. There have been various activities, meetings and conferences which Vanuatu has benefited from with external financial assistance. Some of the programs funded which have received either direct or indirect contributions to address land degradation are listed.

**Table 3.**

<b>Project</b>	<b>Objective (s)</b>	<b>Donor</b>	<b>Amount (US\$M)</b>
National Adaptation Programme of Action (NAPA)	To develop a country-wide programme of immediate and urgent project-based adaptation activities in priority sectors, in order to address the current and anticipated adverse effects of climate change, including extreme events	United Nations Development Programme (UNDP)	20,000
South Pacific Biodiversity Conservation Programme (SPBCP)	To develop strategies for the conservation of biodiversity by means of sustainable use of biological resources by the people of the South Pacific	Global Environment Facility (GEF)	80,000 (over 5 year period)
Bouffa Landfill Project	To put in place proper sanitation management land fill	Japan International Cooperation Agency (JICA)	One (1) million US Dollars
Aneityum Soil Erosion Control Project	To minimise the impact of soil erosion on the terrestrial and marine environments	New Zealand Government	108,588
Pacific Regional Agricultural Programme	To improve subsistence gardening systems on steep slopes and lowland areas	EU	Estimated at 200,000
National Land Summit	To review the current land use systems in Vanuatu	NZAID/GoV	148,000
National Capacity Self Assessment Project (NCSA)	To identify priorities and needs for capacity building to protect the global environment	GEF	225,000
Capacity Building for the	<ul style="list-style-type: none"> <li>To reduce Vanuatu's</li> </ul>	CIDA	39,486

Development of Adaptation Measures for the Pacific Island Countries	<p>vulnerability to climate-related risks through adaptation processes;</p> <ul style="list-style-type: none"> <li>• Strengthen Vanuatu's human and institutional capacities to assess, plan and respond to climate-related risks</li> </ul>		
Vanuatu Land Use Planning Project	To strengthen land use planning and resource management systems to bring about sustainable development of land and other natural resources in Vanuatu	AusAID	254,850 (over 5 year period from 1995 -2000)
Capacity 21 Project	To strengthen the capacity of the people in the South Pacific	UNDP	45,520 (from 1995-2000)
LDC-SIDS Targeted Portfolio for capacity development and mainstreaming Land Management	To develop a Medium Size Project for Vanuatu to address the specific the specific land management issue for Vanuatu	UNDP	29,000
DSAP	To promote and implement sustainable agriculture.	EU	408,000 (from 2003-2008)

### ***17.0 Technical cooperation***

Vanuatu understands that regional institutions and organisations are able to overcome some shortcomings by pooling human resources, linking national efforts and attracting international resources. Vanuatu's affiliations to regional organisations like the SPREP and SPC and international organisations like the UNDP, FAO and the United Nations Conventions on Climate Change (UNFCCC), Biodiversity (UNCBD) and Desertification

(UNCCD) provides several benefits. Bilaterally, the historical donors also provide technical assistance to Vanuatu in the forestry and agriculture sectors, on land matters and on environment related issues of importance to Vanuatu.

Technical cooperation in Vanuatu has been mainly project based without any further follow up program. The Aneityum Soil Erosion Control Project funded by the New Zealand Government has ended in the year 2000 with no further technical cooperation. The PRAP project in Vanuatu on gardening systems on steep slopes and on lowland areas to prevent soil erosion has also ended with no further follow up and monitoring to assess the impact on the land suitability. It is currently impossible to state the rate or extent of land degradation in Vanuatu as there has not been any national assessment conducted. There have been projects implemented in focused areas where there is land degradation without any monitoring.

Technical cooperation between the donor partners like AusAID, the British Government and NZAID and the Vanuatu Government on climate early warning systems, volcano and earthquake have been mainly on projects and supply of technologies for monitoring.

### ***18.0 Use of scientific and technical information***

Over the past decade, Vanuatu has been a beneficiary of many scientific and technical information provided by regional and international organisations like SPC, SPREP SOPAC, Forum Secretariat, UNDP, FAO and WMO and donor partners like AusAID, NZAID, CIDA and JICA.

The AusAID funded National Tidal Gauge was installed in Port Vila to monitor the sea levels of Vanuatu with information provided by Forum Secretariat (Forsec), SPREP and the National Tidal Facility on the results of monitoring. SOPAC water assessment programmes and coastal zone mapping have provided invaluable information to assist the national agencies to assess water quality and monitoring and coastal erosion.

At the community level, the use of the scientific and technical information is difficult. There have been various awareness and training programmes conducted at community level, but much work remains to be done, including simplifying scientific and technical information to be understood by the community who contribute significantly to land degradation.

### ***19.0 Environmental Impact Assessment: Challenges and constraints***

Vanuatu recognises the need to ensure that its development activities do not cause adverse impacts on the environment when in 1988, the government introduced three Guidelines for Environmental Impact Statement for the following areas:

- 1) Technical Paper No.1. General Guidelines for the Production of Environmental Impact Statement (EIS)

- 2) Technical Paper No. 2. Specific Guidelines for Coastal Tourism Environmental Impact Statement (EIS)
- 3) Technical Paper No.3. Specific Guidelines for Mining Environmental Impact Statement (EIS) (Environment Unit, 1987)

These technical papers were not legally binding and were used on ad hoc arrangements to provide guidance to developers during the conduct of operation of an activity.

In 2002, the national parliament passed a bill for the *Environmental Management and Conservation Act No 12. of 2002*, which commenced legal force on 10 March 2003. The stated objective of this Act is “to provide for the conservation, sustainable development and management of the environment of Vanuatu and the regulation of related activities.” (Tavala, Y.D.T at al. 2004).

Part 3 (sections 11-28) of the Act provides necessary statutory linkages and inter Government agency co-ordination for implementing EIAs. Subject to few exemptions, this law states that EIAs are mandatory for all development activities, projects and proposals that cause or are likely to cause significant environmental, social and or custom impacts, especially those that are likely to:

- affect coastal dynamics or result in coastal erosion;
- result in pollution of water resources;
- affect any protected, rare, threatened or endangered species, its habitat or nesting grounds;
- result in the contamination of land;
- endanger public health;
- affect important custom resources;
- affect protected or proposed protected areas;
- affect air quality;
- result in unsustainable use of renewable resources;
- result in introduction of foreign organisms and species. (EMC Act, 2002)

EIA in Vanuatu is now seen as the main tool for assessing the processes for managing the environment. It is viewed as a continuing process, initiated when proposals are first discussed and developed, and becoming more focused and specific as proposals themselves become more detailed. However, much has happened without the formal legislation. Vanuatu had EIA Guidelines since 1988 and as of the 2003, over ten (10) EIA reports have been completed mainly for tourism, sand mining, jetties and residential subdivisions.

Although the legislation commenced legal force on 10 March 2003, in fact it remains largely unimplemented. This is due to the fact that the Department of Environment that is created under the Act has yet to receive approval from the Public Service Commission and the government for the department to be established. Under the proposed departmental structure, it is envisaged there will be an increase in manpower and, hopefully, financial resources which would enable the Department to play a more active

role in ensuring proper management and conservation of the environment and sustainable development of natural resources of the country. (Tavala.Y.D.T et al, 2004)

To establish a formal EIA process, there are two administrative levels which Vanuatu require. First, the Vanuatu Environment Unit is required to carry out the government functions of screening, scoping, reviewing and enforcing EIAs. This Unit exist with only four staff who also have other responsibilities. An application made to recruit an EIA officer for the Unit with the Public Service Commission has not yet been made.

A second more, senior body to the Vanuatu Environment Unit like a Sustainable Development Commission, is required with authority to set policy and make decisions about controversial projects. The senior body needs authority over other departments, to require them to adhere to EIA policies. The provisions of EIA under the Environment Management and Conservation Act 2002 does not give full powers to the Vanuatu Environment Unit staff to inspect or investigate developments without the permission of the developer. The Director of the department is required to review and make recommendations to the Minister responsible for the environment for consideration and approval.

Finally, because of the limited number of staff in the Vanuatu Environment Unit, each government department and provincial authorities concerned with natural resources and therefore the environment, should appoint an officer within their organisation to ensure that any projects initiated by that department follow EIA procedures, in both their own internal procedures and the national EIA procedures.

### ***20.0 Capacity needs and capacity building***

The capacity of its people and the capacity of its institutions determine the ability of a country to achieve sustainable development. Complementing these two essential elements are policy, planning, economic instrument, management tools, legislation and enforcement (ADB, 2000).

Vanuatu is aware of its reliance on natural resources, environment, its fragility and the need for sustainable development. However it has not instigated integrated environmental planning and management functions that supports and links environmental objectives with economic objectives. Vanuatu like any other small island countries has a history of successful traditional practices, which have retained sensitive ecosystems for centuries.

These have come under pressure from socio-economic and global influences. From the end of 1994 to early 1997, Vanuatu participated in the Capacity 21 Project, an environmental management capacity building project, developed and funded by UNDP and implemented by SPREP. Capacity 21 Project was developed in the climate created by the UNCED to implement principles of Agenda 21. (SPREP,1995) Vanuatu participated in two components of the project on (i) National Framework for Sustainable

Development and (ii) Sustainable Development Planning and Financing. National workshops were conducted with the government agencies, non-government organisations, the private sector and civil society.

In 1996, Capacity 21 Project organised a National Conference on Sustainable Development to address the capacity needs in the following areas:

- Economic
- Trade, Industry and Commerce
- Forestry
- Agriculture and Horticulture;
- Environment;
- Provincial Authorities.

In 2004, the Vanuatu Government through the Vanuatu Environment Unit commenced the National Capacity Self Assessment Project. The main objective of the NCSA project is to enhance the capacity of Vanuatu in addressing global environment management issues in the thematic areas of Biodiversity, Climate Change and Land Degradation.

The project is expected to develop a National Capacity Needs Strategy and Action Plan for Environmental Management that address confirmed priority management capacity needs in Vanuatu (VEU, 2007). The project will address the capacity needs of Vanuatu in addressing land degradation. While this report is being prepared, the NCSA report is being finalised and the outcome of the report would further assist Vanuatu in addressing sustainable land management in future.

## **Conclusions and Recommendations**

This national report examines Vanuatu's progressive implementation of the UNCCD since it acceded to it in 1998. Although this is the very first national report for Vanuatu to the UNCCD Secretariat, it provides the basis for further work and assistance to Vanuatu to be fully implemented in accordance with its commitments and obligations under the UNCCD. The following issues have been identified in the report and are recommended for consideration in any existing projects or programme developments:

- ***Financial resources.***

The Vanuatu Government has not provided any funds for activities under the UNCCD since it acceded to the convention. As a commitment, the government must make its commitments to allocate a budget for the implementation of all international environmental conventions, including the UNCCD. Programmes implemented on land degradation and sustainable land management in Vanuatu by government agencies are project based. When the funds are exhausted, there is no continuation of the programmes as there is no government financial support.

- ***Strengthen institutional capacity***

There is currently a lack of capacity within the government agency responsible for the implementation of the convention. The capacity of the Vanuatu Government needs to be improved to more effectively implement the convention. Government Departments responsible for the exploitation of land in Vanuatu must be coordinated so that their programmes are not in conflict with the principles of sustainable land management.

- ***Lack of knowledge and understanding of the convention***

The nation wide consultations conducted for the NCSA reveals that the majority of the people are not aware of the convention. Raising environmental awareness on the convention and to harmonize with the other international environmental conventions, agreements and treaties should be an agenda for the government responsible agencies. The NCSA report will provide the basis for further work by the government to strengthen the capacity for Vanuatu to implement the UNCCD.

- ***Information and Public Awareness***

No studies have been conducted in Vanuatu on the effectiveness of awareness campaigns on land degradation or sustainable land management. In Vanuatu, it would be appropriate to include materials on land degradation or SLM for distribution to schools and technical training centres.

- ***Lack of traditional land management***

With the commitments that Vanuatu has under the major multi-lateral environmental agreements, the potential for traditional knowledge to be applied to the management of soils and forests in Vanuatu is great and there is an urgent need for expanded research on the subject.

- ***Recommended Research***

Further research is required for assessing the sustainability of traditional agricultural practices and integration of traditional knowledge in land use management systems. Also further research into ways of adapting existing traditional practices and the appropriateness of introducing innovations such as agro-forestry and other systems.

- ***Effectiveness of programmes in promoting awareness of UNCCD in Vanuatu***

The outcome of the NCSA Project and the development of the National Capacity Needs Strategy and Action Plan for Environmental Management that address confirmed priority management capacity needs in Vanuatu will provide the mechanism to promote awareness of UNCCD in Vanuatu. Further awareness programmes will developed for consideration by GEF under the Medium Size Programme for Vanuatu.

- ***Lack of sustainable land use planning and development policies***

The National Land Summit Resolution 19 recognises the need to develop policies for national subdivisions, provincial management planning and area land use policy. When implemented, the policies will promote sustainable land management in Vanuatu.

Finally, this report provides an overview of the strength and weaknesses for Vanuatu that spans across key development sectors that have relevance to sustainable land management as shown in the above recommendations. Treatment of the issues have been intentionally broad and concise as the main purpose of the report is to provide the Secretariat of UNCCD and the Parties to the Convention information on the programmes and activities that Vanuatu has implemented since it acceded to the UNCCD. It is expected that some of the issues raised in this report will be further considered in the preparation for the Medium Size Project for Vanuatu for GEF funding and in the preparation for the National Action Plan.

## **Annex**

### **Annex 1. People Consulted**

Name	Organization
Francise HICKEY	Vanuatu Cultural Centre
Salesa KANIAHA Brian PHILLIP Silas TIGONA	Department of Meteorology
Albert TOA	Vanuatu Quarantine & Inspection Services (Persistent Organic Pollutants Project)
Jessy BENJAMIN	Energy Unit
Watson WILLIE Ioan VIJI Presley DOVO	Department of Forestry
Fraser BULE Peter KAOH	Department of Agriculture & Rural Development DSAP Project
Albert WILLIAMS Rebecca BILL	National Capacity Self Assessment Project (Vanuatu Environment Unit)
Leah NIMOHO Primrose MALOSU	Vanuatu Environment Unit

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