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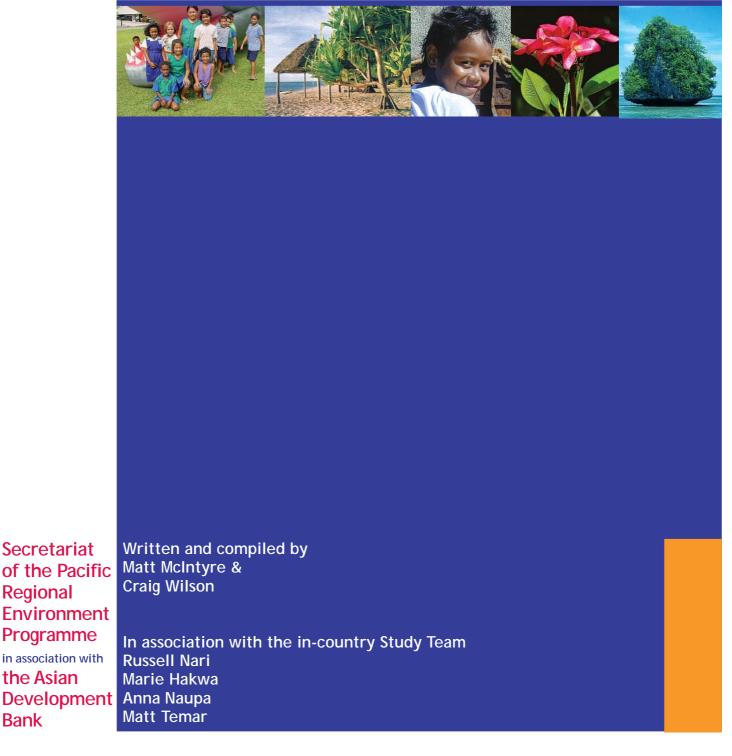
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Bank

Environmental Planning Approaches for Mainstreaming the Environment into **Development Processes in the Pacific**

VANUATU CASE STUDY

MAINSTREAMING ENVIRONMENTAL CONSIDERATIONS AND TRADITIONAL KNOWLEDGE AND PRACTICES INTO POLICIES AND PROGRAMMES FOR THE MELE CATCHMENT (TAGABE RIVER) AREA IN VANUATU





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FOREWORD

The Asian Development Bank (ADB) is supporting preparation of a Pacific Region Environmental Strategy (PRES) with the main purpose of producing a strategic framework reviewing major environmental challenges in the region and clearly formulating the strategic objectives and activities for ADBs assistance for the 2005-2009 period. The South Pacific Regional Environment Program (SPREP) with the ADB commenced in 2001 a Regional Technical Assistance (RETA) on Capacity Building to Promote Traditional Environmental Management in Pacific Developing Member Countries (RETA 5913-REG, or the TEM RETA). This TA aimed to 'document' and incorporate traditional environmental knowledge in governance is coming to a close. Complementary actions have taken place over the preceding two years, in the lead up to and aftermath of the World Summit for Sustainable Development (WSSD) - to identify barriers to sustainable development and means to assist the mainstreaming of the environment into development processes. Key regional forums of Ministers, High Level Officials and regional stakeholders have been accommodated under collaboration by SPREP (under its Integrating Environment and Development key focus area) and the Forum Secretariat.

The regional and national preparations for WSSD culminating in August 2002, and now the preparations for the Review of the Implementation of Barbados Programme of Action (BPOA+10) in August, 2004 - provide the catalyst for these unique discussions and agreements for concerted action in integrating environmental and economic planning. To identify a way forward, the ADB is supporting, through the TEM RETA, the compilation of several case studies documenting innovative and successful environmental planning and management approaches in Pacific Developing Member Countries (PDMCs).

EXECUTIVE SUMMARY

Background

The Government of Vanuatu approached SPREP in 2001 to consider providing technical and advisory assistance in assessing the aggregated issues of land use change, rural development, catchment management and cumulative infrastructure and coastal degradation in the Mele catchment, immediately northwest of the municipality of Port Vila, Efate, Vanuatu.

This request was formalized in early 2002 as part of a SPREP Sustainable Economic Development Division, country visit. The request was of interest to SPREP as it was consistent with the programme objectives of its Integrating Environment and Development key focus area and the Integrated Assessment and Planning project under this programme component. Corresponding with the early case study design the Nadi High Level Ministerial Meeting on Financing the Environment (Adaptation - May 2002), called for practical case studies to address nominated barriers to sustainable development. At that same meeting the ADB communicated its intention to produce the Pacific Regional Environment Strategy (PRES) to guide its strategic direction and assistance in the region for the 2005-2009 period. This strategy would utilize a number of case studies to draw out best practices and lessons to be addressed in the PRES.

The Case Study designed by SPREP in collaboration with the Environment Unit, Department of Lands, Survey, Environment, Energy, Minerals and Water Resources, Government of Vanuatu - was accepted by ADB as suiting its needs for the generation of the PRES. As part of this joint engagement ADB were keen to tie in outputs from the TEM RETA.

Objectives

This Case Study in Vanuatu targeted the review of legislative, administrative and traditional/community information for mainstreaming the environment into development processes. Lessons learned, constraints and positive contributions for integration of economic, social and environmental parameters for sustainable development are highlighted in this report. The Vanuatu Case Study Team worked in association, with the approval of the government and stakeholders, with the Tagabe River Catchment Management Initiative, a stakeholder group formed to address catchment issues within the greater Mele Catchment. The objectives of the Case Study were to:

- identify the shortcomings and positive aspects in:
 - legislative frameworks;
 - institutional and administrative processes;
 - o community based information management,
 - which could act as barriers or potential strengths to mainstreaming environment and traditional knowledge and management into national/provincial development processes.
- identify actions (policies, institutions and follow-up programmes) that could be undertaken to stimulate the evolution of current planning practices to more effectively mainstream and integrate environmental, socio-cultural and economic needs of the community into development processes.

Findings

Generally the Case Study revealed that in each of the areas of law, administration and institutional make-up and information there were shortcomings in synergy and coordination to suit integrated decision-making and the mainstreaming of the environment in development processes. The shortcomings were obvious at the national level as well as between national and sub-national government levels.

With the advent of the Comprehensive Reform Program (CRP) and the associated Programme Matrix the Government of Vanuatu (GOV) has at least provided itself with a framework upon which to pull together somewhat ad hoc legislative, policy, and institutional aspects of governance over time. This framework has already met with some successes: the implementation of the Environmental Management and Conservation Act; the formulation of the Water Resources Management Act; a

means to incorporate the Rural Economic Development Initiative outputs; and the institutionalization of an annual National Summit to incorporate Business and Community inputs to programmes. This framework should be seen as an important juncture towards integrated decision making and mainstreaming of the environment in governance, however the much still needs to the accomplished. The Case Study attempts to provide a status check for the GOV and other stakeholders, and to plot some options for advancement towards better enabling environments for sustainable development.

The CRP with the legislative and participatory mechanisms evolving from it, not only provides the framework for extant policy and legislative development, it also provides a sound foundation for incorporating future environment and resource use plans/strategies tied effectively and efficiently to economic and social development processes. In a climate of numerous national action plans/action programmes stemming from various Multi-lateral Environmental Agreements (MEAs) there is a tendency for them to be developed in somewhat of a vacuum with little thought given at the outset to their implementation and means to mainstream within governance. The framework, and intended products and processes over time, will allow these plans/programmes to be melded and their utility cascaded to sub-national levels. Future plans/strategies need to be synthesized with national economic & social planning as well as supporting physical/resource planning which invariably forms the linkages between national economic focussed plans and sub-national operation planning and development.

The Johannesburg Plan of Implementation necessitates the completion of a National Sustainable Development Strategy (NSDS), as well as a Poverty Eradication plan [one could be incorporated within the other] by 2005. Consistent with the ethos of reducing the number of national based plans/strategies, a number of PICTs have mooted the prospect of revising their National Development Plans to incorporate the principles and objectives of sustainable development. Vanuatu is in a good position to progress sustainable development in this vein through updating the CRP Matrix as the flexible strategy system allows.

The findings of the Case Study are summarized below and provide the foundations for forwarding of options for the GOV and other stakeholders to consider.

Legislative Frameworks

The development of effective environmental management processes has been constrained by a lack of coordinated legislation to guide natural resource utilization. Where legislation is in place, effective implementation procedures and decision support tools are constrained by lack of linkages between laws, lack of financial and human resources, a lack of technical know-how and in some cases a lack of will to address the conflict between formal legislation and customary principles. The role of traditional knowledge, management and practices under existing legislation is limited or in many functional areas non-existent.

While Vanuatu has ratified a range of environment focussed international conventions there has been little concerted activity at the national level to update or integrate existing legislation in accordance with best practice environment and sustainable development governance and convention requirements. There may be judicious reasons for this. Vanuatu, like many Pacific Island Countries (PICTs) has inherited relic colonial laws, regulations and western style administrative procedures at the time of independence. While there has been advancement over the past 20-25 years, most improvements to legislative platforms have been spasmodic, sector based or donor project driven - not conducive to ensuring correlation. Given this situation the expectation on governments to more or less immediately enact legislation to incorporate MEA and other International Agreement (IA) provisions - may well be inopportune. In fact such action could exacerbate not alleviate confusing legislative platforms and lack of coordination in adjudication. Through this Case Study it was often conveyed that 'roadmaps' for integrative legal platforms should recognize the virtue of iterative development. Nurtured capacity development enables the community to absorb changes and reflect on opportunities, as well as ensure that progress is matched by human resource development.

Capacity development targeting the implementation of legislation to respect MEA principles, objectives and provisions may be best packaged with prior-advice or parallel advice on means to

integrate or correlate existing statutes covering land/resource use, development & environmental planning.

On the positive side under the Government of Vanuatus Comprehensive Reform Programme (CRP), legislative reviews and the development of new legislation has commenced. Actions are targeted to strengthen governance ; including the amendment of laws to enable the use and/or respect of traditional knowledge and practices. A major component of the CRP is the instigation of legislative and policy direction targeting equity and social development, the latter incorporating the desire to institute processes to maximize traditional knowledge in governance. The CRP has already seen the development of the new Environmental Management and Conservation Act, 2003 and the new Water Resources Management Act, 2003. These will act as the catalyst for addressing resource use issues in an integrative manner, albeit through project based EIA at this stage.

The Environmental Management and Conservation Act will provide means to ensure some linkage between national, municipal and provincial government through EIA requirements. However it does not link environmental management, strategic planning and other land/resource use planning as a fully integrative environmental planning system would. The GOV does recognize this and have mooted the review of the Physical Planning Act 1986, to further the ambitions for an integrative environment and development management system.

While the review found that the legislative frameworks at the national level and the linkages to subnational governance were not of a state or calibre to accommodate the coordination required for mainstreaming the environment in all development processes, with the CRP Programme Matrix there was at least recognition of this shortfall, and a 'roadmap' for fully integrative legislative systems in the medium to longer term is required.

Institutional Arrangements and Administrative Processes

Communication and liaison between departments and agencies at the National Government level and between National and Provincial departments occurs, as does efforts for coordination however, the administrative linkages are not there for this to transpire as a matter of common practice on matters that affect each level of governance. With regard to physical planning, the National based Physical Planning Unit can only provide advice to municipal and provincial planning and assessment agencies and does not have legislative power under the Physical Planning Act to ensure that municipal and provincial bodies develop and follow regulated planning procedures. Decisions on physical planning and development issues are made by committees with limited technical input and often reflect political rather than long-term sustainable planning outcomes. Pressures to generate funds from development application permits, building permits and business licenses at the municipal and provincial level are driving the development approval process and encouraging short-term thinking.

Development planning procedures under the former National Planning Office, now the Department of Economic and Social Development (DESD), are constrained in assessing the potential environmental impacts of development proposals that are raised by sectoral agencies. No formalized assessment processes are in place at DESD to determine the need for environmental review of proposed development projects or any Strategic Environmental Assessment (SEA) of sectoral policies. Current assessment practices rely on DESD sectoral analysts to make decisions on the need for further assessment by specialized agencies such as the Environment Unit. They tend to rely on the sectoral agencies to consult with the Environment Unit when developing project proposals or policy statements. This present practice is open to inconsistency and professional bias. While it is understood that there has been some limited involvement of the Environment Unit in DESD and sectoral-based processes, this occurs on an informal rather than administrative or legislative basis.

The uncoordinated nature of community groups living in the urban fringe area of Tagabe contributes to the lack of linkages with the government decision-making process. Having limited or no land tenure, as well limited understanding of the level of governance answerable to development matters, contributes to a lack of voice in the determination of the provision of services, and the lack of certainty stifles low-income residents ability to invest in their living or production environments. This predicament culminates in poor quality of health and increasing detrimental impacts on the environment. The implementation of the Environmental Management and Conservation Act includes provisions for an Environmental Impact Assessment process that will require municipal and provincial planning agencies to formally assess any development related environment impacts. As mentioned the EIA process will act as a catalyst to draw together the development approval bodies, national planning agencies and the Environment Unit and will provide the first step in pursuing sustainable development outcomes through the physical planning and development assessment process. However to function well, institutional and administrative mechanisms need to be developed under the new Act to draw together the coordination aspired to in the legislation.

The establishment of the Tagabe River Catchment Management Initiative has commenced a process to ensure that community input and traditional knowledge can be delivered through a sub-national or local planning process that focuses on key stakeholder involvement. For this Case Study a catchment or watershed level is being used as the model, as it deals with a trans-boundary issue across national, municipal, provincial and local village governance. The identification of water as the key resource requiring more effective management has established a management direction that will create an ethic of local involvement in achieving shared outcomes for the community and national resource management agencies. It is worthy for this process in itself to be documented in time and analysed for its applicability for other resource use and development planning scenarios. Depending on the outcomes, additional work should investigate options for instituting a like process in law, administration and operation procedures at various levels of government and community.

Information Management

Natural resource data and information collection, storage and use is fragmented and operating in a sectoral-based framework with limited linkages between other departments or the community. A good Geographic Information System (GIS) accommodating the Vanuatu Resource Information System (VANRIS) exists within the Department of Lands, Ministry of Lands, Survey, Environment, Energy, Minerals and Water Resources (MOL). Its restricted use among the government and even within DLSEEMWR is said to relate to a lack of wider ownership in the government and community during its development. Adding to this there continues to be confusion on the 'tenure' of the data, the value of information and means for access and security. The lack of information sharing between government departments and agencies is also due to incompatible software and hardware, lack of understanding of the importance of information sharing. The result is development and resource management decisions being made with limited, inaccurate or outdated information.

Plans are underway within government to establish a National Resource Information Centre (NRIC) that would act as a repository and clearing-house for natural resource and related socio-economic information and data. The NRIC would promote its services to the public and operate as much as possible on a "user pays" basis to offset operational costs. The NRIC would build on the existing Vanuatu Resource Information System (VANRIS) and would also establish a State of the Environment Reporting process to determine natural resource values and assist in the prioritization and focus of policy development for high environmental value/issue areas.

Securing of traditional and local customary knowledge (TK) and establishing processes for inclusion of this knowledge in decision-making can be a complex process. Despite the recent ADB Traditional Environmental Management project, documentation of traditional knowledge has been slow. In many PICTs there continues to be debate at the community level of the utility of documentation and/or recording of TK. Documentation of TK has been seen to favour bio-prospecting and bio-piracy and is therefore viewed with caution by many in the community. Conversely many at the community and government level do respect that much traditional knowledge is being lost as traditional elders pass away. Certain quarters therefore advocate for documentation and/or recording. The situation is complex. In many PICTs there are customary, ceremonial and respect 'rules' that need to be satisfied before TK is passed on to the next generation. With the progress of capitalism and its associated 'individualism' elders are often of the opinion that the next generation are not of the customary way or standing to gain this knowledge. Use of traditional knowledge was inherent in local village decision-making before the advent of Westminster style systems of governance. The western form of legal and governance structure has tended to be top down, and centralist. This over time has seen the nationalization of much local decision-making, which in turn has reduced the respect level of local elders and village councils.

Much advancement of the use of TK in decision-making could prevail if the system of governance is targeted (i.e. the processes) to maintain day-day decision-making at the local level as far as practicable. This over time would maintain the respect of elders and village councils and see the elderly gain more confidence that the younger generations are of appropriate customary standing to receive TK. Such a longer-term goal could be assisted in the first instance if laws and administrative mechanisms at the various levels of government provide clear conduits for use of TK in decision-making. The benefits of this in the short to medium term could be two-fold. Custodians of TK should become confident that their TK is being used for fruitful local purposes, and national government would gain confidence that municipal, provincial and village level government can achieve desired outcomes in partnership.

Policy Frameworks

Prior to the CRP there was limited capacity to draw together inconsistent sector based policies. Overall there is still limited policy coordination at the administrative level to guide the implementation of activities. There is still some lack of coordination between a number of sector-based areas of operation at the national and provincial level. Overtime the CRP will address this shortfall, however some concerted efforts could assist this objective.

Decisions on sectoral activity and direction are made without a clear understanding of long-term goals or objectives. In some cases the direction of sectoral activity had been determined by external assistance providers without a national multi-function focus. The incorporation of multi-sectoral inputs and community input to policy development was limited to involvement through non-government organizations. The Environment Unit has not developed any national policies and currently operates under the guidance of its Corporate Plan.

In embarking on the Comprehensive Reform Programme (CRP) the GOV aimed to institute change within the public sector to improve the delivery of services, provide better coordination in policy development and to ensure that sectors focus on their core functions once synergies are agreed. The policy framework that has been established with regular review through the National Summit facilitates input from the business sector and from the community. It provides a flexible and responsive national planning system, which can be adapted/adopted on a regular basis to address critical issues or emerging matters. Inflexibility has often been the criticism of static National Development Plans usually developed with a 5-year horizon.

The CRP Programme Matrix outlines the direction the government plans to take in policy reform and development and is reviewed on a regular basis subject to the assessment of achieved results and the input from stakeholders through the National Summit.

Environmental Planning Systems

Through the preparation of the Case Study in the Tagabe River area it was clear that there was an inability on the part of the national and provincial agencies to resolve land and resource use issues. Squatter camps have now been in existence in the area for over 20 years and are still growing, increasing pressure on water resources and lowering outcomes with regard to community health and ecosystem resilience. The multi-island cultural makeup of the squatter camps and urban fringe dwellers has a distinct effect by limiting their use of traditional practices in their management of resources. This is further compounded by the fact that the land they are occupying is under the control of a different cultural group further constraining the use of their traditional practices. Without the usual village social structures to support and guide the community there is a lack of control or ownership in the way activities are carried out within the community. This has lead to tension between some of the island based community groups over access to resources such as water and land for subsistence gardens.

The establishment of the Tagabe River Catchment Management Initiative (TRCMI) is the first step to establish a watershed or catchment based approach at the sub-national level for the management of resources to overcome a lack of enabling environments that link economic planning with physical and community planning. The initiative has developed through the understanding that critical water resources will be placed under threat as squatter camps encroach further onto water reserves allocated for drinking water extraction, and that the impacts of increasing populations need to be managed in a more effective and efficient manner. TRCMI has begun the process of identifying key

stakeholders and outlining priority issues that will be presented to the stakeholders in order to develop a catchment management approach to the resolution of recognized issues. TRCMI will link with the SHEFA Province Rural Economic Development Initiative (REDI) to ensure that economic and community based issues are incorporated into the catchment management initiative.

The Case Study has supported the inception and progress of the TRCMI. Environmental planning systems can provide mechanisms to manage competing demands and uses, in a manner that respects customary use. Communities however are often suspect of new western concepts of formalization of land and resource use, despite the fact that contemporary planning systems are able to incorporate many traditional or local empowerment and participatory mechanisms. The Environment Unit has commenced the integration of decision-making through instituting EIA among the various levels of government, but does recognize that the principles and objectives of the Physical Planning Act 1986 need to integrated in the future to fully address the conflict between land use, socio-economic development and the environment. Nurtured progression to this endpoint is planned. The progress of the TRCMI is seen as an important phase within this iterative progression, assisting communities to be confident with more formal planning systems through a community driven and participatory process.

Conclusions

A suite of issues constrains economic development in Vanuatu and includes a lack of coordination in environment and development processes, lack of integrative legislation, policies and administrative mechanisms, as well as poor aggregation and use of natural resource and traditional information.

Measures to coordinate government and community actions are being put in place through the development and implementation of the Comprehensive Reform Programme. Stakeholders in Vanuatu understand that they are in the embryonic stages of instituting coordination mechanisms to better address environmental protection and sustainable development. Community empowerment, strategic thinking and mainstreaming traditional practices are recognized as having value and importance in Vanuatu and their inclusion in policy is in the early planning and implementation stages. In order for the reforms to show positive outcomes a period of political stability and commitment to the CRP is considered of critical importance to allow the reforms to be implemented in the manner in which they were designed.

Essential steps in the reform process have been made such as the development of environment legislation that will foster the development of national plans and policies, the establishment of community based conservation areas and the instigation of formal environmental impact assessment processes. Now that Vanuatu has taken the initial steps to reform and invigorate their procedures and processes it is important that assistance is provided to support these initiatives in a collaborative manner and that Vanuatu is given the opportunity to implement new procedures and processes in line with concepts of sustainable development as outlined in the CRP Matrix.

To this end the Case Study team working with the Tagabe River Catchment Management Committee, presented options to the GOV based on the above findings, suggesting some Projects that may assist with ongoing or planned initiatives. These are contained in *Appendix 2*.

ACRONYMS

AAP	Annual Action Plan
ADB	Asian Development Bank
BPOA	Barbados Programme of Action
CHARM	Comprehensive Hazard Management and Risk Assessment
CCA	Community Conservation Area
CCI	Chamber of Commerce and Industry
CLT	•
	Customary Land Tribunal
CRP	Comprehensive Reform Programme
DESD	Department of Economic and Social Development
DSM	Department of Strategic Management
EA	Environment Australia
EMCA	Environmental Management and Conservation Act
EU	Environment Unit, Government of Vanuatu
GIP	Government Investment Programme
GOV	Government of Vanuatu
IWP	International Waters Programme
JPol	Johannesburg Programme of Implementation
LGC	Local Government Council
LGR	Local Government Region
LMPC	Land Management and Planning Committee
MDF	Medium-term Development Framework
NBCS	National Biodiversity Conservation Strategy
NRIC	National Resource Information Centre
NSRC	National Scientific Research Council
PDMC	Pacific Developing Member Countries
PICT	Pacific Island Countries and Territories
PPA	Physical Planning Area
PPU	Physical Planning Unit
PRES	Pacific Regional Environment Strategy
REDI	Regional Economic Development Initiative
SEA	Strategic Environmental Assessment
SIDS	Small Island Developing States
SLGG	SHEFA Local Government Council
SOPAC	South Pacific Regional Geo-science Commission
SPREP	-
	South Pacific Regional Environment Programme
TAG	Technical Assessment Group
TK	Traditional Knowledge
TRCMI	Tagabe River Catchment Management Initiative
TRCMICC	Tagabe River Catchment Management Initiative Coordinating Committee
UNDP	United Nations Development Programme
UNEP	united Nations Environment Programme
UGMS	Urban Growth Management Strategy
VANRIS	Vanuatu Resource Information System
VCHSS	Vanuatu Cultural Heritage Sites Survey
VIPA	Vanuatu Investment Promotion Authority
WPZ	Water Protection Zone
WSSD	World Summit on Sustainable Development

PART 1 BACKGROUND: THE CASE STUDY - ITS ORIGINS AND INTENT

1.0 GENERAL BACKGROUND AND RATIONALE

The ADB is preparing a Pacific Region Environmental Strategy (PRES) with the main purpose of reviewing major environmental challenges in the region and clearly formulating a strategic framework for ADBs assistance for the 2004-2009 period. The approach included commissioning research and analysis on trends, barriers and emerging issues, as well as compiling a number of case studies to document innovative and successful environmental planning and management approaches to mainstreaming the environment in the Pacific. This Case Study in Vanuatu was designed to undertake a status check and analysis of legislative, administrative and traditional/community information processes for mainstreaming the environment into development processes.

Population related pressures and lack of coordinating methods for responding to pressures on the environment are the root drivers to the socio-economic problems faced by PICTs. Traditional and community lifestyles, practices and knowledge, as well as natural resources are under threat. As such the Case Study presents an opportunity to address objectives of both the Barbados Programme of Action (BPOA) and the World Summit on Sustainable Development (WSSD), Johannesburg Plan of Implementation, in terms of looking at options for: incorporating environment and population issues into the mainstream of decision-making and planning; improving public participation and empowerment; promotion of local and community development, and recognizing the role of traditional knowledge, innovations and practices to address poverty.

2.0 CASE STUDY AIMS AND OBJECTIVES

Through a situation analysis of the Mele catchment, to the immediate north-west of the capital Port Vila, the Tagabe River sub-catchment was chosen to be the subject area for the Case Study. This approach would enable practical outcomes to be realized in what otherwise would be a policy and administrative review and analysis.

This Case Study targeted the review of legislative, administrative and traditional/community information for mainstreaming the environment into development processes. The Vanuatu Case Study Team worked in association, with the approval of the government and stakeholders, with the Tagabe River Catchment Management Initiative, a stakeholder group formed to address catchment issues within the greater Mele Catchment. The objectives of the Case Study were to:

- (i) identify the shortcomings and positive aspects in:
 - a. legislative frameworks;
 - b. institutional and administrative processes;
 - c. community based information management,

which could act as barriers or potential strengths to mainstreaming environment and traditional knowledge and management into national/provincial development processes.

 (ii) identify actions (policies, institutions and follow-up programmes) that could be undertaken to stimulate the evolution of current planning practices to more effectively mainstream and integrate environmental, socio-cultural and economic needs of the community into development processes.

The Case Study's review of law, administration, traditional management and information shall identify particular constraints and opportunities for integrated decision-making and community development. This may relate to discordant policies, laws and instruments, planning methods and tools, lack of coordination and partnering in decision-making, poorly characterized data, or limited empowerment of local communities in the development decision-making process.

In the Tagabe River Catchment area the impact of urban expansion on its natural resources base will increase as population levels rise. Urban growth expansion will place pressure on water resources, availability of agricultural land, municipal services such as waste management and provision of urban housing. Catchment changes in the Tagabe area directly impede natural coastal processes affecting sand regimes, stabilization of coastal areas, coral reefs and fisheries. Localizing the geographic range of the Case Study will assist in promoting the links between land resources, land use and coastal zone management consistent with Clause 30 of BPOA. Outputs will therefore be of

value to SPREP's International Waters Programme (IWP) and Coastal Resource Management Programme areas.

The intended outcome of the Case Study is the identification of discreet areas of action to stimulate the evolution of current development planning practices to better balance the environment, sociocultural and economic needs of the communities (short and long term). Coordination, confidence and collective awareness of problems and future directions will assist with reducing conflicts over land, available resources and the environment versus development fronts. Reduced conflict, better awareness and certainty are healthy ingredients for the establishment of value systems over community, government and environmental resources.

3.0 CATCHMENT CHARACTERISTICS

The Mele Catchment covers an area of approximately 125 sq km to the immediate west of Pt. Vila. It is experiencing major problems with shanty town development, land tenure conflict, land clearance, land use change, severe (resulting) flooding and health problems within the catchment. There are issues of: wise catchment management, population re-settlement, land/resource use planning, protection of traditional knowledge/cultural sites, infrastructure development (& maintenance), water quality management, food security and coastal resource protection.

Figure 1 shows the location of the Mele Catchment, and within that the bounds of the Tagabe River Catchment.

Population related pressures and lack of coordinating methods of responding are the root drivers to the problems faced and traditional community lifestyles, practices and knowledge are under threat. As such the Case Study presents an opportunity to address objectives of both the Barbados Programme of Action (BPOA) and the World Summit on Sustainable Development (WSSD), Johannesburg Plan of Implementation, in terms of: incorporating population issues into the mainstream of decision-making and planning; improving public participation and empowerment; promotion of local and community development, and recognizing the role of traditional knowledge, innovations and practices to address poverty.

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While participation in government processes is respected by the GOV it does not have a legislative and administrative system that amalgamates land use/environmental planning in a manner that integrates community values, aspirations, traditional knowledge, cross-agency interaction, environmental protection and economic development.

The scenario therefore reflects the situation typified by Clause 49 of BPOA where strategies and plans for sustainable development exist, but the frameworks for implementation into decision-making and policy processes are discordant. The coordination and integration necessary for confidence, certainty and equity in development processes is therefore missing. Coordination in development planning processes, which mainstreams environment, traditional values and participation, is essential for sustainable development.

The situation in Vanuatu is reflective of those in many Pacific Island Countries and Territories (PICTs). All have identified population pressures as the chief driver to environmental overexploitation and degradation (National Assessment Reports [NARs] for WSSD, 2002; United Nations Convention to Combat Desertification (UNCCD) Country Reports, 2002). Many PICTs lack integrated planning systems which pull together cross-sector initiatives in social, economic and environmental development, or have 'patchwork' policy platforms led by Environmental Impact Assessment (EIA) provisions, environmental pollution control provisions or species protection based laws. Many are at the stage in their climate change, biodiversity, waste management, community conservation and

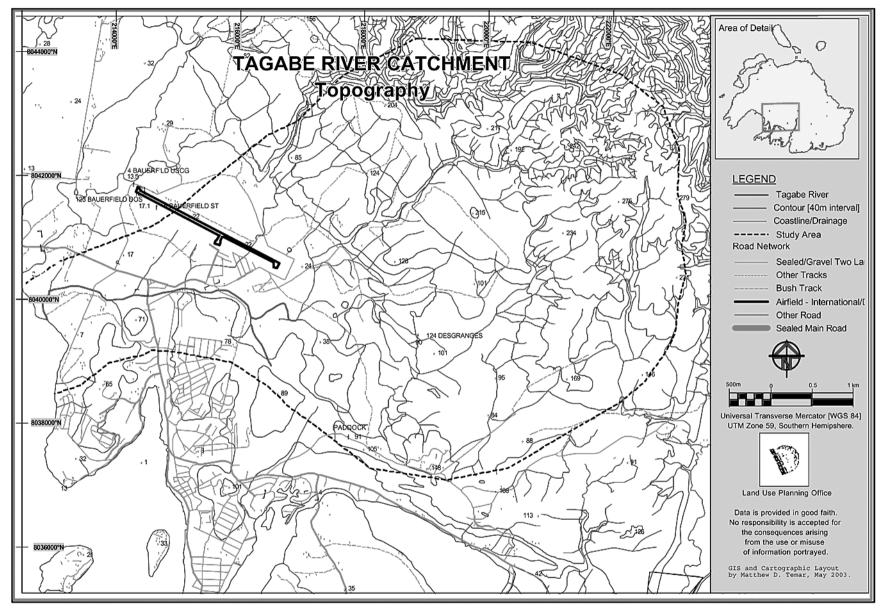


Figure 1. Location and topology

EIA programmes to recognize the need for an underpinning foundation to pull together haphazard resource use, conservation and economic development decision-making. Contemporary environmental planning incorporating community development frameworks are a means to provide this foundation.

The Tagabe River Catchment is a sub-catchment of the Mele Catchment, and provides a manageable geographic area upon which to base the Case Study. The catchment area of approximately 35 sq. km. has prolific population pressures consistent with other areas within the Pacific. Large areas are under the influence of urbanization or urban drift from rural areas (worst cases in Vanuatu range from 0.1 to 2.1 hectares per person). It also contains some of the most fertile accessible land and is subject to major land clearance, especially now in the steeper areas. Land and resource use is often not suited to the capabilities of the land, its vulnerabilities or its ecological sensitivities. Direct pressures of human occupation on biodiversity and water resources are the 'tip of the iceberg'. Flooding, major occurrences of erosion and deposition indirectly affects biodiversity, key infrastructure (e.g. roads and bridges), village lifestyles, fertility of soils and security of food production.

Planning at the local village and catchment level provides an opportunity to match the utility value of resources with cultural and environmental sensitivities, and social needs and threats. As both the catchment characteristics and social drivers and problems are consistent with the situation for many of the islands and their catchments, the Case Study will provide invaluable lessons for wider area application of approaches for local sustainable development planning, as well as national level integration of planning policy, processes and practices.

4.0 OUTCOMES AND FUTURE OPPORTUNITIES

4.1 Case Studies for Sustainable Development

The development of the Vanuatu Case Study will complement other case studies being prepared within the Pacific Region. These include other ADB PRES case studies, case studies of successful sustainable development initiatives (BPOA+10 process), and those being sought by the Conservation Round Table to progress outputs of the 7th Pacific Natural Conservation Conference, Cook Islands, July 2002. There are also links being promoted with other programmes and projects including SOPAC's Comprehensive Hazard and Risk Assessment Management project and the development of National Biodiversity Strategic Action Plans (WWF-SPREP). The intention is to link initiatives as far as practicable to form a uniform basis for future interventions for mainstreaming and integrating decision-making. One of the functions of the Case Study will be to identify priority needs and to build on prior environment and sustainable development initiatives. In order for the Government of Vanuatu to develop strategic objectives and activities it is important to obtain wider national based understanding on issues, entwined socio-economic pressures and current enabling environments that are relevant to the progression of environment solutions.

While many of the environment based issues within Pacific Island Countries (PICTs) are similar the solutions vary significantly from country to country reflecting the complex mix of political, legislative, administrative and cultural influences that are found in each country. Solutions are not generic, therefore, issues require intensive national based analysis and the development of strategies and activities that reflect national situations.

Many PICTs are in the process of legislative and administrative reform and the importance of developing streamlined information systems has been highlighted as an integral component of the reform process to ensure that the decision making process is based on relevant data. The importance of mainstreaming environment and community based information within the decision making process has been recognized and steps are being taken to formalize the mainstreaming process in Vanuatu.

The development of the Vanuatu Case Study provided "real time" information by dealing with a multitude of contemporary resource management issues and forwarding suggested ways in which assistance from partners (community, national and international) could be targeted.

This wider partnering ethos is an important aspect of continued actions to support the TRCMI in a climate where Pacific Island Countries and Territories (PICTs) are calling for the stemming of Plans

and Strategies (and associated reporting) and the use of more practical and cooperative initiatives and arrangements.

4.2 Case Study Inception

Appendix 4 contains a description of the inception of the Case Study, describing the set-up of the local study team, progress in the TRCMI resource inventory work, some background on the TRCMI, and community participation planning.

PART 2 PRINCIPLES of INTEGRATED ENVIRONMENTAL PLANNING AND ENVIRONMENTAL GOVERNANCE

5.0 Principles of Environmental Planning

Sustainable development is primarily about equity in terms of the environment and the need for people to be able to pursue quality lifestyles. Environmental or physical planning systems that incorporate community development mechanisms can be used to contend with competing demands, reduce conflict over resources, create mechanisms for coordination in policy and practice and instil consistent means to bring about equity in resource utilization. Thus contemporary planning systems are a means to introduce hope, certainty and confidence in development and environmental management processes. Planning systems are therefore important mechanisms for national and subnational delivery of sustainable development.

For successful achievement of equity (benefit sharing and intergenerational equity) and balance of environment, community and economic development, planning systems need to enable:

- early policy development (before pressures emerge);
- policy, plans and guidelines driven by community needs, values, and aspirations;
- community involvement from the outset of policy/development determination;
- day-to-day community decisions to be maintained at the village level as far as practicable;
- capture of development benefits (to cover costs) within communities;
- streamlined laws and administrative processes; and
- balance of community/traditional knowledge and socio-economic data with scientific information in establishing objectives.

These 'principles' of community planning frameworks will be used as guideposts for the reviews and forwarding of options for action to target the integration of legal platforms, institutional processes, data and planning tools. Respect will be given to the need for evolving or augmenting present systems in aiming for poverty reduction through sustainable development.

In setting the scene for the reviews and analysis, it is worthy to also contemplate planning principles expounded by international and regional governance initiatives.

5.1 International Governance for Sustainable Development

5.1.1 Agenda 21, BPOA and WSSD Johannesburg Plan of Implementation

At the international level a number of relevant initiatives have identified the need for integrated planning that incorporates environment issues, through community involvement, into the decision making process. These initiatives provide the strategic framework for the implementation of mainstreaming process at the National level and are worth outlining in the context of this Case Study.

Appendix 3 summarizes key components/provisions of the above International Agreements (IAs) that advocate planning systems to target sustainable development.

International initiatives can provide a strategic framework for development at the national and provincial level provided information is made readily available by relevant national agencies for use by all government departments and the broader community. Some of the policies and processes

outlined in the IAs (refer Appendix 3) have been incorporated into the CRP Matrix and into new natural resource legislation in Vanuatu. While the development of policies and processes is an important first step the challenge facing government is the implementation process that transforms policy into on-ground practice. It is hoped that international policy can be supported by international and regional assistance in partnership with national/provincial government and communities in a coordinated and effective manner.

What is currently lacking is a process that links international initiatives to national and sub-national policy and process. At present, information transfer from international initiatives to the national government relies on the effectiveness and efficiency of national representatives with support from regional organisations and NGOs. The information transfer process at the national level is subject to dilution if there are no structured pathways at the national level to ensure that national representatives to international initiatives distribute relevant information.

Vanuatu has taken steps to disseminate relevant information and has encouraged the involvement of a range of government departments and NGOs in the implementation of international and regional projects including projects linked to the UNFCCC and CBD. The National Resource Information Centre (NRIC) could act as a clearing-house for information and provide a pathway for ensuring that information reaches relevant government departments, NGOs and the community.

5.2 Linkages between Multilateral and Regional Multilaterl Environment Agreements (MEAs & RMEAs)

Just as international initiatives establish strategic policy frameworks to develop National actions and encourage sustainable development, RMEAs are instruments that refine and assist the decision making process in specific areas including policy and legislation.

Regional Multilateral Environment Agreements (RMEAs) provide a link between national and global policy and have played an important role in providing Pacific Island Countries and Territories (PICTs) with an opportunity to present national concerns at the international level.

Vanuatu has ratified a number of MEAs and RMEAs including the following:

- Convention on Biological Diversity (CBD)
- United Nations Framework Convention on Climate Change (FCCC)
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- United Nations Convention to Combat Desertification [land degradation] (UNCCD)
- Convention for the Protection of Natural Resources and Environment of the South Pacific
- Convention on the Conservation of Nature in the South Pacific

In the context of the Case Study the CBD has been the MEA that has gained the most significant support in Vanuatu and subsequent implementation. As a component of the CBD Vanuatu has completed the preparation of its National Biodiversity Strategic Action Plan. The recently passed Environmental Management and Conservation Act of 2002 provides for the protection of genetic resources and for the establishment of protected areas to conserve biodiversity resources and support critical elements of the CBD.

The obligations of signatories to MEAs can be extensive and usually covers a range of activities such as the update of national legislation in conformity with the requirements on the convention, the development of documentation on implementation strategies of the convention, national assessments, the compilation of databases on information pertaining to the implementation of the convention and a status review on benchmarks and indicators advocated by the convention. It is with regard to these last two matters, that advancement towards sustainable development by conforming to reporting requirements for conventions, falls short of the mark. Invariably little coordinated capacity support is given for multi-purpose database development for multiple reporting obligations. Vanuatu like many PICTs does not have the ability to report on the state of its environment. If such capacity development is galvanized through the instituting of the Natural Resource Information Centre, this information would form a valuable resource for national and provincial decision-making and has the potential to be incorporated into planning strategies within many government departments at various levels. MEAs can play an important role in assisting countries to focus on national priorities. In the environment area, Vanuatu strongly embraced the CBD as Vanuatu recognized that the intention of the convention was strongly aligned to needs that were identified by Vanuatu. As a result Vanuatu has incorporated aspects of the convention in the new Environmental Management and Conservation Act and has developed a model for the soon to be created National Science and Research Council to protect intellection property rights and monitor research within the country. Under the CBD a biodiversity database has been created and this will form the basis of the Environmental Registry alongside the establishment of the Biodiversity Council as prescribed in the new Act.

CURRENT STATUS OF PLANNING AND RESOURCE USE MANAGEMENT PART 3

6.0 Current Governance And Legislative Frameworks

6.1 National Governance

Understanding of the existing legislative frameworks, administrative and institutional processes related to environmental and planning issues must begin with the national government.

Vanuatu is a Republic having as its Head of State, a non-executive President.¹ The system of government resembles a parliamentary democracy. Vanuatu has one single supreme law identified as the Constitution.² The Constitution provides for the roles, functions and powers of the Legislature, the Executive and the Judiciary collectively referred to as 'government'. The Legislature consists of a single chamber Parliament. ³ Parliament has powers to make laws for the peace, order and good governance of Vanuatu.⁴ The Constitution provides for universal suffrage, which is equal, secret, and entitled to all citizens who have obtained the age of 18.⁵ The members of Parliament hold office for four years ⁶ unless disposed of earlier by other lawful means.

The parliamentary system provides for an elected Prime Minister⁸ and members of his Cabinet (Council of Ministers), appointed from amongst elected Members of Parliament.⁹ The Prime Minister once elected appoints his Council of Ministers. The Prime Minister is empowered by the Constitution to exercise on behalf of the people the executive power of the people.¹⁰ The Prime Minister has the constitutional power to assign responsibilities for the conduct of government to the Ministers and similarly remove the Ministers from office.¹¹

The Constitution vests the administration of justice in the judiciary who are only subject to the Constitution and the law.

6.2 Government Executive Power

The source of executive power is the people of Vanuatu. Such power is vested by virtue of the Constitution in the Prime Minister and the Cabinet. The Prime Minister appoints his Cabinet and assigns various responsibilities for the conduct of government to each of his Ministers. The Prime Minister assigns each Minister with a Ministerial Portfolio. Each Minister is then empowered to carry out those responsibilities attaching to all matters, which come within the portfolio of that Ministry. The Prime Minister has absolute discretion to appoint his Ministers and assign their respective portfolios.¹²

¹ Laws of the Republic of Vanuatu, 'Constitution of the Republic of Vanuatu', Chapter 1, Revised Edition 1988, Articles 33 & 34.

Laws of the Republic of Vanuatu, 'Constitution of the Republic of Vanuatu', Chapter 1, Revised Edition 1988.

³ Ibid, Article15.

⁴ Ibid, Article 16(1). ⁵ Ibid, Article 4(2).

⁶ Ibid, Article 28(1)

Ibid, Articles 28(2), (3) & 42(2).

⁸ Ibid, Article 42(1).

⁹ Ibid, Article 41.

¹⁰ Ibid, Article 39(1).

¹¹ Ibid, Article 42 (2) and (3).

¹² Ibid, Article 39(1) and Article 42(1),(2) and (3).

Each Minister is responsible for a wide range of matters. To enable a Minister to discharge his functions, responsibilities or duties in an orderly, responsible, lawful and efficient manner, again it becomes necessary for the Minister to organize his Ministry into various entities, units or sub-units depending on the nature of the responsibilities involved. Such units could be Departments, Agencies, Units or Statutory Corporations.¹³ The business of setting up a Unit for example is a Ministerial responsibility carried out in conjunction with the Public Service Commission who is responsible for employing all Public Servants and Officials. ¹⁴ Alternatively, legislation can specifically set up Departments ¹⁵ or Statutory bodies.

6.3 Ministerial portfolios Relating to Environmental and Planning

Following the General Elections held in May 2002, the Official Gazette No.15 of 17 June 2002 published 13 Ministerial Portfolios.¹⁶ The responsibilities of environmental and natural resources are largely vested in the Ministry of Internal Affairs (MIA)¹⁷ and the Ministry of Lands, Survey, Environment, Energy, Minerals and Water Resources (MOL).

The MIA hosts the Department of Local Authorities, Department of Agriculture, Department of Forestry, Department of Fisheries, Department of Forestry and Marine Reserves and the Agriculture College.¹⁸ The term 'Local Authorities' refers to the Local Government Council and the Municipal Councils of Port Vila and Luganville. Local Authorities or Councils are discussed further on in this Report.

The MOL hosts the following departments/units:

- Lands; •
- Land Records;
- Land & Surveys;
- Land Valuation; .
- Geology & Mines and Water Resources;
- Energy Unit; •
- Environment; .
- Customary Lands Tribunal; •
- Urban and Rural electrification; and
- acts as the government liaison with UNELCO.¹⁹

Until recently, the Urban Land (Leases) Selection Committee and the Rural Lands Development Committee consolidated into a single committee called the Land Management Planning Committee (LMPC). It exists on an ad hoc basis providing technical advise to the Minister of Lands. The LMPC is comprised of representatives from relevant departments such as Fisheries, Environmental Unit, Forestry and Health. Ministerial consent is required on all matters relating to the alienation of Land and development processes after considering the recommendation of the LMPC.

Other Ministries responsible for matters relating to environmental development and planning includes the Ministry of Health, which is responsible for (amongst other things) the Department of Health, the Public Health Service and Traditional medicine. The Ministry of Industry and Commerce

¹³ Hakwa, Silas C 'A General Overview of the Machinery of government', Draft paper prepared while Attorney General of Vanuatu, 1988.

¹⁴ Silas Charles Hakwa personal communications 08.04.03 Hakwa was a former Member of Parliament from 6 March 1998 to 6 March 2002 and was Minister of Lands between March 1998 and May 1999.

Republic of Vanuatu Official Gazette 'The Environmental Management and Conservation Act No. 12 of 2003, No. 6, 10 March 2003. ¹⁶ Republic of Vanuatu Official Gazette No.15, 17 June 2002. (The list is later amended by Notice in official

Gazette No.2 of 28 August 2002 where the responsibility of the department of Police, Vanuatu Mobile Forces and Prison Services and the Police Service Commission is transferred from the Ministry of Internal Affairs to the Prime Ministers portfolio.)

Formerly known as the Ministry of Home Affairs.

¹⁸ Ibid.p.2. National parliament during its first ordinary session of 2002, passed the Vanuatu Agricultural Training and Research Centre (VATRC) establishing the VATRC as a statutory body regulating scientific research within Vanuatu. ¹⁹ Republic of Vanuatu Official Gazette 'Ministerial Portfolios', No.15, 17 June 2002.

²⁰ Alicta Vuti, Lands Officer; personal communication, 07 April 2003. Alicta Vuti was also an officer within the AusAid funded Land Use Planning Project.

is responsible for the Department of Industry, the Co-ordination and promotion of Industrial Development Initiative and the Ministry of Comprehensive Reform Programme is responsible for the Department of Strategic Management. The Ministry of Finance hosts the Department of Economic and Social Development - formerly known as the National Planning Office.

6.4 National Institutions and Legislative Structures

The Environment and Conservation Act, 2003l provides the important initial step in mainstreaming environment and development through the requirement of Environmental Impact Assessment (EIA) for certain forms of development. This will provide a framework for horizontal linkages within national government and between municipal and provincial councils, albeit through project based EIA provisions. While an important first step in environmental law for mainstreaming, efforts in time should be made to institute more strategic assessment protocols to determine or account for social, economic and environment implications of all forms of development policy and practice. The vehicle for this augmentation from generic EIA provisions, could be through eventual amendments to the Act, through policy instruments developed under existing provisions in the Act, a revamp of the Physical Planning Act of 1986 [with linkages to the Environment and Conservation Act] or an eventual integrated environmental and physical planning law platform. Only when such an integrated resource use and environment planning platform exists to contend with vertical and horizontal development synergy and coordination, could it be considered that enabling foundations exist to maximize the mainstreaming of the environment in all development processes. This would also represent the fullest integration of economic and environmental planning and management.

An eventual integrated environment and development planning law platform, although a longerterm objective for the Government of Vanuatu, could provide the legal impetus for the implementation of action plans tied with the aim of balancing environment and development aspirations. These would include the Urban Growth Management Strategy, the Sanitation Master Plan and the eventual Tagabe River Catchment Management Plan.

6.4.1 Environmental Impact Assessment

The Environmental Management and Conservation Act No. 12 of 2002 was passed by Parliament in November 2002 and entered into force upon its publication in Official Gazette No. 6²¹ on 10 March 2003. The EMC Act establishes the Department of Environment whose Director is appointed in accordance with the provisions of the Public Service Act no.11 of 1998. This legislation effectively upgrades the existing Environmental Unit to a Department status under the Ministry of Lands. Under the EMC Act the Director is responsible for the development, co-ordination and, where appropriate, implementation of the Governments environmental policies and programs. The Directors duties include the following responsibilities.²²

- The establishment, operation and maintenance of records relating to, environmental impact assessment documentation, applications, permits and approvals required under the EMC Act in an Environmental Register;²³
- Development of national environmental policies:
- Identifying project, proposals and development activities that affect or may affect the environment and facilitating mandatory Environmental Impact Assessment procedures for all such proposals. ²⁴ The Director also advises the Minister responsible for Environment whether to accept or deny such proposals.
- Establishment of a Biodiversity Advisory Council to regulate and vet all bio-prospecting applications; and also advise the Minister as to whether or not s/he should accept or deny such applications.

There are several strengths seen in the EMC Act. Section 11 which provides broadly that all projects or development activities that impact or are likely to impact on the environment of Vanuatu and

²¹ Section 10(2) of the Acts of Parliament CAP [116] states that "every Act of Parliament shall come into force immediately on the expiration of the date next preceding its commencement" i.e. upon the date of its publication in the Gazette.

²² This Act entered into force upon publication in the Official Gazette on 10 March 2003. The Acts of Parliament Act [CAP. ²³ Parliament of Vanuatu, Environmental Management and Conservation Act No. 12 of 2002, section 10,

²⁴ Ibid, section 15.

require any license, permit and require any license, permit or approval under any law must comply with the provisions of the EMC Act. ²⁵ Section 12 vests the Director with the power to request EIAs on all projects, proposals or development activities that impact or are likely to impact on the environment of Vanuatu ²⁶ This section goes further to stipulate that development activities or project proposals that will or are likely to:

- (a) affect coastal dynamics or result in coastal erosion;
- (b) result in the pollution of water resources;
- (c) affect any protected, rare, threatened or endangered species, its habitat or nesting grounds;
- (d) result in the contamination of land;
- (e) endanger public health;
- (f) affect protected custom resources;
- (g) affect protected or proposed protected areas;
- (h) affect air quality;
- (i) result in the unsustainable use of renewable resources;
- (j) result in the introduction of foreign organisms and species; and
- (k) result in any activity prescribed by regulation,

are subject to the EIA provisions of the EMC Act 27 as set out in sections 14 through to 28. It is worth noting that the broad interpretation of section 12(1) allows the Director to use his discretion to request EIAs for development activities that do not fall within the description of the activities specifically described in section 12 (2) subparagraphs (a) to (k) listed above. 28

Having said this however, Schedule 2 of the EMC Act lists the activities that are exempt from EIAs as including:

- "a) the construction of any single family residential building in an approved development area, however, such construction must be at least 30 metres from any river, stream, or from the line of mean high water spring tide of the sea;
- b) any additions to an existing residential dwelling, being additions that are used only for residential purposes and are at least 30 meters from any river, stream, or from the line of mean high water spring tide;
- c) the construction of traditional or custom structures fabricated from traditional materials, however, any natural rock, sand, coral, rubble or gravel that is used must not be taken from within 20 metres of the line of mean high water spring tide;
- d) emergency action to protect the lives and property of people where there is not enough time to follow the requirements of this Act; and
- e) any other activity specified by the Minister by regulations made under this Act."

These exclusions are for EIA purposes only and such developments would be subject to other legislations such as the Land Leases Act. Similarly, the leases in respect of urban or rural residential leases, rural agricultural leases and any tourism leases²⁹ must incorporate the provisions of section 13 subparagraph (a), (b) and (c) for those residential developments that are less then 30 metres from any river, stream, or from the line of mean high water spring tide of the sea. It is worth noting that the provisions of the EMC Act only came into force on or about 13 March 2003 - thus any developments prior to this would not be subject to the said Act.

Appendix 5 shows the flow chart of the EIA process under the EMC Act, 2003

²⁵ Ibid, section 11.

 $^{^{26}}$ lbid, section 12(1).

²⁷ Ibid, section 12(2) subparagraphs (a) to (k).

 $^{^{28}}$ lbid, section 12(1).

²⁹ A standard Rural agricultural leases allow for the erection of a single residential building.

6.4.2 Bio-prospecting and Traditional Biodiversity Knowledge

Part 1 of the of the EMC Act defines bio prospecting as "any activity undertaken to harvest or exploit all or any ...(a) samples of genetic resources; (b) samples of derivatives of genetic resources; and (c) the knowledge, innovations and customary practices of local communities associated with those genetic resources, for the development of research, product development, conservation, industrial or commercial application, and includes investigative research and sampling, but does not include customary uses of genetic resources and derivatives." ³⁰

The Biodiversity Advisory Councils (BAC) statutory functions include:

- Providing advises on any matter relating to the implementation of the Convention on Biological Diversity;
- Providing advice to the Minister on matters relating to commercial bio prospecting;
- The vetting of all bio prospecting applications (which must under go the procedure outlined in Part 3 for EIAs); and
- Recommendations to the Minister after receiving the final EIA.

6.4.3 Environment and the Planning Process

The EMC Act provides a new path or process for vetting of projects and activities that will have an impact on the environment. Prior to this Act, respective local authorities remained relatively autonomous in their decision making process regarding development of either rural or urban areas.

This new process also grants the Director of the Environment Department power to intervene in any development process which has not been referred to him directly if s/he sees the need to request an EIA from the project proponents. ³¹ The EMC Act ultimately restricts the Port Vila Municipality Town Planning Committee and the SHEFA Local Government Council from processing particular development activity applications without requiring EIAs. The Act falls short in that it fails to stipulate that the Port Vila Municipality Town Planning Committee and the SLGC cannot approve any development activity that fails to obtain the approval of the Minister after undergoing an EIA at the request of the Environment Department.

The process provided for by the EMC Act allows the Director to develop a terms of reference for any work that is to undertaken for an EIA, including a description of the scope of work required. ³² The EMC Act goes further and provides under section 20 for public awareness about the project, proposal or development activity as the Director sees fit. The public are by such notification also provided with an opportunity to provide submissions - within a particular time frame. ³³

Information gleaned in the progress of this Case Study suggests that respective Departments are hardly aware of the commencement of new legislation, such as the EMC Act or its implications. This is partly due to the fact that Departments need to prescribe and pay to receive the Official Gazette. In this case 'user pays' seems to be costing the community through lack of information, not accounting for hidden costs. Better and alternate means of distributing information of legislative advancements are needed. Awareness and marketing materials could provide benefit to both public private institutions and the community by relaying the status of respective laws.

The current poor flow in basic legal information between Government Agencies is unfortunate and contributes to confusion at the operational level of government. Much confusion tends to reign within government and community as legislation is not actioned until administrative processes are instituted. This information is of paramount importance to industry and community. For instance, although the EMC Act has been in force since 10 March 2003, the administrative process are yet to be finalized to allow for implementation due to limited human and financial resources within the Environment Unit. The Environment Unit also needs to undertake awareness raising workshops to inform affected Government Agencies and local authorities as to the administration of the Act.

³⁰ Ibid, section 3.

³¹ Ibid, section 15.

³² Ibid, section 19.

³³ Ibid, section 20.

6.5 Local Government

The Constitution provides for Local Government Regions and their respective Local Government Councils with representation of custom chiefs. $^{\rm 34}$

Local Government Councils (LGC) and Municipality Councils are also involved in the conduct of government within their own respective jurisdictions. (Refer to **Figure 2** which shows the SHEFA LGC and Municipality boundaries.) Each LGC and Municipal Council is an entity on its own separate from the government and other LGCs or Municipal Councils. The powers, duties, responsibilities, and functions of a LGC are set out in the Decentralization and Local Government Regions Act No.1 of 1994. ³⁵ In addition, a LGC may be required to perform other duties and responsibilities as may be specified by other Acts of Parliament.

The powers, duties, responsibilities, and functions of Municipal Council are set out in the Municipalities Act No. 5 of 1980 [CAP.126]. Parliament can legislate further powers and responsibilities for the Municipal Council as it sees fit from time to time.

The Decentralization and Local Government Regions Act No.1 of 1994 establishes Local Government Councils (LGC) in each Local Government Region, (LGR) as a body corporate with elected and appointed members holding office for four years. ³⁶ The appointed members do not have voting rights and are appointed by the Minister as opposed to the elected members.

The general powers and duties of LGCs is the general responsibility for the good government of its LGR and shall do all things as it lawfully may to promote the health and welfare of the people therein. ³⁷ The provisions of the Decentralization and Local Government Regions Act No. 1 of 1994 do not apply within Municipality Boundaries and similarly the Municipalities are regarded as separate to any LGR. ³⁸ The LGC of interest to this Case Study is the SHEFA Local Government Council (SLGC) - the local authority with jurisdiction over the greater part of the Tagabe Catchment.

The SLGC has the power to make by-laws to clearly set out its economic development policies and plans, create and draw up regulations governing the environmental protection zones (natural parks, natural reserves or tourist attraction areas,) subject to any legislation creating environmental protected areas in the national interest. ³⁹

6.6 Port Vila Municipal Council

The Municipalities Act [Cap.126] vests the Minister of Internal Affairs with the power to declare Municipal areas. ⁴⁰ There are two Municipalities - Port Vila Municipal Council and Luganville Municipal Council. Each Council is a body corporate and has its respective elected Lord Mayor and Councilors. Municipal elections are held every 4 years. ⁴¹

³⁴ The Constitution, 1980 Article 82 and 83.

³⁵ Official Gazette No. 16, 11 July 1994 this has been amended by the Decentralisation (Amendment) Act No.41 of 2000.

³⁶ The Decentralisation and Local Government Regions Act No.1 of 1994, section 5.

³⁷ Decentralisation (Amendment) Act No.41 of 2000, section 18J(1)

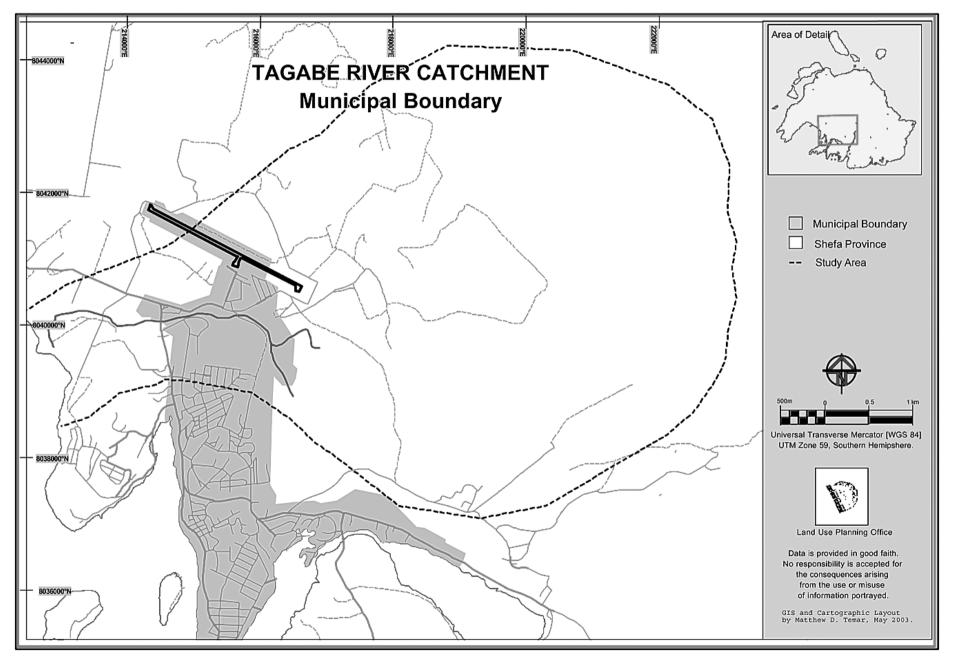
³⁸ Ibid, section 34(1) & (2).

³⁹ Ibid, section 20 sub paragraphs (8) & (9).

⁴⁰ Municipalities Act [CAP.126], Section 2.

⁴¹ Ibid, Section 7.

Environmental Planning Approaches for Mainstreaming the Environment



Section 25 of the Municipalities Act outlines the general duties of the Municipal Council as follows:

- To control, manage and administer the municipality;
- To safeguard public health;
- To develop, control and manage land taken on lease from any statutory land authority including any housing estates thereon; and
- To administer education, medical and health services as the Minister may after consultation with the responsible Minister by Order declare.

Furthermore, section 25 provides that if the Minister is satisfied that a council is incapable by reason of insufficiency of staff or facilities, of administering any of the services referred to in the above preceding paragraph, then the Minister may by order direct such council to appoint the Government as its agent for the purpose of administering such service at the expense of that council. 42

The Municipality Act provides that the council may make by-laws from time to time in respect of matters necessary for the safety of inhabitants of the municipality, the maintenance of the health, well being and good order and government the municipality or the prevention and suppression of nuisances in the municipality. The council may make by-laws provided they do not conflict with any Act or order for the time being in force in Vanuatu ⁴³ especially the Constitution. Attached to the Municipal Act is a Schedule listing the powers of the Municipal councils in detail. Notably their other powers include taking a census of the inhabitants of the municipality or to contribute to the cost of taking such census and subject to the approval of the Minister to establish, acquire or take over housing schemes for the inhabitants of the Municipality.

6.7 Traditional Governance

Custom plays an important role within all aspects of national life in Vanuatu. Social, cultural and political life is dominated and or shaped by traditional or customary practices. Among the most important of these areas is the laws resulting to land and its uses. ⁴⁴ Furthermore, where there is no rule of law applicable to a matter before it, a Court by virtue of Article 47(1) of the Constitution shall determine a matter according to substantial justice and whenever possible in conformity with custom.

The Constitution provides for the establishment of the Malvatumauri National Council of Chiefs (the Malvatumauri), which exercises general competence to discuss all matters relating to custom and tradition. ⁴⁵ The Malvatumauri makes recommendations for the preservation and promotion of Ni-Vanuatu culture and languages and comprises of custom chiefs elected by their peers sitting in District Councils of Chiefs. ⁴⁶

The urban area of the Tagabe River catchment consists of diverse island groups representing a plethora of customs and chief administrations. The rural area has three main customs groups as the traditional Customary owners - Ifira, Mele and Erakor. However, the granting of customary rights to communities from different island groups makes it a greater task to identify specific traditional environmental management practices - if any are practiced at all. The use of the term 'customary leases' is used to refer to the granting of the occupational rights⁴⁷ of customary land by a custom owner to another Ni-Vanuatu without entering into a formal lease agreement. The problems arising from this informal arrangement of land use and occupation is resulting in illegal occupation of leases at the invitation of the custom owner however, to the detriment of formal lease holders who have been forced to live as squatters elsewhere (i.e. in the nearby Water Protection Zones).

As previously mentioned the Tagabe River area consists of a large number of island groups with different customs and cultures. It would be a complex process to put into place an effective traditional management system due to the diversity of cultural groups in the Tagabe River area.

 $^{^{42}}_{42}$ lbid, section 25(2).

⁴³ Ibid, section 38.

⁴⁴ Forster, Malcolm 'Environmental Law in Vanuatu A Description and Evaluation, March 1991.p. 12.

⁴⁵ The Constitution 1980, Article 30(1) and (2).

⁴⁶ Ibid, Article 29(1).

⁴⁷ Sometimes a shorter temporary period is granted while the occupier looks for other rental accommodations but often – the occupier remains with his family and extended family.

6.8 Land Laws, Tenure and Resource Access

Article 73 of the Constitution states that all land in the Republic of Vanuatu belongs to the indigenous custom owners and their descendants. The rules of custom form the basis of ownership and use of land and perpetual ownership of land is vested solely with indigenous citizens who have acquired their land in accordance with recognized customary land tenure.⁴⁸ The rules of custom remain unwritten and it varies from area to area - even within a single island community. This does not undermine its importance for Vanuatu and the Constitutional provisions for Parliament to legislate for village and island courts with jurisdiction over customary and other matters to reinforce this view. The role of custom chiefs within these courts is stated clearly in the Constitution under Article 52. Article 78(2) further provides for the arrangement for appropriate customary institutions or procedures to resolve disputes concerning the ownership of customary land.

National Parliament enacted the Customary Land Tribunal (CLT) Act No.7 of 2001 to provide for a system based on custom to resolve disputes on customary land. It is still too early to see if the CLT procedure set up under its own legislation will work effectively and efficiently. As this Report was being prepared, the Supreme Court of the Republic of Vanuatu has listed outstanding Land Appeal Cases and outstanding Island Court land disputes for conferences. At these conferences, the Judges are asking claimants how they wish to have these Land Appeals and Island Court Land Cases resolved in light of the CLT Act.

The CLT repeals the former jurisdiction of the Island Courts to resolve and determine any new Customary Land dispute, which arises after the commencement of the said CLT Act. Where there is a pending land case in the Island Court soon after the commencement of the CLT Act, claimants have to inform the Island Court if they wish to continue in the Island Court or start afresh in their respective CLT. There are currently no reported decisions of a CLT and in fact the majority of these CLTs have not yet been established as the Malvatumauri is still processing names of approved adjudicators for each custom area in their respective islands.

7.0 Institutional & Administrative Frameworks

7.1 Policy Frameworks

Policy development at the National level is now guided by the implementation of the Comprehensive Reform Programme and administered by the Department of Strategic Management (DSM) within the Ministry of Comprehensive Reform. National policy is formulated by relevant government bodies with input from national and provincial stakeholders including the business community, community groups and non-government organizations through the National Summit process. At the National Summit, policy options are presented and the agreed outcomes are reflected in the Comprehensive Reform Programme Matrix. The Matrix was first endorsed for implementation by a National Summit held in 1997 and has been modified at each National Summit to reflect new and emerging priorities of government. Incidental policy statements such as the Prime Ministers Millennium Goals Policy Statement are released on an irregular basis.

The Department of Economic and Social Development in association with relevant sectors within government then assists in the process of developing sectoral policy. Sector policy is assessed by DESD and DSM to ensure that it is in accordance with national policy as presented in the CRP Matrix.

While policy Master Plans have been developed by a number of government sectors including Tourism, Education, Health and Forestry there are no overarching policy statements for Environment, Agriculture or Fisheries. Current operational and management strategies for these areas is covered in ministry based Corporate Plans, current legislation or incidental policy statements such as the Prime Ministers Millennium Goals that states, for example, that the agricultural sector is a high priority area for Vanuatu.

⁴⁸ Ibid, Articles 74 & 75.

7.2 Comprehensive Reform Programme (CRP)

The Comprehensive Reform Programme (CRP) was approved in 1997 with the aim of instituting public sector reform to address structural issues within the economy. CRP covers three categories (1) public sector reform, (2) economic reforms, and (3) reforms promoting equity and social development. Public sector reform targets government institutions through downsizing and by increasing transparency and accountability in the decision making process. Economic reforms are intended to promote private sector activity, improve financial supervision and restructure state owner enterprises to attract private sector involvement. Equity and social development reforms aim to ensure that all community sectors are beneficiaries in the distribution of wealth. The theoretical approach to development economics states that sustainable growth in a market friendly environment creates economic opportunities that produce government revenues that are used to provide services to the public. While some improvements have been made in Vanuatu through the implementation of CRP there is concern that the process is not producing tangible results for people to see and as a result the reform process is losing support in some areas.

Under the Comprehensive Reform Programme, DESD has changed its focus and is developing guidelines for government interventions though a more flexible Medium-term Development Framework (MDF). The MDF coordinates inputs from the business sector through the Business Forum, the community through the Rural Economic Development Initiative (REDI) process and government based sectors through the National Summit. This approach combined with the recent enactment of legislation to encourage good governance and improved economic management is expected to gain improved political support. A critical aspect of the reform process is to create an environment where the public service and the political processes work together in a more coordinated fashion. There is evidence that at many levels of government the roles of politics and government administration are not distinguished. This situation often opens up opportunities or perceptions of conflict of interest - leading to a lack of trust in government.

Anecdotal evidence points to political instability as a limiting factor in the implementation of CRP. With numerous changes of government over the past five years, consistency in the implementation of reforms has been difficult to achieve. The CRP process would benefit on a long term basis if the policy reform process could be insulated from the political process allowing the public service to implement agreed reforms without prejudice.

7.3 National Planning Processes

The Department of Economic and Social Development (DESD), formerly the National Planning Office, sets the development agenda for Vanuatu. Up until 1996 the development agenda was set out in the National Development Plan, a five-year development strategy that set the guidelines for government interventions. This process has now been replaced by a more flexible development planning process through the preparation of a Medium-term Development Framework (MDF) that links fiscal budgeting and planning. The focus of the MDF is to guide sectoral policy development and review policies on a regular basis to ensure that national development is progressing in accordance with agreed policies.

The development of the MDF was carried out through a process involving national workshops and an extensive consultation process. Input to the MDF comes from a range of government, business and community channels. At the National Government level, input is provided through the Comprehensive Reform Programme (CRP) and the National Summit facilitating input from members of Parliament. At the Provincial Government level input is provided through the Rural Economic Development Initiative (REDI) to ensure that rural based economic concerns are addressed. REDI is also linked to the CRP Matrix to encourage improved economic opportunities however, REDI links to the Matrix are limited and need to be strengthened to ensure that REDI is seen as a cooperative initiative promoted by government. The REDI was developed through extensive community consultation and provides a direct link in presenting the views of rural communities in the planning process. The private sector provided input to the MDF though consultations established during the Business Forum attended by Chamber of Commerce and private sector organizations. This input is also channeled through the National Summit and the CRP Matrix is produced and endorsed by the Council of Ministers. The CRP Matrix reflects the key elements of the CRP that are endorsed through the National Summit process then revised and updated at subsequent summits to reflect emerging priorities. The CRP Matrix takes on the role of a logical framework as it determines policy areas, decides on appropriates strategies, details implementation actions, assigns responsibilities,

sets a target date for completion, outlines monitoring mechanisms and details risks and assumptions. Each Ministry then uses the Programme Matrix to set its detailed Corporate Plan and Annual Business Plan for the coming year.

The CRP Matrix formalizes policies that encourage the mainstreaming of environment and traditional knowledge into the government decision-making process to encourage economic growth and include the following policy areas:

- Improve participation of Civil Society in Government,
- Reorganize arrangements for consultation involving local communities,
- Encourage Civil Society to work in partnership with government,
- Improve effectiveness in Local Government,
- Establish an attractive, safe healthy and sustainable environment,
- Draft Environment and Conservation Legislation and,
- Develop new environmental policies and initiatives.

As outlined in the Matrix the national based CRP consultation process has developed an overarching policy framework that provides for the development of environment within an economic growth framework and promotes the incorporation of community input into the decision making process.

7.4 Sector Analysis

Within DESD are a number of Sector Analysts whose role is to facilitate the development of policy, provide advice on sector development and to assess sector based project proposals. Projects in excess of four million Vatu (USD 32,000) are required to be lodged by the end of May of each year for incorporation in the Government Investment Process (GIP) for inclusion in the Government Appropriation Bill. Projects under four million Vatu can be assessed at any time. Projects are assessed by DESD in accordance with policy guidelines where applicable and other criteria as deemed required.

Environmental assessment of projects is only carried out when a project proponent includes EIA in the project proposal or in the view of the Sector Analyst the project may require an EIA. Sector Analysts base the need for EIA on the size and scale of the project with larger projects (in size or cost) more likely to be referred for environmental advice. If, in the opinion of the Sector Analyst, there may be environment issues that require addressing the project proposal is referred to the Environment Unit for advice. As there is currently no statutory requirement for EIA for Policy development ,the process occurs on an informal basis in consultation with the relevant Government departments, or at the time sector policy evolves into projects. With the passing of the new Environmental Management and Conservation Act 2002 development proposals that require any license, permit or approval under any law must comply with the provisions of the Act. Administrative linkages between DESD and Department of Environment will need to be strengthened to facilitate the implementation of EIA requirements under the new Act.

7.5 Rural Economic Development Initiative (REDI)

The REDI is an inter-departmental initiative developed by the Ministry of Lands and the Ministry of Internal Affairs through the Department of Provincial Affairs, Department of Trade and the Department of Agriculture. Through the implementation of the REDI Project all six Provinces have produced a REDI. While the overall goal of each REDI is to promote economic development, each Province will take their own unique pathway that reflects the diversity of the Provinces in Vanuatu. The intention of the REDI is to focus Governments attention on the economic development of the rural areas of Vanuatu through the development of Provincial economic strategic plans that create a networked partnership system between communities and the government.

REDI goals:

- Promote economic growth in rural areas by providing key stakeholder, farmers, fishers, landowners and business community with the support needed to develop and nurture business development,
- Protect and promote cultural practices and traditions,
- Maximize the efficiency and level of available funding provided by Provincial Governments for economic development,

- Focus National Government economic and human resources on economic growth through participation in REDI Technical Assistance Group (TAG) activities and by including Provincial priorities in the Government Investment Programme (GIP).
- Focus donor and NGO activities on rural development through the REDI process.

REDI has been formulated on a strong "bottom up" approach following an extensive community consultation process and the establishment of Provincial REDI coordination officers. National Government has established within the Department of Provincial Affairs, a REDI Implementation Unit that will coordinate activities for the Provincial TAG and Area Councils. DESD will incorporate REDI priorities through incorporation of projects in the GIP and in the National Planning Medium-term Development Frameworks.

The REDI project has created an administrative process that will improve linkages from the community level through Provincial Councils to the National government level. REDI has the potential to act as an effective vehicle for the mainstreaming of environment and traditional knowledge into the decision making process through the participation of communities, the rural business community and the Provincial Government. It is also recognised by National planning authorities that REDI activities are to be incorporated in National planning processes such as the GIP. An environmental and social sustainability review activity is to be carried out by the Provincial Technical Assessment Group (TAG) in each Province in association with the REDI Implementation Unit and Environment Unit in Port Vila. This will strengthen the REDI process as an appropriate policy vehicle for mainstreaming. In addition to this it will be essential to ensure that the REDI process incorporates aspects of environmental and social sustainability assessment at the project design and implementation level.

7.6 Environmental Policy Frameworks

The Environment Unit operates under the umbrella of the Ministry of Lands, Survey, Environment, Energy, Minerals and Water Resources. Policy guidance for the function and operation of the Environment Unit is provided in the ministry Corporate Plan. The first Corporate Plan 2002-2004 has been superseded by the current Corporate Plan 2003-2005. While the Roles and Responsibilities outlined in the two Corporate Plans for the function and operation of the Environment Unit remains unchanged the significant addition in the latest ministry Corporate Plan in the inclusion of a land rating and taxation system. The Roles and Responsibilities of the Environment Unit are as follows:

- Development and enforcement of environment legislation and policy,
- Conservation,
- Research and monitoring, and
- Environmental education and awareness.

No formal policies for the undertaking of environment related activities have been developed for the Environment Unit therefore the CRP Programme Matrix and departmental Corporate Plan has acted as the principal policy guidance statement.

The Parliament of Vanuatu has recently approved for implementation the Environmental Management and Conservation Act of 2002. The main components of the Act include the formulation of national environmental policies and plans, the elevation of the Environment Unit to the status of a Department, establishment of an Environmental Registry for the deposition of environment based information, Environmental Impact Assessment procedures and Biodiversity and Protected Area requirements to support the implementation of the Convention on Biological Diversity. It should be noted that the importance of developing environment legislation was recognized in the preparation of the Second National Development Plan 1987 to 1991 and it has taken a significant period of time to reach the stage where new legislation is ready to be enacted.

Part 2 of the new Act makes provision for the development of National Policy and National Plans. National policies will be developed to promote the environmentally sound and safe management and conservation of the natural resources of Vanuatu and to provide for the coordination of related activities. National plans would be developed to provide for the implementation of national policy based on an established set of criteria provided in the Act.

It is clear that the new Act will provide the legislative means to create the Department of Environment and for the department to establish a policy framework that will guide the mainstreaming of environment issues throughout the policy and planning processes of government. The focus of the new Department of Environment will be establishing priorities for the implementation of the Act to ensure that a structured approach is taken and beneficial outcomes achieved. Implementation will require considerable support from National Government and it is anticipated that external bodies that have supported the preparation of the Act will continue to support its implementation. The Department of Environment would be encouraged to use the passing of the Act to leverage additional assistance from external agencies that support sustainable development activities in the Pacific.

7.7 Adjunct policy bodies

7.7.1 Vanuatu Investment Promotion Authority (VIPA)

VIPA was established to promote private sector development, assess foreign investment proposals, provide investment information to clients, assist Government in the development of investment policy and encourage joint venture partnerships between foreign investors and Ni-Vanuatu. VIPA can play a role in supporting the REDI though the identification of investment opportunities within the provinces and in particular the rural area. The rural areas have an abundance of natural resources that could be marketed and promoted to the business community in order to attract and generate economic development. In respect to this Case Study, access to relevant information on the natural resources of SHEFA will be an important component of the VIPA assessment and identification process. The policy development process within VIPA will provide the opportunity to ensure that private sector development and foreign investment proposals are assessed in accordance with national policy guidelines that take into consideration environment and cultural aspects.

7.7.2 The Chamber of Commerce and Industry (CCI)

CCI was established to represent the private sector business community in dealings with the public and with government departments, disseminate business related information to the business community, promote the private sector and to respect cultural traditions and the environment in its actions. As the aim of REDI is to promote private sector development in Provinces it provides guidelines for the CCI to ensure that private sector based development occurs in accordance with its stated aims. It will be important that organizations such as CCI have access to relevant information in its development assessment process to ensure that environment and cultural requirements are considered.

7.8 National - Provincial - Municipal Institutional and Planning Linkages

At Independence in 1980 the Decentralization Act was passed forming eleven Local Government Councils (LGC), which were restructured in 1994 to form six Provincial Governments. The role of the Provincial Government was to develop regional growth centres and focus attention on the development of rural areas.

Physical planning linkages between the national and provincial/municipal levels of government are established in the Physical Planning Act 1986. The Act in 1986, saw the formation of the Physical Planning Unit in 1988, within the Department of Provincial Affairs, housed under the Ministry of Internal Affairs.

The Physical Planning Unit within national government has the capacity to recommend and assist in the establishment of Physical Planning Areas within the Provinces. The Province Planning Units then become responsible for administering and preparing physical plans for development within the PPAs. Currently only the Port Vila and Luganville PPAs have been established. The Port Vila PPA is administered by the Port Vila Municipal Council and its Planning Office. PPAs are in the process of being established in each of the provincial centres.

The role of the PPU is to provide development planning guidance and advice to Municipal Councils and to Planning Officers based in the Provinces however, there is no regulatory power to ensure that Municipal Council or the Provincial Planning Officers comply with advice from the PPU. Any future review of the Physical Planning Act 1986, should consider closer linkages with the EMCA Act, and the implementation of performance based criteria to improve regulatory requirements between the PPU and the Provincial Planning Units.

While there is provision under the Physical Planning Act for the establishment of policy, to date none have been prepared. A strategic planning framework has been proposed through the development of the 1992 Draft Physical Plan and the more recent Urban Growth Management Strategy (UGMS) for Port Vila in 1997. It was highlighted in the UGMS that the development of an integrated growth management strategy for Port Vila was required to coordinate the physical planning process and to establish an institutional and legislative framework to better manage infrastructure development in the urban area. The UGMS would need to take into consideration increasing populations levels, availability of land, provision of services in particular water and sanitation and the expected environmental impacts that are likely to be generated from any urban growth expansion. At the present time there are no urban growth management policies in place and development approval agencies are currently assessing development proposals with no clear understanding of future social or environmental impacts.

Now that the Environmental Management and Conservation Act is in force the assessment of development activities and their potential impacts on the environment will need to be implemented and enforced. The administrative linkages between the development assessment agencies, such as the Municipal Council and Provincial Planning Offices, and the Environment Unit will need to be strengthened to ensure that the assessment and monitoring process operates on an effective and efficient basis.

7.9 Land Development Practices: Legal and Administrative Linkages

Land in the urban areas of Port Vila and Luganville is termed public land and managed by the government for purposes such as education and health. Public land can be released for commercial or residential development under the Land Reform Act following negotiation with custom owners. Urban leases are usually held for a 50 year period. In rural areas approximately 80 per cent of the land is held under customary ownership and prospective developers can only lease land for up to 75 years. The process to formally lease land is administered by the Ministry of Lands and is an effective process where there are no disputes over customary ownership. Persons interested in leasing land obtain authority through the Land Management and Planning Committee, negotiate agreed terms with the customary land owner and a lease contract is drawn up and signed. The Land Leases Act provides for the establishment of legally enforceable covenants and a range of environmental and natural resource conservation covenants have been imposed on leases in Vanuatu. Standard agricultural leases granted for 75 years require the lessee to preserve the land, protect vegetation near a water course, not pollute the land and not allow squatters to reside on leased land.

8.0 Institutional And Planning Processes In The Tagabe Catchment Area

8.1 SHEFA Province Planning Processes

Planning activities within SHEFA Province are carried out by the SHEFA Planning Office under the guidance of the Principle Planning Officer. While the Physical Planning Act provides for the declaration of Physical Planning Areas, and a new PPA is planned, to date none have been formally approved for SHEFA Province. The current development control process for SHEFA is administered by a Physical Planning Committee that is comprised of SHEFA Councilors. While the Planning Committee has the capacity to draw on all available technical advice from the National Physical Planning Unit and any of the Government Department such as the Environment Unit, it is understood that minimal technical input is called on by the Planning Committee. As a result, the decision making process appears severely constrained and aspects of environment and social impact may not be considered or considered in the absence of available technical information, when development proposals are assessed.

The revenue generation base for SHEFA is currently apportioned on an approximate 50:50 basis between funds generated within SHEFA and funds provided by the National Government. SHEFA generates the bulk of its funds from development-oriented permits and fees including planning permits, business permits and building permits and is proposing the introduction of a sub-division tax and property taxes. As a result there is a strong inclination for the Physical Planning Committee to approve development proposals in order to maintain the SHEFA revenue base. While this may

lead to an increase in revenue in the short term the longer-term impacts from the establishment of developments that have not been screened for environmental or social impacts, has the potential to increase longer-term costs for SHEFA in maintenance or remediation of environmental and social impacts.

The recent passing of the Environmental Management and Conservation Act will have a significant impact on the development approval process for SHEFA. Section 11 of the Act states that all development activities that require a permit or approval under any law must comply with provisions of the Act. Part 3 of the Act sets out the requirements for Environmental Impact Assessment and activities that are subject to an EIA. While the implementation of the EIA component of the Act has not yet been defined by the Environment Unit it is clear that there will need to be substantial changes to the current development approval process in SHEFA in order to comply with the intent of the Act.

While the intent of the Act is clear (the need to more effectively manage impacts of development) there will need to be the recognition that more effective integrated planning and decision making processes are required that link development with proposed strategic development plans (proposed Urban Growth Management Strategy, proposed Tagabe River Catchment Management Plan etc) and policy. Strategic development plans will need to be framed with legislative triggers to ensure that implementation occurs within a legislative and policy framework.

A physical planning strategy has been developed for SHEFA Province and proposes the establishment of relevant PPAs and the introduction of legislation to administer physical development. The introduction of the new Environmental Management and Conservation Act will encourage more effective and efficient planning practices and is expected to complement the proposed physical planning strategy that will be developed for the new PPA.

8.2 Municipal Council Planning Processes

Within the Physical Planning Area (PPA) designated for Port Vila, development planning activities are carried out by the Port Vila Municipal Council. The Physical Planning Office (PPO) prepares development assessments drawing advice from a range of relevant departments including, but not limited to, the Physical Planning Unit, Environment Unit, PWD, and the Fire Department. This process occurs within formal linkages between the PPO and relevant departments. Development applications are then passed for final assessment to the Town Planning Committee. The Town Planning Committee is made up of Municipal Councilors and may call for technical input when it considers necessary. There is no formal involvement of technical staff or requirement for input of external advice from relevant departments in the final decision making process. Again the implementation of the Environmental Management and Conservation Act and its EIA requirement will place regulatory requirements on the Municipal Council to more rigorously assess any future development proposals for environmental and social impacts. It is anticipated that an extensive EIA awareness and education campaign will be required to up-skill the Provincial and Municipal Councils on EIA procedures.

8.3 SHEFA Province REDI

As the Tagabe River Catchment is partly within SHEFA Province it is important to review the economic development proposals that community and business groups have identified for the SHEFA area and how they may influence the implementation of development activities in the Tagabe River Catchment area. SHEFA REDI has been developed as a Five Year Economic Development Plan 2003-2007 that outlines the development goals for the Province. Implementation of the REDI will be guided by an Annual Action Plan (AAP) that will detail implementation arrangements for the coming year. The intention of the AAP is to identify implementation pathways that involve existing government departmental activities and if none available, generate project proposals that meet the identified need. Project proposals will be assessed in accordance with REDI guidelines to ensure they comply with environmental and social requirements.

REDI activities:

- At the National level REDI coordinates government policies, strategies and activities through the National TAG in association with relevant NGOs that are involved in economic development.
- At the Provincial level REDI coordinates the implementation of government services through the Provincial TAG.

• At the Area Council level REDI provides the pathway for farmers, business people and village community members to communicate their needs to Provincial and National government and for Provincial and National government to more effectively organize locally implemented projects in the rural areas.

Agriculture and tourism have been identified as the main economic drivers for SHEFA due to their proximity to the International airport for the export of goods and the arrival of tourists, and for food production for the growing population of Port Vila. Commercial beef cattle production is dominated by large plantation holders (predominantly foreign leaseholders) with small holders (predominantly Ni-Vanuatu) accounting for approximately 10 per cent of production. Large-scale logging has ceased and replaced by small-scale mini-mills however, reforestation projects did not follow previous logging activities and there is a need to replant preferred timbers for the local market such as sandalwood nangai (*Canarium indicum*), white wood and mahogany. The proposed establishment of a Reforestation Reserve for the Water Protection Zones within the Tagabe River Catchment could benefit from the reforestation recommendations as outlined in the REDI. The increasing population of Port Vila and the proposed expansion of urban growth areas may impact on the potential to supply agricultural goods to the local market if prime alluvial soils adjacent to the Tagabe River are converted to residential land. Tourism in Vanuatu is dominated by the attraction of Port Vila and while the potential to expand to other areas of Efate has been recognized, the necessary infrastructure such as suitable roads and tourist facilities to support tourism has yet to materialize.

The fisheries strategy promotes a renewed focus on commercial fisheries through the establishment of an ice making unit, establishment of a fishermans' cooperative and appropriate technical training. The strategy also provides for the establishment of Marine Conservation Areas and for traditional reef owners to impose traditional 'taboo' on over fished reefs. Marine areas adjacent to the outflow of the Tagabe River have suffered from a combination of over fishing and from sediment flows from the river. This area may benefit from restocking and the declaration of a 'taboo' control over the taking of fish.

The environment strategy emphasizes the need for improved policy and planning controls, the implementation of the Environmental Management and Conservation Act and the development of efficient environmental management systems. The preparation of a Catchment Management Plan for the Tagabe River catchment would fulfil this requirement for the Tagabe River area.

8.4 Provincial Land Use Policy

The SHEFA Land Use Guide is derived from the Vanuatu National Land Use Policy and designates land under the classifications of Best Agricultural Land, Next Best Agricultural Land, Marginal Land and Non Agricultural Land (Refer **Figure 3**). The Land Use Guide has three aims: (1) To guide planners in the administration of land use, (2) To provide stakeholders with a recommended guide to land use policies and (3) To guide stakeholders on the preferred use of land through the physical planning process.

The classification of land for the Tagabe River Catchment area includes Best Agricultural Land and Second Best Agricultural Land and supports a range of land uses including Urban, Urban/Permanent Gardens, Grazing, Airport, Shifting Agriculture and Shifting Agriculture/Permanent Gardens. The diversity of current land uses within the Tagabe River Catchment presents the SHEFA Local Government Council with a situation that will require the development of specific land use policies that take into consideration the current status of the land and consider the growing pressures that are being placed on land within the Tagabe River area. These pressures include the following:

- expansion of unmanaged high density housing,
- encroachment of urban populations on high productivity agricultural areas,
- impact of land use on the water resources,
- conversion of forest areas to grazing,
- presence of shifting agriculture on land designated for water resource purposes, and
- expansion of industrial activities and their potential impact on ground and surface water quality.

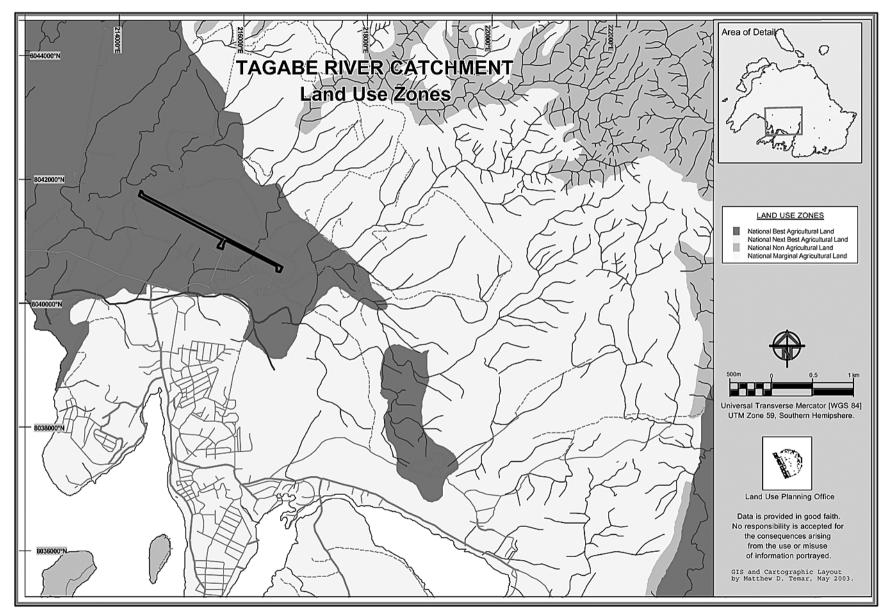


Figure 3. Rural land use zones

The challenge facing SHEFA Local Government Council and its planning process for the Tagabe River catchment area will be to manage the pressures in a manner that reflects the aspirations of all stakeholders. SHEFAs participation in the TRCMICC is a critical component of the planning process and will need to ensure that the Province is making proactive steps to manage land use pressures.

8.5 Coordination of Planning Processes for Tagabe River

The Tagabe River Catchment area falls within both the SHEFA Planning Area and the Port Vila Municipal planning areas. Planning procedures for the both of the management agencies are currently based on a localized process where technical inputs and information is provided on a selective and advisory basis. While a Physical Planning Area has been designated for Port Vila the development approval process is not subject to any rigorous planning processes. In the absence of any strategic planning guidelines or planning policies, decisions are made with minimal technical input or advice from relevant agencies. The evidence of a less than rigorous decision-making process, absence of a building inspection process and lack of strategic planning guidelines is evident within Port Vila. The results of poor planning within the area is characterized by lack of building setbacks from the high water mark or from property boundaries, lack of control of the design and construction of sanitation systems that are contributing to the pollution of the harbour and lagoon and a lack of designated parks and reserves to ensure that green spaces throughout the town area are created and preserved.

For the Tagabe River Catchment area the impact of urban expansion on its natural resources will increase as population levels rise in Port Vila. Population assessments from the 1999 census point to a quantified rise in population and planning agencies need to put in place plans and policies to manage the expected increase. Urban growth expansion will place pressure on the Tagabe River water resource from increased surface water pollution, increased industrial activity in the current Tagabe industrial area and increased pressure to transform prime agricultural areas on the alluvial plains of the Tagabe River to urban housing.

9.0 Overview Of Information Frameworks

Effective policy and planning processes require the most recent and accurate data and information available. Within the government sector there is an extensive range of information stored in numerous formats with a range of government departments. Information is formed, aggregated and used in the preparation of reports such as the National Submission to WCED, WSSD, CSD and now BPOA+10. Tables, maps, and descriptive qualitative data are prepared for policy and planning documents and to prepare compliance documentation for international conventions to which Vanuatu is a signatory. However much of this is spasmodic and efforts are often accomplished in isolation to each other. The integrity of data therefore often suffers or duplication prevails with no real advancement on the improvement of necessary data sets for integrated planning and environmental management.

9.1 VANRIS

The most extensive information system providing natural resource information is the Vanuatu Resource Information System (VANRIS). VANRIS was established as a component of the Vanuatu Land Use Planning Project funded by AusAID and is managed by the Land Use Planning Office within the Department of Lands. VANRIS was developed to assist land use planners and resource managers with decision making based on traditional, commercial, environmental information. It was developed in recognition that land use planning and resource management at the national level requires information to support rational and effective decision making.

VANRIS is a geographically referenced GIS database information system and consists of three interrelated components (1) a map base that generates maps using MapInfo software, (2) a database containing an inventory of data describing natural resource, land use and population attributes and (3) a user friendly interface that provides a facility for rapid data manipulation and analysis.

Natural resource data from a range of departments including Forestry, Lands, Geology and Mines, Fisheries, Statistics, Environment Unit, Cultural Centre and Public Works is collected on VANRIS and is used for the generation of maps and reports. In order to manage and control the use of data, VANRIS has established data protocols such as a Data Transfer Agreement between the data provider (Vanuatu Land Use Planning Office) and the data recipient. The Land Use Planning Office (LUPO)

also regulates temporary access to VANRIS. VANRIS users meet on a regular basis to discuss current GIS issues and plan future directions for VANRIS.

Use of VANRIS information is not used to its full potential. Community engagement was low during the formation and development of the GIS, so community ownership and understanding of the full utility of the system is not well known. There continues to be conflict over access and security of information across the national government. As stated above the benefit of GIS continues to be seen as the generation of maps and reports. The full analytical and scenario building capabilities of GIS to investigate options for sustainable development is not fully understood outside of the LUPO.

9.2 Public access to government information

Public access to information held in government departments is usually freely available however relatively poor indexing, or metadata systems, and lack of knowledge of access points stifles timely access. In some instances information is protected by special conditions set by the information source. The Vanuatu Cultural Centre has strict protocols in place to protect customary data and has a process in-place to manage and control the collection of data in Vanuatu. While public access to government data is available, in some instances the public may not be aware of its existence and therefore may not realize that information can be accessed. Some information is available on a user pays basis and a fee is charged to access or obtain copies.

9.3 Data Management

A preliminary assessment of data management within a range of government departments highlighted a range of deficiencies that are limiting the effective use and sharing of data within government.

It was evident that:

- data is collected in a range of non-transferable formats due to incompatible software and hardware,
- software and hardware provided by a range of different sources including government and donor organizations was not always compatible with existing technology,
- there is a lack of technical expertise within departments to ensure that data networks were operating in an efficient manner,
- there is a lack of safe and secure storage of data with few security protocols in place to manage data sharing,
- there is a lack of data sharing between departments,
- there is a lack of viable equipment for efficient operation or provision of services, and
- there is a lack of on the job or ongoing training in data collection and management.

In order to address the perceived deficiencies a comprehensive data and information upgrade process needs to be implemented. An upgrade can be implemented on an internal basis in the initial stages and would commence with a comprehensive review of the existing IT capability and the implementation of a series of internal procedural changes. There is a need for the preparation of national standards through a National IT Strategy to ensure compatibility of technology within and between departments. A National IT Strategy would encompass software and hardware requirements, outline training needs, standardize access protocols and provide a framework for inter-departmental cooperation in regard to data sharing.

9.4 National Resource Information Centre

One option for the synthesis of natural resource information is the establishment of a National Resource Information Centre (NRIC). It is apparent that individual departments do not have the resources, technical capability or secure storage capability to establish individual data and information services and maintain them in an effective manner. The establishment of a centralized centre would build on the already created and accepted VANRIS system and would extend the concept of managed data in a more ordered fashion. A centralized information management system would offer a more coordinated service to government and to the public through a user-friendly web based access. A centralized system would have a greater opportunity to develop a cost recovery user pays system based on a "one stop shop" for maps, land information and other relevant data sets for researchers and the general public.

10. Cultural Frameworks

The Vanuatu Cultural Centre is the principal national institution responsible for "the preservation, protection and development of various aspects of the rich cultural heritage of Vanuatu" (*Vanuatu National Cultural Council Act, cap. 186*). The Vanuatu Cultural and Historical Sites Survey (VCHSS) is one of its executing bodies, through which much of traditional environmental management systems (TEM) research and documentation occurs. It is a policy of the Cultural Centre to ensure public access to all of its materials, unless custom requires otherwise (for example, women may be prohibited from viewing certain cultural artifacts).

The Cultural Centre regularly provides cultural research reports to the relevant Ministries and Government Departments. For example, a 2001 SPREP/ GOV RETA TEM Project contracted to the Vanuatu Cultural Centre supplied the Vanuatu Environment Unit with information regarding the documentation of TEM Systems in Vanuatu. This information was used in the development of Vanuatus NBSAP. While the Vanuatu Cultural Centre provides an ideal vertical linkage between TEM and policy-making, it should be noted, however, that there are no formal policy linkages between the VCC and DESD. The Vanuatu Cultural Centre promotes cultural aspects in Government operations, however unless individual Departments are implementing specific projects requiring cultural research the VCC can only act in an advisory manner. While the government strongly supports the incorporation of traditional systems into government policies and procedures there are no direct policy linkages between the VCC and the CRP Programme Matrix.

11.0 Promoting Integrated Planning For Sustainable Development.

11.1 National Initiatives

There are a range of current or proposed initiatives that will actively contribute to integrated planning processes for sustainable development.

At the National level the implementation of CRP reforms will streamline and improve the efficiency of government service provision. While implementation of CRP has slowed due to political instability and waning public support, there is strong level of support for the concept of CRP provided anticipated gains are realized and made apparent to the public and public sector.

The implementation of the new Environmental Management and Conservation Act will see for the first time the introduction of Environmental Impact Assessment as a regulatory requirement for development in Vanuatu. While the level or extent of the EIA process is still to be determined it is a significant step in the quest to achieve sustainable development for Vanuatu as both the national and provincial planning process will require conformity with EIA legislation in the development approval process. This will create a positive improvement in the planning process through the development of formal linkages between national and Provincial/Municipal planning agencies and will contribute to mainstreaming. However, the design of EIA regulations and procedures will need to ensure that the process does not become to bureaucratic and create long delays in the assessment process frustrating potential developers and slowing potential growth.

11.2 Provincial Initiatives

At the Provincial level the establishment of the SHEFA Rural Economic Development Initiative (REDI) has created an economic development structure that for the first time has actively included strong and significant input from the community in the identification of economic goals. Within the REDI process are quantified goals to promote the sustainable development of land and natural resources (Goal 3) and to protect and promote culture and tradition (Goal 4). The Outer Island Infrastructure Development Project that is focusing on the construction of infrastructure that supports economic development, recognizes the importance of the REDI process and the need to integrate REDI goals into the infrastructure implementation phase.

11.3 Municipal Initiatives

At the local level the proposed Urban Growth Management Strategy for Port Vila raises a range of planning issues that need to be addressed in order to better manage current population levels and estimated population rises for the Port Vila area. In concert with the Urban Growth Management Strategy, a Sanitation Master Plan has been prepared to address the critical issue of pollution of the Port Vila harbour and lagoon from unmanaged domestic and commercial sanitation systems. While

no commitment has been made by government on the implementation of the Urban Growth Management Strategy or the Sanitation Master Plan the importance of establishing a coordinated plan of management cannot be overemphasized.

The Environmental Management and Conservation Act has provision for the development of National Policies and National Plans to ensure sustainable development. This provides an opportunity for the Environment Unit to establish policies and plans that encourage the approval and implementation of strategic management plans such as the Urban Growth Management Strategy and the Sanitation Master Plan in association with relevant agencies such as the Municipal Council. It should be also noted that the development of a national urbanization policy and planning guidelines has been included under the CRP Matrix.

11.4 Local Initiatives

For the Tagabe River Area the establishment of the Tagabe River Catchment Management Initiative, a multi-stakeholder committee to plan for the management and use of the designated catchment, the integration of environment and community inputs has been recognized as critical to the ongoing success of the initiative. It has long been recognized that community involvement is a necessary component in the management of locally owned natural resources and the implementation of the catchment management initiative is expected to act as a model for the development of other Catchment Management Plans in Vanuatu. The production of a catchment management plan will encourage activities at the catchment or watershed level and will involve local communities in the preparation of the Tagabe River Catchment Management Plan, utilize processes and outcomes of the REDI and highlight the social and economic interactions with the environment.

12.0 Status Of The Environment And Socio-Economic Pressures In The Tagabe Catchment

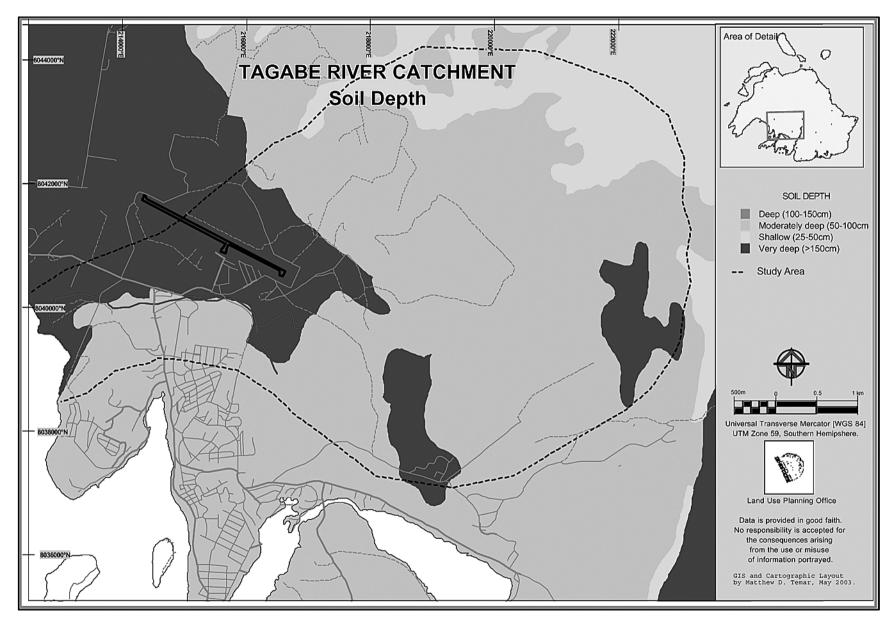
The preceding sections provided an overview of the status of governance, legal, policy, administrative and information products and processes in Vanuatu in terms of mainstreaming the environment for sustainable development. For such reviews of national and sub-national government systems, generalizations and key observations are often made. To further a common understanding of the practical day-day pressures and the competing demands for resources, the following sections have been included, using the Tagabe catchment as the geographic subject.

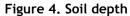
12.1 Tagabe Catchment Characteristics

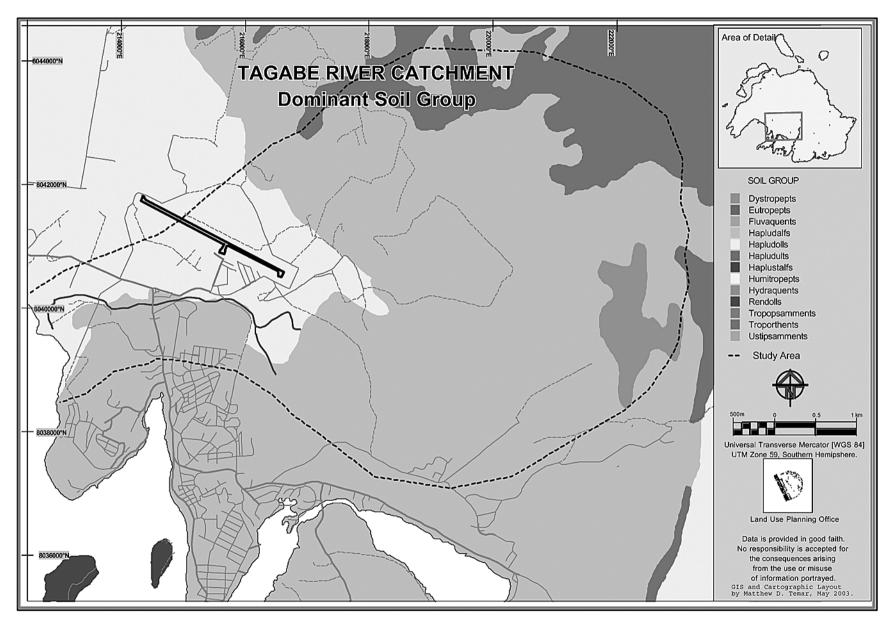
The Mele Catchment is located approximately 15 km to the west of Port Vila on the island of Efate and is approximately 125 sq. km in area. Within the Mele Catchment is the Tagabe River a subcatchment (35 sq. km) of the greater Mele Catchment. Three river systems flow to the Mele Plain coastline and the Tagabe River is the closest of the three rivers to Port Vila entering Mele Bay approximately four kilometres from Port Vila Central Business District. Adjacent to the coastline the soils are relatively thin (up to 80 centimetres thick) then grade to deeper alluvial soils overlying the Mele-Tagabe plains (see Figure 4). In the upper reaches of the catchment the bisected river valleys consist of silty clays that overly raised limestone and volcanic deposits (see Figure 5).

The Tagabe River catchment generally contains rural land, with a small portion of the river course passing through the Port Vila area. Land use in the catchment has changed significantly in the past years. In 1980 the area was primarily agricultural, with pastures, coconut plantations and small agricultural plantings, or contained unalienated traditional tenure under Ifiran custom landownership. Since the early 1990s the lower and mid reaches of the Tagabe River have been absorbed by the growing urban population of Port Vila due to increased rural-urban migration, particularly at Tagabe, Freswin and Ohlen (which are within the municipal boundary of Pt Vila (see **Figure 2**) and with squatter settlements including Blacksands and Manples⁴⁹. Today there are multiple stakeholders often with competing interests in the Catchment Area, including rural and urban communities supporting traditional and modern practices. The Tagabe River Catchment Area therefore provides an important case study of how to plan for resource management while dealing

⁴⁹ Proposed PPUE Grant: Tagabe River ALIVE 2002 (Vanuatu Environment Unit).







with issues of land clearance, land use change, land tenure conflict, exposure to natural hazards, uncertain resource access, and variable health levels.

12.2 Land Use

Land use within the catchment is highly diversified. At the lower end of the catchment where the Tagabe River flows into Mele Bay there is a mix of agricultural land and the high-density informal housing settlement of Blacksands. Approximately two kilometres inland the land use is predominantly small-scale industry with a brewery, juice factory, paint factory, power generation plant and other smaller scale factories and workshops. Further up the catchment is the Bauerfield International Airport, small-scale agricultural holdings and the high-density informal housing settlement of Freshwinds. Adjacent to this area is the groundwater extraction zone where the water supply for Port Vila is sourced (refer **Figure 6**). Informal food gardens established by the residents of Freshwinds have been encroaching on lands surrounding the settlement. The remainder of the catchment rises through cattle grazing leases to steep forested lands at the head of the catchment.

The importance of a safe and secure water supply for the township of Port Vila has been recognized by hydrologists, resource managers, the water supply utility UNELCO and the community. As a result of previous report recommendations on ensuring that the quality of the water resource be more effectively pursued, and through the concerns of local water users, a locally based stakeholder group was established under the coordination of the Environment Unit. The Tagabe River Catchment Management Initiative (TRCMI) was formed to provide an opportunity for stakeholders within the catchment to raise concerns and highlight solutions on the coordination and management of the water resource.

Port Vila is growing at an alarming rate considering the lack of planning and land use coordinating mechanisms. Topography and availability of services restrict the options for urban extension. Physical constraints to urban development also include the close proximity of the airport and associated safety and noise factors, the presence of water protection zones on the urban fringe to the north east and the presence of prime agricultural lands to the north of Port Vila.

The proposed Urban Growth Management Strategy for Port Vila had identified a number of options for the expansion of the urban growth corridor. One option is for the urban zone to expand into the Tagabe River catchment area between the airport and the coast. This option has raised concerns by landowners who currently do not wish to see the expansion of the urban zone on their land. There is also concern that urban expansion would limit access to the prime agricultural land on the alluvial plain that adjoins the Tagabe River. Only 16 per cent of SHEFA is prime agricultural land and any further loss of agricultural land would constrain the capacity to expand agricultural production close to markets as transport cost are significantly reduced. Areas of the Tagabe River close to the coastline are flood prone, another reason for limiting urban development in that area. SOPAC are in the process of preparing a coastal hazards survey for the Mele Bay coastline and the results of the survey will contribute to the planning requirements specific to the area. The proposed preparation of the Tagabe River Catchment Management Plan will identify agricultural land that need to be reserved to ensure that urban development occurs within a strategic or structured manner.

12.3 Population: Demographic Trends & Concerns

The most recent census (GOV, 1999) states that that the total population of Vanuatu has now reached 186,678, increased from the 1989 figure of 142,419. The population of Port Vila has increased 16% during the intercensal period rising from 18,905 in 1989 to 29,356 in 1999. Informal estimates of current population levels in Port Vila have been as high as 40,000 people. While growth rates show a steady decline from 3.2 per cent in 1979 to 2.1 per cent in 1999 total populations are projected to almost double by 2017. The uneven distribution of the population would result in the bulk of the population rises occurring in the urban areas.

Population data show that 43 per cent of the population is in the under 15 year old category which indicates that an increase in population is likely to continue for at least the next 20 years. This increase in growth rate in combination with increasing migration to Port Vila and Luganville is expected to place increasing and substantial pressure on existing squatter settlements as migration

Environmental Planning Approaches for Mainstreaming the Environment

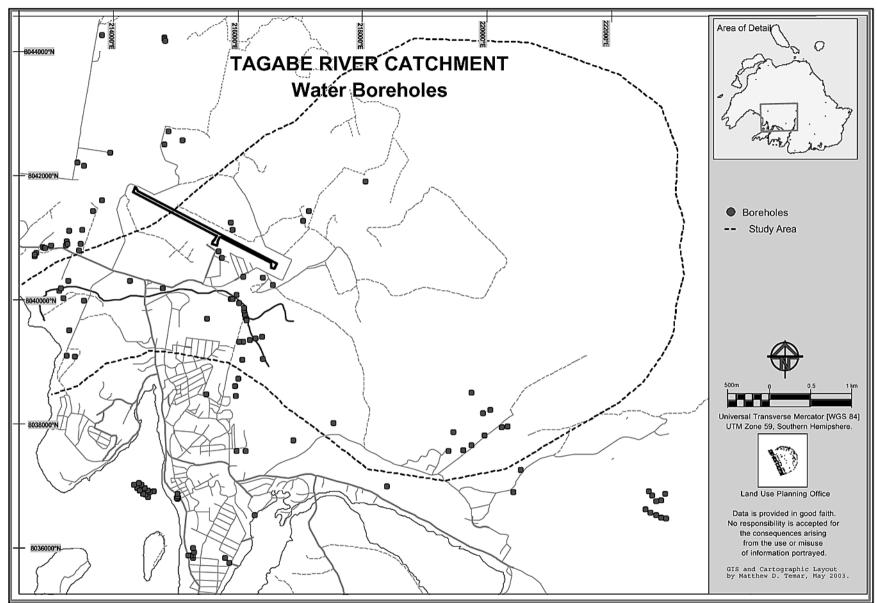


Figure 6. Water sources - boreholes

inflows increase. Squatter camps present the greatest area of concern as residents have a lack of representation with local authorities as they do not have land tenure. This generally ignored status threatens to expand the areas of unmanaged land use and the social and resource conflicts that result. Until squatter camp residents are drawn into discussions and decision-making, their presence will continue to threaten the ongoing viability of the natural and physical resources they are compromising.

12.4 Patterns of growth, Port Vila and squatter settlements

Population distribution reflects current global trends with increasing rural to urban migration. The two major destinations in Vanuatu are the urban towns of Port Vila and Luganville on the island of Santo. Rapid urbanization coupled with a lack of access to available land has resulted in an increase in the informal or squatter settlements that can be found in discrete locations around the outskirts on Port Vila. As squatter settlements have limited or no access to services such as water or power and residents with limited ability to pay for services if they were provided, overcrowding and generally unsanitary conditions have lead to decreasing health levels and over use of nearby natural resources.

Increasing numbers of people in Port Vila has placed greater pressure on already stretched public facilities in particular water supply and sanitation. Natural resources in particular water resources, coastal fisheries and forests for the extraction of firewood - are being depleted at unsustainable rates.

The social impact of migration from outer island communities to Efate are immense as among other matters, valued community members are lost and recruitment times for replacements are comparatively long. De-population of rural areas also places increasing pressure on local capacity to maintain agricultural production for both subsistence and commercial farming, as well as for other income generating activities such as tourism.

12.5 Traditional Management and Cultural Implications

From community surveys carried out in squatter camps for the preparation of the Case Study the variable nature of the island groups represented in the camps has resulted in a lack of strong custom links with the land they are squatting. Social support structures and traditional practices once adhered to in their original island and village areas are not considered relevant or useful in the Port Vila context and their use is not obvious or forthcoming. This situation is further compounded as the land on which the squatter camps are located is under the influence of a different custom group further constraining camp residents from utilizing their traditional practices.

It appears that in situations where the use of traditional practices could offer the best relief from squatter conditions, a settlement pattern of mixed custom or island groupings constrains the use of such practices. To encourage the implementation of traditional skills in a squatter setting, mechanisms to provide opportunity for communal expression of cultural diversity and cohesion are needed. The establishment of the TRCMI Coordination Committee (TRCMICC) can provide a forum for the expression of community views and extension of this should be pursued.

12.6 Land and Resource Access

Unresolved land ownership disputes have been singled out as one of the barriers to economic development as vast tracts of productive land remain undeveloped. It is anticipated that the introduction of the Customary Land Tribunal (CLT) that relies on village level local and island wide groups of chiefs to adjudicate on disputes will improve the current situation and unlock much needed land for economic development. By moving to a process that involves local chiefs to adjudicate on local land matters in a formal process it reinforces the beneficial use of traditional practices and values the decision making process that is built on long held customs.

For the Tagabe Catchment, disputes over land and access to land are exacerbated by the squatter settlements where residents have no tenure rights, but need access to basic services and resources for survival. It is hard to forecast any benefit the CLT may avail residents in these situations as the arbitrators would be made up of elders from the three customary groups that have customary tenure over the catchment lands. The squatter settlements have been in existence for up to 20 years and are far too entrenched into the current make-up of the urban-rural fringe to ever expect their removal or relocation without some form of incentive.

A large area of the catchment is also covered by grazing leases owned by foreign interests. In a system without recourse to address community costs through land rates or taxes etc, the comparative low lease terms versus value of production -are often questioned.

12.7 Land Development Practices

As conveyed in section 6.8 where land is subject to Lease from the customary owners, breach of a covenant can result in the forfeiture of the lease. They are therefore powerful administrative instrument that can be used to enforce land use, environment and conservation requirements over land use. One particularly constant covenant proving to be a headache in the squatter areas is the obligation of lessees to deter squatters on their leases. In the urban fringe areas of Freshwin, satisfying this covenant is becoming increasingly complex. The issue of land leases at Freswin in the Tagabe River area points to the responsibility of the lessee Cailliard & Kaddour to ensure that squatters are removed however, eviction notices registered with the local courts are yet to be served. Therefore, squatters remain and registered sub-lessees have been forced to find alternative land thus in some cases becoming squatters themselves on adjacent Water Protection Zones (WPZ). They continue to await for eviction notices to be served so they can rightfully occupy their land.

Urban development requires clear land rights and uncertainty over rights deters long term investment particularly for urban development and infrastructure. It is hoped that the administrative processes used to manage land leases can benefit from the establishment of the Customary Land Tribunal (CLT) and occupation disputes can be resolved. This would allow for the more effective leasing of land for development purposes and encourage greater economic growth.

Uncertainty in land and resource tenure also has deleterious impacts for environmental management. For instance, families or customary groups will agree to voluntary conservation agreements, especially where capacity building reveals some type of income generation capacity. If lands come under conflict, arrangements can often be usurped and alternate exploitation activities emerge. In other scenarios where families use traditional rotation practices, conflict over parts of their customary land, reduces their subsistence viability forcing them into more sensitive areas, or into more damaging farming practices (fertilizer and pesticide over-use).

The opportunity to issue covenants on leases that include environment and conservation is seen as an effective tool and should be promoted in concert with new environment legislation. The Leasehold system in Canberra, Australia uses this system to implement all land use and environmental planning. Their experiences may be useful in exploring opportunities for Vanuatu.

12.8 Land Resources

As described previously the soils of the Tagabe River area are broadly described as fertile alluvial soils that decrease in fertility as they rise in elevation to the headwaters of the catchment (see **Figure 4**). The mid reaches of the catchment have been selectively logged and dominated by pasture grazing with subsistence agriculture and remaining forest thickets. In the upper reaches, broad forest cover still remains with subsistence agriculture. The leasing of land in the Water Protection Zones of the catchment for agriculture has raised the issue of fertilizer and chemical use. River users report occasional episodes of visible contamination. Existing legislation under the Pesticides Control Act of 1993 regulates the importation of pesticides however the control and use of chemicals for agricultural purposes is the responsibility of the under-staffed and under-resourced Agricultural Extension Officers who have limited ability to monitor pesticide use. Most rural lease covenants control the 'protection of vegetation near watercourses'. This clause may enable future Department of Environment staff to work more closely with the Agricultural Extension Officers to at least control the location of fertilizer and pesticide use.

The proximity of fertile lands in the catchment to areas subject to urban expansion has raised concerns that scarce productive soils are being lost to urban development. As small scale agriculture is now being actively promoted as an import substitution alternative to imported foods, land use planning to ensure that productive land near to the Port Vila market is not lost is actively needed. Subsistence farming also presents an opportunity to generate cash income from excess crops grown in the alluvial plains to support an increasing population in the immediate catchment area.

Environmental Planning Approaches for Mainstreaming the Environment

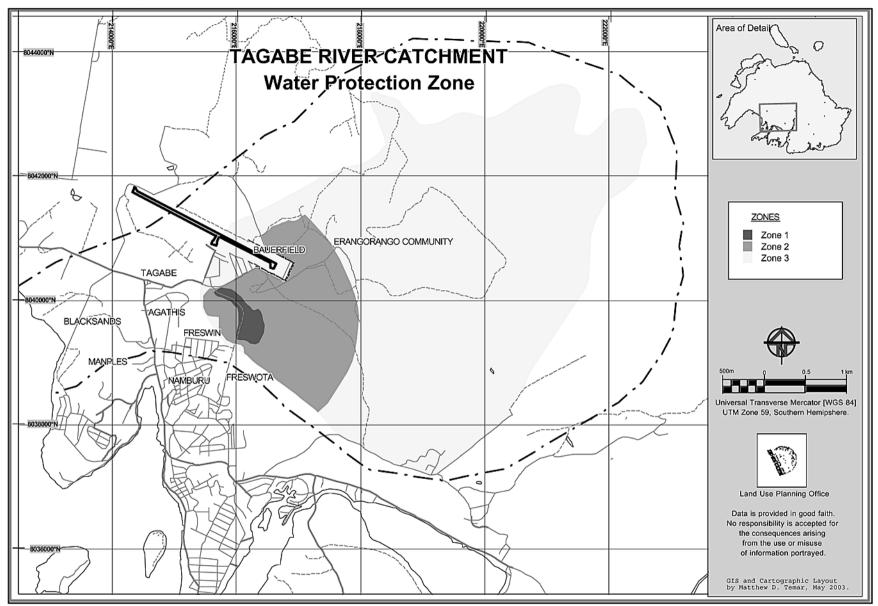


Figure 7. Water protection zones

The development of land use plans and the implementation of the draft Urban Growth Management Strategy for Port Vila are required to effectively plan for urban growth and the need to preserve valuable agricultural land. Current linkages between SHEFA Planning Office, Port Vila Planning Officers and the national Physical Planning Unit are limited and in need of legislative strengthening to ensure that the land resources of the Tagabe River are more effectively managed as population increases place increasing pressure on land resources.

12.9 Water Resources

The Department of Energy, Minerals and Water Resources is the responsible authority for the management of water resources. They undertake hydrological surveys to determine the location and extent of water resources and are responsible for ensuring that water resources are protected for sustainable use. Water supply for the Port Vila urban area is sourced within the Tagabe River catchment located on the urban fringe to the north of the town area and is extracted by a series of ground water bores (see **Figure 6**).

The Port Vila water supply assets are owned by the State however, since 1994, managed under a franchise agreement with UNELCO. Current extraction rates are approximately 9.5 cubic meters (m³) per day from an estimated capacity of 18,000 m³ per day. The ultimate capacity of the resource has been estimated at 60,000 m³ per day. Through an extensive leak detection programme, UNELCO has reduced lost capacity due to leaks and illegal connections from 50 per cent to approximately 25 per cent. Water quality monitoring of the groundwater bores, carried out by UNELCO on a regular basis, has not detected any bacteriological contamination however, encroachment on the water catchment area by urban populations has the potential to increase the likelihood of contamination from surface water flow. Despite groundwater flows coming from the northwest increasing extension westward of the urban area, combined with inadequate sanitation systems could increase surface water contamination and have a detrimental impact on the water resource. A series of surface water samples taken in the Tagabe River during the 1997 drought when stream flow rates had substantially slowed, showed faecal coliform counts in excess of 1000 organisms per ml. indicating bacterial input from adjacent surface areas.

Improved management of the resource has been recognized as having high priority due to the importance of protecting the Port Vila water supply from potential contamination from squatter camps located adjacent to the water supply area. A Water Resources Management Act has been passed by Parliament and is currently awaiting gazettal prior to it coming into force. The Water Resources Management Act provides for the declaration of a rural or urban Water Protection Zone (WPZ) for the conservation and protection of any significant water resource. Earlier studies (DePledge 1994) of the water supply system have identified the location of a recommended WPZ and it is anticipated that the WPZ will be proposed following the implementation of the new Act.

The protection of the water supply is a key component of the Tagabe River Catchment Management Initiative and will feature strongly in the development of the Catchment Management Plan. Initial actions in the development of the management plan include the identification of existing land leases and an initial community consultation process within communities that adjoin the proposed WPZ. Any management initiative will need the support of communities especially those in the squatter camps adjacent to the WPZ who have the potential to generate the most significant impact from unmanaged water use, inappropriate waste disposal and sanitation practices.

Three Water Protection Zones (WPZs) have been proposed by the Department of Energy, Minerals and Water Resources for the Tagabe River Catchment Area (see **Figure 7**) covering an area of approximately 25 sq. km. Using a hierarchical model from Zones 1-3, existing uses, lessees and other stakeholders have been identified. The intention is to canvas the possible future land uses and activities within each zone based on consultations and the assessed thresholds for sustainable use. The following has been mooted as the possible use limitations for each proposed zone:⁵⁰:

• WPZ 1 (0.3 km²) - pedestrian and vehicular traffic, building and development associated with Port Vilas water supply should be the only activities permitted. This area should be fenced off and strictly controlled.

⁵⁰ Department of Geology, Mines and Water Resources. Water Protection Zones, Port Vila, Vanuatu, Short Report. February 2003.

- WPZ 2 $(4.19 \text{ } km^2)$ non-intensive agriculture or horticulture and unsealed roads should be the only activities allowed.
- WPZ 3(22.33 km²) non-intensive agriculture or horticulture, sealed roads and low-density settlement should be the only activities permitted.

12.10 Water Supply

The residential communities within the Tagabe River Catchment Area, as well as those heavily reliant on the Tagabe River for water, include Agathis/Tagabe, Beverly Hills Estate, Blacksands, Freswin/ Ohlen, and Freswota 4 (see **Figure 7**). The population in the Tagabe area has rapidly increased between the two Census years. The centres of significant population growth include: the Bauerfield EA, within which lies Freswin; Agathis East EA that borders Freswin, Freswota EA and Blacksands EA. Namburu Central and Ohlen EAs also experienced significant growth during those ten years. Coincidentally, a low-income housing program was established in the Freswota area in 1998, and political campaigning promising land to voters in the Freswin area in the mid-1990s seems to have attracted increased numbers to these areas.

The percentage of households practicing subsistence land use in these neighbourhoods is highest in Tagabe South EA, which neighbours Agathis and Freswin. The majority of neighbourhoods have more than 50% of the households practicing pure subsistence gardening, suggesting that there is limited paid employment, and therefore limited financial capacity in these communities. The larger island groupings in each neighbourhood were those particularly targeted for community consultations and should be especially targeted for community participation in development processes.

In 1999 it would appear that the majority of users particularly reliant on the Tagabe River resided in the Bauerfield EA, which contains Freswin area (31 households). This neighbourhood also has the most village water standpipes in the Tagabe area. Blacksands area has the next highest number of documented river users (18 households). These two neighbourhoods also have the highest number of pit latrines indicating existing and future sanitation issues along the Tagabe River. There is an obvious relationship between choice of sanitation system, and source of water supply, with Freswota having the highest percentage of flush toilets to piped water households. Evidently bush toilets are less common where there is piped water, which serves to limit pollution of the river.

12.11 Traditional Management of Water Resources

The communities residing within and adjacent to the Tagabe River Catchment Area come from various islands throughout the Vanuatu archipelago. The diversity of cultures and customs all converge and become obscured in this northern area of Port Vila, therefore identifying specific traditional environmental management (TEM) practices is difficult. Common sense would typically prevent people from polluting their water source, yet necessity often allows no alternative to the existing uses of and near to the Tagabe River. With land rights disputes complicating the water access issue many homes rely solely on the river for water. Bush toilets are within close proximity to the river due to lack of space and water capacity to have VIP or flush toilets. TEM, therefore, in this context, can be described as the common sense practiced with water resources, although compounded by current circumstances. In Vanuatu, individuals particularly identify with the land from which they originated, therefore for most of the residents in the Tagabe area, who are from islands other than Efate, they have limited authority to do much with the land/ environment in the area.

The traditional landowners of Ifira in the rural zone of the Tagabe River area have identified two cultural tabu sites that relate to their TEM practices. It is anticipated that the Vanuatu Culture Centre will undertake additional surveys in the WPZs.

12.12 Industrial and Commercial Uses

The commercial and industrial zone of Tagabe contains a collection of factories and warehouses, home to a variety of industries from fibreglass manufacture to fruit juice and beer production. All industries present are supplied by the municipal water supply. Wastewater from any production is typically treated before final disposal. However, there have been complaints from some companies about poor drainage in the area and Tusker Brewerys inadequate wastewater treatment, resulting in unpleasant odours. Port Vila Municipalitys Environmental Health Section is responsible for monitoring water quality and wastewater treatment.

The Case Study team investigated a number of the larger industrial sites in the locality especially noting the incidence of, or prospect for, significant impact on the Tagabe River. Significant uses include Fibreglass Vanuatu, Mr. Juicy and the Tusker Brewery. The brewery generated the most number of complaints, but it would seem that for all industrial uses, very basic effluent treatment processes are used before liquid wastes are discharged from the site to Tagabe River. While existing treatment processes may satisfy current design standards for effluent facilities, they may not be filtering all possible pollutants and nutrients before effluent waters enter the river system.

12.13 Natural and Human induced hazards and risks

SOPAC have carried out extensive research work on natural hazards from a coastal and climate processes perspective within the Mele Catchment area. This work is now part of the input research to the Comprehensive Hazard Assessment and Risk Management (CHARM) project managed by SOPAC. SOPAC has produced maps and supporting documentation of the extent of coastal hazards based on contemporary oceanographic, coastal and climate change prediction capability. While it has a coastal emphasis at this stage the CHARM work will be combined with a EU project which is investigation other non-living resource use demands and hazards over the coming years. Additional work needs to be completed on comprehensive catchment modelling and assessment to plot the fullest extent of hazards from flooding, subsidence and land slip among other hazards. Only when comprehensive catchment modelling has taken place to determine peak flows and velocities can this output be combined with SOPACs earlier work to provide a complete picture of hazards in the catchment. Such information will be invaluable for determining future use options in the Tagabe as well as the Mele catchment.

12.14 Waste Management

Waste management is the responsibility of the Municipal Council in the Port Vila township and the Provincial Governments in the rural areas. In the Port Vila area a regular waste removal service is provided by the council and all waste is deposited at the Bouma Landfill. A yearly Council fee is charged to residents for services including the collection of rubbish. A fee is charged to deposit waste at the Bouma Landfill. No waste removal services are provided by SHEFA so residents are required to dispose of their rubbish at the Bouma Landfill and incur a charge or, dispose of household rubbish on-site and this is usually done by a combination of composting, burning and burying.

Squatter camps located adjacent to but outside of the Port Vila urban area are not provided with a regular waste removal service. As the current waste disposal practice of burning or burying rubbish in the urban area is not successfully managing the volume of waste generated leading to dumping of rubbish and associated contamination issues, the Municipal Council provides a periodic bulk collection service through the provision of large skips that are left in strategic areas within the populated areas.

The inappropriate disposal of waste from the squatter camps poses a threat to the quality of surface and ground water within the WPZ as does the location of squatters within the WPZ and the current practice of allowing agricultural leases in the WPZ be sub-leased for purposes not related to agriculture. The condition of the water within Tagabe River is not monitored on a regular basis however anecdotal evidence points to visible levels of contamination by river users.

It is apparent that SHEFA Local Government Council has limited ability to provide a waste collection service to cater for the squatter camps within its local government area. While the location of a new landfill site for SHEFA is under investigation by SOPAC, it is not clear if a collection service will be provided or residents will be required to transport waste to any new facility that is constructed. It is thought that squatter camp residents are unlikely to want to pay for waste disposal as current incomes are low or non-existent. Squatter camps that are outside the Port Vila Municipal area will not be provided with a regular service as the Port Vila Council is currently having difficulties maintaining its service within its mandated area.

The implementation of the Urban Growth Management Strategy would provide the opportunity to develop a more effective cost recovery process through the inclusion of a rating system based on property value. The current disparity between low and high cost property values is not reflected in Council income therefore a move toward an "ability to pay" process would provide a higher revenue

base for Council to implement a more effective range of waste management and other services and minimize funding leakages from the Council.

It is apparent that the Municipal and Provincial Councils are under pressure to provide an effective waste management system that is capable of managing waste generated by their constituents. While Port Vila residents have a collection system funded by a levy, no service is provided by SHEFA and residents are required to manage their own waste. As population levels increase especially in the squatter camp areas and the ability to pay decreases, then it is apparent that a more effective system will need to be introduced. Linkages between the Municipal and National government departments responsible for planning, environmental management and health are not established on any legislative basis therefore there is minimal involvement of relevant agencies on a formal basis.

It is anticipated that the introduction of the Environmental Management and Conservation Act will provide the opportunity to establish formal linkages between relevant agencies involved in waste management and the community to encourage better waste disposal practices. A review of the Physical Planning Act to provide legislative power to implement urban management strategies in concert with local government would greatly improve the capacity of local government to provide essential services at a cost the community can afford.

12.15 Biodiversity

Vanuatu signed the Convention on Biological Diversity and ratified it in 1993. A requirement for the implementation of the CBD was to compile a strategy and associated action plans to manage and conserve Vanuatus biological diversity.

The National Biodiversity Strategy and Action Plan (NBSAP) project (1997 to 1999) was implemented to produce the Vanuatu National Biodiversity Conservation Strategy. During the implementation of the NBSAP a series of activities were carried out throughout Vanuatu. Activities included the collation of existing reports on biodiversity, strategic assessments of selection organisms and ecosystems and an extensive community consultation process to identify community concerns and priorities and to gather information on traditional natural resource management practices.

Six key objectives were determined in the strategy:

- Objective 1 Protection and wise use of biodiversity
- Objective 2 Application of policy, planning and legal mechanisms to enable sustainable management of biodiversity
- Objective 3 Research, assessment and monitoring of biodiversity
- Objective 4 Capacity building for environmental management
- Objective 5 Environmental education, awareness and information sharing
- Objective 6 Participation of local communities in the management of biodiversity.

Within each objective a total of twenty priorities actions were defined and responsible organization identified that would help achieve the objectives. Priorities included:

- Watershed management,
- Management of cultural heritage,
- Biodiversity databank establishment,
- National Scientific Research Council establishment
- Environmental Impact Assessment, and
- Protection of intellectual property rights.

These objectives and priorities will be integrated into the planning and development process through two main avenues, they being the CRP and the implementation of the Environmental Management and Conservation Act. The CRP will provide the policy platform for the introduction of the Act and the implementation of policy reform in associated sectoral areas and the Act itself will guide the development of National Policies and National Plans that will implement the policies. The development of National Plans of implementation will provide the catalyst for a process of change that has already begun with the development of plans for the establishment of the National Scientific Research Council and the implementation of the Tagabe River Catchment Management

Initiative. The implementation of National Policies and Plans will also strengthen the linkages between donor assisted projects and the national planning process to ensure that sector based activities are undertaken within a planning framework that recognizes their value. All to often project implementation occurs in isolation or within a single sector and there is a lack of integration with other associated sectors. The implementation of the UNFCCC has tried to address this issue and has embraced a range of sectors including education and water resources in order to expand its area of influence and impact.

Following the completion of the National Biodiversity Conservation Strategy a series of implementation activities have taken place. In 2001 The United Nations Environment Programme (UNEP) provided funds for activities under Objective 4. A work programme incorporating training needs assessments was carried out in the following thematic areas.

- Scientific,
- Management and use of biodiversity,
- Traditional Knowledge, and
- Institutional and financial systems.

Following from the training needs assessments a nationally initiated review of legislative and administrative requirements for the establishment of the National Scientific Research Council for Vanuatu was undertaken. The review presented a series of recommendations on the establishment of the National Scientific Research Council and provided guidance on legislative requirement to protect biological diversity, safeguard the uncontrolled export of genetic resources and provide data for reporting requirements for regional and international obligations and for National education and development. Control of biological resources will be addressed through the Environmental Management and Conservation Act 2002 under the regulatory powers of the Biodiversity Advisory Council and Environmental Impact Assessment procedures. A Bill to enact the NSRC has been submitted to the Council of Ministers and it is anticipated that it will be passed in 2003 for enactment and implementation.

Environment Australia (EA) provided a database to commence recording of information that will develop into the Environmental Registry, a legislative requirement incorporated in the new Environmental Management and Conservation Act 2002. Community Conservation Areas (CCAs) will be registered in the Environmental Registry provided they conform with yet to be developed establishment guidelines. Information on the biodiversity of each of the CCAs will be incorporated in the Environmental Registry and will build into a database that can be used in future reporting requirements for the CBD and for the development of national strategic planning documents such as National Environment Policies and National Environmental Plans as required by the Environmental Management and Conservation Act 2002.

The release and follow-up implementation of the National Biodiversity Conservation Strategy has triggered a series of initiatives and activities. These initiatives include new environment legislation, environmental data recording capabilities, community based natural resource management initiatives, capacity building assessments, the planned establishment of the NSRC and the recent involvement in watershed management through the establishment of the Tagabe River Catchment Management Initiative (TRCMI), the focus of this Case Study.

12.16 Traditional Knowledge and Cultural Heritage

In Vanuatu, tabu sites play an important role in resource conservation as they typically restrict access and/or use. In the Tagabe River area the Vanuatu Cultural Heritage Site Survey (VCHSS) has identified two cultural sites within WPZ 1 based on Ifiran custom beliefs. One site is close to the head of Tagabe River, and is a *tabu wota* with an associated custom story of a snake coming out of the ground and making its way to the sea, leaving the river behind as its trail. The second site is close to the hill near the Freswota school, where there is a *tabu fowl*. Martha Kaltal of VCHSS has been informed by Ifiran landowners of their wishes to fence off an area 120m in diameter around this second site for conservation purposes. VCHSS still needs to carry out surveys for WPZs 2 and 3. The area of Bellevue and Beverly Hills is not known to have any cultural or historical sites, mainly because the land has long been alienated from indigenous custom landowners. There is, however, a VCHSS site at Bufa, at the limits of WPZ 3, which is claimed by all surrounding villages; Erakor, Ifira, Mele and Pango. Chief Alick Sualo of Rangorangoa has indicated an eagerness to work with VCHSS to record the numerous tabu sites on his custom ground. He mentioned that some of these sites

directly relate to water conservation. The cultural practice of declaring tabu areas is alive and well in Rangorangoa, and residents know to respect tabu areas marked with the *namele* leaf.

The specific cultural aspects of the Tagabe River area present a range of issues that will need to be addressed in the development of any catchment management plan for the area. The cultural diversity of the squatter camp residents and the issue of their residence on land of a different cultural grouping has been identified as constraining usual customary practices. The community consultation process carried out in the compilation of this Case Study appears to be the first time that a coordinated attempt has been made to better understand community based issues pertaining to water resources and their use by various cultural groupings.

Cultural based management issues of the Tagabe River area can be summarized as:

- Diverse cultural groupings in a specific area can compromise the use of specific traditional resource management practices,
- Community consultation processes need to be more extensive to ensure that all cultural groupings are included,
- Traditional land owners need to be included in the consultation process and included in the Tagabe River Catchment Management Initiative Coordinating Committee,

The implications for the inclusion of cultural based issues into the national decision making processes can be summarized as:

- A need to strengthen policy linkages between the Vanuatu Cultural Centre and sector based departments,
- A need to ensure that National decision making processes include cultural components in accordance with CRP Matrix Policy Objectives and Strategies,
- A need to develop policy and legislation that formalizes the incorporation of cultural requirements rather than rely on informal requests or provision of non-binding advice.

12.17 Power and Communications

The Port Vila power supply is managed by UNELCO with an approximate generation capacity of 22 MW using diesel powered generators and a new diesel fired thermal power station. Electricity charges are calculated on a formula that includes the level of local wages, price of fuel, consumer price index and exchange rate. In a survey of five Pacific Island countries Vanuatu had the highest electricity usage tariffs at Vt 32.03 per kilo Watt hour (kWh) (USD 0.22 kWh).

The high cost of electricity is influenced by the cost of imported diesel fuel (approximately 42 per cent of the cost of electricity) and with such a small market there is little scope for competition. A lower power cost would assist economic development through lower business costs however, with diesel fuel costs subject to global market influences, internal mechanisms to lower power costs in the absence of competition may prove difficult to establish.

Vanuatu telecommunications system comprises a land based domestic and analogue mobile phone, a microwave link to some rural areas and an international satellite link. The network has been owned and operated since 1992 by Telecom Vanuatu Limited (TVL), a consortium comprising the Government of Vanuatu, France Telecom and Cable & Wireless. Television coverage is restricted to Efate and provided in English and French with limited programmes in Bislama. TVL has a monopoly on the provision of Internet services and is expensive at Vt 11,000 per month (USD 88) for 40 hours access plus telephone charges at Vt 720 (USD 5.80) per hour. Public access to the Internet is available at least three outlets in Port Vila at a cost of Vt 1500 (USD 12) per hour. TVL provides a free service for schools with electricity and computers. Radio reception is available throughout the islands of Vanuatu and is a means of communication and information dispersion.

The high cost of power and telecommunications is a constraining factor is the dissemination of information throughout Vanuatu. With high Internet connection charges, access to the multitude of environment information that is now available is restricted due to limited available funds at the community level and limited communications budgets within government departments. Some government departments now use the existing 'user-pays' phone card system in order to better manage their communication costs.

The value of the Internet for access to environment information cannot be overstated and lack of access by the community and government will severely constrain access to the best available information. A number of United Nations conventions of which Vanuatu is a member including the United Nations Framework Convention on Climate Change (FCCC) and the Convention on Biodiversity (CBD) have websites that provide up to date information for signatories to the conventions. Limited access to this information will limit the extent that Vanuatu can comply with the requirement of the convention and institute environmental management practices that will improve the sustainable usage of natural resources within the country.

12.18 Summary of the State of the Environment & Development Pressures - Tagabe Catchment

Water resource protection and uses are a key issue in the management of the Tagabe River area as it is the only current water supply for the Port Vila urban area. While current groundwater quality monitoring does not show any indication of contamination, surface water samples taken in the Tagabe River during a low flow period showed high levels of bacterial contamination from surface inflows. As Port Vilas population is rising and squatter camps within the Water Protection Zones are getting larger it is apparent that improved management strategies need to be put in place before the water resource is placed under pressure from increasing population levels.

The presence of squatters in the water catchment area is of serious concern. However, it is apparent that past efforts to better manage the presence of squatters has failed due to political involvement, poor enforcement and probably a lack of understanding of what the potential outcomes of inappropriate urban development in a water resource area are likely to be. There is a clear communication breakdown between government regulating bodies, traditional landowners, private developers and the communities in question. Illegal sub-leases of agricultural land allowing increased population levels in the WPZ are not being addressed along with a range of inappropriate practices that result in surface water and ground water contamination. Linkages between the key stakeholders are non-existent or ignored for a range of reasons including lack of regulatory resources and indifference to the current situation.

The establishment of the TRCMI as Vanuatus first catchment management initiative can be used to stimulate the linkages that will draw key stakeholders together in a manner that respects the roles that individuals and organisations play in the better management of the Tagabe River area.

PART 4 TOWARDS DEVELOPING AN INTEGRATED APPROACH

13.0 Summary: Gaps And Opportunities

In the four main areas of reporting; Governance and Legislation; Institutions, Policy and Administration; Information & Traditional Management; and Integrated Planning - a series of consistent gaps and opportunities have become apparent.

13.1 Governance & Legislation

Since Independence the system of governance in Vanuatu is based on a parliamentary democracy guided by a constitution that provides for universal suffrage entitled to all citizens. Over the past decade political instability has undermined the confidence of the public in the capacity of the elected parliament to represent the public in a fair and equitable manner.

The implementation of the Comprehensive Reform Programme has been expanded to include reforms that encompass the Parliament, judiciary and the legal sector in an effort to improve stability, social equity and sustainability of interventions. It is anticipated that a stable governance system will provide a platform instigated through a top down reform process that will match in concert with public sector reform.

A lack of regulated linkages across governments and between levels of government, and poor differentiation of politics and administrative policy determination, has in the past fostered unstable governance. While the CRP is a good step forward additional efforts are required to ensure technical planning principles and practice are incorporated through legislative means into decision making - rather than the adhoc advisory approach that currently exists at various levels.

The incorporation of the National Council of Chiefs or Malvatumauri in the governance structure provides the opportunity for input into the decision making process of traditional customs as the National Council of Chiefs is linked to the Island Councils providing a conduit for the representation of traditional practices and customs. While this achievement is represented in the CRP, there needs to be corresponding laws, regulations, planning policy and sectoral policy for inclusion of traditional knowledge, custom and practice in decision-making.

13.2 Institutional Development & Policy Administration

Policy development in Vanuatu has from the time of Independence been an ongoing process driven by the need to establish clear Nation priorities and direction. Vanuatu has a strong natural resource base for achieving sustainable human development however, with an economic growth rate that is exceeded by the population growth rate, establishing conditions conducive to attaining national development goals requires a policy framework that capitalizes on available human resource skills and natural resources. Unfortunately, national indicators of social and economic development paint a picture of diminishing returns and social hardship. Policy development has occurred in a number of sectoral areas such as health and education sectors. In other areas such as fisheries and agriculture, which are of high priority, master plans or sector policies to guide their long-term sustainable development are yet to be prepared.

In order to benefit nationally from the use of a countries natural resources it is important to have national environment policies that operate in conjunction with sectoral polices to ensure the sustainable use of resources. This has not been the case and it is only this year that national environment legislation that incorporates the requirement to develop national policies and plans was approved by parliament.

The preparation and implementation of the Comprehensive Reform Programme has provided the strategic framework for the development of coordinated policies at all levels to reform and restructure the economic and social fabric of Vanuatu. The preparation of Rural Economic Development Initiative Plans for each of the Provinces has created a rural based development framework that is waiting to be implemented. It has been recognized that piecemeal changes are not effective and a coordinated approach to reform has been developed. It is in this light that the reform process in concert with the establishment of environment legislation and policy development affords the most positive opportunity that Vanuatu has to steer itself to a more sustainable future. Vanuatu has a number of key legislative and policy tools at the national level for mainstreaming the environment in the push toward sustainable development. Where there are some gaps, like the need to upgrade and link the Physical Planning Act, 1986, there is at least appreciation of the need to establish the linkage and there are plans to include this in due course in the integrative policy roadmap.

What is lacking in many quarters and levels of government is the regulatory mechanism to institute better coordination at the operation end of government. Good Information management and sharing of information also improves sound decision-making, and the Government has plans to address this through the NRIC proposal.

Above all as the roadmap to integrated decision making for sustainable development is progressed there is a need for continued Government will to support the process by accepting reasonable change, separation of politics and policy administration and by providing the necessary human and financial resources to carry out the required tasks.

13.3 Information and Traditional Knowledge

The process of natural resource data capture and dissemination of information within government is highly fractured and does not appear to have a high priority within many departments and agencies as is considered essential for natural resource management processes. Departments that do recognize the importance of data and its need, such as the Ministry of Lands and its respective departments, are constrained by finances for the purchase of appropriate equipment and availability of technically trained local staff.

The impetus for the establishment of a Natural Resource Information Centre within the Ministry of Lands, Survey, Environment, Energy, Minerals and Water Resources stems from the establishment of VANRIS and seeks to build on the outcome of the Land Use Planning Project (LUPP). The proposed

Centre would provide a web based user-friendly system that would be accessible to public and private users and operate on a user pays basis to enhance cost recovery mechanisms.

13.4 Integrated Environmental Planning

Vanuatu has a physical and development planning system in place however its is severely constrained by: a lack of integration with government and municipal agencies; lack of integration with the EMCA, limited financial resources; poor legislative authority (horizontally and vertically) to undertake its mandate; and lack of human resource capacity. Limited capacity of current administrative structures to deliver services that support and progress national policies at the national and provincial level retard the economic development that Vanuatu needs to progress its development agenda.

There are a number of strategic plans in draft form waiting to be approved and implemented such as the Urban Growth Management Strategy. Up till now these frameworks and draft Plans have not had an integrative framework upon which they can be based to ensure coordination and certainty in achieving the desired outcomes. This has somewhat been alleviated by the advent of the EMCA, but will be further improved with the review and linking of the Physical Planning Act, 1986, with the CRP process and the EMCA.

The Urban Growth Management Strategy is a critical plan in the face of an expanding urban population and increasing squatter population. Failure to act will see an ever-increasing decline in urban health, social conditions and natural resources. The Comprehensive Reform Programme has outlined how the development planning process should proceed and has strong elements of traditional environmental practice embedded in its range of solutions to ensure that community has an opportunity to provide input to the decision making process. What is needed to undertake reform is the political stability to proceed with agreed reforms in an unfettered manner. This will allow the civil service the opportunity to undertake its required tasks. Informal feedback from public service officers points to a desire for the public service to be given the opportunity to show how successful the reform process could be if given a stable four year period to implement much needed reforms. The CRP process has been developed with substantial community and business input and represents a collective view of the people of Vanuatu and should be given the opportunity to be tested.

14.0 Specific Findings of the Institutional and Administrative Reviews

The review of existing institutional and administrative systems has highlighted key constraints to the mainstreaming of environment and community based information within the decision making process.

14.1 Land Tenure

As is the case throughout the Pacific the key issue in the management of natural resources and the establishment of pathways to encourage economic growth, is land tenure. Who owns the land, who has access to land and who is responsible for the management of the land are the key questions that guide land management issues in Vanuatu. Customary ownership of land was re-established at independence as sanctioned in the Constitution. A process to record land ownership and multipurpose land leases was established to allow for non-customary uses in particular for urban development and for a range of government requirements to service urban populations.

Land use decisions on customary land are determined by the custom owners with rules often unwritten and subject to interpretation. While the Constitution allowed for the establishment of village and island courts to adjudicate in land disputes, it is apparent that the resolution of land disputes can be difficult to achieve and any activities proposed for implementation on disputed land must lay in abeyance. As a result there are numerous cases for proposed developments held up in land courts waiting on a resolution. This situation also impacts on the agricultural development of land for both large scale grazing or for crop production. In some cases access to land that is suitable for subsistence gardens can be problematic with farmers having to travel many hours in a day to reach and return from viable agricultural areas. Lease arrangements are made between the custom owners and the lessee through a structured leasing process. However, the maximum lease period available in Vanuatu for rural land is 75 years and 50 years for urban land that has not been subject to a lease. If land has been previously leased then only the balance of the unused lease period is available for re-lease. Restrictive lease arrangements are not conducive to attracting investment as prospective developers require long term security in order to justify the capital expense in establishing business infrastructure.

14.2 Physical planning systems

Planning systems currently in place at the National level lack the legislative support that is needed to establish efficient and effective controls over the development control process within urban and rural areas. While the Physical Planning Unit has the capacity to establish Physical Planning Areas and designate planning controls within the PPAs, on-ground management is the responsibility of the Provincial or Municipal planning authorities. The relationship between the National Physical Planning Unit and the Provincial and Municipal Councils currently operates on an advice system with no legislative control over the decision making process.

Provincial and Municipal Planning Offices who control the day to day management of the development process are restricted by the current development approval process which accords power to a Provincial/Municipal Planning Committee. The Planning Committee is made up of elected councilors who are under no legislative requirement to call for technical input or any community comments into the development approval process.

Environmental input is not a mandatory component of the development process however, this situation will change with the implementation of the new Environmental Management and Conservation Act that will require mandatory EIA assessment.

Physical planning decisions are influenced by economic pressures that are placed on Local Government Councils and Municipal Councils to generate revenue to provide services to residents within their local government area. As revenue generation sources are linked to development processes such as building permits, planning permits and business licenses, there is pressure on Planning Committees to approve development proposals in order to increase the generation of revenue. There is an urgent need to review the current user pays system for residents within the urban area to investigate the potential to broaden the income generation base for the Municipal Council and ease the income earning pressure from development related proposals. A property tax based on the value of the land should be investigated as a potential revenue generation source for the council.

In situations where development proposals are assessed without taking into consideration the environment and social costs there is the potential for long-term impacts on the environment and social structures. As there are no legislative controls that guide the building and construction process (The National Building Code is in draft form only) and no building inspection processes, there are no effective means to control the impact of poorly planned or poorly designed and constructed developments.

The longer-term impacts of non-sustainable development are becoming apparent with increasing pollution levels within the Port Vila harbour and lagoon area. There are no regular water quality monitoring procedures in place and water quality sampling is only carried out on an ad hoc basis. From recent studies carried out for the Sanitation Master Plan it is apparent that pollution loads in the harbour and lagoon are increasing from inappropriate sanitation and drainage systems.

There is a need to develop and implement a holistic Integrated Planning Process that draws together the existing Physical Planning Unit, Municipal and Local Government Council Planning Departments in an interactive association with the new Department of Environment and existing Department of Lands. A Planning and Infrastructure Management group would then take on the role of Strategic Planing, Urban and Rural Management and Development Assessment to provide a coordinated approach to the planning and implementation of development and service based infrastructure.

14.3 Environmental Management

The establishment of the Environment Unit in the early 1980s signaled the need to coordinate the effective management of the natural resources of Vanuatu as it has been long recognized that it is the natural resources that directly and in-directly support the people and economy of Vanuatu. The need to develop legislative environmental controls was identified in the second National Development Plan however it has taken until 2003 for the new environment legislation to be drafted

and approved by parliament. The lack of legislation and policy has constrained the ability of the Environment Unit to implement appropriate development and natural resource management controls. However, the Environment Unit was instrumental in the process to develop forest logging controls and the creation of the Vatthe Conservation Area and Erromango Kauri Reserve to protect Vanuatus biodiversity.

The importance of Environmental Impact Assessment has been recognized within Vanuatu however without appropriate legislation the development control agencies only call on the Environment Unit for advice when deemed necessary by provincial and municipal authorities. The construction of inappropriate developments and lack of subsequent environmental monitoring has created significant environmental impacts in particular the water quality of the harbour and lagoon that contain faecal coliform counts above acceptable levels. The operation of the Environment Unit is constrained by lack of funds to implement activities as the current budget is mostly consumed by salary and office operating costs therefore donor funded projects are relied upon to provide funds for the implementation of environment related activities.

Under the new Environmental Management and Conservation Act enacted to address environment issues through the development planning process, Section 28 states that Ministerial approval of a project, proposal or development activity does not dismiss other statutory requirements under other laws of Vanuatu. Thus planning permits for all development activities or projects remain under the sole control of the Port Vila Municipal Council or the SHEFA Local Government Council. This authority by the respective Councils goes largely unchecked as there is no statutory obligation for the Councils to issue planning permits in accordance with EIA and physical planning advice provided by the Environment Department or the Physical Planning Unit.

To ensure an effective development process that incorporates environmental and planning concerns it is recommended that amendments be made to the Local Government Council and Municipalities legislation. The relevant laws should state that when the respective Councils exercise their powers to grant or deny any development activity proposal or project they must take the advice of the EIAs submitted by the Minister responsible for Environment.

14.4 Traditional management within the Tagabe River Area

The situation in the Tagabe River area reflects the complexity of land and custom control of land that is developing in peri-urban Vanuatu and in other urban areas within the Pacific. Increasing migration of the population from rural to urban areas is generating escalating pressure in Port Vila. The existing urban boundary and area of land made available that was negotiated with customary owners is clearly constrained and unable to satisfactorily house an expanding population. As there is no urban growth strategy for Port Vila, planning is carried out on an ad hoc basis and there is little recognition given to the importance of providing land and services for the growing population. It is clear that the current sanitation and drainage system in Port Vila is unable to manage the existing urban area. Any expansion to the urban area that is allowed to occur without proper control and management will increase pollution loads in the harbour and lagoon and lead to increased environmental and health problems and severely restrict the tourist potential of these areas.

As immigrants have arrived in Port Vila without access to the funds necessary to purchase land they have squatted on land within the Tagabe River area on the fringes of Port Vila at the invitation of the custom owners. Custom owners have charged a nominal rent to the squatters but have not provided any essential services such as water, sanitation or waste management. Living conditions are sub-standard, health levels are poor and potential for disease outbreaks is high. As there is little of no access to the Port Vila water supply access to water is from shallow groundwater wells or directly from the Tagabe River.

In rural areas where the squatters have come from, established community structures and traditional controls effectively manage village life. In the squatter camps however, squatters have come from a number of different parts of Vanuatu and have no link to the land they are living on and have no links to their neighbours who are not within their kinship boundaries. As a result the traditional practices that usually support communities are not evident as there are too many competing interests within the community groupings. The community is not functioning as a coherent group and does not have the capacity to effectively negotiate for better conditions with

the landowners or the formal service providers. UNELCO will only provide their services to registered landowners and occupiers and are not able to service the squatter camps. With land rights disputes complicating the water access issue, many homes rely solely on the river for water. Bush toilets are within close proximity to the river due to lack of space and water capacity to construct VIP or flush toilets is insufficient. Traditional practices, therefore, in this context, can be described as an amalgam of common practices and common sense especially with regard to use of water resources and the economic constraints the squatters are existing under. It should be noted that the squatter camps are not temporary and that people have been living in Blacksands since the mid 1980s. That their presence in sub-standard living conditions and failure by the national, provincial and municipal authorities to effectively manage the situation in association with the custom owners reflects on the inability of responsible parties to find a solution to an increasing problem of national importance.

15.0 Frameworks For Implementing Integrated Environmental And Community Planning

15.1 Principles and Objectives

To overcome the deficiencies in the existing environmental planning process in Vanuatu the Environment Unit has embarked on a new direction for environmental planning and management. By establishing the Tagabe River Catchment Management Initiative Coordinating Committee the Environment Unit has recognized that catchment or watershed management has the potential to deliver the environmental management and economic development outcomes that Vanuatu needs to achieve its stated goals. It has been recognized that a catchment management approach establishes the communication and administrative linkages between key stakeholders that are needed to improve management outcomes through a collaborative rather than a regulatory process.

15.2 Catchment Management Initiative

The catchment management process highlights community participation as the cornerstone of the decision making process. In Vanuatu where natural resources are held in customary ownership any management model, if it is to be effective in the long term, has to recognize that local communities are the main beneficiaries and therefore are to be incorporated into the decision making process. While the community management process has long been recognized, an effective model is required to provide the framework for the decision making process.

In the Tagabe River area a unique set of circumstance exist where there is a complex mix of custom land, lease land, urban populations, rural populations, informal squatter camps, government land, national government involvement, provincial government involvement and municipal council involvement. It is clear that many of the issues that are found in Tagabe River area are linked to water resources and land and it is clear that these issues have not been addressed in the past as the Blacksands squatter camp has been in existence for over 20 years and little visible improvements achieved.

The catchment management process creates a forum where the people who live in the catchment are given the opportunity to work together to achieve common goals. The underlying ethic of catchment management is that self-empowered groups take long-term action for their own future. It is important to avoid the mindset that relies on external funds to implement activities. The focus of catchment management is on local communities implementing activities themselves with managed and agreed assistance where required. The focus of catchment management is on fostering a community generated partnership with government and the private sector rather than managing a funding programme as a complex funding programme can create greater demands on accountability, increase complexity and has the potential to put the community offside from the process. The implementation of a community monitoring regime provides an opportunity to bring different custom groups together to carry out practical tasks, consolidate the process of identifying and resolving resource management issues and overcome difficulties associated with the range of different cultural groups.

15.3 Catchment Management Plan

The development of a catchment management plan provides a strategic planning document that guides activities within a designated catchment. The catchment management plan usually contains the following:

• A description of the physical environment, social environment, high priority issues,

- Outlines how a framework can be designed so that key stakeholders can clearly identify their role in the resolution of identified issues,
- Designates activities for implementation in consultation with key stakeholders,
- Outlines how information (scientific, community, management and customary) is collected in the catchment is stored and used for regular updates of the management plan, and
- Outlines how economic development in the catchment is encouraged and supported.

15.4 Community frameworks for economic development

The catchment management process creates a framework to address resource management issues and provides the opportunity to develop community based economic outputs and benefits. The Tagabe River area contains the water resource that supports Port Vila. This issue drives the need to develop a working model for improved resource management otherwise Port Vilas water supply could be placed under increasing threat from pollution by an expanding urban population. An important component of a catchment management plan is the identification of economic development opportunities.

As Tagabe River falls within SHEFA Local Government Council the SHEFA REDI will be instrumental in providing development guidelines for the area. Economic development will need to be in accord with the aims of the water protection zones such as the establishment of an eco-park or reforestation area and could encompass opportunities including woodlots to supply firewood for sale at the markets or similar low impact developments.

15.5 Integrated Environmental Planning and Management Law

The development of the new Environmental Management and Conservation Act has commenced a process that will assist in the improvement of environmental planning outcomes for Vanuatu. The Act makes provision for EIA as an integral component of the development approval process for urban and rural areas. This process will place legislative requirements on Local Government Council and municipal councils to consider and assess environmental and social impacts of development. The introduction of the Act makes requirements to amend and upgrade related legislation from other departments and sectors drawing them into the environmental planning process. The execution of these actions will need to be introduced in a manner that informs all other sectors of their requirements. It has been recognized that an extensive education and awareness campaign for all government departments and local councils be implemented to avoid any unnecessary confusion or difficulty over the introduction of the new Act.

The institution of the new Environmental Management and Conservation Act is recognized as a first step in the progress towards a fully integrative planning and development assessment process to fully suit community development and environmental management. It sets up an initial process that, although limited, enables some mainstreaming of the environment through formal EIA requirements, as well as integrating national and sub-national levels of governance by requiring a referral system.

As the Act has provisions for the development of National Policy and National Plans, the focus of implementation for policy and plans can centre on strategies and structures that support integrated planning. Positives from this action will be strengthened by reviewing the Physical Planning Act or by setting regulations within the new Act that create linkages with the CRP policy and strategy outcomes.

15.6 Linking sector and cross-sectors policy, plans and actions

The Comprehensive Reform Programme has embarked on a forward thinking process of public sector reform that incorporates aspects of environmental management, traditional and customary knowledge into the economic reform and decision-making process.

A series of initiatives and new directions were commenced with the implementation of the CRP. An extensive reform process that would streamline decision-making, promote transparency within government and encourage economic growth was instigated. It was recognized that the private sector should be encouraged to become engaged in a market driven process that would occur within an enabling environment created by a reformed and supportive government. It was recognized that the public service and the political arm of government would need to work in cooperation in order to realize the goals of the CRP.

Initiatives that have been implemented include the creation of the Department of Strategic Management within the Ministry of Comprehensive Reform, with the role of overseeing the CRP process through the coordination of policy at the national level and ensure that all sectoral policy was developed in line with national goals. The process of developing national policy was coordinated by DSM through a National Summit process. At the National Summit decisions were made following input from key stakeholders including the Business Forum and through inputs from strategic planning processes including the REDI and the MDF.

Policy components of the CRP Matrix that incorporate environment and TEM in the decision making process are found in **Appendix 6**. The Prime Ministers Millennium Priorities are also included in this appendix, as with the CRP Matrix components they collectively contribute as the key policy tools for mainstreaming of environment and community involvement in the decision making process.

As outlined in the Matrix the national based CRP consultation process has developed an overarching policy framework that provides for the development of environment within an economic growth framework and promotes the incorporation of community input into the decision making process.

15.7 Instituting participation throughout the development process

The Environmental Management and Conservation Act incorporates EIA within the development process to ensure that all environmental and social impacts are identified and addressed and any impacts are minimized through the implementation of an appropriate management plan. An important component of the EIA process is the establishment of a public participation process that specifies the preparation and publication of a public notice by the development proponent outlining the opportunity for public submissions. Assessment of public submissions is carried out in association with the EIA assessment and the proponent may be required to correct any deficiencies in the EIA or provide additional information. The inclusion of a public submission process within EIA provides an opportunity for broader community input into the decision making process and ensures that the concerns of the community can be presented in a formal manner for review and consideration.

15.8 Integrated Planning & Environmental Information Systems

The establishment of VANRIS has created a database and information storage process that has the potential for expansion into an Environmental Information System that can service the broader needs of the national and municipal physical planning agencies. It has been recognized that there is a need for a National Resource Information Centre to coordinate data and information linkages within Vanuatu. It is clear that there are significant deficiencies and inconsistencies at the sectoral level with regard to information collection, management, dissemination and storage. It has been proposed that the implementation of the SOPAC funded CHARM Project will provide the opportunity to establish the National Resource Information Centre in consultation with relevant government agencies and will build on the established VANRIS system within the Lands Department. By developing a web based interface, development agencies including the provincial and municipal planning officers will have greater access to natural resource information and be able to improve the quality of their decision-making processes. Web based provision of information and the establishment of a single coordinated or "one stop shop" for information will improve community access to information for decision making purposes.

16.0 Multi-Level Capacity Building For Integrated Environmental And Community Planning

16.1 Improving in-country coordination

Of principal importance to Vanuatu is the building of capacity in a manner that supports established programmes and activities identified in Vanuatu as having high priority in the CRP, and for these priorities to be respected by regional and international agencies, organisations and donors.

It is apparent that legislative and administrative mechanisms are under pressure to perform. Demands from the community and from government and non-government agencies are increasing as population pressure on natural resources mount and existing services are stretched due to diminishing public sector staffing levels and constrained access to financial resources. The concept of "do more with less" has never been so apparent. In order to improve efficiency and provide the services that are being called for the National government has instituted the CRP to revitalize the public sector and in turn stimulate the private sector to generate growth and resultant funds to maintain public services. Legislative and administrative reforms have been planned and some are in place however the pace of reform has been slow and tangible benefits are not readily apparent to the broader community.

Extensive capacity building is required at the national and provincial level to create and strengthen administrative and legislative measures that will see the incorporation of environment and traditional practices into the decision making process.

16.2 National Government

The implementation of a long and involved process culminated in the passing of the Environmental Management and Conservation Act in March 2003. The passing of the Act now sets in motion a chain of events that will see the implementation of the Act. Principal activities of the Act will be (1) the establishment of the Department of Environment to administer the implementation of the Act, (2) set a timetable for establishing administrative structures that are required for EIA, (3) policy development, (4) establishment of the Biodiversity Advisory Council and (5) determine a process to guide the establishment of Community Conservation Areas. It is critical that capacity building support is provided in these areas as the new Act has become the driving force in the management of natural resources in Vanuatu as has the role of integrating environment issues within the decision making process as outlined in the Comprehensive Reform Programme.

The Physical Planning Unit is currently understaffed and under resourced to train local authority counterparts and needs capacity building and institutional strengthening. The Physical Planning Act requires reviewing to allow for the creation of an Integrated Planning Process that will assist in the coordination of planning and management tasks for the urban and rural area. Existing planning tools such as VANRIS need to be updated, together with the development and maintenance of a central Government information system.

16.3 Provincial/Municipal Government

The implementation of EIA procedures will place additional responsibility on provincial and municipal planning agencies to upgrade their development approval processes. This is particularly important in the Port Vila and SHEFA areas as these areas are the current focus of development and are under increasing environmental pressure from an increasing population. It is clear that there is a need to develop the capacity and awareness of the Provincial and Municipal Planning agencies to undertake EIA assessment processes and to ensure that the development approval process within local government areas responds to the challenge to separate the political process from the administrative process for all development and assessment processes.

PART 5 CONCLUSIONS AND RECOMMENDED OPTIONS

17.0 Conclusions And Recommendations

For the mainstreaming of environment and traditional knowledge into the decision making process to occur there needs to be an acknowledgement and understanding by government and the community on a series of key principles of community and sustainable development, they being:

• the conservation of natural resources is important to the future of all citizens,

- customary or traditional practices have a role to play in the management of rural and urban life,
- a stable political situation is beneficial to the future of the country,
- a clear and concise policy platform is required to guide government actions,
- the public sector needs to deliver on its core functions, and
- communities should be offered opportunities to make a positive and effective contribution to the decision making process.

Vanuatu has long recognized the need for community involvement in the management of locally owned natural resources. It is anticipated that the development of the Tagabe River Catchment Management Plan will provide a model that can be used as an alternative approach for more effective community facilitation and management of environment and development issues.

This Case Study shows that the natural resource base exhibits substantial biodiversity, has areas of fertile soil, forest resources, diverse land forms and productive coastal fisheries that have the potential to support agriculture, forestry, fisheries and tourism. That is - provided the appropriate management strategies and policies are in place to deliver sustainable outcomes. While it is understood that the natural resources support a rich cultural heritage and the fabric of life in Vanuatu, it is becoming more apparent that changes to Ni-Vanuatu lifestyles are having a deleterious effect on the environment and social qualities previously enjoyed. It is fortunate that these changes have been recognized by the government and a series of wide ranging policy and legislative changes are currently being implemented to address many of the identifies issues.

Provided below are a series of summary statements on capacity requirements and recommended options to improve enabling environments for sustainable development.

The Tagabe River Catchment Management Initiative Coordination Committee in reviewing these options with the Case Study team, have developed a number of potential project outlines. These are contained in **Appendix 2**.

17.1 Legislative Frameworks

The operation of the Environment Unit within Vanuatu has been constrained by its lack of status within government and by not having the legislative power to introduce environmental management and control activities related to development. While Vanuatu is a signatory to a range of environment focussed international conventions and treaties, there is little integration of convention requirements into national legislation and the provision of environment based information operates on a mutual advice process with government agencies and provincial and municipal offices. The management of water resources has been constrained by a lack of specific legislation to protect existing water resources and the use of water leading to disputes over water rights and the potential for water harvesting that disrupts water access to traditional users.

The introduction of the Environmental Management and Conservation Act in 2003 will provide the legislative power to control in a more structured way the development approval process. The legislation will establish an EIA process that will require all developments be assessed for their environmental and social impacts. The legislation will provide for public, community and traditional leader involvement in the development assessment process and will give the community a formal opportunity to contribute their views and knowledge to the implementation of development activities. The introduction of the Water Resources Management Act provides the legislative power to manage, conserve and control water use. The Act provides for the establishment of Local Water Management Committees to ensure that landowners are involved in the supply and management of water resources.

Community and traditional knowledge inclusion in decision making through the Environmental Management and Conservation Act, at this stage will be limited to project based development assessment where EIA is required. While recognizing this as an important achievement in the first instance, the objective in the longer term is to open up conduits for earlier intervention in the development assessment process. The new Act does allow the generation of policy and guidelines for instituting provisions. Development of these policies and guidelines could involve the wider community and traditional leaders, ensuring administrative platforms that respect traditional and community values and aspirations. In the longer term such ambitions should be instituted within a

legal platform, to ensure that community and traditional input into integrated decision-making is part of the process, and not a derivative of particular products of that process.

Recommended Options

- Build capacity in the Environment Department to implement the Environmental Management and Conservation Act specifically in the areas of EIA and policy development, inclusive of community participation and partnering mechanisms;
- (2) Build capacity to provide education and awareness programmes on the function of the new Act for government agencies and the general public;
- (3) Create linkages that encourage the interaction of community with environmental management agencies;
- (4) Strengthen the regulatory relationship between the National and Provincial/Municipal Planning Offices;
- (5) Provide for community involvement in the development assessment process;
- (6) Support the implementation of the Water Resources Management Act and the Environmental Management and Conservation Act.

17.2 Institutional and Administrative Capacity Development: Supporting Policy

It is clear from the review of available documentation and through discussions with public and private sector practitioners that the decision making process within Vanuatu had numerous deficiencies and that input into the process occurred on an ad hoc basis, without conforming to nationally agreed policies. In many cases policy direction is not provided or is indistinct in its focus. Decisions on sectoral direction and implementation of activities are being made without a clear understanding of long-term goals or objectives. In many cases, sectoral directions are determined by external assistance providers, albeit with good intention, but without a national focus. Where the process was driven by external influences, input into the decision making process was limited to a small number of people and tended to result in a "top down" decision making process.

The incorporation of multi sectoral inputs is limited and community input could be described as negligible, with limited exposure through non-government organizations. The Environment Unit had no policy platform or legislation to operate from and only recently relied on the development of its Corporate Plan to guide its functions and operations. Environment activities were focused on implementing externally funded project activities and to a lesser degree assisting other government departments, provincial and municipal agencies in developing environment strategies and providing community based environment advice.

The government has embarked on the Comprehensive Reform Programme to institute change within the public sector to improve the delivery of services and to ensure that government departments and agencies focus on their core functions. To guide the policy process a Matrix has been prepared by the Department of Strategic Management that collates input from national and provincial government departments, the private sector through the Business Forum and the community through the REDI process. This information is channeled to government via the National Summit that reviews and updates the policy process to ensure that policy development is proceeding according an agreed timeframe. Part D of the Matrix: Promoting Economic Growth, sets the policy framework that guides the activities and direction of the Environment Unit. The policy strategy for environmental activity includes the implementation of legislation and the generation of detailed policy to manage protected areas, undertake community consultation and implement environment awareness activities to strengthen traditional environmental practices.

Strengthening policy with links to administrative processes should strive to open up conduits for community appraisal and injection of traditional environmental management and knowledge to each level of governance/decision-making. Where NGO ability is limited, wider community and traditional input to decision making provides the checks and balances often required in complex decision-making. Communities often have a broader knowledge and experience base than a sectoral department or external specialist - especially in being able to identify the implications of planned implementation mechanisms. So early involvement in the development process will often lead to more efficient and effective decision-making.

Recommended Options

- (7) Develop National Policies and National Plans to guide the implementation of activities for the Environment Department in areas that support the implementation of the Environmental Management and Conservation Act;
- (8) Assist national, provincial and municipal departments and agencies develop policies that incorporate environmental and community based inputs, especially opening up conduits for community and traditional knowledge inputs to all levels of decision-making;
- (9) Create linkages that encourage the interaction of community with environmental and resource management agencies;
- (10)Ensure involvement of technical staff in provincial and municipal Physical Planning Committees through regulatory requirements;
- (11)Assist in the establishment of a National Resource Information Centre that incorporates a users pays system;
- (12)Support the operation of the Tagabe River Catchment Management Initiative, the preparation of the Tagabe River Catchment Management Plan and the implementation of activities;

17.3 Natural and Economic Resource Data and Information

The gathering, storage and utilization of natural resource data and information in Vanuatu appears fragmented, poorly funded and limited by a lack of awareness amongst agencies as to the importance of reliable data and information in the decision making process.

There is an immediate need for the establishment of a National Resource Information Centre that builds on the VANRIS system established during the Land Use Planning Project. The Centre would act as a storage and clearinghouse for all natural and human resource information and data. The establishment of the Centre should improve compilation and coordination of data, managed

under a set of agreed protocols and policies that provide data security and access, aiming for a onestop-shop point for government and community.

The establishment of the Centre is proposed to commence under some funding from a forthcoming SOPAC project and will build on the existing VANRIS system. It is of critical importance that a programme of technical training, capacity building and awareness is factored into the establishment and on-going operation of the Centre to ensure that the Centre remains a viable operation and self funded on a longer-term basis.

Currently there are limited linkages between national government departments, municipal and provincial governments for coordinated aggregation and use of data. There appears to be a culture of not sharing information between departments and agencies that is hampering the widespread use of information and resulting in decisions on resource use being made with limited, inaccurate or out-dated information.

Recommended Options

- (13) Assist in the establishment of a National Resource Information Centre;
- (14)Prepare user pays guidelines for data and information that encourages cost recovery and provides for on-going operational costs;
- (15)Provide awareness raising opportunities to encourage public access to natural resource information and data;
- (16)Provide awareness raising opportunities to encourage information exchange and the benefits of information exchange;
- (17)Provide awareness raising opportunities to encourage public access to natural resource information and data.

17.4 Traditional Management

Vanuatu has a strong custom process that is linked to the national process through the Malvatumauri Council of Chiefs (the Malvatumauri) and the District Council of Chiefs. The leasing of land, which is of critical importance to economic development in Vanuatu, is subject to negotiation with custom owners and the inefficient management of the leasing process has become a constraint to development. It has been noted that an expression of interest in a development proposal on land held in customary ownership can result in multiple claims and counter claims by groups expressing customary ownership. Long delays in determining customary ownership is proving to be a major constraint to economic development. It has been stated that only half of the 41 per cent of total land that is recognized as having agricultural potential is being utilized and that there is significant potential for large-scale commercial agriculture if land could be made available. It is anticipated that the establishment of the Land Tribunal Act of 2001 and the establishment of the Customary Land Tribunal will establish a more effective system to resolve customary land ownership disputes.

The Vanuatu Cultural Centre is involved in the collection and storage of aspects related to the cultural importance of Vanuatu. VCC has an extensive collection of physical artifacts and has been carrying out research and recording of traditional practices in both visual, text and audio formats. Through the Cultural Council the VCC manages and administers internal and external research of customary life in Vanuatu. While the VCC has an extensive database of information there are no specific policy or administrative pathways that utilize the information resources of the VCC. It is acknowledged and accepted that the owners of the traditional knowledge have the right to ensure that access to traditional knowledge is restricted to authorized users however, there is information available that could be used more readily within the decision making process.

Recommended Options

- (18)Strengthen the policy linkages between the Vanuatu Cultural Centre and sector based departments;
- (19)Ensure that the National decision making processes include cultural components in accordance with CRP Matrix Policy Objectives and Strategies;
- (20)Instill community consultation in all development processes and ensure they are extensive enough to include all cultural groupings;
- (21)Ensure traditional land owners are included in the consultation process for all development assessment processes;
- (22)Ensure traditional land owners are included in the Tagabe River Catchment Management Initiative Coordinating Committee;
- (23)Use the Tagabe River Catchment Management Initiative as a model to bring diverse cultural groupings in squatter areas together to maximize the use of traditional resource management practices.

17.5 National Economic Planning Practice

The strategic planning process was managed by the former National Planning Office with the mandate to prepare sectoral-based strategic and economic plans. The planning process was a structured "top down" approach with limited input from rural communities. The planning office coordinated the preparation of sectoral strategies and assessed sectoral development proposals and acted as the lead agency in coordinating the aid development process.

Sector analysts assess development proposals to ensure their conformity with national plans and policies, however the environmental and social impact review process undertaken by sector analysts is unstructured and requires improvement. Sector analysts assume that environmental and social aspects of development proposals are addressed at the sectoral level in association with the Environment Unit. If a development proposal is presented to the sector analyst the only trigger used to assess its potential environmental impact is the size of the project or the cost with only large proposals passed to the Environment Unit for additional assessment. If a proposal is developed at the sectoral level without environment assessment then is submitted to the planning office for review, it can obtain approval without undergoing any environment assessment process. By only assessing proposals on a size and cost factor is apparent that proposals of a smaller nature that exhibit potential cumulative environmental and social impacts could be implemented without proper assessment.

The current process is subject to sectoral appraisal of development implications often clouded by professional bias of the sector 'developer' or specialist. When a sector based proposal reaches the Economic Planners it again is subject to unregulated assessments reliant on individual analysts. There are no guidelines to ensure cohesion in assessment and no checks and balance mechanisms to review the decisions of the analysts. Cumulative implications of various development forms are not considered, nor are the fact that small developments could have huge environmental implications. Creating through legislative, administrative or policy direction, conduits for community and traditional review of proposals and reviews of decision-making - is a useful way to negate biases in development assessment. It creates an environment where 'best practice' ideals can instigated and

improved over time, and also a better understanding by the community of the complexities of development decision-making in light of national goals.

Under the CRP the National Planning Office has been changed to the Department of Economic and Social Development (DESD) and its focus has been realigned to a more economic assessment basis. The significant planning role undertaken by DESD is the development of the Medium-term Development Framework (MDF) a two to three year planning strategy that replaces the five year National Development Plans. The MDF is prepared through a collaborative process and incorporates inputs from the private sector and from the community through the outputs of the Rural Economic Development Initiative (REDI). Development proposals that are generated in the rural areas under the REDI process now are subject to environmental assessment by the Provincial Technical Assessment Group (TAG) after initial assessment by the REDI Planning Unit at the National government level.

Recommended Options

- (24)DESD would benefit from capacity building in the assessment of environmental and social impacts of development proposals, and the instituting of mechanisms to allow community/traditional knowledge inputs to decisions and review processes;
- (25)Sectoral based officers would benefit from capacity building in the wider assessment of environmental and social impacts of development proposals;
- (26)Guidelines and criteria should be set to ensure that sector analysts have a common understanding of determining what, when and why an environmental, social and economic assessment is required.

17.6 Integrated Environmental Planning: Linking the Physical Planning Act and Environmental Management and Conservation Act

At the national level, physical planning is carried out by the Physical Planning Unit. Its role is to develop strategic plans for designated Physical Planning Areas (PPAs) and to provide advice to provincial and municipal planners on specific planning matters. Currently there are only PPAs for Port Vila and Luganville and the Physical Planning Unit is in the process of developing PPAs for more of the provincial centres.

At the provincial and municipal level, planning is carried out by in-house Planning Departments who assess development applications and administer the development process. Physical Planning Committees who give final approval on development proposals are made up of councilors and no formal technical input is provided under current Committee regulatory guidelines. Environmental and social assessments are called for on a discretionary basis by the Physical Planning Committees rather than through a structured assessment process. Once development approval is given there are no regulatory requirements on the developer to conform to the approved development plan. There are no provincial or municipal Building Inspectors to follow up development construction activities and while there is a draft National Building Code, no legislative requirements are currently in force. Development in Port Vila is carried out in the absence of any strategic plan or subject to a rigorous planning process. While a draft Urban Growth Management Strategy has been prepared there are no implementation timeframes in place. A Sanitation Master Plan to improve the sanitation and drainage situation for Port Vila has been prepared however no timeframe for its implementation is in place. Without a strategic planning process to guide the current and future growth of the Port Vila urban area the current environmental and social problems will continue to worsen leading to increased pollution of the harbour and lagoon and continuing social unease within squatter camps and they grow larger year after year.

It is apparent that basic physical planning administrative processes are in place at the provincial and municipal level and that a complete restructuring of the process at this level is not an urgent matter. However, their effectiveness is limited by the lack of an integrated strategic managing structure, a lack of technical input to the approval process, a lack of legislative control by national planning bodies and a lack of administrative linkages between local development assessment agencies and relevant government departments. The problem is exacerbated by lack of useful information and information systems to assist decision-making.

The introduction of the Environmental Management and Conservation Act provides the legislative means to ensure that all development proposals are assessed for their environmental and social

impacts. The introduction of the REDI process will involve Local Government Council Planning Officers in the development approval process and will raise the profile of environmental planning issues in the rural areas. Strengthening existing planning structures and processes through the incorporation of an integrated strategic planning process would provide considerable headway in achieving beneficial planning outcomes. This should be done through linking the new Environmental Management and Conservation Act and the Physical Planning Act in the first instance with the view to developing a totally integrated body of law in the longer term. Community participation and input mechanisms for traditional environmental knowledge at the local provincial and municipal decision making level should be a short term objective. This would ensure more objective decision making, especially within an environment where mechanisms for technical inputs are missing.

Recommended Options

- (27)Strengthen the regulatory relationship between the national and provincial/municipal Planning and Environment Offices through the development of an Integrated Strategic Planning structure (Policy guidelines in lieu of integrative legislative platform in the short-medium term), which particularly caters for inputs of community & traditional knowledge at all levels of decision making;
- (28)Provide a road map for the development of an integrated / strategic physical & economic planning process for the longer term, which in time aims to produce an integrative legislative framework, institutional linkages and administrative process involving community partnerships;
- (29)Implement the Urban Growth Management Strategy either through the provisions of the EMCA or the reviewed Physical Planning Act;
- (30)Implement the Sanitation Master Plan either through the provisions of the EMCA or the reviewed Physical Planning Act;
- (31)Provide capacity building support at the provincial and municipal level for the assessment of environmental and social impacts;
- (32)Provide regulatory involvement of technical staff in provincial and municipal Physical Planning Committees or the like;
- (33)Provide for community involvement in the development assessment process.

17.7 Tagabe River Catchment Area

The Tagabe River area has been recognized as an area of high priority due to the presence of important water resources and the increasing threat that the water resources are facing from the expansion of formal urban settlement and the expansion of informal squatter camps. As the formal urban areas come under increasing pressure from an expanding population there is greater pressure to expand the urban boundary to accommodate the increase. One option for growth identified in the draft Urban Growth Management Strategy was in the Tagabe River area however, expansion in this direction may be constrained by landowners not releasing customary land for urban use, the presence of high quality agricultural land on the river plain and the potential for flooding from cyclone events. The presence of squatter camps on and adjacent to the water extraction areas and the Tagabe River is increasing the risk of contamination of the river and the groundwater from poor sanitation and waste disposal practices. The situation is constrained by the current land lease and tenure system and the practices of existing custom landowners who are sanctioning the squatter camps however, not providing much needed services to better manage their presence. While negotiations between land owner and responsible government authorities are ongoing the fact that the squatter camps have been in existence for over 20 years points to governments inability or lack of desire to effectively manage the situation.

A new initiative developed by the Environment Unit to more effectively manage the Tagabe River area has been developed. The Tagabe River Catchment Management Initiative was formed recently by a group consisting of government department, relevant agencies and local stakeholders involved in land and resource management. It was considered that a catchment or watershed approach would be trialed in order to develop a more effective model for resource use planning and land management in Vanuatu. It is recognized that community management of natural resources is the most effective and long term model for Vanuatu and the catchment approach was considered as it establishes the ethic that communities in partnership with government and the private sector can work together to more effectively manage natural resources. The catchment management approach establishes the linkages between community and government that encourages the exchange of information, traditional knowledge and strengthens the decision making process as all stakeholders are included in the decision-making process.

The aim of the Government of Vanuatu and the community should be to, over time, institute successful processes and products derived from the Tagabe River Catchment Management Initiative within an integrated environmental planning system. This will not be easy, even in the event that a successful community engagement process is established and a Catchment Management Plan is formulated that successfully covers both the ambitions and objectives of government, community, industry and community leaders.

Recommended Options

- (34)Support the operation of the Tagabe River Catchment Management Initiative;
- (35)Support the preparation of the Tagabe River Catchment Management Plan and the implementation of activities;
- (36)Port Vila Municipal Council, SHEFA Local Government Council and DESD would benefit from capacity building (training in assessment techniques, decision support tools, plus the production of minimum standards and criteria) in the assessment of environmental and social impacts of development proposals;
- (37)From lessons learnt in the Case Study and generation of the Catchment Management Plan, reinforce a road-map for the development of an integrated environmental planning system, incorporating the integrated strategic planning structure mentioned above. This should provide the foundation for similar community development initiatives and steerage toward a holistic system and framework for integrated decision-making.

PART 6 APPENDICES

Appendix 1: References

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Appendix 2: Project Outlines - Tagabe Catchment and National Capacity Development

The preparation of the Case Study highlighted the need for the implementation of a series of focused project interventions to address issues of mainstreaming information and to further the progress of environmental management initiatives that have been commenced in Vanuatu. The Study Team developed the following series of proposed project outlines to assist the Government of Vanuatu planning bodies and the donor community in determining action areas of high priority.

Project 1: Tagabe River Catchment Management Strategy

The Tagabe River Catchment Management Initiative Coordinating Committee (TRCMICC) has developed an outline strategy for the management of the Tagabe River Catchment. The outline strategy or "road map" comprises three phases of activity:

- Phase 1 Information gathering,
- Phase 2 Consultations, and
- Phase 3 Implementation.

Phase 1 is currently being implemented through actions determined by TRCMICC. An initial outline for action will be presented to community groups to obtain feedback and to then develop and implement a Catchment Management Plan within the overarching Tagabe River Catchment Management Strategy being developed by TRCMICC.

Objective

The focus of the proposed project is the preparation and implementation of the Tagabe River Catchment Management Plan.

Overview

It is recognized in Vanuatu that community management of natural resources is the most effective management method. Community management combines the knowledge and skills of local people with the technical expertise of relevant government department in a format that recognizes and values the contribution to of all stakeholders.

The formation of TRCMICC was the result of community concerns over water access and use and an understanding by government that the future management of the water extraction zone for the Port Vila water supply was of high priority. TRCMICC took an innovative approach for Vanuatu and formulated a management group that based its management area on a watershed or water catchment zone. The intention of TRCMICC is to establish the Tagabe River Catchment Management Initiative as a potential model for future management plans within all areas of Vanuatu. It is intended that a series of CMIs can be established as a network, in a complimentary manner with Community Conservation Areas, to provide a diversity of management structures in order to better manage the range of natural resources types that exist in Vanuatu.

Phase 1 of the project is currently being implemented and consists of the following activities:

- Review of existing technical reports relevant to the Tagabe River area (including the newly passed Water Resources Act),
- Proposed identification and location of Water Protection Zones,
- Identification of current registered land titles, leases, lessees, and types of leases within the Tagabe River catchment,
- Review of current legal and administrative mechanisms,
- Identification of the island groupings, key community individuals and traditional leaders within the Tagabe River area,
- Review of existing information and data sets that cover the Tagabe River area that are held in government and non-government organizations.

Phase 2 involves the undertaking of a series of consultations with key stakeholders in the community and private sectors in order to present them with initial findings of Phase 1 and to establish a consultation process that will facilitate the preparation of the management plan.

Outputs

The focus of the project proposal is to build on the outcomes of Phase 1 and Phase 2, prepare the management plan and continue with the implementation of activities.

The Tagabe River Catchment Management Plan would be prepared under the auspices of the TRCMICC by a technical expert over a 12-month period. The management plan would document the resources within the catchment, identify and describe environmental social and administrative issues within the catchment and provide a series of management activities to be put in place to address identified issues.

The establishment of the WPZ would commence and a suitable area for the establishment of a multi-use botanical/eco park instigated by a technical expert in forestry or recreational/multi-use park design. The concept of the botanical/eco park is to establish a multi-use area within the WPZ that would include activities to protect the water resource, reforest degraded riverbanks and generate income through the input of local communities through a variety of opportunities including wood-lot forestry and eco-tourism.

Outcomes

- The establishment of the first community based managed area in Vanuatu based on a catchment or watershed,
- The establishment of a multi-stakeholder management group,
- The establishment of a resource management model for use by other catchments within Vanuatu and other Pacific island countries.

Project 2: Community Based Environmental Monitoring Project

Objective

It is recognized in Vanuatu that community management of natural resources reflects the understanding that local communities are best placed to manage the resources that sustain them. The establishment of the Vathe Conservation Area in Vanuatu, a community managed resource conservation area, has identified the need for greater community involvement in the ongoing and long term monitoring of natural resources and their use.

Overview

Within the Tagabe River catchment the establishment of a community based environmental monitoring group is proposed. The monitoring project would be designed by a technical expert under the auspices of the TRCMICC and would focus on establishing an ongoing and long term monitoring regime to monitor a range of environmental and social parameters within the catchment.

Outputs

The role of the community-monitoring group would be to establish baseline data sets on the current environmental quality of the catchment. This would initially be focused on low technology skills including stocktakes and assessments of water quality through the use of simple physical and visual parameters. Training for interested communities and relevant equipment would be phased in as the monitoring programme developed. Baseline data sets would then be complemented by ongoing monitoring to assess the effectiveness of the Catchment Management Plan and information collected through the monitoring programme would be used to refine activities implemented under the plan.

It is anticipated that local school groups would be strongly encouraged to participate in the process under a scheme similar to Riverwatch and similar community based programmes established in other countries.

Outcomes

- Establishment of monitoring activities for environmental and social parameters,
- Improvement of the quality of the natural and social environment,
- Strengthening of communities within the Tagabe catchment area,
- Involvement of school groups in environment based activities,

• Establishment of community monitoring projects in other areas of Vanuatu and the Pacific.

Project 3: Implementation of the Environmental Management and Conservation Act

Objective

Parliamentary approval of the Environmental Management and Conservation Act and its entry into force on 10 March 2003 signals a new chapter in the planning and management of natural resources in Vanuatu. It has long been recognized that the management of natural resources through improved planning and development assessment techniques was long overdue and the new Act was drafted and reviewed to address identified deficiencies in the existing process. The objective of the project is to provide targeted assistance to support the implementation of aspects of the Act requiring specialist input and concentrates on Environmental Impact Assessment (EIA) and Community Conservation Areas (CCAs), in the first instance.

Overview

The format of the Act was based on a framework concept that provided the essential components of legislation without a high level of detail. The next stage of the process is to develop the details in the form of procedures and regulations to support the implementation of the Act. As well as the preparation of regulations and supporting policies and procedures it is important to ensure that all interested and associated parties are informed of the Act and are aware of the implications of the Act and how it may affect the undertaking of current duties in the planning and management of natural resources.

Outputs

Environmental Impact Assessment

- Technical expertise is required for the drafting of regulations, policies and procedures relating to the implementation of EIA activities,
- An extensive education and awareness campaign is required to inform government departments, private sector developers, Port Vila Municipal Council and SHEFA Local Government Council on the implications and requirements arising from the implementation of the Act,
- Broad-based training in EIA scoping, generation and use of criteria and minimum standards is required for all relevant government departments and development control agencies,
- Environment and Sustainable Development performance based guidelines are needed to assist with early intervention in the development assessment process, and to provide a clear path for investors of the planning process required,
- Specific guidelines and policy for holistic community participation in development assessment processes is needed.

Community Conservation Areas

- Technical expertise is required for the drafting of regulations, policies and procedures relating to the establishment of Community Conservation Areas,
- The preparation of guidelines for communities that are proposing the establishment of a Community Conservation Area,
- An extensive education and awareness campaign is required to inform communities of the benefits that can be obtained from the establishment of CCAs.

Outcomes

- Government, private sector, community and development control authorities are aware of the requirements of EIA legislation and how it will impact on all areas of planning and management,
- All associated legislation is amended to conform with requirements of the new Act,
- EIA legislation is implemented in a more coordinated manner within Vanuatu,
- Communities and traditional leaders are able to input to EIA and development assessment processes.
- Community Conservation Areas are created covering a range of environment in Vanuatu,
- Communities support the introductions of CCAs on their lands.

Project 4: Mainstreaming Natural Resource Management Information

Objective

The mainstreaming of environment within the decision making process requires an effective information management system be established. The Vanuatu Land Use Planning Project (LUPO) established the framework from which additional information based activities require implementation. The objective is to create an efficient information storage process within relevant government departments and establish linkages to a National Resource Information Centre (NRIC). The NRIC would act as a storage and clearinghouse for natural resource data accessible by government and community.

Overview

From information assessment activities carried out in the Phase 1 study by TRCMICC it was clear that some government departments did not have an organized data and information management system in place. Data was stored in a range of formats and in varying states of security and there was little conformity in software and hardware specifications. It was apparent that information-sharing protocols were lacking and there was little understanding what types of data sets were available for government or community use. Where training in information storage was provided it was carried out in an ad hoc manner and with little understanding of stakeholders needs and requirements.

Outputs

- An assessment of departmental capacity in the collection and storage of natural resource data and information,
- The establishment of the NRIC a centralized database for the collection of reports, spatial and temporal natural resource data, VANRIS outputs and other relevant information.
- Avenues created for the enhancement of spatial and textual databases from community and traditional knowledge systems
- Training in information collection, security and storage.

Outcomes

- Natural resource information is readily available for use by government department and community,
- A core users group is trained in information collection, storage and dispersal pathways.
- Information and its use for decision making having wider community acceptance.

Pipeline Project

The Committee, advisers and contributors for this case study were aware of the benefits in the longer term of a holistic integrated environmental planning platform to help with mainstreaming the environment in development processes. As indicated in key recommendations outlined in section 17.6 of the main document there is an identified need to link the Physical Planning Act with the Environmental Management and Conservation Act to set this integration in train. The short-term benefits of such integration are seen as better coordination of economic development with environmental objectives, community participation and input mechanisms for traditional environmental knowledge - at the local provincial and municipal decision-making level.

The projects outlined above were seen as vital in the short to medium term under existing decisionmaking frameworks to build confidence within and external to government of the directions toward sustainable development enabling environments. The Tagabe River Catchment Management Initiative Coordinating Committee (TRCMICC), sees the work on integrating the two Acts as a medium to longer term initiative, that should be progressed after lessons are learnt from the above projects giving the community more time to experience the shocks and benefits' of changes to how natural resource planning and development management occurs in Vanuatu.

Despite the above it is accepted that there would be advantages in commencing research, project and inception design for such an initiative. The work to this end, could be undertaken in stages,

taking on board lessons learnt from the inception and instigation of the above projects. The early stages should strive to:

- (1) Strengthen the regulatory relationship between the national and provincial/municipal Planning and Environment offices through the development of an Integrated Strategic Planning structure (Policy guidelines in lieu of integrative legislative platform in the shortmedium term), which particularly caters for inputs of community & traditional knowledge at all levels of decision making;
- (2) Provide a road map for the development of an integrated / strategic physical & economic planning process for the longer term, which aims in time to produce integrative legislative frameworks, institutional linkages and administrative processes -predicated on community partnerships.

Appendix 3: Summary of Provisions from Key Sustainable Development International Agreements

Agenda 21

In 1992, at the United Nations Conference on Environment and Development, the world community adopted Agenda 21. The Rio Declaration and Agenda 21 state the need for strategic environmental planning (Chapters 8 and 10) while Chapter 23 recognizes that one of the fundamental prerequisites for the achievement of sustainable development is "broad public participation in decision making. This includes the need of individuals, groups and organizations to know about and participate in decisions which affect the communities in which they live and work". Agenda 21 encourages the strengthening of institutional arrangements and administrative capacity in order to integrate environment and economic policy into national planning processes.

Barbados Programme of Action

The Barbados Programme Of Action (BPOA) for the sustainable development of Small Island Developing States (SIDS) presents a basis for action in 14 agreed priority areas and defines a number of actions and policies related to "*environmental and development planning*" (BPOA, Preamble, 1994) that should be undertaken by SIDS with the cooperation and assistance of the international community.

Of relevance to this Case Study are actions and policies related to planning and integration and include:

- Document and apply, as a basis for integrated catchment management and decision-making, traditional knowledge and management practices that are ecologically sound and include the participation of local communities,
- Develop and improve national databases and the dissemination of information to relevant groups, especially local communities, youth and women, for land-use planning and management, including economic and environmental value of land resources, along with appropriate decision-making tools, such as Geographic Information Systems (GIS),
- Increase attention to national physical planning in both urban and rural environments, focusing on training to strengthen physical planning offices, including the use of environmental impact assessments and other decision-making tools,
- Adopt integrated planning and policies to ensure sustainable tourism development, with particular attention to land-use planning and coastal zone management, requiring environmental impact assessments for all tourism projects; the continuous monitoring of the environmental impact of all tourism activities; and the development of guidelines and standards for design and construction taking into account energy and water consumption, the generation and disposal of wastes and land degradation, the proper management and protection of eco-tourism attractions,
- Develop appropriate national, provincial and local environmental regulations that reflect the needs and incorporate the principles of sustainability, including specific legislation for appropriate environmental impact assessment for both public and private sector development.
- Increase the awareness and involvement of non-governmental organizations, local communities and other major groups in public education, national planning and the implementation of sustainable development programmes,
- Incorporate population issues into the mainstream of decision-making and planning mechanisms of government, including developing comprehensive population policies consistent with sustainable development objectives while respecting and promoting the dignity and the fundamental rights of the human person and of the family,
- Environment and development strategies will also need to be integrated at the outset of decision-making processes so as to ensure that macroeconomic policies are supportive of national sustainable development goals and priorities.
- Appropriate national measures for institutional development should be adopted to integrate environmental, population and development strategies in national and sectoral development planning in order to achieve sustainable development.
- Efforts should be made to increase the awareness and involvement of non-governmental organizations, women, local communities and other major groups in national planning, the development of environmentally sound and sustainable technologies, and the

implementation of sustainable development programmes. They should include establishing or strengthening networks for the dissemination of information to assist effective participation in the planning and implementation of sustainable development activities.

World Summit on Sustainable Development

The World Summit on Sustainable Development (WSD) agreed in the Johannesburg Plan of Implementation (PoI) to encourage and implement the following actions and policies.

(A) Integrated Community Development and Planning

- Develop national programmes for sustainable development and local and community development to promote the empowerment of people living in poverty and their organizations. These programmes should reflect their priorities and enable them to increase access to productive resources, public services and institutions, in particular land, water, employment opportunities, credit, education and health;
- Develop policies and ways and means to improve access by indigenous people and their communities to economic activities, and increase their employment through, where appropriate, such measures as training, technical assistance and credit facilities.
- Recognize that traditional and direct dependence on renewable resources and ecosystems, including sustainable harvesting, continues to be essential to the cultural, economic and physical well-being of indigenous people and their communities;
- Provide technical and financial assistance for assessing national capacity development needs and opportunities at the individual, institutional and societal levels;
- Promote the integration of the economic, social and environmental dimensions of sustainable development in a balanced manner.

(B) Planning And Environmental Assessment

Encourage relevant authorities at all levels to take sustainable development considerations into account in decision-making, including national and local development planning, investment in infrastructure, business development and public procurement.

This would include actions at all levels to:

- Provide support for the development of sustainable development strategies and programmes, including in decision-making on investment in infrastructure and business development;
- Continue to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment;
- Develop and implement integrated land management and water-use plans that are based on sustainable use of renewable resources and on integrated assessments of socio-economic and environmental potentials, and strengthen the capacity of Governments, local authorities and communities to monitor and manage the quantity and quality of land and water resources;
- Enact, as appropriate, measures that protect indigenous resource management systems and support the contribution of all appropriate stakeholders, men and women alike, in rural planning and development;
- Further develop and promote the wider application of strategic planning and environment assessments, as appropriate, to provide essential decision-support information on policies, programmes or plans that could have significant negative or positive effects on the environment and social development.

(C) Environmental Information Systems - GIS And Environmental Reporting / SOE

- Strengthen national capacity for data collection and processing, and for planning, research, monitoring, assessment and enforcement, as well as arrangements for water resource management,
- Improve their use of science and technology for environmental monitoring, assessment models, accurate databases and integrated information systems,
- Provide technical and financial assistance to developing countries, including through the strengthening of capacity-building efforts to assess their own capacity

development needs and opportunities at the individual, institutional and societal levels,

- Encourage further work on indicators for sustainable development by countries at the national level, including integration of gender aspects, on a voluntary basis, in line with national conditions and priorities,
- Promote the development and wider use of earth observation technologies, including satellite remote sensing, global mapping and geographic information systems, to collect quality data on environmental impacts, land use and land-use,
- Support countries, particularly developing countries, in their national efforts to collect data that are accurate, long-term, consistent and reliable and to use satellite and remote-sensing technologies for data collection and further improvement of ground-based observations,
- Further develop and use indicators at the national level on decoupling economic growth from environmental degradation and for measuring the social, economic and environmental impacts of industrialized countries' consumption and production patterns.

Appendix 4: Inception Process of the Case Study

The Project Team and Inception of the Case Study

The original case study approach was designed by Mr. Matt McIntyre, Acting Coordinator, Sustainable Economic Development Division, SPREP, in response to requests in 2000 for integrated action to deal with catchment issues in the Mele catchment. Matt provided on-going project oversight and coordination at the regional level. The Case Study was compiled by a Study Team that comprised the Team Leader, four in-country local consultants and Government of Vanuatu seconded staff. Team Leader Mr. Craig Wilson, Local Coordinator Mr. Russell Nari, Legal/Administrative Review Ms Marie Hakwa, Community Consultations Ms Anna Naupa and GIS/Information Review Mr. Matt Temar - made up the local Study Team.

An initial in-country scoping visit was undertaken by Mr. McIntyre and Mr. Wilson from 16 February to 21 February 2003. During this visit discussions were held with Mr. Nari of the Government of Vanuatu Environment Unit on the identification of a suitable study site for the Case Study. Mr. Nari described the initial activities of a locally developed Tagabe River Catchment Management Initiative (TRCMI) and following discussions with key stakeholders including the Government of Vanuatu and members of TRCMI, it was agreed in principle that the Case Study would focus on the Tagabe River area and carry out activities in association with the TRCMI Coordinating Committee.

A second in-country visit was undertaken by the Team Leader from 22 March to 13 April 2003 to commence compilation of the Case Study in association with the Study Team members.

Tagabe River Catchment Management Initiative (TRCMI)

Urban to rural migration over the past three decades has led to the formation of informal squatter settlements on the outskirts of Port Vila. In the Tagabe River area informal settlements have been established at Blacksands, Freswin and in discrete locations along the Tagabe River. As services such as water supply and sanitation in the settlements are limited or non-existent, the increase in population levels has led to a reduction in community health levels and an increase in natural resource use. During the mid 1990s these concerns were being raised by community groups from Blacksands with the Environment Unit and other government departments as the presence of freshwater prawns in the rivers was in noticeable decline and episodes of water borne diseases such as dysentery were being reported.

SHEFA Local Government Council, Department of Water Resources and UNELCO who manage supply and delivery of water services to Port Vila were concerned that the integrity of the Port Vila water bores located in the Tagabe River area may be compromised by the impact of increasing population levels in the catchment. SHEFA Local Government Council, in recognition of existing water supply concerns identified in the SHEFA REDI, raised a proposal to classify land in the catchment as a park or water protection area to ensure that future use of the land did not compromise water quality levels.

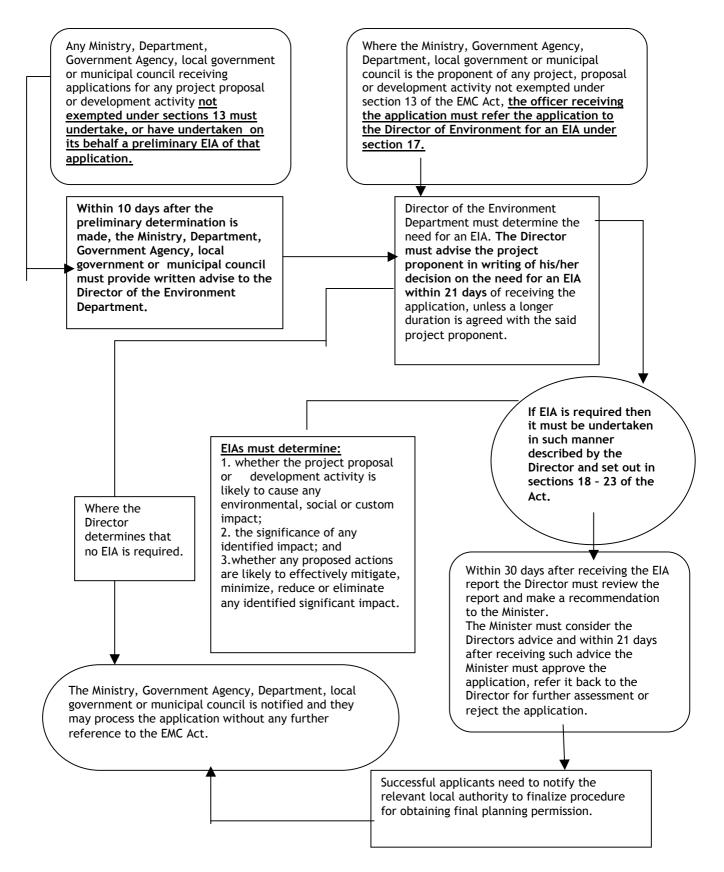
As a result of the concerns raised by community groups and the apparent need to protect water resources, the Environment Unit established a multi-sectoral study group to assess the range of issues in the Tagabe River area. Initial discussions with a range of community and government representatives identified a broader range of issues than initially identified. In January 2003 a meeting of interested parties was held and a more detailed range of issues identified. At the meeting it was agreed that the most appropriate approach was to outline existing issues then approach the community and discuss options that would lead to on ground activities to address identified issues in concert with the community. Two Working Groups were established, under the auspices of the TRCMI Coordination Committee - one to investigate legal frameworks and the second, a technical/water resources group to assess options for the establishment of water protection areas in the Tagabe River area.

The focus of TRCMI is to engage the community in partnership with the private and public sector to jointly determine how to progress the resolution of issues in a manner that incorporates all stakeholders and is within the physical and financial means of all stakeholders.

Community Participation & development

The first Phase of activities aimed to collect relevant information on the catchment including natural resource data held in a range of government departments: legislative and institutional processes; physical catchment information. An initial survey of community groups was completed to obtain some idea on what were the priority water and development issues within the formal and informal settlements, and wider catchment. Supporting information, such as the identification of leaseholders, uses and the identification of community groups was also gathered. The later information was used for initial consultation by the team to identify water and other concerns. It shall also be used in the 2nd Phase of the project by getting community groups to identify and/or vet a series of possible options on how to address their concerns. One important component of the process was to determine and secure community participation on the Tagabe River Catchment Management Initiative Coordinating Committee.

Appendix 5: EIA Flow Chart



Appendix 6: CRP Policy Matrix and Prime Ministers Millennium Goals - links to mainstreaming environment and TEM.

The current CRP policy matrix 2003-2005 includes the following policies that directly relate to the incorporation of environment and community inputs into the decision making process.

Matrix Part A: Entrenching and Broadening Governance Reform

Section 2. Improving participation of Civil Society in Government

Strategy

2.1 Reorganize arrangements for consultation involving local communities.

<u>Actions</u>

Convene Provincial Retreat every year; Convene National Summit to focus on Provincial Retreat Resolutions every two years; Convene Business Forum every year; Convene Ministers Advisory Group quarterly.

2.2 Strengthen the role and authority of chiefs

<u>Actions</u>

Submission of consultants report to the Council of Ministers; Draw up laws providing for the role and authority of Chiefs including Chiefs Bill and amend island court and Decentralization Act.

2.3 Encouraging Civil Society to work in partnership with government

Actions

Finalize and implement the MOU to promote partnerships between NGOs and the Government.

2.4 Improve effectiveness in Local Government

<u>Actions</u> Relevant Acts amended.

Matrix Part D: Promoting Economic Growth

Section 8 An attractive, safe healthy and sustainable environment

Strategy

8.1 Draft Environment and Conservation Legislation

<u>Actions</u>

Draft legislation to be passed by Parliament; Protecting the rural environment for the benefit of the next generation.

8.2 Develop new environmental policies and initiatives

<u>Actions</u>

Consider the creation of land and marine protected areas and identify possible sites; Identify and survey sacred sites and "tabu" (prohibited) areas; Consult communities on environmental management; Develop and implement an environmental awareness programme to strengthen existing customary measures to sustain environments.

Prime Ministers New Millennium Priorities

The Prime Minister presented the Governments Major Priorities for the New Millennium.

The priority list included aspects that contribute to the mainstreaming of environment and community involvement in the decision making process such as:

1. Improving the Lives of the People in Rural Areas by:

- Encouraging improved economic opportunities through REDI schemes in all provinces,
- Protecting the rural environment for the benefit of the next generation

2. Attacking the Obstacles to Private Sector Growth by:

• Overhauling policies and support systems in agriculture and tourism for sustainable growth.

4. Improving Participation by Civil Society by:

- Strengthening the role and authority of chiefs,
- Reorganizing arrangements for CRP consultations so as to better involve local communities,
- Encouraging civil society organizations to work in partnership with government.

Appendix 7: Persons Consulted

Mr. Ernest Bani	Head, Environment Unit
Mr. Mark Bebe	Director, Department of Strategic Management
Mr. Frazer Bule	Department of Agriculture
Mr. Malcolm Dalesa	Environmental Health Officer, Port Vila Municipal Council
Mr. Fileman	
	Forestry Department
Mr. Stanley John	Senior Planner, Port Vila Municipal Council
Mr. Paul Gambetta	Department of Lands and Survey
Ms Phyllis Ganileo	Wan Smol Bag
Mr. David Hopa	Sector Analyst, Department of Economic and Social Development
Mr. Frederick Hosea	Sector Analyst, Department of Economic and Social
	Development
Mr. Michel Kalworai	SHEFA Local Government Council
Ms Donna Kalfatak	NBSAP Project Coordinator
Mr. Richard MacEwen	CUSO Water Resources Advisor
Mr. Michael Mangwai	Director of Lands
Ms Christine Malosu	NBSAP Project
Mr. Douglas Malosu	SHEFA Provincial Council
Mr.Jean Metnetsan	Information Officer, Department of Strategic
	Management
Mr. Willie Namar	Vanuatu Cultural Centre
Mr. Russell Nari	Environment Unit
Mr. Chanel Sam	Forestry Department
Mr. Paul Sami	Head, Asia Pacific Division, Department of Foreign Affairs
Mr. Stephen Tahi	Director General, Ministry of Lands, Energy, Environment,
	Geology, Mines and Water Resources
Mr. Enos Tari	Department of Lands and Survey
Mr. Rexon Vira	Department of Forestry
Mr. Peter Walker	Wan Smol Bag
Mr. Watson	Department of Forestry
Mr. Albert Williams	Department of Health
Ms Martha Yamsui	Vanuatu Cultural Centre