



TIMORE LESTE

Programme of Work on Protected Areas

CAPACITY DEVELOPMENT ACTION PLAN

Part 1 - Setting the Context

for the Department of Protected Areas & National Parks
October 2011



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Acknowledgements

We acknowledge the help and assistance of the staff of the Ministry of Agriculture and Fisheries (MAF) and especially the team at the Department of Protected Areas and National Parks (DPANP). Much of this work and product was a result of their direct inputs and verification through interactive forums and workshops. We would like to thank the GIS department ALGIS for enabling mapping data and information to be used in the process of engagement and plan production. We also thank staff from the Department of Environment. The United Nations Development Program was a great help in providing logistic and technical support, in particular we thank Expedito Belo, Carsiliano Oliveira, Tessa Koppert and Lin Cao. Peter Hunnam and Cathy Molnar provided much guidance in this work and for that we are most grateful. Support was also received from Demetrio Amaral (Haburas), Koen Mayers (UNESCO) and the Coral Triangle Support Partnership - CTSP team (Rui Pinto and Niall Byrne). We thank also Scott Atkinson for introducing us to the CTSP team. Clarissa Arida from the ASEAN Centre for Biodiversity was most accommodating in sharing information regards the NBSAP development. We hope that the information that the DPANP team provided about the process used was also invaluable to the finalization of the NBSAP for the ASEAN team. We are appreciative of the time provided by Marcal Gusmao from the National University of Timor Leste and his advice on human resource development and tertiary education options at the University. Hedley Grantham of CNRM Solutions Pty Ltd was a most helpful contributor of information gathered through the generation of the NEGA. We appreciate those inputs and our ongoing relationship. The rest of the team at Planning 4 Sustainable Development (Kari Martin and Geoff Dews) are also appreciated for the support work, research and writing of summary reports and frameworks used in the missions to Timor Leste.

Lastly I would like to show much appreciation to the PoWPA Project Manager and Head of the Department of Protected Areas and National Parks, Mr Manuel Mendes for his tireless input, translation and guidance in this work. A good team needs a strong leader and Manuel has certainly shown stamina in this regard.

Recommended citation:

McIntyre, M.A., 2011. *Capacity Development Action Plan for the Programme of Works on Protected Areas, Part 1 Situation Analysis, Timor Leste, 2011*. Prepared for the Department of Protected Areas and National Parks, Ministry of Agriculture and Fisheries, Government of Timor Leste with the assistance of United Nations Development Program, Timor-Leste and the Global Environment Facility. Planning for Sustainable Development Pty Ltd, Landsborough, Queensland, Australia.

Structure of the Capacity Development Action Plan (CDAP)

The CDAP document has been split into three (3) parts. This Part 1 is the Situation Analysis and structured to set the context for the capacity needs assessment. Much of this was taken from the Situation Analysis Report generated from the first visit early in 2011 and enhanced in subsequent visits. Part 2 then provides the actual Capacity Needs assessment summary and Capacity Development Action Plan (CDEP). The final Part 3 contains all the referred Annexes, including the detailed five (5) year budget for the SAP and capacity building work.

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ACRONYMS

AWG-LCA	Ad-hoc Working Group on Long-term Cooperative Action (UNFCCC)
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CHM	Clearing House Mechanism
CITES	Convention for International Trade of Endangered Species
COP	Conference of Parties
DPANP	Dept of Protected Areas and National Parks
GCRMN	Global Coral Reef Monitoring Network
GEF	Global Environment Facility
GIS	Geographic Information System
GoTL	Government of Timor Leste
GPS	Global Positioning System
IPCC	Intergovernmental Panel
IUCN	World Conservation Union
PAN	Protected Area Network
LBS	Land Based Sources
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NP	National Park (i.e short reference for Nino Konis Santana National Park)
PA	Protected Area
POW	Programme of Work
PoWPA	Programme of Work on Protected Areas
PTA	Problem Tree Analysis
RA	Rapid Assessment (methods & approaches)
REDD (+)	Reducing Emissions from Deforestation and Degradation (plus)
TNC	The Nature Conservancy
UNCBD	United Nations Convention on Biodiversity
UNCCD	United Nations Convention to Combat Desertification and Deforestation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wildlife Fund

Executive Summary

Article 8 of the Convention on Biological Diversity (In-situ conservation) calls for the establishment of systems of protected areas to conserve biological diversity. It also includes many provisions regarding protected areas and their importance in implementing the broader objectives of the Convention.

Protected areas can carry out services and functions that are beneficial to humans, and other geo-physical systems that assist with community lifestyles, livelihoods and human welfare. The challenge for using protected areas in customary systems is to instigate protection areas in a manner that alleviates poverty pressures rather than becoming a further impediment to livelihoods and traditional land and resource management. The success of protected areas ultimately rests with the status of local socio-economic factors affecting communities in and around protected areas: sustainable resource use, food security, livelihood options, land tenure & conflict and equity in access and benefit sharing.

The value of protected areas is often poorly understood by governments, communities, the markets or people who may not live close to them but rely on protected areas in providing lifestyle pursuits. Often the only economic opportunity that is pursued with protected areas is the tourist dollar. There too are often pressures by multi-national companies for governments approve extractive activities within protected areas - whether for forestry or minerals. In the past it has been hard to quantify the economic, social, environmental and cultural values of protected areas making it hard to defend their retention against the economic rent that could be realized from extraction based land and resource use.

Even once nominated and made Protected Areas are subjected to many and ongoing threats and the pressures and these are not often monitored well.

There have been many definitions of Protected Areas, however the 1994 IUCN Protected Area Management Categories represent the international consensus about management types. However alternate types suited to customary use-hold and traditional communities should not be dismissed. Much has been written on the success of locally managed systems such as the **Locally Managed Marine Areas (LMMAs) or the use of locally driven Marine Protected Areas (MPAs)**. There are also many 'tabu' systems active in the Pacific Islands for instance that provide solid protection regimes for sensitive areas.

There are well accepted environmental criteria and methods for the site selection of representative protected areas. These may include ecological (e.g. species richness, vulnerability, level of threats endemism, irreplaceability and evolutionary processes), geo-physical parameters (e.g. connectivity, corridors, size & dimensions of critical habitats and communities) and broader natural resource management matters. There is less consensus or criteria and methods to canvas the socioeconomic factors that need to be accounted and managed to ensure the success of protected areas.

In planning, establishing and managing protected areas, there is a need to have in mind interceding approaches including: focusing on conserving biodiversity at the ecosystem, landscape or regional scale; providing for ecological interconnectivity through corridors (i.e. considering scale, connectivity and resilience) but most importantly - involving the people element. That is, successful establishment and management of protected areas and networks require will require consideration of the communities interaction with their environment and their aspirations for the future. The land use/resource-use planners and economic decision-makers as well as community stakeholders need to be brought into the process at an early stage and be provided opportunities for effective participation.

Conventional ecological species approaches to the set-up of protected areas needs a paradigm shift towards more substantial participatory forms that respect customary processes and local knowledge

and systems of management. Social justice steeped in good local 'governance' capacity development should be at the forefront of protected area network planning, establishment and on-going management.

Given the above for Timor Leste there is a need to:-

- (i) increase the involvement of indigenous and local communities in the work that leads to the nomination of prospect protected areas;
- (ii) greater respect of the interaction between local communities with their environment and the role of local and traditional practices with regard to the formation, the types of protected areas and the determination of likely uses and activities that will continue in and surrounding protected areas;
- (iii) recognize that local communities will have traditional approaches and practices worthy of retention even to the point of alternate classification than that offered by the IUCN system. There are growing number of examples in customary societies of community conservation areas from locally managed marine areas (LMMAs); local marine conservation areas; to Tabu or Tapu systems in Polynesian cultures.

For over five (5) years Timor Leste has been striving towards the ideal of effectively managing its protected areas. Though the ideal is still far from being achieved, efforts must be continuously made towards reaching this goal. Numerous attempts have been made to develop a Master Plan for the system of protected areas, with varying levels of success. There has been heavy focus on protected areas declared under terrestrial ecology knowledge, with little emphasis placed on those that are fisheries, forestry, heritage and culturally related. This report attempts to provide a more balanced view of the system of protected areas, using available information. Given the iterative nature of this process, it is expected that as information becomes available, the assessment and subsequent plans will be strengthened.

Much progress is evident in efforts at setting up and managing protected areas, despite poor consistent funding over the last 5-8 years. Overall the DPANP is still in the embryonic stages of protected area planning, establishment and management. There are still numerous gaps and constraints. Strengthening the capacity to manage protected areas over the next 5 years will help to provide the momentum for future successes. At the same time the critical funding needed to actually manage things on the ground needs to be addressed.

This Situation Analysis canvasses: the status of biodiverse areas; prior work on Protected Areas; the international best practices and good governance regimes; the current capacity of national institutions and processes; the socio-economic contexts behind current degradation; highlights the key pressures and threats and summarizes the key barriers and challenges. The associated Capacity Development Plan (Part 2) provides an assessment of protected area management capacity in terms of institutions, systems, technology and human resources; and outlines a plan for capacity development.

PART 1: Situation Analysis – Setting the Context

Section 1 provides the contextual setting for protected area management in Timor Leste, including a status of efforts to date.

Section 2 summarizes the key stakeholders involved in Protected Areas in Timor Leste.

Section 3 outlines the international good governance frameworks of which the SAP and Capacity Development Action Plan needs to be cognizant of.

Section 4 outlines the international environmental management frameworks of relevance to the SAP and Capacity Development Action Plan.

Section 5 describes the national institutional and policy frameworks.

Section 6 summarizes the socio-economic context behind Protected Areas management and degradation of forests and land systems;

Section 7 highlights the pressures, threats and vulnerabilities to the systems. Critical threats to Timor Leste's protected areas include: habitat conversion, deforestation, fragmentation, conversion from agriculture, unregulated harvesting, bushfire, poaching, invasive alien species, land degradation and climate change.

Section 8 summarizes the key barriers and challenges to Protected Areas management, while **Section 9** summarizes the findings of the Situation Analysis.

Part 2: Capacity Development Action Plan

Section 1 describes the capacity needs approach while **section 2** describes the methods used.

Section 3 addresses the Institutional capacity needs, **Section 4** the Systemic needs and human resource needs are covered in **sections 5 and 6**.

Section 7 introduces the Strategic Action Plan (SAP) as the strategic policy tool to harmonize and integrate actions for planning for, establishment and management of Protected Areas. Subsection 7.4 describes the financial plan (budget) for the implementation of the Strategic Action Areas over the next five (5) years.

The summary of findings and recommendations are provided in **Section 8**.

Annex 1 to **Part 2** provides the Financial Plan - Log Frame Matrix. This is also incorporated in the packaged Annexes in Part 3, as Annex 9.

A budget of **USD1,805,000** over five (5) years has been recommended for discreet capacity building activities. In addition it is forecast that a recurring budget of **\$295,500.00** should be provided by the Government of Timor Leste for DPANP personnel and basic administration costs over the five (5) year period. The budget estimates are based on similar work in other countries and the experience of the DPANP and P4SD team, however it is completed so far without complete knowledge of other commensurate work that is planned or currently being implemented in-country or from regional bilateral and multilateral platforms. This budget equates to approximately **USD361,000** a year or approximately **USD180** per square kilometer of terrestrial area proposed to be included in Protected Areas. While this is at the lower end of the scale with regard to comparative funding of protected areas in developed and developing countries, there is a need to drastically improve the absorption capacity of the DPANP and collegiate entities over the short to medium term – before funding strategies are re-visited.

It is highly recommended that the budget be re-visited at the end of the second year of implementation, after assessment of the capacity of the DPANP and collegiate entities - so that necessary adjustments can be made.

Setting the Context for Capacity Development

1.0 Context for Protected Area Management in Timor Leste

1.1 *Historical Context for Protected Area Management in Timor Leste*

In the short time since independence Timor Leste has acted quickly, despite overwhelming pressures, to institute processes to form protected areas consistent with the Programme of Works for Protected Areas (PoWPA), under the United Nation's Convention on the Biodiversity Conservation (UNCBD).

The Timor-Leste government signed the Convention on 10 October 2006, and became a Party to the Convention on 8 January 2007. As a signatory to the UNCBD, Timor-Leste undertakes to fulfill the Convention's requirements which include the Program of Work on Protected Areas – PoWPA (adopted by the 7th Conference of Parties (COP) to the UNCBD, 2004). The PoWPA is a global action plan to assist with the establishment of protected areas to cover at least 10% of each country. The focus of the global programme is for governments to identify and then fill gaps in their existing protected area networks (PANs). The aim is to ensure that all native species and sensitive ecosystems are represented in protected areas of various types with sufficient size, number and distribution to guarantee their long-term survival.

While an ambitious programme with 92 different activities agreed at the international level there are 13 actions that are deemed critical for good protected area implementation. The work in developing the Strategic Action Plan (SAP) for the Timor Leste Government (Component 3 of the PoWPA for Timor Leste) was cognizant of these critical actions, and concluded with 7 Priority Goals, based on these (see Section 7 of Part 2 – Capacity Development Action Plan).

1.2 *UNTAET Regulation No. 19*

The UNTAET Regulation No. 19 on protected places lists 15 'Protected Wild Areas'. According to Birdlife International, many of these areas were identified as priority conservation areas by FAO/UNDP and the Indonesian Government back in 1982. Boundaries had not been defined and the 15 sites have not been recognized in land use planning (Trainor 2007, cited in Trainor 2010 p.173).

The Regulation includes provisions to prohibit certain activities within the protected wild areas. It also identifies permitted activities in accordance with local law and tradition by local communities living close to the area. The Regulation protects certain fauna and lists a number of endangered species including sea turtles, marine mammals, wallabies and crocodiles. These include any animal or plant species listed in the Convention on the International Trade in Endangered Species, Appendix I or II and their habitats. Coral reefs, wetlands and mangroves and historic, cultural and artistic Sites are also protected under the Regulation.

The following is a list of the protected wild areas listed in the Schedule to the Regulation:

SCHEDULE (summary) from UNTAET Regulation No 19.

- (a) Jako Island and its surrounding rocks, reefs, and other surface and sub surface features;
- (b) Tutuala Beach and the adjacent forest, an area of approximately 25,000 hectares as specified in Map No. 1 to be attached to the present regulation and to become an integral part thereof;
- (c) Cristo Rei Beach and hinterland as specified in Map No.2 to be attached to the present regulation and to become an integral part thereof;

- (d) The summit of Tata Mailau Mountain, all elevations on Tata Mailau Mountain above 2000 meters, and the surrounding forest , an area of approximately 20,000 hectares as specified in Map No. 3 to be attached to the present regulation and to become an integral part thereof;
- (e) The summit of Sadoria Mountain, all elevations on Sadoria Mountain above 2000 meters, and the surrounding forest as specified in Map No. 4 to be attached to the present regulation and to become an integral part thereof;
- (f) The summit of Malobu Mountain, all elevations on Malobu Mountain above 2000 meters, and the surrounding forest as specified in Map No. 5 to be attached to the present regulation and to become an integral part thereof;
- (g) The summit of Mount Diatuto and the surrounding forests an area of approximately 15000 hectares as specified in Map No. 6 to be attached to the present regulation and to become an integral part thereof;
- (h) The summit of Mount Fantumasin and the surrounding forests, an area of approximately 4000 hectares as specified in Map No. 7 to be attached to the present regulation and to become an integral part thereof;
- (i) The Riverlet Clere Sanctuary, an area of approximately 30,000 hectares as specified in Map No. 8 to be attached to the present regulation and to become an integral part thereof;
- (j) The Tilomar Reserve, an area of approximately 12800 hectares as specified in Map No. 9 to be attached to the present regulation and to become an integral part thereof;
- (k) The Lore Reserve, an area of approximately 11000 hectares as specified in Map No. 10 to be attached to the present regulation and to become an integral part thereof;
- (l) The Monte Mundo Perdido and the surrounding forest, an area of approximately 25000 hectares as specified in Map No. 11 to be attached to the present regulation and to become an integral part thereof;
- (m) The summit of Monte Matebian, all elevations on Monte Matebian above 2000 metres and the surrounding forest, an area of approximately 22000 hectares as specified in Map No. 12 to be attached to the present regulation and to become an integral part thereof;
- (n) The Monte Cablaque, and the surrounding forest, an area of approximately 18000 hectares as specified in Map No. 13 to be attached to the present regulation and to become an integral part thereof; and
- (o) The Manucoco Reserve, an area of approximately 4000 hectares as specified in Map No. 14 to be attached to the present regulation and to become an integral part thereof.

In developing the SAP with the Department of Protected Areas and National Parks (DPANP) it was clear that although this regulation aims to protect the areas listed above and particular species within these areas, there has been limited implementation and enforcement of the regulation. This has been due to a variety of reasons but in particular the lack of human resources and capital resources within the DPANP and lack of financial support from the central government.

1.3 Birdlife International - Important bird areas



As part of the Darwin Initiative, Birdlife International have been active on-the-ground in Timor Leste for a number of years, assisting especially with science based work in the leading work to pursue protected areas and the establishment of the Nino Konis Santana National Park in 2008. They have published a book detailing the important bird areas in Timor Leste. The aim of this work was to identify, document and conserve globally important bird areas and their habitats using internationally accepted criteria and standards. The Important Bird Areas Programme has the following long-term objectives:

1. To provide a basis for the development of national conservation strategies and protected areas programmes;
2. To highlight areas which should be safeguarded through wise land-use planning, national policies and regulations, and the grant-giving and lending programmes of international banks and development agencies;
3. To provide a focus for the conservation efforts of civil society including national and regional NGO networks;
4. To highlight sites which are threatened or inadequately protected so that urgent remedial measures can be taken;
5. To guide the implementation of global conservation conventions and migratory bird agreements.

(Reference: Trainor, C.R., Santana, F., Rudyanto, Xavier, A.F., Pinto, P. And de Oliveira, G. F. (2007) *Important Bird Areas in Timor-Leste: Key sites for conservation*. Cambridge, U.K.: Birdlife International.)

The Initiative taken by the Timorese government in collaboration with BirdLife International included a series of terrestrial biological surveys within and outside the areas prescribed in Regulation 19/2000. These surveys revealed that the sites set apart for conservation in Regulation 19/2000 also ranked as internationally recognized Important Bird Areas (IBA), with high levels of bird diversity and endemism, as well as cultural importance. These surveys also identified additional important areas and these sites were published as *Important Bird Areas in Timor-Leste, Key Sites for Conservation*, (Trainor *et al.* 2007). Subsequent preliminary surveys indicate a total of 24 sites for terrestrial conservation.

The outcomes of the Birdlife International work and the supporting research of Trainer et al, have provided the best science based information on the status of ecosystems in Timor Leste to date. This work provided the key science based data and information on species and communities that was used in the National Ecological Gap Assessment work of Component 1 of the PoWPA activities in 2010 and early 2011 (see Section 1.6 below).

1.4 Marine Protected Areas

Up to the time of the commencement of the latest PoWPA work one marine site had been formally gazetted – the joint terrestrial and marine Nino Konis Santana National Park (see Section 1.5 below). There has been collaboration with FAO to develop two additional sites as marine protected areas and with the regional Coral Triangle Initiative, which is currently developing a program to progress marine conservation in Timor Leste. Since 2007 a marine mapping project to identify priority sites for marine conservation has been underway through the Coral Triangle Support Programme (CTSP), in collaboration with Charles Darwin University and the Australian Northern Territory State Government.

The ecosystems included in the Protected Areas prior to the recent PoWPA work has included estuaries, rivulets, fresh and salt water lagoons, other wetlands, marine, and other terrestrial ecosystems such as lowland and montane forests, grasslands, etc. It is accepted that further work needs to be done to ensure adequate representation of these systems with the future Protected Areas.

1.5 Nino Konis Santana National Park

The formative work of DPANP in partnership with others saw great progress from 2006 and this culminated in work to establish the country's first national park in 2007¹. The *Nino Konis Santana National Park* (NKSNP) in the Monte Paitchau-Iralalero area was declared in August 2008. The park covers 680 km² and includes the best undeveloped tropical evergreen forest on Timor Island, and is continuous with primary and secondary drier tropical forests in the vicinity of Tutuala, Mehara and Com. This national park incorporated the Jaco Island (number 1), the lore reserve (number 11) and Tutuala Beach (number 2), outlined in *Regulation 2000/19*. ntry. A marine section was added to the park prior to gazettal. The total area of the National Park is now 123,600 ha, which includes both marine and terrestrial ecosystems. in 2007. The final boundary of the Nino Konis Santana National Park is ongoing. (Grantham 2011, p.28)

The establishment of the NKSNP has so far been supported by the engagement of one National Park Manager and 6 Community Forest Guards. Actions at the policy and on-ground level have been hampered by a lack of resources.

1.6 Other formative activities or projects to 2008

There have been quite a few activities or projects that supported the planning for establishing the Protected areas system, many of which to PoWPA Goals. The projects have established mechanisms for international support to PAs development and several of the activities have been facilitated by an international Protected Areas Network Advisor based in DPANP. This position and leading work was funded and supported by BirdLife International; Australian Volunteers International, and the Department of Environment and Climate Change, New South Wales (Australia). These activities and projects include:

¹ Formal declaration (Government decree, Aug 2007) and inauguration (public celebration and awareness-raising event, Aug 2008) of Nino Konis Santana National Park (PoWPA 1.1.2)

- a. Australian Government Regional Natural Heritage Program (RNHP) – *Building partnerships and conservation priorities for East Timor's first national park* (now complete (relevant to PoWPA Activities 1.1.2, 1.1.7, 1.5.5)

This laid the groundwork for collaborative and consultative working relationships between and within Government, Civil Society and local communities. Considerable progress in the foundational activities which lead to the establishment of Timor Leste's first National Park (Nino Konis Santana National Park) via extensive community consultations and baseline scientific biodiversity surveys resulting in:

- ✓ Agreement that the National Park will encompass IUCN Management Category V management principles;
 - ✓ Capacity development in biodiversity surveys and basic understanding in reserve planning and management;²
 - ✓ Information on Nino Konis Santana National Park collected and synthesized into a Draft "Conservation Proposal" for the Park (July 2006) containing Aims, Objectives, Management Principles, Summary of Existing Legal and Policy, Conservation Values, Interim Perimeter including provisional boundary (marine and terrestrial), Community Participation Framework and Interim Management Guidelines, Issues and Strategies (especially urgent conservation priorities).
- b. A funding proposal for developing a draft protected areas and national park law has recently been approved and will be supported by the IUCN for the next 18 months.
 - c. Research and field work associated with the development of the publications:
 - ✓ *Important Bird Areas in Timor-Leste: Key sites for conservation* (book published early 2008, contributed to through RNHP and Darwin Initiative projects, and other small grant support; explicitly addresses PoWPA Goal 1.1)
 - ✓ *Birds of Timor-Leste* (3-language field guide, published mid 2008).
 - d. UK Government (DEFRA), Darwin Initiative Project *Government-civil society partnerships for protected areas in Timor-Leste* support. Project period Apr 2006-Mar 2009, thus overlapping with PoWPA project initial start up work. The following activities were completed or started under the Darwin Initiative project and therefore made up part of the baseline. Most of the remaining or uncompleted Darwin project activities contribute to PoWPA project objectives.
 - ✓ Assessment and recommendations on (1) vegetation mapping, and (2) process for development of detailed management guidelines and management plan for the NP, building on and updating Conservation Proposal for the Park (PoWPA 1.4.4) — report completed, with mapping produced only for NKSNP.
 - ✓ Biodiversity surveys at key sites nationwide (PoWPA Goal 4.3) — ongoing with surveys to be completed within 2 years.
 - ✓ Completion, translation, publication and dissemination of book of *Important Bird Areas in Timor-Leste* (PoWPA Goal 1.1) — complete.

² Few of these activities have been integrated into the planning process but the outputs were used in the NEGA and could form essential elements during the formulation of the SCMP.

The Darwin Initiative project design took specific account of needs identified in the PoWPA, but could address very few of the institutional, systems and broader capacity needs. Budget estimates were prepared to support annual Government work plans however at the time of submitting for PoWPA funding under the UNDP – GEF programme many of the proposed activities did not coincide with Department Annual plans or their ability to secure funds inhibited any further progress.

DPANP and MAF management recognized this deficiency and through the access to PoWPA funds via UNDP GEF, delivered through UNDP cemented the push for a strategic action plan as a useful support mechanism. This plan would help in marketing the DPANP's needs to Government and would also help to channel donor funding and other support programs more directly towards the department's priorities (UNDP, Application for funding, Phase 1, PoWPA, 2008)

Table 1 below was used in the submission to UNDP as an update and summary of past related activities (UNDP, Application for funding, Phase 1, PoWPA, 2008). The commentary included does reveal the status of some issues that remain current).

Table 1: Summary of formative actions in furthering Timor Leste's Protected Areas – with commentary (2008)

Project name	Funding: source and amount, US\$	Implementing agency(ies)	Which PoWPA activities are supported and how
Coral Triangle Initiative	GEF US\$1,175,000 (2008-12)	Ministry of Agriculture and Fisheries (MAF) – Department of Protected Areas & National Directorate Parks and Department of Fisheries.	I.1.5 The Coral Triangle Initiative (CTI) has been developed to protect an epicenter of marine species diversity and is a global priority for marine conservation. The CTI includes portions of two bio-geographic regions and includes TL (as well as Indonesia, Malaysia (Sabah), Papua New Guinea, Philippines and Solomon Islands). Active linkages with the CTI are essential so as: to avoid duplication of research and management efforts, take advantage of possible sources of supplementary funding, participate in capacity development opportunities related to marine conservation, and to be exposed to the conservation ethics and objectives of large international NGO's such as CI, WWF, TNC etc.
Government-Civil Society Partnerships for Protected Areas in Timor Leste	Darwin Initiative (DI) Project US\$ 7500	BirdLife International (fund holder) in partnership with DPANP	3.1.1. This project straddles the start date of the PoWPA project. See section I.3 for <i>activities completed</i> relevant to PoWPA. Of <i>activities planned</i> , most contribute to PoWPA project and are therefore co-financed parts of PoWPA project (not included in this section). \$7500 of DI Project activity concern single-site work, liaison and support activities outside PoWPA and so are included here as "related".
Partnerships in Environmental Management of the Seas of East Asia (PEMSEA)TL	GEF US\$274,000 (2008-10)	Ministry of Agriculture and Fisheries (MAF) – National Directorate of	Unknown

		Fisheries	
Arafura Timor Sea Expert Forum (ATSEF)	GEF US\$2,970,000 (2008-12)	Ministry of Agriculture and Fisheries (MAF) – National Directorate of Fisheries.	Unknown
National Capacity Self Assessment (NCSA)	GEF & GoTL US\$255,555 (complete)	UNDP, GoTL	3.2.1 The NCSA is a GEF project to assist countries to assess their capacity for the achievements of global environmental management objectives, particularly for the fulfillment of national commitments under the Rio Conventions, UNCBD, UNFCCC and UNCCD
Environmental Governance Support Programme (EGSP)	GEF US\$200,000	UNDP, GoTL	3.1.1 (supporting governance), 3.2.1 (capacity) Strengthening enabling environment of TL to carry out good environmental governance. Emphasis will be through assessment and targeted capacity development to ensure that key national institutions have the required human resources, systemic tools and physical infrastructure to address key environmental priorities and that the same institutions can interact effectively with each other in accordance to their mandates through strengthened coordination mechanisms. Program elements: support to TL's MEA accession process; inter-ministerial coordination mechanism; revise or develop a new Draft Strategic Plan for sustainable fisheries under principles of ESD.
Sustainable Tourism Sector Development (STSD)	Under development, expected to be in excess of US\$250,000 (GoTL and UNDP contribution)	UNDP, GoTL	1.2.1 (integrate PAs into broader land and seascapes, sectoral plans and strategies), 3.1.1 (good governance in tourism sector which has potential to impact heavily on PAs), 3.1.5 (preventing perverse incentives and inconsistencies in sectoral policies, specifically national tourism policy); 3.1.6 (supporting positive incentives and involvement of local communities & stakeholders). Project aims to contribute to poverty reduction, community development, governance and capacity development, and sustainable use of natural resources, and facilitate economic growth through building tourism management capacities at the national and district level, developing strong community participation in tourism, and formulating

			an integrated, long-term tourism policy and action plan.
Sustainable Land Management (SLM)	GEF 475,000; Co-financing US\$556,970	UNDP, GoTL	Supports multiple actions under PoWPA via project objective to build capacities for sustainable land management (SLM) in government planning and strategy development. Four outcomes are: SLM is mainstreamed into national policies, plans and legislation; human resources and institutional capacities needed for SLM are developed; capacities for knowledge management in SLM are developed; National Action Program (NAP) is completed
National Adaptation Programme of Action to Climate Change for TL (NAPA)	GEF US\$200,000; Co-financing US\$20,000	UNDP, National Directorate of International Environmental Affairs (NDIEA)	The implications for climate change on natural habitats, ecosystems, biodiversity are well documented and widely accepted. This project aims to develop a National Adaptation Programme of Action to those weather anomalies in TL and sustain the ecological functions while contributing directly to the environmental, economic and social well-being of the country. Outcomes: establishment of institutional structure for preparation of NAPA document; assessment of the vulnerability to current climate variability; formulation and prioritization of potential climate change adaptation measures; preparation and endorsement of the NAPA document.
National Biodiversity Strategy and Action Plan (NBSAP)	GEF US\$275,000 18 months	UNDP, National Directorate of International Environmental Affairs (NDIEA)	1.1.5 (support to PA system gap analysis); Project will: conduct a stocktaking analysis of existing knowledge of biodiversity; identify priorities for action to protect TL's biodiversity culminating in NBSAP; public information campaign to encourage participation in the strategic planning exercises; and prepare the first and third National Report for submission to the COP; establish an operational CHM to support the implementation of NBSAP.

1.7 Ongoing Initiatives – able to support or enhance Protected Areas planning, establishment & management

There are a number of other initiatives and projects that have been ongoing prior to, or since 2008 that are or can be mutually beneficial to PoWPA Components, Outputs and Outcomes. These are summarized below.

a) JICA – Japan International Cooperation Agency

Since 2000 JICA have been assisting TL in the following areas:

- Agriculture and Rural Development,
- Maintenance and Improvement of Infrastructure,
- Human Resources Development and Institution Building,
- Consolidation of Peace Projects.

The projects that have assisted PA endeavors or have enhanced capacity in areas of mutual interest include the following:

- a) Community-based integrated watershed management in Lacle and Comoro River Basins – 2010 (hard copy – red book);
- b) Irrigation and Rice Cultivation Project in Manatuto District (Jun 2005 – Mar 2010);
- c) The Project for Rehabilitation and Improvement of Maliana 1 Irrigation System (Feb 2008-Feb 2009);
- d) The project for promotion of agribusiness (Apr 2009 – Mar 2011);
- e) Agricultural Policy Advisor to Ministry of Agriculture and Fisheries (May 2008-May 2010);
- f) The study on Community-Based Integrated Watershed Management in Lacle and Comoro River Basins (Nov 2005 – Mar 2010);
- g) Mapping Advisor (Jan 2009 – Jan 2010).

JICA has also supported a number of NGO Partnerships Projects:

- The project for Extension of Coffee Producers; Cooperative model by PARCIC (Jun 2009 – May 2012);
- Fishery Rehabilitation Project at the North-East Coast by IKUEI (Aug 2007 – Aug 2010).

b) JICA Project for Community-based Sustainable Natural Resource Management

The JICA project “Community-based integrated watershed management in Lacle and Comoro River Basins – 2010” has been followed up with the *Community based Sustainable Natural Resource Management Project*. This is also focused on the Lacle and Comoro River Basins. It is a 4 year project and is housed in the National Directorate of Forestry, Ministry of Agriculture and Fisheries. The JICA and MAF Project Teams have started the participatory land use planning (PLUP) activities in the four project target villages, Suco Faturasa, Suco Fadabloco, Suco Talitu and Suco Madabeno (June 2011). This work is being completed in partnership with NGOs based in Timor-Leste.

c) Environmental Mainstreaming in Timor-Leste

This project aims to support the development of a number of project proposals under the Environment portfolio of UNDP Timor-Leste. It will cover preparatory phase of the Poverty-Environment Initiative (PEI), a joint UNEP-UNDP initiative, where an in-depth analysis of the key linkages between poverty and environment will be carried out, presenting a strong economic case for mainstreaming environment into poverty reduction strategies and programmes within the PEI framework.

d) Coral Triangle Support Programme

The Coral Triangle Support Programme (CTSP) is the delivery mechanism at the local level for Coral Triangle Initiative and partner organizations. The CTSP focuses on marine conservation and assisting with marine protected areas establishment through the National Directorate of Fisheries and Aquaculture, Department of Fisheries Research and Resource Management, Ministry of Agriculture and Fisheries. The CTSP is currently supporting the National Directorate for Fisheries and Aquaculture achieve their main goal for 2011 - to advance community based spatial planning of coastal and marine resources in the Nino Konis Santana National Park. The plans will be an integral part of community based management plans for Marine Managed Areas in the NKSNP area. CTSP has teamed with a number of other institutions and agencies that have worked in the area in the past (AIMS, CDU, ANU, Oxfam, Plan International, CCF, JICA, Many Hands).

The primary aim of CTSP is to conduct the community engagement processes to ensure community involvement in the future management of the NKSNP coastal and marine resources. For the 2011 work plan community consultation and focus group sessions have been held in the coastal Sucos of Tutuala, Com, Lore and Muapitine within the NKSNP. Discussions focused on;

- what each community considered as important natural resources,
- detrimental impacts on these resources,
- reasons for degradation and or population declines, and
- possible solutions

The Project Coordinator CTSP Timor Leste, Mr Rui Pinto advises that the consultative work this year highlights three key natural resources that communities identified, as being of priorities for them: – Coral reefs, Turtles and Mangroves. The pressures and impacts on these resources identified by the communities include:

- Sand mining on beach
- Poison used – damage to reefs
- Sedimentation from inland – impacts corals
- Fuel wood collection – mangroves
- Turtle hunting and egg collection
- Crocodile numbers – too many
- Killing of dugongs
- Coral mining for limestone
- Illegal fishing
- Fishing nets, stomping and stepping on coral, anchorage – damage to reefs

The Muapitine Suco session looked at particular species associated with freshwater lake – Iralalaru Hardyhead (fish), Laisap (freshwater turtle) and the Snakeneck turtle. They identified the following reasons for the decline in populations;

- Burnings during dry seasons
- Deer hunting
- Clearing of agricultural lands
- Natural predation (crocodiles)
- Over harvesting
- Prolonged periods of drought / climate change
- Deforestation in catchment
- Introduced species

The reasons (root causes/ pressures) behind the destructive activities causing detrimental impacts were nominated as:

- Lack of knowledge
- Lack of awareness
- Lack of education on the impacts of destructive activities on communities livelihoods
- Lack of skills (fishing)
- Lack of law enforcement
- No coastal guards

The communities proposed the following solutions; (highlighted sections indicate where the potential interventions were expressed by a number of the different focus groups)

- ❖ Engagement of Coastal guards
- ❖ Training on management of coral reefs
- ❖ Enactment of traditional management practices (tara bandu)
- ❖ Awareness raising campaign on importance of coral reefs
- ❖ Education and training on advantages of having pristine reefs/monitoring
- ❖ Creation of a jetty

- ❖ Use of Audio visuals for dissemination of information, awareness raising & training on benefits of natural resource protection
- ❖ Community exchange: of ideas, skills, knowledge and experiences
- ❖ Strengthen law enforcement
- ❖ Establishment of protected areas
- ❖ Establishment of community rules and regulations – traditional law, spatial planning – anchorage sites.

The outcomes of the work of the CTSP project will produce substantial inputs that can be used in the production of the NKSNP Management Plan.

1.8 National Ecological Gap Assessment (PoWPA Component 1) –by CNRM Solutions

As part of the most recent formative work a National Ecological Gap Assessment (NEGA) was undertaken by the DPANP with the assistance of CNRM Solutions. This is one of the critical actions referred to in PoWPA guides as a means to plan for and establish a workable protected areas programme at the national level. The aim/s of the NEGA was to take stock of existing species and ecological community information, evaluate these against recognized understanding of rare, endangered and vulnerable species in Timor Leste, in consideration of the current knowledge of landform and natural systems – to determine the ecological gaps in the proposed protected areas and future PAs network.

As part of the National Ecological Gap Analysis, CNRM Solutions mapped for the first time all of the proposed protected areas across Timor-Leste. These areas included the 15 Wild Protected Areas listed in the UNTAET Regulation No. 19, plus a number of additional areas that DPANP nominated based on inputs from experts and the community in work undertaken since 2003 (see Table 3, of the NEGA, reproduced below).

Since 2007, the Department of Protected Areas and National Parks (DPANP) had identified 17 landscapes they considered worthy to be included as protected areas, in addition to the 15 Wild Areas contained in UNTAET Regulation 19. They identified these sites by using a bottom up process of identifying forests ecosystems that are in good condition and/or likely to become degraded or deforested. Priorities were also identified when threatened species were found and for other land that has high conservation value (e.g. Important Bird Areas), as well as areas which offered watershed and water source protection (e.g. mountain areas), Grantham 2011, p.28. Consultative work for the production of the NEGA recommended that three of these areas be combined within the NKSNP. This resulted in a final list of 30 Protected Areas from the NEGA work. Figure 1 below shows a map of the 30 Protected Areas that stemmed from the production of the NEGA (February 2011).

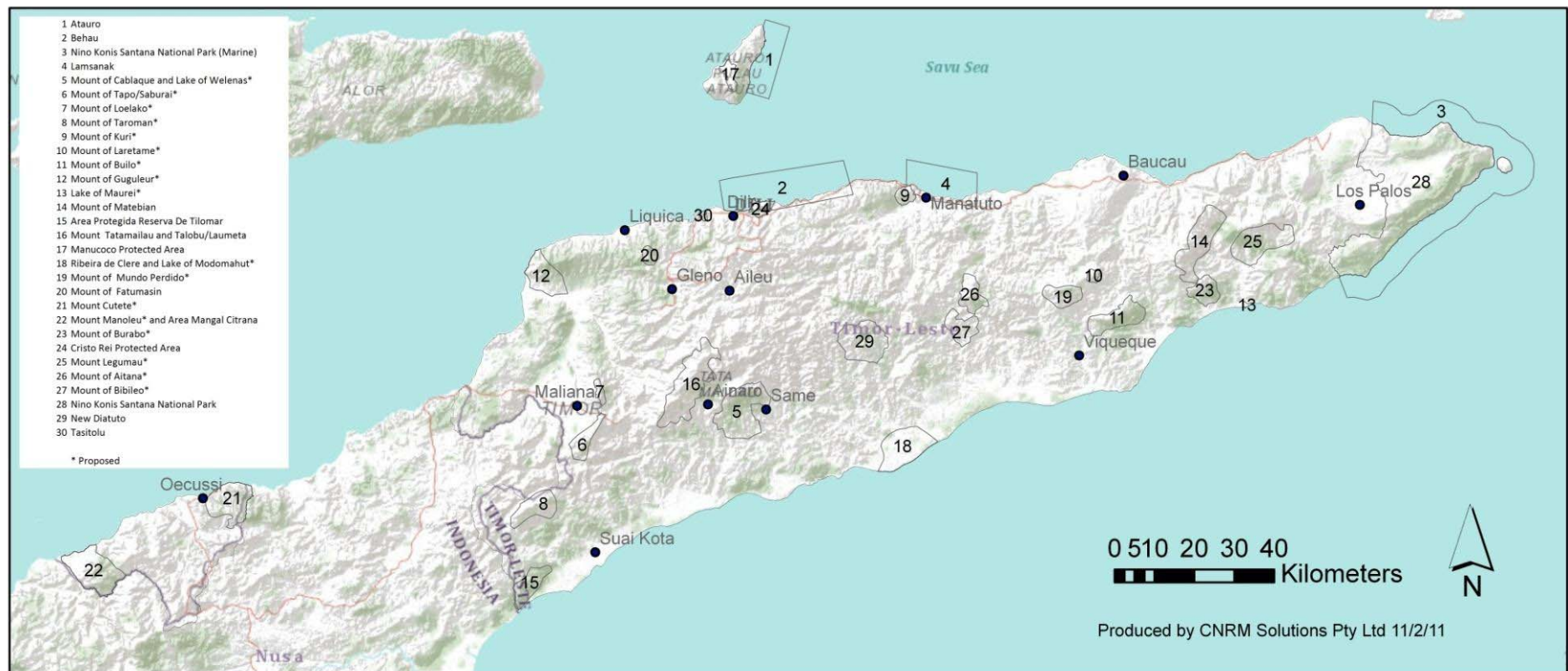


Figure 1: Map of the 30 Protected Areas – as a result of the NEGA.

This map shows the ‘existing’ (UNTAET Regulation 19) and newly nominated protected areas for Timor-Leste in relation to the major towns. These are what define the “proposed protected area network”. Final boundaries have not been identified for many of the protected areas and the boundaries shown on the NEGA maps should only be used as a rough guide.

Table 3. The designation status of protected areas in Timor-Leste.

Protected Area Name	Basic Designation	Stage	Legislated
Area Protegida Reserva De Tilomar	Regulamento Untaet 19/2000	Complete demarcation	Implemented
Diatuto and Lian Bau Protected Area	Regulamento Untaet 19/2000	Preliminary survey was conducted and - already held a consultation with community	Implemented
Manucoco Protected Area	Regulamento Untaet 19/2000	Preliminary survey was conducted - already held a consultation with community	Implemented
Nino Konis Santana National Park	Resolusaun do Governo, no. 8/2008 Kria PNNKS,Regulamento Untaet 19/2000	Declaration on August 1, 2008 - including protected areas Reserva de Lore, Jaco Island and Tutuala	Implemented
Mount of Matebian	Regulamento Untaet 19/2000	Defenitive	Implemented
Mount of Mundo Perdido			Implemented
Ribeira de Clere	Regulamento Untaet 19/2000	Defenitive	Implemented
Mount of Fatumasin	Regulamento Untaet 19/2000	Defenitive	Implemented
Mount of Cablaque	Regulamento Untaet 19/2000	Defenitive	Implemented
Mount Tatamailau	Regulamento Untaet 19/2000	Defenitive	Implemented
Cristo Rei Protected Area	Regulamento Untaet 19/2000	Defenitive	Implemented
Talobu /Laumeta	Regulamento Untaet 19/2000	Defenitive	Implemented
Mount Cutete		Candidate for defenitive	Proposed
Mount Manoleu		Candidate for defenitive	Proposed
Area Mangal Citrana		Candidate for defenitive	Proposed
Mount of Tapo/Saburai		Candidate for defenitive	Proposed
Mount of Taroman		Candidate for defenitive	Proposed
Mount of Kuri		Candidate for defenitive	Proposed
Mount Lequmau		Still a detailed Identification	Proposed
Mount of Laretame		Still a detailed Identification	Proposed
Mount of Builo		Still a detailed Identification	Proposed
Mount of Guguleur		Still Preliminari Survey	Proposed
Mount of Loelako		Still Preliminari Survey	Proposed
Mount of Burabo		Still Preliminari Survey	Proposed
Lake of Maurei		Still Preliminari Survey	Proposed
Mount of Aitana		Planned	Proposed
Mount of Bibileo		Planned	Proposed
Lake of Modomahut		Planned	Proposed
Lake of Welenas		Planned	Proposed

1.9 The National Biodiversity Strategy and Action Plan (NBSAP)

The NBSAP is the national driver for biodiversity conservation and management, and should incorporate plans and policy hooks to further protected area management. At the commencement

of the latest PoWPA Component work in Timor Leste, the NBSAP was yet to be produced. While this is unusual (i.e. NBSAP's for many Small Island Developing States [SIDS] have driven the take-up of PoWPA activities) the nature of inclusive work since 2003, and especially since 2007 and the completion of the NEGA and Strategic Action Plan (SAP): provides a good benchmark for the generation of the NBSAP.

Since the PoWPA Components were commenced in late 2010 and early 2011, the Department of Environment, has engaged the ASEAN Centre for Biodiversity to assist with the completion of the NBSAP. This is being managed by the National Biodiversity Working Group (NBWG) whose membership includes representatives from DPANP, Agriculture, Fisheries, Tourism, Forestry, International Affairs and the GEF Focal Point.

The NBSAP is expected to be completed in the coming months.

1.10 Strategic Needs to progress the Protected Areas planning, establishment & management

1.10.1 Designation or Categorization of Protected Areas

Essentially there may need to be alternate forms of protected area governance in Timor Leste. The IUCN management categories basically identify four main governance types: government managed protected areas; co-managed protected areas; private managed protected areas; and community conserved areas. What is not well portrayed is the prospect of multiple forms of governance within or between prospect protected areas.

Of the IUCN categories, Categories V and VI are often seen to be the most useful ones for addressing the interests of indigenous and local communities, given their emphasis on sustainable practices and the humans-nature relationship that is built into their definitions (Oviedo, 2002). However often the planning for and establishment of protected areas has been carried out with little regard for the implications for indigenous and local communities that inhabit them. Traditional customary and local community land and resource rights have often received little consideration in approaches that have more narrow views of species or ecological community conservation objectives. The implementation mechanisms often proposed are western style systems that bring about imposing management and control systems. These frequently usurp traditional and local community governance, cause conflict and/or are inequitable in terms of offering continued pursuit of livelihoods, or access and benefit sharing.

The DPANP team identified the need to develop criteria to assist them working with local communities to determine the most suitable form of PA category for each of the 30 PAs.

1.10.2 Integrated Land Use Planning

Within societies that incorporate indigenous or traditional systems or practices, governance of resources, their use and utility, even outside prospective protected areas - need special consideration to address social harmony and conflict minimization. Many least developed countries (LDCs) that in part involve some form of customary use-hold are often complex societal places where customary principles of common use of land and resources is mixed with high principles of reciprocity and sharing. These principles have or are continuing to be usurped by 'individualistic' pursuits that have come with globalization. Mixes in hereditary systems, practices in adoption and extended family systems, even within harmonious religious communities can be fraught with conflict and tensions - even within family units. This potential for emerging tension and conflict needs to be considered carefully.

The benefits of integrated or community based (and driven) land use planning has received note over the last 5-8 years as an approach that can provide a platform of conflict resolution or at least a base where mediation can take place. Simply a lot of conflict is promulgated by one party not knowing or

understanding what another party is doing. Or one party or group is provided with opportunity where a neighbor is not. In poverty stricken communities, equity in opportunity and benefit sharing is of paramount importance. The significance of establishing well accepted principles of protected area "governance" is now well recognized globally. Governance systems have to be effective and efficient and if established well can make the difference by encouraging social harmony and conflict minimization, while enhancing opportunities for livelihood pursuits.

The DPANP team identified the need to incorporate land use planning into the making and implementation of the Conservation Environmental Management Plans, given the need to cater for land use and development decisions for those living within PAs. The NEGA, among other reports, has identified that land use decision-making platforms outside of the PAs, could provide the means to establish corridors between the identified PAs.

1.10.3 Economic Well-being

Indigenous and local communities are owners and co-managers of considerable areas of land designated as protected areas. They often suffer direct economic losses when their access to biological resources is cut off by establishment of a protected area. For this reason, particular attention should be paid to the policies and process involved in the selection, designation and management of protected areas that involve lands and waters traditionally occupied or used by indigenous and local communities. The WWF/IUCN Principles and Guidelines on Indigenous and Traditional Peoples and Protected Areas provide excellent guidance in this regard.

With the participation and involvement of the traditional and local inhabitants at all stages of planning, implementation and management, protected areas can have mutually beneficial outcomes for both the people themselves, and the ecosystems targeted for protection.

Indigenous and local communities are themselves often considering means to provide 'protected areas' over their lands and resources to suit their own needs, to try and stem degradation and to attract financial resources or alternative income sources (Oviedo, 2002).

Local communities can suffer direct economic losses and hardship when their access to biological resources is abruptly denied. They often rely on their forests, wetlands and coastal systems for protein, timber, non-timber forest products (NTFPs) and access to agricultural land. Correspondingly if protected areas can be set up in a manner that assists their needs they can provide alternative sources of employment can provide protection of their critical source of timber, energy and food and enhance their lifestyles.

1.10.4 Income Generation Opportunities

There is a need therefore to ensure that the potential burdens of protected-area establishment are not disproportionately applied on local communities within or nearby protected areas and that financial costs and opportunities are factored into PA planning, establishment and management. In terms of financial resources, efforts should go beyond the tangible costs of setting up PAs to evaluating the long-term financial needs of the protected areas and the peoples within and surrounding them.

Protected areas can in time offer a wide range of employment and income opportunities for the local communities (e.g. park managers, rangers, natural tourism development, tourist guides, research and interpretive centres, infrastructure provision and maintenance, fees for entry and use etc). However many will take time to establish and some will require capital injection from government and other sources (e.g. development assistance) over some years. For potential jobs there will also be a time commitment, a need for training, including land management, land use planning and science based skills that complement locals' traditional knowledge and practices.

New business opportunities can be pursued and may include natural tourism, organic agriculture, niche cropping, WBFPs (certified as sustainable), NTFPs and sustainable & certified forestry, etc). These activities can contribute significantly to livelihoods and social wellbeing and provide the impetus to shift away from more destructive livelihood activities (e.g. dynamite fishing, commodity crop monoculture, extensive cropping, ad-hoc fuel wood collection etc). However many of these pursuits will require investments in time and financial resources. Locals will need to be trained in basic business management and sustainable land use and management practices. Supporting staff at the national level will also require training in business development and approaches such as market chain/value chain analysis.

Supporting human resources and governance systems will also require capital inputs for decision-making, training in strategic planning, environmental/social/cultural impact assessments, biodiversity monitoring, land management and habitat rehabilitation, species surveys, and so forth. All these require considerable investment in time and financial resources.

The DPANP team have identified the need to provide capacity building in alternative livelihoods for communities in and surrounding PAs. They have a manager in charge of Natural Tourism and Livelihoods and recognize that this person requires up-skilling to provide 'train the trainer' services to the local level.

1.10.5 Financial Resources

There are potential avenues to harness private financial flows to support local conservation efforts. These may be through locally organized entry and activity fees, taxes on tourism operators and/or payment for ecological services (PES).

Institutional and policy development at the national and sub-national levels should be commenced to take advantage of the emerging REDD+ opportunities (Reducing Emissions from Deforestation and Degradation). While this is somewhat delayed in international UNFCCC negotiations, a system will eventuate that will provide financial incentive for local communities to maintain their remaining forests and bio-diverse areas. The avenues for financial incentives under REDD and other UNFCCC modalities should also be explored. The voluntary carbon systems that exist at the international level could provide immediate access to processes which provide financial income to local farmers and landowners committed to sustainable land management and biodiversity conservation (Plan Vivo, VCS, CCBA etc).

Even with nurtured capacity development alternate livelihood opportunities may face major barriers including: lack of business planning capacity; lack of investment capital; lack of solid market chain avenues; difficulties with securing finances, and certainty in decision-making processes. Financial assistance through bilateral and multilateral agencies may need to continue to provide the financial cornerstones for alternative livelihoods development through protected-areas establishment. Much of this development assistance must target the capacity-building needs of the indigenous and local communities to enable them to take on ownership roles as managers, as well as enable them to diversify into other forms of economic activity that will relieve pressure on local biological resources.

Much of the work in Timor Leste over the last 5 years has involved community input at various junctures. The nomination of the 30 Protected Areas has taken a grass-roots up approach and also used expert opinion through the NEGA generation process.

2.0 Key Stakeholders in Protected Areas

2.1 Summary of Stakeholders involved in Protected Areas – Timor Leste

Section 1 provided much comment about the need for grass-roots approaches and inputs through community participation. It is therefore important to understand the breadth and depth of relevant stakeholders in Timor Leste.

Table 2 below was taken from the 2008 application to the UNDP for funding to commence PoWPA Phase 1 related activities

Table 2: Summary of Stakeholders in Protected Areas – Timor Leste

Stakeholder	Mechanism for involvement in the project
DPANP	<ul style="list-style-type: none"> Has the mandate and jurisdiction for management of the PAs at a national level and will be responsible for establishing and servicing national and district committees as required. Implementation of all project PoWPA components will be supported by the Project Manager (PM), Manuel Mendes, who is the head of the DPANP. The small number of staff (6-7) that currently makes up the DPANP is, currently, divided according to functions. This arrangement is beneficial to address the critical actions nominated in the SAP, but in time could make it difficult to work with cross-cutting issues as the team grows.
District and Sub-District Government Administration; Suco and Aldeia Chiefs (Village and Hamlet, respectively); Suco Councils (Village Councils)	<ul style="list-style-type: none"> Although policy, legislative and regulatory authority is currently centralized, District and Sub-district Administration (part of the Executive arm of Government via the Ministry of State Administration) are located within or immediately around PAs and carry responsibility for on-ground management and regulatory enforcement. District Administration links with a system of elected officials operating at the Village (<i>Suco</i>) and Hamlet (<i>Aldeia</i>) level and there are also Suco Councils with elected community representatives representing various constituents such as women, veterans and youth. All of these leaders and councils are mandated to participate in environmental planning and management, as well as developing local infrastructure and spatial planning. All officers that work at District and Sub-District levels are attached to Government Ministries, the most important to the PAs being the Ministry of Agriculture and Fisheries (MAF). MAF has officers with <i>inter alia</i> responsibility for direct involvement in PA management and enforcement however none are <i>directly</i> linked to the DPANP. Thus it will be necessary to open dialogue and work directly with key officials to ascertain areas within their present functions and responsibilities that can be formally integrated into PA activities. The most obvious opportunity would be, at least in relation to the activities related to the development of the SCMP for NKNP.
Communities within and adjacent to PA sites	<ul style="list-style-type: none"> The communities within and adjacent to PA sites which to varying degrees are dependent on resource use and in most cases were resident prior to the establishment / gazettement of the PA. The DPANP regards the responsibility for the conservation and management of the PAs as an important national prerogative. Experiences in a range of countries and different cultural settings have clearly shown that biodiversity conservation cannot take place without broad participation and cooperation from all stakeholders, particularly local communities.
Private sector stakeholders	<ul style="list-style-type: none"> Private sector stakeholders who are currently or potentially engaged in resource use in or surrounding a PAs site. They range from fully legalized private tour operators to commercial fishermen around (and sometimes

	<p>inside) Marine PAs.</p> <ul style="list-style-type: none"> • The Directorate of Tourism is already proactively seeking DPANP involvement in the development of the national policy on tourism and is explicit in its desire to ensure the tourism sector is truly sustainable, environmentally and ethically sound. • Private sector interest groups have traditionally only had limited involvement on PAs management. • In practice this interest group has a significant, often negative impact on resources and provides few or no benefits to local communities in terms of jobs and income. • The private sector could in the future have a positive role in support of PAs and frameworks for their involvement will need to be included in the DPANP Strategic Action Plan and SCMP. • As well, consideration of this stakeholder will need to be included in the Policy and Legislation review and development process.
National NGOs and other Civil Society organizations - See further comment below.	TL has a large number of national and local NGOs, a national university, and other strong components of civil society, especially religious groups. These are active throughout the country, frequently engaging in developmental and environmental issues. Several groups have experience relevant to project activities, in particular understanding of sites and of processes that may impact on their conservation; these will be involved through working or consultation groups and participation in field surveys, and will also be targets for capacity building to allow increased contribution.
Other Government Ministries	Main stakeholders include the Ministry of Economy & Development (Secretary of State for Environment); Ministry of Agriculture & Fisheries (Secretary of State for Fisheries); Ministry of Justice (National Directorate of Land & Property); Ministry of State Administration (District level administration); Ministry of Education (Secretary of State for Culture); Ministry of Labour (National Disaster Management Office), Ministry of Industry, Commerce and Tourism (National Directorate of Tourism). These are all already engaged to varying degrees and their roles will be commensurate with their mandate. Most significant is the Secretary of State for Environment and Secretary of State for Fisheries.
International NGOs	Several INGOs have a direct interest in biodiversity conservation in TL and most of these have experience working with local partners and communities and can work with teams to help find pragmatic solutions to pressing conservation, environment and development challenges. INGOs also support scientific research, co-manage field projects and work with governments, other non-government organizations, UN agencies, private sector companies and local communities to develop and implement best practice conservation.

2.2 National based Non Government Organizations (NGOs)

Partnerships between government and NGOs are often the best approach to deliver capacity and services to the local community levels. There are often mutual benefits: government skills and experience in information management, policy, laws, and decision-making processes; NGO skills and experience in community engagement, understanding local conditions and on-the-ground presence. The following summarizes a number of key national based NGOs that have or continue to work with communities in protected areas, biodiversity conservation or other environmental management projects.

1. **Haburus Foundation** -Director – Demetrio do Amaral de Carvalho

Timor Leste's leading environmental NGO – have engaged in participatory action research with local peoples documenting local cultural traditions and rituals specifically in relation to environmental

management. They carry out initiatives in sectors such as forest management, coastal area protection, ethical tourism, energy management and environmental education. Haburus advocates where appropriate the recognition of customary governance structures (Tara Bandu) particularly in area of resource management. Haburus works through the ratu or clan based structures in all its local project work. This has generated some criticism from others where they perceive as Haburus promoting a 'feudal' system. Haburas have been involved in research and evaluation of prospective sustainable tourism sites for the Dept of Tourism, and assisted with the construction of one of the first ecotourism village at Valou Beach, within the NKNP. They would be a worthy partner in determining criteria for protected area classification, as well as in assisting community engagement in Conservation Environmental Management Plans (CEMPs).

2. Roman Luan (Local NGO)

Another locally active NGO is Roman Luan on Ataúro Island. They are involved in the Bikeli Marine Management Project that helped to establish two community-based **Marine Protected Areas** (MPAs) in the Bikeli region of Ataúro Island (Pedi 2007). Subsistence fishing and agriculture are the main sources of livelihood on the island (NDFA 2005). In response to declining fish catches, the fishing communities in cooperation with Roman Luan established the two MPAs for which a set of regulations have been drafted (Belo Soares, M., pers. comm.). The NGO is also running an eco-lodge on Vila beach and has developed a set of guidelines for sustainable eco-tourism. All regulations and guidelines were developed through a consultation process that brought together key stakeholders such as village heads, Fishermen's cooperatives, and Dili-based dive tour operators. Other activities are concerned with sustainable fisheries and include a survey of fisheries operations and community workshops on safe fishing practices, and coastal re-vegetation (Pedi 2007). They have also been involved in a partnership project between Roman Luan, the Australian Conservation Foundation, and the Marine and Coastal Community Network in Darwin to deliver capacity building in community-based marine management (Lara Wever doc p.45 2008).

3.0 International Good Governance Frameworks

As was mentioned above it is of paramount importance that the planning for, establishment and management of protected areas, takes on a community development approach. This in turn needs to be guided by internationally agreed principles and objectives of sustainable development, especially those that relate to good governance and the rights of indigenous and local communities. Below are commentaries on some of the key international governance principles that will be of particular note in determining capacity development needs for protected areas networks and supporting broader governance matters.

3.1 Emergence of Good Governance Principles

Good governance has often been advocated as a pre-requisite for sustainable development.

*"Good governance at all levels is fundamental to the development of our countries. Before adopting new policies, legislation or projects, Governments, non-state actors, intergovernmental organizations, and donors should explore the **policy options and their impact on different groups** – and take account of this differential impact before making the final policy choice."*
(WSSD, Johannesburg Plan of Implementation, 2002)

It has also been touted as necessary for the attainment of the MDGs. However there are often differing viewpoints of the meaning of good governance. Initially there was dominance of the notion that it required placing the state and society at the service of the market, under the presumption that economic growth alone will deliver development. More recently the people and community-centered notion of good governance tied to democracy and the possibilities of genuine sustainable development – has emerged.

Poverty, hunger and transparent government cannot be addressed without the democratization of policy making and implementation to the most local level possible. This is consistent with the principles of subsidiarity (see Box 1 below) and a critical feature of democratic governance.

Box 1: Principle of Subsidiarity

Often considered a corollary of the principle of the common good, subsidiarity requires those in positions of authority to recognize that individuals have a right to participate in decisions that directly affect them, in accord with their dignity and with their responsibility to the common good. Decisions should be made at the most appropriate level in a society or organization, that is, one should not withdraw those decisions or choices that rightly belong to individuals or smaller groups and assign them to a higher authority. However, a higher authority properly intervenes in decisions when necessary to secure or protect the needs and rights of all. The principle implies that, when a decision is to be made, we should identify the most appropriate forum and level of decision making, and how best and to what degree those individuals most affected should participate in the decision making process

The subsidiarity principle was first introduced in the Treaty of Maastricht as a general principle applicable to all areas of non-exclusive competence. The Edinburgh European Council of 11-12 December 1992 set down a global approach for applying the principle of subsidiarity.

Intervention by the Holy See at the 13th Session of the UN Commission on Sustainable Development (CSD, April 2005)

3.2. International Agreements for Sustainable Development

One of the critiques of early definitions of good governance was its concentration on national level government processes, heavily biased in many Small Island Developing States toward fiscal and security matters.

With the advent of the WSSD, and subsequent linking of initiatives for human rights, a broader concept of good governance and its foundation for sustainable development emerged:

"To this end, we commit ourselves to undertaking concrete actions and measures at all levels and to enhancing international cooperation, taking into account the Rio principles... These efforts will also promote the integration of the three components of sustainable development - economic development, social development and environmental protection - as interdependent and mutually reinforcing pillars.

In Box 2 below extracts from the Johannesburg Plan of Implementation (JPoI) from the WSSD are quoted. These highlight the advocacies for multi-level governance initiatives as well as the acceptance of land use planning providing a key role in achieving the objectives of sustainable development.

Box 2: Extracts from the JPol: Local level initiatives and land use planning

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

- (a) Provide support for the development of sustainable development strategies and programmes, including in decision-making on investment in infrastructure and business development;
- (b) 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;
- (c) Promote public procurement policies that encourage development and diffusion of environmentally sound goods and services;
- (d) Provide capacity-building and training to assist relevant authorities with regard to the implementation of the initiatives listed in the present paragraph;
- (e) Use environmental impact assessment procedures.

19(b) Integrate energy considerations, including energy efficiency, affordability and accessibility, into socio-economic programmes, especially into policies of major energy-consuming sectors, and into the planning, operation and maintenance of long-lived energy consuming infrastructures, such as the public sector, transport, industry, agriculture, urban land use, tourism and construction sectors;

20. Promote an integrated approach to policy-making at the national, regional and local levels for transport services and systems to promote sustainable development, including policies and planning for land use, infrastructure, public transport systems and goods delivery networks

3.3. Millennium Development Goals (MDGs)

The Millennium Development Goals, agreed by the UN in 2000, provide the key targets against which progress in reducing poverty and achieving sustainable development can be measured. In terms of good governance, conservation, urban planning and sustainable development, Goal 7 'Achieving Sustainable Development' is the most relevant. It is a challenging goal being the only one that contains qualitative targets. However it is the essence of the collective goals that are of interest - halving the proportion of people in poverty, getting all children into school, reducing infant, child and maternal mortality, improving access to potable water, reducing slums and reversing the loss of environmental resources. Behind the actual goals and targets is commitment that a united effort and approach at all levels of governance are required to delivering sustainable development.

The Millennium Declaration, 2000 recognizes that governments and communities need to engage in protecting environmental resources to 'protect' the health, livelihoods and security of the poor. Ensuring the sustainability of environmental resources assists the poor by:

- **'helping to ensure food security** - a diversity of cultivated species and varieties of crops, trees, livestock and fish help subsistence farmers and communities to spread risks, especially in vulnerable areas;
- **providing building materials, fuel, foods and medicines** - 75% of the world's population depend primarily on traditional medicines, usually gathered from the wild. These resources are of particular importance during the dry periods, droughts and famines.

- **maintaining vital ecosystem services** - of importance to the economy as a whole as well as to the poor - such as soil and water quality, invasive pest control, pollination and the natural breakdown of harmful wastes and pollutants.
- **underpinning cultural and spiritual values**, providing the basis for the way in which social institutions, religious beliefs and traditional knowledge have evolved.
- realizing market value of resources that **promote the economic growth needed to reduce poverty** - fisheries, forests and nature-based tourism for instance provide vital foreign exchange.'

(Extracted in part from Short, 2003)

The WSSD and Millennium Summit beforehand succeeded, at least in the international arena, in furthering recognition of the benefit of natural resources and their protection for economic development and improving the quality of life of the poor. They put life back into the ethos of 'thinking globally, act[ing] locally'. Prior to these events and subsequent actions, international governance was preoccupied with global rather than local values, focusing a lot on the conservation of endangered animals, plants and trees taking little account of the needs of those in poverty. Too often well-intentioned conservation efforts on protected area systems were being resisted by local people whose livelihoods would be affected. In short there have been great moves to focus much more on sustainable use of natural resources for communities rather than on conservation for its own sake.

In addition experience over the last decade has illustrated that increasing poverty, corruption, weak governance and conflict are often the dominant causes of environmental degradation, and that those who suffer the most are the poor and vulnerable (Short, 2003).

The relevance of the gradual shift in emphasis is relevant here. The WSSD (2002) and Millennium Summit (2000) brought home the powerful messages that holistic approaches to development planning and environmental sustainability were required and that these would require partnerships between state and local level governance. The need for land use and environmental planning systems to provide consistent bases for holistic approaches was recognized.

Box 3: MDG 7

Goal 7: Ensure environmental sustainability	
Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	1. Proportion of land area covered by forest 2. Land area protected to maintain biological diversity 3. GDP per unit of energy use (as proxy for energy efficiency) 4. Carbon dioxide emissions (per capita) [Plus two figures of global atmospheric pollution: ozone depletion and the accumulation of global warming gases]
Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water	5. Proportion of population with sustainable access to an improved water source
Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	6. Proportion of people with access to improved sanitation 7. Proportion of people with access to secure tenure [Urban/rural disaggregation of]

3.4. *UN-HABITAT Global Campaign on Urban Governance*

While not directly related to biodiversity conservation the function and charter of the UN-HABITAT is worthy of noting with regard to good governance, especially where there is a prospect need for capacity development in land use planning and mainstreaming the environment in development processes.

The UN-HABITAT launched the Global Campaign on Urban Governance in 1999 to support the implementation of the Habitat Agenda goal of “sustainable human settlements development in an urbanizing world.” The campaign’s goal is to contribute to the eradication of poverty through improved urban governance. Its objectives are to increase the capacity of local governments and other stakeholders to practice good urban governance. While the original focus of text was on urban systems, the UN Habitat Secretariat is aware the principles are equally applicable to rural and village based systems.

The UN Habitat’s programme’s work is divided between three thematic areas of poverty, environment and governance issues. Currently activities have been undertaken in areas such as urban administration; land management; municipal finance, micro finance and access to credit; sustainable infrastructure; land tenure; solid waste management; environmental planning and management (EPM); participatory governance; urban violence; urban heritage and poverty reduction.

The UN-HABITAT’s most recent campaign’s theme is “inclusiveness”. An “inclusive city” is defined as a place where everyone regardless of wealth, gender, age, race or region is enabled to participate productively and positively in the opportunities offered by the ‘city’. The campaign is underpinned by universally accepted principles of good urban governance. These are:

- **Sustainability** in all aspects of urban development
- **Subsidiarity**, or devolution of authority and resources to the lowest appropriate level of decision-making
- **Equity** of access to decision-making processes and the basic necessities of urban life
- **Efficiency** in the delivery of public services and in promoting local economic development
- **Transparency and Accountability** of decision makers and all stakeholders
- **Civic Engagement and Citizenship**, characterized by active participation of citizens in public life, and
- **Security** of individuals and their living environment.

In essence good urban governance focuses on the quality of governance at the local level. The need for this arose out of the recognition of emerging democratic processes, the growth of civil society involvement and the overall emerging complexities of the development economy and the pressures it presents to local communities. There are growing responsibilities and needs for accountabilities for outcomes, impacts, and central governments under increasing pressure to deliver an expanding range of public and social services.

The mounting pressures on local governance stakeholders, many of whom are ill equipped – make communities vulnerable to corruption, crime and other forms of poor organizational behaviour. It also increases susceptibility for citizens to be alienated. The pressures manifest in lack of clarity regarding roles and responsibilities, confusing regulatory frameworks, complex administration and poor information flows at the local level, as well as between local government stakeholders and central government. Poor decision making prevails or there are often disjointed actions that are not sustainable.

Good urban governance extends beyond transparency, accountability and corruption to address the forces of urbanization, globalization, decentralization and democratization (UNHabitat, 2004). These forces manifest at the local level, and there are two critical implications for local actions:

- i. Immediate quality of life of a citizen is affected by factors that are mostly determined at the local level. This may relate to: the location of settlement, land use, activities; the quality of development and of the environment; types of services and facilities provided; opportunities for livelihoods and the availing of means to influence the range of choices and options through decision-making. Additionally where systems are not in place the impacts of corruption and alienation are acutely felt at the local level whether through inequitable and arbitrary allocation of land, provision of services, bribery and or extortion; and
- ii. localising governance: the local area or village efforts to improve governance can provide catalytic lessons and effects for fundamental reforms at the national level; whether this be the coordination of agencies in service provision, strategic decision-making (improved effectiveness and efficiencies), better resource provision or the tackling of corruption. For instance, Transparency International, suggests that tackling corruption at the national level requires a 10-15 year timeframe, whereas actions at the local level have provided good results in as little as two (2) years (UNHabitat, 2004).

So how does this relate to environmental assessment and land use planning? The principles of contemporary land use planning are similarly steep in equity principles consistent with those for good urban governance. The advocacy for land use planning to target firstly local communities has also been a principle since the Stockholm Conference on Human Development (1972), highlighted also in the Rio Conference (Agenda 21) and most recently in the World Summit for Sustainable Development (WSSD, JPol). The manifestations of poor urban governance are often poor living environments and quality of life opportunities – as briefly described in point i) above.

Introducing a land use approach to assist Villages address mounting pressures and complexities beyond their usual control and resources can serve as a entry point for catalysing broader actions by village level governance:- to improved transparency, accountability, clarify roles and responsibilities, simplify regulatory platforms, provide better information and extend capacities for decision-making.

3.5 Risk Based Land Use / Environmental Planning

Small Island Developing States (SIDS) about the Asia-Pacific region are considered the most hazard-prone in the world. The WSSD and the Mauritius International Meeting of the BPOA review (MIM, 2005) recognized the special case of Small Island Development States (SIDS) in sustainable development especially in the area of vulnerabilities to natural and human induced hazards. It is important for planners and decision-makers to incorporate management of the most significant risks at all stages of development planning.

An integrated, multi-hazard, inclusive approach to address vulnerability, risk assessment and disaster management, including prevention, mitigation, preparedness, response and recovery, is an essential element of a safer world in the twenty-first century. Actions are required at all levels to:

(d)Reduce the risks of flooding and drought in vulnerable countries by, inter alia, promoting wetland and watershed protection and restoration, improved land-use planning, improving and applying more widely techniques and methodologies for assessing the potential adverse effects of climate change on wetlands and, as appropriate, assisting countries that are particularly vulnerable to those effects;
[Extract from the JPol, 2002]

There has been much work on vulnerability and hazard/risk assessment, about the Asia-Pacific region. Little progress however has been made on how to synthesize outputs from various initiatives into land use planning systems. Much of this is because land use planning policy and systems development in most SIDS are at very early or embryonic stages.

3.6. *Rights based Development*

There are three important legally binding international conventions addressing different aspects of human rights, social justice and participatory governance, which incorporate provisions of relevance to the protected areas implementation in Timor Leste. The conventions and the dates of ratification are:

- International Covenant on Civil and Political Rights (ICCPR) (01/05/72)
- International Covenant on Economic, Social and Cultural Rights (ICESCR) (01/05/72). Reservation to art. 10 (2).
- Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (09/03/84)

It is unclear whether Timor Leste is party to any of these international agreements. However in the circumstances of the need for capacity development in governance to assist protected areas implementation reflections on the objectives of these Conventions is healthy and should be explored further in the work of the Conservation Area Management Plan for the NKSNP.

The detail of each Convention's clauses of relevance is not provided here, however commentary is made on the relevance of rights based governance.

Right to adequate standard of living:

Every person's right to an adequate standard of living was articulated in Article 11(1) of the ICESCR:

"The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent".

In the World Social Summit+5 (July 2000), it was stated that the decentralization of administration and the development of local and municipal authorities were the means to the creation of inclusive and participatory societies. This commitment to good governance was repeated in the Millennium Summit and Declaration as a strategy for eradicating poverty. Participating states also stated that they would work towards more inclusive political processes, allowing genuine participation by all citizens in all countries. At the Istanbul+5 Conference in New York in June 2001, the same commitment was repeated, but specifically to combat urban poverty through transparent, responsible, accountable, just, effective and efficient governance of cities and human settlements.

Parties to the 13th Session of the Commission on Sustainable Development (April, 2005) recognized that the poor, especially women and youth are those that suffer the most from deficiencies in infrastructure and services in relation to water, sanitation and human settlements. It was noted that the solutions to these challenges could not rely on sectoral and isolated approaches. Full stakeholder participation and partnerships between the public and private sectors and civil society were seen as fundamental to addressing the problems.

Innovative policy responses were called for. These included targeting the challenge of slum areas, job generation, and special needs of the urban poor, waste management, land tenure, public transport/mobility/accessibility, participatory approaches and community mobilization. The growth of *effectively functioning* cities and towns was seen as essential for equitable and sustainable growth.

The continued participation of local communities and Suco's in establishing and managing PAs in a manner that is inclusive of peoples living within and surrounding PAs, will place the Government of Timor Leste in good stead to provide a system of rights based development planning that would be consistent with some of the objectives of the above agreements.

3.7 Community Planning Approaches

Contemporary land use or 'community planning' approaches have emerged in recognition that the built environment and its layout can lock communities and governments into resource-intensive patterns of living. Strategic assessments and planning can enable low impact lifestyles where consumption and production is maintained within sustainable limits. It is widely accepted that land use and environmental planning are the natural home of sustainable development (Short, 2003). Planning theory and practice takes a rounded perspective on all the environmental, social and economic impacts associated with development including the strategic allocation of land use and activities (absolute, relative and cumulative impacts), and provides approaches and methods to act to manage these in an integrated manner.

In the past, however, practice was centred on older UK principles of 'town planning' and was more reactive than proactive in trying to make development more sustainable. The most significant change in recent times has been the emphasis on the need for positive or strategic planning – actions that seek positively to influence development, not simply to control it. Performance based plans and systems which support them, enable authorities to use them to provide clear expectations on individuals, community representatives, business and developers to meet minimum criteria. Higher order performance objectives usually provide an element of flexibility for both industry and government. Many of these higher order performance targets and quantitative minimum criteria incorporate environmental protection, conservation and biodiversity objectives.

Many of the minimum requirements in the contemporary planning approaches provide information on which the achievement of these criteria can be based (baselines and benchmarks). Stakeholders can proceed on a 'given' platform, which assists investments and checks and balances by the community on performance. It is far easier to work with developers and the community to achieve sustainable development outcomes, than to 'control' them by prescriptive requirements that require burdensome enforcement.

To be truly effective, planning for sustainable land use and development will need to be based on development appraisals that no longer ignore long-term environmental, social and economic costs - in favor of short term political and economic benefits. The best place for starting such sustainable planning approaches is with the community.

3.8 Actions in Timor Leste - Exploring Planning Approaches

As the implementation of effective protected areas management in Timor Leste will involve land use planning (for communities living in PAs) as well as conservation planning, there is a chance to develop unique planning approaches suited to local community aspirations, needs and problems. Early trial approaches can provide lessons for wider application of community based land use planning for areas outside of nominated PAs. Furthering land use planning for rural areas may afford the opportunity for communities to agree to areas between protected areas to be managed in a manner that offers future corridors ensuring ecological connectivity between protected areas.

The existence of a Land Use and Land Management Policy in draft form has been mentioned in recent references; however this document was not available. Needless to say it is expected that this Policy is still in draft form.

The SLM project in looking at mainstreaming described how policies and laws on land that pursue economic productivity at the expense of all other values, had been presented previously to the

government , often with disastrous results. The rationale for such approaches is the so called “modernization paradigm” which perceives Western land tenure systems being superior to local customary tenure systems. The philosophical foundation for such hypothesis, that even many UN organs espouse, stems from the premise that private, freehold arrangements provide the investment security necessary for investment for efficient production and services. Governments are often cornered into arguing that the traditional customary land tenure systems are obstacles to increased agricultural production, industrial and business development, as the traditional system does not confer secure individual rights to land which would encourage investment.

However experience over the last 10 years has often disproven this premise. Experience in the Pacific for instance shows that investment in traditional tenure systems can occur, albeit with the clever meshing of traditional ways and ‘western’ investment concepts, including environmental management paradigms. Contemporary or community based planning systems can overarch tenure systems (and the conflict that is often inherent in traditional and western systems) and help provide the certainty, confidence and hope, being the key ingredients for sustainable investment and development.

Governments should not totally neglect Timor-Leste’s customary tenure and traditional sustainable land management practices, but enhance its benefits and work out where best it can be meshed with more contemporary governance mechanisms and law and policy. Individual tenure and customary tenure systems can coexist, and lead to a land use and land management system in which western land management and conservation concepts can be reinterpreted by local communities using their knowledge and practices, which is steep in connectivity between man, nature and wilderness.

Among other things, the recognition and protection of customary tenure and enhancement for conservation outcomes can facilitate the reconciliation and realization of the critical values that land represents to Timorese people, especially after many years of conflict and displacement. As Timorese people continue to manage and use their lands according to indigenous tenure, even if in localized areas, what is required is an approach that seeks to enhance the Adat systems (including Tarabandu), rather than replace or affect indigenous tenure systems.

As the experience in Samoa has found, there is no doubt that a good community based land use planning system that calls for the reconciling of modern values of economic productivity, with equity, sustainable resource use and consumption, and cultural preservation inherent in customary systems - will present challenges, both in respect to nurtured development and implementation. Nevertheless, a progressive land use policy and system development will present benefits in terms of reduced land conflict and uncertainty, as well as provide mechanism for locals to invest in their future. It will address the multiple expectations of the Timorese, since independence.

The work by the JICA/MAF Project *Community Based Sustainable Natural Resource Management (CBSNRM)* has seen the recent commencement of participatory land use planning (PLUP) activities in four target villages, Suco Faturasa, Suco Fadabloco, Suco Talitu and Suco Madabeno, in the Laclo and the Comoro River Basins. This initiative may present valuable lessons and approaches that could be expanded for use in land use planning within PAs.

3.8 Land use planning and Impact Assessment.

The DPANP team and others from the Department of Environment have nominated problems with current development approval processes, the instigation of environmental impact assessment (EIA) and the quality of assessments when they are done.

Here we consider the international reasoning of tying environmental assessment and land use planning with good governance.

Standalone EIA guides and legal procedures have often been generated for developing countries over the past two decades; however universal implementation has been an issue. Basically acceptance of EIA by government development agencies and the community is hindered by the fact they are not integrated into any consistent land or resource use or economic development decision-making process. They are often also based on centralized government operation and provisions that are not applicable at the village level where land use and development decisions are often made.

Community based land use planning supported by contemporary SEA approaches and driven by local information systems can fill the gaps in good integrated assessment and planning. They have been found to offer a means to internalize and localize disputes. It can enable communities to identify opportunities as well as constraints; to identify competing development and environment aspirations early in the development process; and maximize the local ownership of decision-making (satisfying principles of subsidiarity). However these advantages can only be so if the systems are carefully designed with communities and implemented over time (to ensure nurtured development and acceptance). The box below highlights some related commentary from a paper by the author on *'Environmental causes of Conflict in Pacific Island Countries'*.

Box 4: Environmental causes of Conflict – Extracts.

"Often tensions build when the intentions of neighbours or others in society are unknown, and people feel that they are either missing out or that they would be injuriously affected (McIntyre, 1999). By talking through problems, negotiations often reveal that win-win situations or trade-offs can be made between competing parties. Open communication of information and knowledge often reveals there have been wrong perceptions of a proponent's intent. In instances the early communication can reveal to proponents that development action would likely cause significant and on-going social, physical and economic hardship. If such constraints or barriers are revealed up front to them, they are more inclined to vary intentions or consider alternate locations.

Where these forms of local adjudication are progressed, tensions are often diminished in intensity, and the conflict becomes manageable. Where there are no legal, policy or administrative systems to cater for this 'alternative dispute resolution' approach, formal adjudication (i.e through court systems) often maintain the level of intensity, delay decisions, cause continued uncertainty and lack of confidence – which can cause situations to turn violent.

Maps produced with and by the communities can assist in community planning and land management approaches. They help communities understand the geographic, social and economic situation in question and assist in the visualization of issues, areas of disagreement, as well as areas of potential agreement. Maps can help in addressing boundary issues through the visualization of the landscape, natural resources, associated land uses, settlement patterns and pressures. Often in customary societies useful initiatives combine efforts in boundary definition of geographical spread of resources, their use and the tenure of the land.

Planning systems invariably provide communities with a system of tools to deliberate and come to consensus on competing land uses, development and activities. Without these conflict resolution processes, tensions can persist and intensify over time. Often they spill over to land administration processes that are often not equipped to adjudicate between uses and activities. Land tenure issues in turn become more complex and turbulent."

Successful implementation and use of EIA and SEA requires them being accepted as tools for integrated land use planning for sustainable development. This part is important in setting the right principles for future capacity development. Most contemporary planning systems take heed on the nexus between land use and the functions and services of natural resources. They are also cognizant

of the role of the 'planning system' to reconcile conflict and competing demands between environment and development.

4.0 International Environmental Management Frameworks

Like many SIDS Timor Leste relies on many multi-lateral environmental agreements (MEAs) for its environmental management initiatives. This is consistent with countries where there is relatively poor meshing of environment and development laws, policy and procedures and weak underpinning institutional systems. In part it is a legacy of needing to rely on development assistance that comes with these international commitments, given the inability to secure resources internally. Given that independent Timor Leste is less than 10 years old, this need to rely on development assistance is expected. On the positive side where there are gaps in laws and policy for particularly environmental issues, many MEAs fill the void by promoting consistent objectives.

Below we discuss some of the initiatives under the key relevant MEAs, that support directly or indirectly the efforts for effective protected areas management.

4.1 *The UNCCD and National Action Programmes*

The United Nations Convention to Combat Desertification (UNCCD) aims to support countries develop integrated approaches to:

- rehabilitate areas of land which are currently degraded; and
- prevent land degradation in areas that are not currently degraded

UNCCD strategies and actions are to be closely linked to or integrated with countries sustainable development strategies.

National Action Programmes (NAPs) are one of the key instruments in the implementation of the UNCCD. National Action Programmes are to be developed in the framework of a participative approach involving the local communities, spelling out the practical steps and measures to be taken to combat desertification. The NAP can be used as the catalyst to meld current and future projects and initiatives that impact on or address SLM and provide the vehicle for sensible and investment orientated actions for medium to long-term support. By merging the processes of NAP formulation with other Environmental Policy formulation, the NAP can be particularly tailored to ensure the sustainability of the gains from sustainable land management (SLM).

UNDP-GEF Global Portfolio Project for Sustainable Land Management (SLM).

[“LDC and SIDS Targeted Portfolio Approach for Capacity Development and Mainstreaming of Sustainable Land Management (SLM)” – Project]

Land degradation is a relatively new Focal Area of the GEF. The GEF Operational Programme 15 (OP15) for Sustainable Land Management (SLM) recognizes the need for targeted capacity development: including the mainstreaming of SLM into national development frameworks; use of integrated land use systems to reconcile competing uses; the addressing of trans-boundary issues; on-the-ground investments in sustainable agriculture, forestry and pastures; as well as targeted research.

The 'SLM Portfolio Project' was built on lessons learnt from other GEF initiatives and provides opportunities for targeted capacity building for LDC and SIDS. The Portfolio Project was available to 47 LDC and SIDS countries that had not yet completed their National Action Programmes (NAP) to Combat Desertification, in order to develop individual, institutional and systemic capacity for sustainable land management. It was available to those countries that have ratified the UNCCD, and were eligible for funding under paragraph 9(b) of the GEF Instrument. It allowed for quick PDF A access

and packaged MSP funds already levered from the GEF. In addition to addressing components of OP 15, the Portfolio Project included the development of creditable investment plans and strategies to motivate donors to invest in the countries.

Timor Leste was able to join the SLM Portfolio Project, some years after other SIDS, however much awareness raising and exploratory work in mainstreaming the environment into development processes, and pushing for integrated land use planning were accomplished.

The chief activities under the SLM Portfolio Project taken on by the MAF, Timor Leste included:

- *Mainstreaming SLM*: integrating land degradation issues into National Development Plans and sector Action Plans, such as that for Biodiversity and Climate Change; harmonizing priorities through links to NCSAs; integrating policy and laws; integrated resource mobilization; awareness raising; case studies of best practice; individual and institution skills development; national coordination mechanisms (such as national sustainable development committees); improved land tenure dispute resolution; local, community and traditional knowledge management & development of information systems (such as GIS);
- *Integration of Land Use Planning Systems (ILUP)*: participatory planning & institutional mechanisms; tools to assess & monitor ecosystem function & production capacity; approaches for integrated decision-making – integrated watershed or landscape planning, land suitability analysis; mapping resources & land use scenarios; land-use conflict resolution; strategic environmental assessment (SEA) & project environmental impact assessments (EIA); resource use economics; GIS for integrated Land use planning & early warning systems; and, demonstration activities on best practices.

The UNCCD and National Action Programmes (NAP)

One output of this work was the production of the UNCCD guided NAP. The UNCCD has always aimed to support countries develop their NAP however funding was an issue. With the Global SLM Project funds were able to be garnished and NAP generation was included as a chief output for SIDS to outline approaches to:

- rehabilitate areas of land which are currently degraded; and
- prevent land degradation in areas that are not currently degraded

Under the Global Portfolio SLM project Timor Leste, through MAF has produced its NAP. It provides much in terms of needing to be aligned with other key environmental policy as well as canvassing the need for the development of an integrated or participatory land use planning system and corresponding policy. Much of this information has been encapsulated below in the appraisal of capacity needs, where the arguments are consistent with that for the establishment and management of protected areas.

4.2 The National Capacity Self Assessment (NCSA)

The National Capacity Self Assessment (NCSA) for many LDC-SIDS offered an opportunity to combine capacity building assessments, enabling the prospects for synergies in policy formulation at the earliest time. The UNDP and GEF sponsored NCSA for Timor Leste was completed in 2007.

The NCSA concluded that Timor-Leste was at the very early stage of implementing the UN Convention for Biological Diversity (UNCBD). The accession to the convention took place in October 2006. Apart from the government's commitment to take part in the convention, little has been done at national level to implement the convention. The NCSA Biodiversity thematic assessment identified priority issues, capacity constraints for these priority issues at systemic, institutional and individual level, as well as capacity building opportunities.

The following tables are excerpts from the NCSA with regard to Biodiversity Conservation. They provided much of the baseline for problem analysis regards the DPANP and furthering Protected Areas planning, establishment and management – covered later in this report.

Table 3: Legislation Framework for the Management of Biodiversity (NCSA,2007)

Laws and Regulation	Agency Responsible	Constraints/Advantages
Law No. 5, 1990 on Conservation of Biological Resources and Their Ecosystems	MAFF/NDCF	In existence, but weak in implementation due to lack of enforcement; to some extent it is inconsistent with present situation.
Law No. 5, 1994 Concerning Biodiversity	NDES	In existence, but weak in implementation due to lack of enforcement; to some extent it is inconsistent with present situation.
Government Regulation No. 28, 1985 on Forest Protection	NDCF	In existence, but weak in implementation due to lack of enforcement; to some extent it is inconsistent with present situation. Potential conflict between role of NDES and NDCF.
Government Regulation No. 51, 1993 on Environmental Impact Analysis (AMDAL)	NDES	In existence, yet implementation is challenged with inadequate technical staff and no enforcement.
UNTAET Regulation No. 2000/17 on prohibited logging and the export of wood products	NDCF	In existence, yet implementation is challenged with inadequate technical staff and no enforcement and lack of sectoral cooperation.
UNTAET Regulation No. 2000/19 on protects areas	NDCF & NDES	Legal basis to formalize the national park and NPAs network. Needs updating to determine further detail of the extent of biodiversity contained within those protected areas. Change in land use to accommodate human population may have affected some of those PA, they may no longer represent a reserve system need protection.
Law on Fisheries Licensing	NDFA	In effect and allow the government to do proper licensing and monitoring of foreign fishing companies' operation in the national water while not neglecting local fisherman activities.
Decree law on fishing crime	NDFA	In effect and allow the government to sustainably manage fisheries resources, however its implementation remains ineffective due to lack of monitoring and evaluation process.
Decree Law prohibited hunting & selling birds & wild animals	NDES	In effect, however its implementation remains ineffective due to lack of monitoring and evaluation process.
Decree Law on the National Tasi Tolu Peace Park	NDES	In effect.

Apart from the above laws and regulations, there are also several legislations of relevance to natural resources and the environment that have been drafted and are currently waiting government's

approval before being submitted to the National Parliament to ratify. These are canvassed in section 5.7 below.

Institutional Framework

The NCSA concluded that there was no clear institution that holds overall responsibility for biodiversity resources and its management in the country. The following Table 4 summarizes the institutions, including academic and NGOs have been identified as important to be involved in the implementation of the Convention.

Table 4: Institutions and their possible roles in the implementation of the UNCBD (NCSA, 2007)

Institutions	Reason for inclusion	Possible roles
MAFF/NDFA	Promoting and development of the nation's aquatic resources in a sustainable manner	Management, monitoring and control of the valuable marine resource lies within the seas of the country
MAFF/NDCF	Promoting and development of biodiversity Conservation and protection of forest resources	Protection and enhancement of biodiversity and watersheds Conservation for sandalwood and other forest genetic resources In-situ conservation, community based natural areas networks
MAFF/Quarantine Division	Assumed national obligation in relation to protection of alien invasive species and conservation of biodiversity of the country under the UNCBD	Monitoring and controlling the entry of crops and other goods that might bring pest to the country. Implementing Cartagena Protocol on Biosafety. Control of Alien Invasive Species
MAFF/Research Division	Derivation and dissemination of important technical, management and other information	Provide extension and research and development; promote public education and awareness, coordinate for SBSTTA in relation to the implementation of the Convention.
DNSMA	The NDSE has the leading role in coordinating and responsible for the protection and conservation of biodiversity and environmental management in the country .	Implementation of the BD Convention and other MEA) and NFP for BD and FCC Conventions
CDCU	Central body in GoTL to coordinate and oversee, monitor and evaluate capacity development activities.	Provide policy direction to Development Partners on capacity needs issues
NUTL	As scientific institution, the university is important in the implementation of the UNCBD, particularly in terms of research and training, scientific studies and data collection.	The Agriculture Faculty particularly the School of Agronomy is conducting several research projects on identification of local varieties and promoting soil conservation.
Haburas Foundation	Non Governmental Organization, that concentrates on environmental issues.	Promotion and encouragement of understanding

Priority Issues and Capacity Constraints

Through the NCSA process, priority issues were identified based on the five thematic areas under the UNCBD. Table 5 below summarizes the priority thematic issues identified in 2007.

Table 5: Biodiversity - priority thematic issues (NCSA, 2007)

Thematic area	Priority Issues
Agricultural Biodiversity	Need scientific information to orientate agriculture towards sustainable patterns and knowledge of the impact of different policies, agricultural practices and technologies on agricultural biodiversity.
Forest Biodiversity	Need understanding of underlying causes of Forest biodiversity loss as well as measures to mitigate them including forest management systems e.g. enforcement of forestry laws.
Inland Water Biodiversity	Need for clear policy, and institutional frameworks for the management of inland water ecosystems as well as adoption of an integrated ecosystem approach to inland water systems.
Coastal and Marine Biodiversity	Need an integrated ecosystem approach to sustainable use of coastal and marine biodiversity, improved marine protected areas and community involvement in fisheries management and data on the taxonomy, status and biological characteristics of fish species and habitats.
Mountain Biodiversity	Need adequate wildlife policy and capacity for wildlife as well as protected area management plans, comprehensive data on the status and trends of wildlife and habitats, community and private sector initiatives in protected area management.

Capacity Constraints

The concluding part of the NCSA regards biodiversity conservation identified the following overarching capacity constraints for UNCBD implementation (Table 6 is referred).

Table 6: Overall capacity constraints to meet country's obligations under the UNCBD (NCSA, 2007)

Priority Obligations	Capacity Constraints
Effective National Biodiversity Planning	Lack of biodiversity consideration in sectoral policies and legislation; Inexistence of comprehensive biodiversity policy and legislation; Weak framework for cooperation in matters related to biodiversity
In-situ conservation of biological diversity	Lack of human resources capacity for biodiversity conservation; Low institutional capacity of public sector and NGOs for the conservation and sustainable use of biodiversity
Identification and Monitoring components of biodiversity	Lack of capacity for assessment, identification and monitoring of components of biodiversity; No comprehensive baseline data, criteria and indicators to measure and monitor biodiversity; Lack of a biodiversity assessment and monitoring program and systems; Lack of taxonomic expertise for biodiversity characterization
Financial Mechanism	No explicit strategy, policy or program on incentive measures for biodiversity conservation; Lack of a national incentive program; No capacity development / building in incentive measures
Scientific, research and training	Lack of data structure and function of ecosystems and relevant socio-economic and policy planning capacity and data management
Education and public awareness on biodiversity	Lack of effective enforcement of the laws especially with regards to wildlife; Poor understanding of biodiversity conservation; Inadequate environmental education and teaching in schools;

4.3 The UN Framework Convention on Climate Change

Many LDC-SIDS are in the midst of preparing National Adaptation Programmes of Action, as well as their Second (2nd) National Communications to the UNFCCC (2NatComs). Climate Change, variability and consequences such as sea level rise are pertinent to PAs as the manifestations add to the direct anthropogenic pressures to affect ecosystem function and service, heightening land degradation or diminishing the success of rehabilitation efforts (changing water-nutrient cycles, more intense rainfall [erosion and flooding], increasing severity and length of drought periods, etc.).

The National Communications require the inventory of green-house gas emissions (GHG emissions), but also the emissions removed by sinks, with obvious ties to the condition and extent of land-cover – key determinants in characterizing land degradation and biodiversity conservation.

The UNFCCC also requires the generation of National Adaptation Programmes of Action (NAPAs) which should identify and prioritize urgent and immediate adaptation activities/projects for implementation. The UNFCCC work will require the status, constraints and gaps for early warning systems to be covered, one with an emphasis on scientific and technological input/outputs and the other on the use of information for preparedness and food security planning etc.

Both the NAPA (LDCs) and NatComs will also require reporting on institutional arrangements, vulnerability impacts of Climate Change, adaptation measures and institutional gaps and needs. There will be important outcomes of these that relate to biodiversity conservation, PAs and land degradation. Conversely, assessment and analysis from a non-climate change perspective may also reveal useful information on pressures and impacts from Climate Change for use by UNFCCC policy makers or national planners.

Timor-Leste ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 2007, and therefore is still in the midst of finalizing its Initial National Communication (INC).

Timor Leste launched the Enabling Activity for the “Preparation of Timor-Leste’s Initial National Communication (INC) project” in July 2008. The work is being sponsored by the UNDP with the support of the Global Environment Facility (GEF) and AusAID. In line with its commitment to the UNFCCC, Timor-Leste is expected to report on the national progress on issues related to climate change after three years of ratifying the Convention. There had been some hold-up with efforts due to overwhelming capacity shortcomings in the Government. A workshop on the Initial National Communication (INC) was held on 13 January 2011. From this representatives identified critical priorities for the implementation of the UNFCCC in Timor-Leste, with the aim to build upon previous activities, studies, experiences, and institutional settings. It also responded to the need for strengthening Timor-Leste capacity to fulfill its commitments to the UNFCCC on a long-term basis.

The INC will also need to address actions for improved policy and related information to support the integration of climate change issues into national development plans. Ongoing efforts will be needed to eventually make available a national greenhouse gas inventory; the development of a system to ensure this national inventory is kept up-to-date; methods to improve scientific knowledge; and provide a clear understanding of Timor-Leste’s vulnerabilities and adaptation responses to current and future climate change.

The National Adaptation Programme of Action (NAPA)

A key meeting on the NAPA was held on 22 November 2010 to consider the final draft document. The NAPA process has involved participants from across Government, civil Society, international organizations and the private sector. Numerous workshops in Dili, and 5 consultations in the districts, were undertaken and resulted in a detailed assessment of the likely impacts of climate change on key areas of life in the country.

57 important activities were identified during the consultation process. These had been reduced to 9 key priorities that will form the basis of the National Adaptation Action Plan: land rehabilitation to provide food security, integrated water resources management, strengthening the community health sector, early warning systems for natural disasters, conservation of mangroves, sustainable livestock management, climate resilient infrastructure, working with the oil and gas sector and institutional capacity building.

The final draft document was not available for this report, however from discussions with representatives of the Department of Environment, there are likely actions nominated that are conducive to the needs established for effective PAs.

4.4 Sustainable Development Policy Work

Most LDC-SIDS completed a National Assessment Reports (NARs) to the World Summit for Sustainable Development (WSSD, 2002) and thereafter a National Report on the implementation of the Barbados Programme of Action (Sustainable Development of SIDS) for the Mauritius International Meeting (MIM, 2005). The MIM was the ten year review of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (BPOA+10).

While the emphasis was on reviewing and reporting on achievements, constraints, and barriers to sustainable development – for negotiation purposes, these documents provide an invaluable cross-sectoral assessment of capacity, technological and investment needs. Many include a summary of past and present actions and activities, which would be a useful reference for determining baselines and approaching prospect donors for co-financing.

Many countries will use NARs as the key references for National Sustainable Development Strategies (NSDSs). They are therefore very powerful vehicles to ensure mainstreaming of the environment in development processes. Linking work of the NBSAP and the PoWPA with the elaboration of existing or coming NARs will provide obvious advantages.

4.5 Barbados Programme of Action, 1994

The Barbados Programme of Action for SIDS, 1994 conveyed the importance of integrated planning for providing the platform for integrated decision-making and the mainstreaming of the environment into development processes for the pursuit of sustainable development for SIDS:

“The Programme of Action presents a basis for action in 14 agreed priority areas and defines a number of actions and policies related to environmental and development planning that should be undertaken” [Preamble].

The integration of environmental considerations into national decision making processes was considered to be the single most important step for PICs to ensure sustainable development principles guided all future development (Clause 46). An interdisciplinary approach was advocated for planning and decision making as well as community participation from the outset of the development processes (clauses 47 & 73). This recognition that the human face of the environment – development nexus needed to come to the fore for sustainable development is further recognized elsewhere in the BPOA (clauses 34, 49, 64, 76, 80 & 81).

Timor Leste has become a member of the Small Island Developing States (SIDS) since its independence. SIDS capacity building is managed by UNDESA and the SIDSNet unit in New York. Timor Leste is currently active in reporting the Commission on Sustainable Development (CSD) under UNDESA. It should become active in the next BPOA+20 review processes and meetings which provide a good spring-board advocating efforts and demonstrating the need for continuing assistance in capacity building. The GEF takes active note of outcomes of the BPOA processes and the annual CSD meetings.

4.6 World Commission on Protected Areas

The World Commission on Protected Areas (WCPA) and the World Wide Fund for Nature (WWF) developed a key guiding document for protected areas in customary countries. *“Principles and Guidelines on Indigenous and Traditional Peoples and Protected Areas”*, 2009 nominate five principles and 22 guidelines for their implementation. This provides a good reference document in the impending review of criteria to determine suitable classification for each PA. While it should take note of the IUCN International System of Protected Area Categories, more importantly future classification should be guided by the above principles and guidelines. Developing suitable criteria to suit its situation can assist in examining how the existing IUCN categories may be made more accommodating of indigenous and local community interests in protected areas.

Below is a summary of the five principles established by the Guidelines:

Principle 1

Indigenous and other traditional peoples have long associations with nature and a deep understanding of it. Often they have made significant contributions to the maintenance of many of the earth's most fragile ecosystems, through their traditional sustainable resource use practices and culture-based respect for nature. Therefore, there should be no inherent conflict between the objectives of protected areas and the existence, within and around their borders, of indigenous and other traditional peoples. Moreover, they should be recognised as rightful, equal partners in the development and implementation of conservation strategies that affect their lands, territories, waters, coastal seas, and other resources, and in particular in the establishment and management of protected areas.

Principle 2

Agreements drawn up between conservation institutions, including protected area management agencies, and indigenous and other traditional peoples for the establishment and management of protected areas affecting their lands, territories, waters, coastal seas and other resources should be based on full respect for the rights of indigenous and other traditional peoples to traditional, sustainable use of their lands, territories, waters, coastal seas and other resources. At the same time, such agreements should be based on the recognition by indigenous and other traditional peoples of their responsibility to conserve biodiversity, ecological integrity and natural resources harboured in those protected areas.

Principle 3

The principles of decentralisation, participation, transparency and accountability should be taken into account in all matters pertaining to the mutual interests of protected areas and indigenous and other traditional peoples.

Principle 4

Indigenous and other traditional peoples should be able to share fully and equitably in the benefits associated with protected areas, with due recognition to the rights of other legitimate stakeholders.

Principle 5

The rights of indigenous and other traditional peoples in connection with protected areas are often an international responsibility, since many of the lands, territories, waters, coastal seas and other resources which they own or otherwise occupy or use cross national boundaries, as indeed do many of the ecosystems in need of protection. These five principles and the 22 guidelines associated with them provide a basis upon which to develop partnerships between indigenous and other traditional peoples and protected area planners and managers.

4.7 *Regional Initiatives*

In addition to commencing a series of initial Enabling Activities under the Multi-lateral Environment Agreements, Timor-Leste has started to participate with its neighbors in a number of major regional environment programs.

One notable partnership is the Arafura and Timor Seas Expert Forum (ATSEA), Partnerships in Environmental Management for the Seas of East Asia (PEMSEA). Another is the Coral Triangle Initiative (CTI), which are also supported by the GEF and various donors (see above in section 1.4 & 1.7). These programs are cover assistance with member countries' governance and management of coastal, island and marine environments and biodiversity. Like the Multi-lateral Environment Agreements, they primarily aim or national capacity development, to strengthen institutional, policy and regulatory frameworks for environmental governance and conservation.

Much of the work of CTI is delivered through the Coral Triangle Support Programme – Timor Leste (see section 1.7)

5.0 National Institutional and Policy Frameworks

This section summarizes the national institutional frameworks for environmental planning and management in Timor Leste.

5.1 Constitution

The Constitution of Timor Leste was signed into force on 22 March 2002. As a new independent country the Constitution gave contemporary consideration to the environment and the benefits that wise natural resource management can bring to a growing nation. The following extracts have been taken from the Timor-Leste Constitution and are relevant to environmental protection, management and sustainability.

Section 6	Objectives of the State
	f) To protect the environment and to preserve natural resources
	g) To assert and value the personality and the cultural heritage of the East Timorese people
Section 61	Environment
	1. Everyone has the right to a humane, healthy, and ecologically balanced environment
	2. The State shall recognize the need to preserve and rationalize natural resources and the duty to protect it and improve it for the benefit of the future generations.
	3. The State should promote actions aimed at protecting the environment and safeguarding the sustainable development of the economy.
Section 139	Natural resources
	1. The resources of the soil, the subsoil, the territorial waters, the continental shelf and the exclusive economic zone, which are essential to the economy, shall be owned by the State and shall be used in a fair and equitable manner in accordance with national interests.
	2. The conditions for the exploitation of the natural resources referred to in item 1 above should lend themselves to the establishment of mandatory financial reserves, in accordance with the law.
	3. The exploitation of the natural resources shall preserve the ecological balance and prevent destruction of ecosystems.
Section 2	Sovereignty and constitutionality
	1. The State shall recognize and value the norms and customs of East Timor that are not contrary to the Constitution and to any legislation dealing specifically with customary law.
Section 5	Decentralization
	1. On matters of territorial organization, the State shall respect the principle of decentralization of public administration.

5.2 National Development Plan

Coinciding with the Constitution the first Government of independent Timor Leste, developed the new nation's National Development Plan (NDP) in 2002. It identifies sustainable growth and poverty reduction as its overriding goals. The NDP sees sustained economic growth as a "precondition for poverty reduction, with citizens and the private sector as the driving force and the government as the facilitator". To ensure that growth has a significant impact on poverty reduction, the NDP proposes a poverty reduction strategy with four pillars: creation of opportunities for economic participation;

delivery of basic social services; provision of security of person and property, and protection against unforeseen shocks; and empowerment of citizens and communities.

It should be noted that at the time of writing the Government was in the midst of releasing its new Strategic Development Plan, after extensive consultations over the last 18 months. It shall replace the NDP and is titled 'Timor-Leste's Strategic Development Action Plan 2011-2030'. It is currently in the progressing through a review process.

The following extracts from the NDP are relevant to the environment and natural resource management.

The Guiding Principles	
	<i>Sustainability</i>
	<i>Efficiency</i>
	<i>Equity</i>
Section 13. Natural Resources and Environment	(p.229 pdf)
	<i>"Real, lasting poverty reduction is only possible if the environment is able to provide the services people depend on, and if natural resources are used in a manner that does not undermine long-term development" .</i>
13.16 The mission of the DoE	Division of Environment
	Conserve and protect natural resources and environment in East Timor through sustainable development planning.
GOALS	(p.231 pdf)
13.17 The goals for the mineral and natural resources and environment sectors are to:	a) efficiently manage minerals, energy and extractive activities in a consistent, fair, environmentally appropriate, transparent and timely fashion;
	b) protect and enhance the natural environment of East Timor;
	c) raise community awareness about the importance of protecting the environment and behaving in ways that support such protection;
	d) work with other Government departments and agencies in integrating environmental considerations into their policies, programs and projects; and
	e) ensure accountability to the Government and community for financial, environmental and safety aspects of the extractive and energy industries.

5.3 Poverty Reduction Strategy Paper

As a follow up to the NDP and based on the consultations of that process a Poverty Reduction Strategy Paper was developed in 2005, with the assistance of the World Bank. As most of the poor people in East Timor are engaged primarily in agriculture (including fisheries and forestry), improving productivity in this sector was seen as a high priority. Proposed initiatives included: rehabilitation and construction of irrigation systems and their improved operation; introduction of water harvesting techniques; wider distribution of improved seeds of cereal crops, fruits and vegetables; improved livestock health; improved management of fishing; and sustainable management of forests and other natural

resources. These initiatives will be undertaken with the participation of the communities that depend on them. Improvements in marketing and infrastructure are also planned.

5.4 *National Priorities 2010*

Every year the Government of the day generates National Priorities (Since 2007). For 2010 the following were nominated as priorities:

National Priorities (every year since 2007) – for 2010 seven priorities

- Road and water
- food security
- human resource development
- access to justice
- social services
- decentralized service delivery;
- good governance & public safety.

One of the goals under food security is the “sustainable and efficient forest resource management.”

5.5 *Government Institutions*

There are a number of Government agencies and institutions with environmental responsibilities in Timor Leste. This section provides a quick overview of the agencies and entities involved. Much of this information is derived from the World Bank Timor-Leste: Country Environmental Analysis 2009.

State Secretariat for the Environment (SEMA)

SEMA is located under the **Ministry of Economy and Development**, and the **Ministry of Agriculture and Fisheries (MAF)**. These are the two government agencies with primary responsibilities for the Environment and Natural Resource Management in Timor Leste. SEMA deals with environmental issues in the sectors and MAF deals with resource management – forest, fisheries and biodiversity conservation.

Responsibilities of SEMA include environmental monitoring, control and protection. This covers a wide range of environmental issues such as EIAs, pollution control, environmental law enforcement, biodiversity conservation, environmental awareness, environmental databases, environmental laboratories and international environmental affairs. SEMA is composed of two directorates: the **National Directorate for Environmental Services (NDES)** with most employees, and the **National Directorate of Environmental Issues (NDEI)**.

In terms of human resources SEMA have a total of 73 staff with 39 based in districts. Three (3) of these staff have Masters Degrees, and four (4) are assigned to manage EIAs. There is no adequate infrastructure to perform monitoring activities. There is one laboratory to conduct basic water analysis.

Other Secretaries of State share environmental related responsibilities. Their roles are summarized below:

1. **Secretary of Natural Resources (SERN)** – responsible for mineral and natural resources including oil and gas.
2. **State Secretary of Energy Policy (SSEP)** – responsible for implementing 2008 development program that promotes use of renewable and alternative energy, databases and studies on Renewable Energy sources.
3. The **National Directorate for Water and Sanitation (DNSAS Direccao Nacional Serbisu Aguas e Saneamento)** is responsible for most of the water and sanitation sector activity and is under the

Ministry of Infrastructure. Responsible for national management of water resources – formulates policy and manages distribution of water for human consumption. – Monitors water quality through DNSAS lab.

5.6 Ministry of Agriculture and Fisheries –MAF (Decree No. 18/2008)

The Ministry of Agriculture and Fisheries (MAF) is the main focus of this Capacity Development Action Plan. The Charter under Decree No. 18/2008, provides the basis for the organic structure of the Ministry and tasks and functions of the respective directorates of MAF.

At present, the MAF is composed of one Minister, three Secretaries of State, one General Director, 12 National Directorates, and 12 district MAF offices. The National Directorate of Forestry (NDF) is put under the supervision of the Secretary of State for Agriculture and Arboriculture. See Annex 1 for the organizational structure of MAF.

5.6.1 Policy and Strategic Framework of MAF

The MAF Policy and Strategic Framework (2004) set the objectives for the Ministry and these are summarized below:

Agriculture sector

- Increase food production
- Improve food quality
- Improve animal production
- Support the development of agricultural industries for domestic and export markets
- Provide effective agricultural planning based on improved data
- Provide and appropriate legislative and regulatory framework, and
- Greatly increase the amount and quality of information services to farmers in the upland and dry lowland areas, which will require increased effort directed to capacity building

Forestry Sector

- Set in place a firm national forest policy, forest law, and accompanying regulations
- Address the issue of forest degradation with an integrated, watershed-based approach to land management cooperation with other arms of MAFF, rural communities and NGOs and
- Strengthen institutional capacity and to obtain the necessary forest resource data on which to base resource management

Fishery Sector

- Improve marine resource planning and management
- Develop a fisheries policy and legal and regulatory framework that supports the development of both commercial and subsistence fisheries and ensures the sustainable management of the resource bases
- Encourage and support the private sector to develop an offshore fishery and to provide facilities for production, storage, processing and distribution of local fish supplies and
- Strengthen the local capacity to plan and manage fish resources in a sustainable way.

5.6.2 Annual Action Plans and Budget Plans

The Ministry operates by producing an Annual Action Plan and Annual Budget Plan. These cover the fiscal budget of the Ministry, the capital projects planned, major activities planned by donors and NGOs and the planned programmes of the respective directorates. The following table gives the programs planned by NDF for the FY 2009.

Program	Objectives
1. Production and use of forest commodities	Increase the quality of wood and develop commercial wood with economic value, in particular for the rural community that depends on the forest.
2. Protection of forest resources	Increase the capacity of forest guards and involve the community in the implementation of forest activities, so as to facilitate the sustainable management, preservation and maintenance of the forest and watersheds.
3. Protected areas and national parks	Supply detailed preliminary data on the value of biodiversity and tourism as a launching pad for 15 protected areas, by way of collaboration between community and the civil society
4. Rehabilitation and reforestation	Plant trees, restore degraded land, recover watersheds, protect the coastline, maintain and develop wood resources for generating energy, make handicraft, grow fruit and other non-wood commodities to complement agriculture and horticulture

(Source: General Budget of the State and State Plan for 2009, GoTL)

5.6.3 National Forest Policy (FAO, 2007)

The Forest Policy (2007) (FAO) contains six policy objectives. These and their intended outcomes are summarized in the following table.

Objectives	Descriptions
Protection of Forests	To effectively protect the ecological integrity and biological composition of not less than 70 percent of the area of forests by 2020 (Protection of forests)
Community Participation in Forestry Development	To harmoniously and effectively involve forest communities and other private sector groups and to award long-term land use rights to all forest-dependent communities by the end of 2020
Watershed Conservation	To conserve watersheds in a long-term and sustainable manner, focusing on the restoration of 10 critically degraded watersheds, not later than 2020
Afforestation and Land Restoration	To afforest and restore degraded lands in order to produce 50% of the nations sawn timber supply from locally grown forest plantations by 2040
Forestry Sector Institutional Development	To develop and maintain a private business environment for profitable forest ownership and the management, production, utilization and marketing of forest products, especially for the alleviation of poverty amongst rural communities
Forestry Sector Institutional Development	To develop managerial, technical & administrative capacity and maintain/develop forestry sector institutions in order to at least double the number of staff holding tertiary qualifications in forestry and natural resources management by 2010 and to increase management operational and extension staff by 150% over the same period.

MAF, NDCF, supported by FAO and Netherland Partnership Programme drafted the National Forest Policy – approved following public meetings with broad range of stakeholders. It aimed to provide a framework for the development of National Forest Law and Regulations. Supporting forest legislation is being formulated. A concept for participatory forestry practices has also been drafted and is under decentralized review (World Bank 2009).

5.7 Legislative Frameworks

Environmental laws from the Indonesian period were used as framework to follow until new ones are gradually developed and promulgated. During the UNTAET period the environmental regulations were promulgated only where there were gaps in law. Indonesian laws lost their political legitimacy in a legal battle July 2003 – which led to the Supreme Court decision against their application and in favour of the Portuguese law. Subsequent regulatory clarification supported the position of the Indonesian and UNTAET regulations as part of the legal system until they are revoked – although legitimacy of Indonesian laws is still in question (World Bank 2009).

The following is a list of relevant legislation and policies taken relevant to Environmental and Natural Resource Management (Source: UNDP, Application for funding, Phase 1, 2008)

- UNTAET Regulation No. 19/2000> on Protected Places
- UNTAET Regulation No. 17/2000> on the Prohibition of Logging Operations and the Export of Wood from East Timor
- UNTAET Directive No. 3/2002> on certain exemption to Regulation 2000/17
- Government Decree No. 5/2004> General Regulation on fishing
- Government Decree-Law No. 6/2004> On General Bases of the Legal Regime for Fisheries and Aquaculture Management and Regulation
- Government Decree-Law No. 4/2004> amended
- Ministerial Diploma No. 04/115/G [M]/Iv/2005 > List of Protected Aquatic Species
- Ministerial Diploma No. 06/42/GM/I/2005 > Fisheries crimes
- Ministerial Diploma No. 02/04/GM/I/2005 > Main fisheries catch
- Ministerial Diploma No. 05/116/GM/I/2005> Minimum catch size (fisheries)
- Ministerial Diploma No. 03/05/GM/I/2005> Allowable by-catch (?)
- Government Resolution No. 7/2007 National Forestry Policy and Strategic framework
- Government Resolution No. 8/2007 Establishment of the Nino Konis Santa National Park
- Ministerial Instructions on Quarantine
- Constitution of the Democratic Republic of Timor-Leste (2002): Fundamental Principles, Objectives of the State; Sections 61, 96, 139 relating to environmental and natural resource protection, preservation, and sustainable use.
- East Timor National Development Plan, 2002

There are a number of draft laws and bills that have been generated. A list of known drafts is provided below; however we are unsure of their status:

- Draft Law on Environmental Impact Assessment/EIA (to be presented to the Council of Ministers)
- Draft Law on Pollution Control and Hazardous Waste (to be presented to the Council of Ministers)
- Draft Quarantine Law (under formulation)
- Draft Law on Protected Areas (possibilities being discussed)

There are 2 guidelines from the **Secretary of State of Tourism (2001)** that are relevant to environmental management:

- Guideline 1 (Environmental Requirements for Development Proposals)
- Guideline 5 (On Prescribed Activities for Pollution)

The main objectives of the above guidelines are to define a simplified and incremental process for environmental assessment evaluation and approval – provide framework for environmental inspections

and license issuing. The legal plausibility of the guidelines is often questioned – as the regulations associated with the guidelines date from the Indonesian period (World Bank 2009).

5.8 Overview of Environmental Laws relevant to Protected Areas

5.7.1 Terrestrial Environment

- **Regulation No. 19/2000 on protected places**

This is still the primary law for the establishment of the Protected Areas of Timor Leste. As mentioned previously it provided the basis for the identification of the original 15 protected areas. While it can accommodate the nomination of additional areas the overall legal platform is not sufficient to progress the planning for, establishment and ongoing management regimes for Protected Areas.

- **Regulation No17/2000 on the prohibition of logging operations and the export of wood from East Timor**

Logging and export of wood from Timor Leste has been the subject of a moratorium since 2006. There continues to be pressure (political and economic) to open up this banning of export logging. This raises serious question about the adequacy of the current law, the capacity of MAF to deal with sustainable logging and export regimes. There currently is no provision that enables MAF to apply a sensible 'payment for environmental services', user pay or fee/tax structure for MAF to ensure fair and reasonable economic rent is able to be collected in the event that logging for export is again supported.

- **Forest Management Decree (draft)**

This draft which is yet to be approved by parliament states that communities can claim access, use and management rights to forest resources in the village on condition that the communities enter into a Draft Community Forest Management Agreement with NDF. The Draft Community CFMA can be upgraded into either an Interim CFMA or a Long-term CFMA. The interim agreement will be renewable without limit, subject to assessments to be made every three years, while the long-term agreement is effective for a minimum term of 25 years, although the performance of communities under this agreement is assessed every 5 years.

5.7.2 Marine and Fisheries Environment

1. **Government Decree No.5/2004 of General Regulation on Fishing** – establishes the technical rules, procedures and time periods that will facilitate the practical implementation of the Decree-Law No.6/2004

2. **Decree-Law No. 6/2004 General bases of the legal regime for the management and regulation of fisheries and aquaculture** – 'The present decree-law establishes the principles and ground rules for the exploitation and regulation of fishing resources in national waters and high seas, as well as the principles and rules for the establishment and exercise of aqua-cultural activities.'

3. **Law No.7/2002 Maritime Boundaries of the Territory of the Democratic Republic of Timor-Leste** Establishes the basis upon which maritime boundaries are established and maintained.

4. **Law No. 12/2004 "Fishing-related Offences"** Provides the basis for enforcement and control of fishing related activities.

5. **Diploma Ministerial No.04/115/GM/IV/2005 Lista das Especies Aquaticas Protegidas (List of protected Aquatic Species)**

Enables Fisheries to nominate and maintain a list of protected aquatic and marine species, as a basis for protection.

5.7.3 Land

- **Decree law on leasing of state property and on land dispute mediation** (Approved by National Parliament but not yet enacted – has been in the approval process since 2005). It aims to enable action on the property system; land transfer and registration; pre-existing land rights, and title restitution. It has been supported by the Timor-Leste Land Law Program – supported by USAID – where assistance has been provided in the drafting of laws/decrees that support the new legislation on land tenure.
- **Real Estate Law (Law No.1/2003)**
Aims to address the complicated situation of land tenure. Defines the private ownership versus state ownership over real estate in the country. Three types of tenure: private real estate, public real estate, state's private real estate. It is lacking a set of subsidiary laws and/or regulations that clarify the way and means for registration of privately-owned lands.
- **Draft Environmental Laws** – related to Environmental Impact Assessment and Pollution Control – initiated in 2006 but have yet to be approved (see 5.6 above). In 2008 SEMA (State Secretariat for the Environment) developed a new draft that would simplify and combine the two proposed systems into one environmental license system. A draft decree-law was presented to the Council of Ministers in Feb 2009. Further work is to be done on standards for EIAs – then the draft decree law will be presented again to the Council of Ministers.

6.0 Socio-Economic context

This section describes briefly the socio-economic setting and context for Protected Areas planning, establishment and management. It is not conclusive and is based on available information at the time of writing. It however is important that any capacity development planning is organized within the context of what the current situation is on the ground with regard to resources and people.

6.1 Natural Resources

6.1.1 Forestry

Timber is produced from native species – suren, sandalwood and aina. Teak is not native but has been planted for over a century. The Indonesian occupation period saw extensive plantations of Teak and fast-growing species such as gmelina. Sandalwood is the most valuable timber, and is sought after by domestic and international markets. Management of its harvest proves difficult for this reason. This resource is said to be in a very poor state and illegal harvesting remains a problem. What local timber supplies are available are unable to meet demand and imported sawn timber is used for construction and furniture making.

Forests in Timor-Leste have a long history of extensive exploitation. Local timber species such as sandalwood, teak, redwood and ebony were heavily logged during Portuguese colonization as well as during the Indonesian occupation. Most of the timber was exported. Commercial logging is currently prohibited by law, although there has been recent political and commercial pressure to have it reinstated. Despite the current ban, illegal logging continues to occur in some areas.

Uncontrolled fire wood collection is another cause of deforestation and with high rates of population growth and urbanization this will pose a continuing challenge. The greatest pressure is surrounding the urban areas such as Dili where fire wood is already becoming scarce and collection occurs in areas

that are already heavily degraded. In other areas mangroves are also being exploited for fire wood. There are also many areas that are subject to deforestation from bushfires – with hazardous conditions relating to high available fire fuel and steep slopes. Other threats to Forests include conversion for agricultural use and livestock grazing.

The deforestation rate is estimated to be approximately 1.2% per year, which is one of the highest rates in the region (WB and ADB 2007: 23).

6.1.2 Agriculture

Clearing of land for agriculture is a major force behind deforestation. The main crops produced are rice, maize and cassava. Coffee, vanilla, candlenut and coconuts are grown commercially in small quantities. Post-harvest losses are high with grains due to unsecured storage and pests. A rust epidemic of the albizia coffee shade trees in recent times reduced coffee yield significantly.

Shifting cultivation and slash and burn practices are still common in most agriculture areas – and are a further cause for concern. The topography of much of the available agricultural land consists of poor soils on steep hillsides with slopes up to 40% being cultivated/planted. However agricultural productivity is low and there is currently very limited export potential. The current commodities are food crops (maize, rice, peanut, cassava and sweet potato), tree crops (candlenut, coconut, coffee, cinnamon and cloves) and livestock (WB and ADB 2007). Coffee is the main non-petroleum export. Given the availability of land, the steep slopes and poor soils fertility the country is currently dependent on food imports.

The focus of the government has been on improving food security in the medium to long term. They are promoting production of crops with higher margins (cashew nuts, mangos, spices, vanilla, pineapples, passion fruit, guavas, cut flowers), food processing (roasting of nuts, mango pulp, guava jam, passion fruit concentrate) and the restoration of sandalwood plantations (Fontes 2004). There is currently very limited use of agrochemicals and fertilizers and this does enhance the potential to develop an export market for organically grown products. However MAF has noted the increase in use of fertilizer over the last couple of years.

Due to the limited availability of fertile land, increasing population growth, conflict over land tenure and an overwhelming need to improve agricultural productivity – there may be increased pressure for new forested areas to be opened up to agriculture.

The use of land capability & suitability mapping may assist communities in managing the agricultural land conversion in a more sustainable manner. However poor agricultural practices will still need to be addressed. The traditional slash and burn techniques and the cultivation of steep hillsides contribute to deforestation and land degradation. The impacts are: continued decline in fertility, changes to the moisture regime of soils, higher risks of erosion, landslides, and flooding downstream.

6.1.3 Fisheries

Timor Leste has a lengthy coastline, relatively large EEZ and abundant fishery resources. However the sector is currently under-developed (World Bank, 2007). Fisheries development were relatively well advanced prior to independence, however Indonesian militia destroyed most of the infrastructure, boats and equipment in 1999 (Fonseca 2001; McWilliam 2002). This had severely affected the larger commercial activities and now most fishing is done at subsistence and semi-subsistence levels.

Most fishing uses low-technology inshore fishing apparatus, which in some way has assisted with sustainable catches, however there is an overwhelming food security need to have the resource better utilized. The local species targeted include demersal species such as snapper, croaker and bream, pelagics like tuna, mackerel, scad and sardines, and a variety of prawns, crabs, lobsters, bivalves and cephalopods (McWilliam 2002). Gleaning of reefs and intertidal zones at low tide is

carried out mostly by women and children who collect fishes, crabs and molluscs (Sandlund et al. 2001). Destructive fishing practices such as the use of dynamite and cyanide were common during the Indonesian occupation and while it is said to have stopped it may still occur in remote places.

The National Directorate of Fisheries & Aquaculture (NDFA) under the Ministry of Agriculture and Fisheries (MAF) is responsible for the development of the industry. The Decree-Law 6/2004 on Management and Regulation of Fisheries and Aquaculture, and Decree 5/2004 of General Regulation on Fishing provide the regulatory basis for the sector. There was a draft regulation for the protection of marine resources in 2008; however it is not evident whether this law was made or enacted.

The NDFA with assistance from the Coral Triangle Support Initiative (STSP) has programmes to encourage and facilitate community-based fisheries management initiatives. The short to medium term aim is to establish a network of local Marine Protected Areas (MPAs) supported by community implementation. MAF is also planning to work with the Department of the Environment and other agencies within MAF to develop an Integrated Coastal Zone Management policy. Site specific management plans whether as part of MPA implementation or other vehicle are also envisaged.

The fishing sector and aspirations for MPAs or similar local based management regimes are currently severely hampered by the lack of reliable baseline data: size and status of fish stocks; critical habitat types and on the socio-economic conditions of the communities relying on this resource (WB and ADB 2007).

6.1.4 Water and Catchment Systems

Population, land use and degradation have placed mounting pressures on the quality of catchments in Timor Leste. Without a structured land use planning system it is noted that pressures will remain to thwart many integrated catchment management initiatives. There have been concerted efforts over the last 5 years to address this problem primarily through assistance from JICA. The initial work did much to fill the void in data and information on catchments, the nature of water systems and the driving forces causing degradation. However this work had a limited geographic spread.

Deforestation, land degradation, fire and unsustainable agricultural practices have impacted on the condition of catchments. The impacts have been caused by erosion, soil loss, siltation of riverbeds, increased water turbidity, increased runoff, landslides and flood damage (Australian Water Research Facility 2006). Increased use of scarce water resources might also give rise to water use conflicts. As noted above the trend towards increased fertilizer use will result in increased nutrient input into the waterways which can cause water quality deterioration through eutrophication and harmful algal blooms (HABs) and excessive invasive alien species. There will be impacts to terrestrial water systems as well as in the coastal zones (Koshy et al. 2006).

6.2 Tenure and Land Use

6.2.1 Land Tenure

Dispossession and resettlement under Portuguese and Indonesian rule, and the destruction of existing land records and registries during the last days of Indonesian rule have left the land rights and tenure system in a very complex situation.

Timor –Leste Land Reform has been done in phases, using a participatory approach, but the most important land laws have not yet been approved.

The Timor-Leste Land Law Program (supported by USAID) has seen the drafting of laws/decrees that support new a new system of dealing with land tenure. A draft Decree law on leasing of state property and on land dispute mediation was approved by the National Parliament in 2005 but has yet to be

enacted. It addresses the property system, land transfer and registration, pre-existing land rights and title restitution (World Bank 2009).

Customary land and NRM systems cannot address land and natural resource tenure situations involving relocated communities and state appropriation of ancestral land (World Bank, 2009). There have been significant levels of angst in relation to customary authorities losing control over their land because of the presence of outsiders. There is concern that land titles that were issued by the Indonesian administration may be recognized by the current government and the 'user right' of the 'will be converted to 'ownership right' which would create much tension.

There are different categories of "outsiders" or settlers with regard to this issue (World Bank, 2009):

- Homogenous communities where whole communities have been resettled or forcibly moved for military reasons (tend to maintain their own rituals and customary systems);
- Individual settlers who may have left their ancestral land for economic or political reasons (tend to respect customs of new community);
- Transmigration settlements – people from other Indonesian Islands that were moved under the Indonesian administration – usually highly heterogeneous – some have returned to Indonesia.

There continues to be concerns also with the redrawing of village administrative boundaries under the Indonesian administration. Villages feel they have lost access to natural resources due to the changes to the administrative boundaries – this has had implications on the extent that customary practices can be applied to their natural resources (World Bank, 2009).

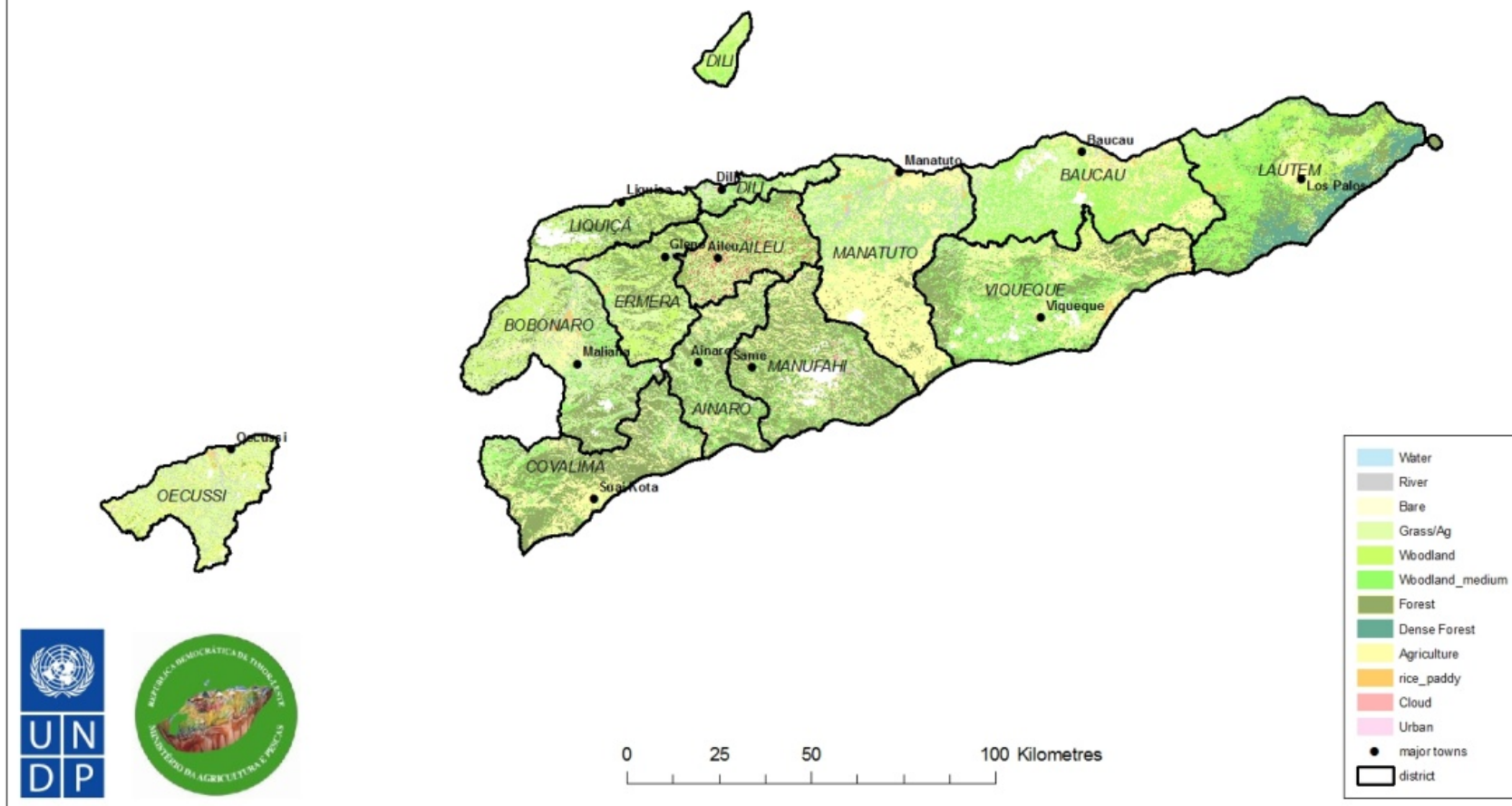
6.2.2 Land use

The Sustainable Land Management (SLM) project included the production of a 'Land use survey and land use database and information systems development in Timor Leste' (David Adams, 2009). This work identified the following classes of land cover and land use;

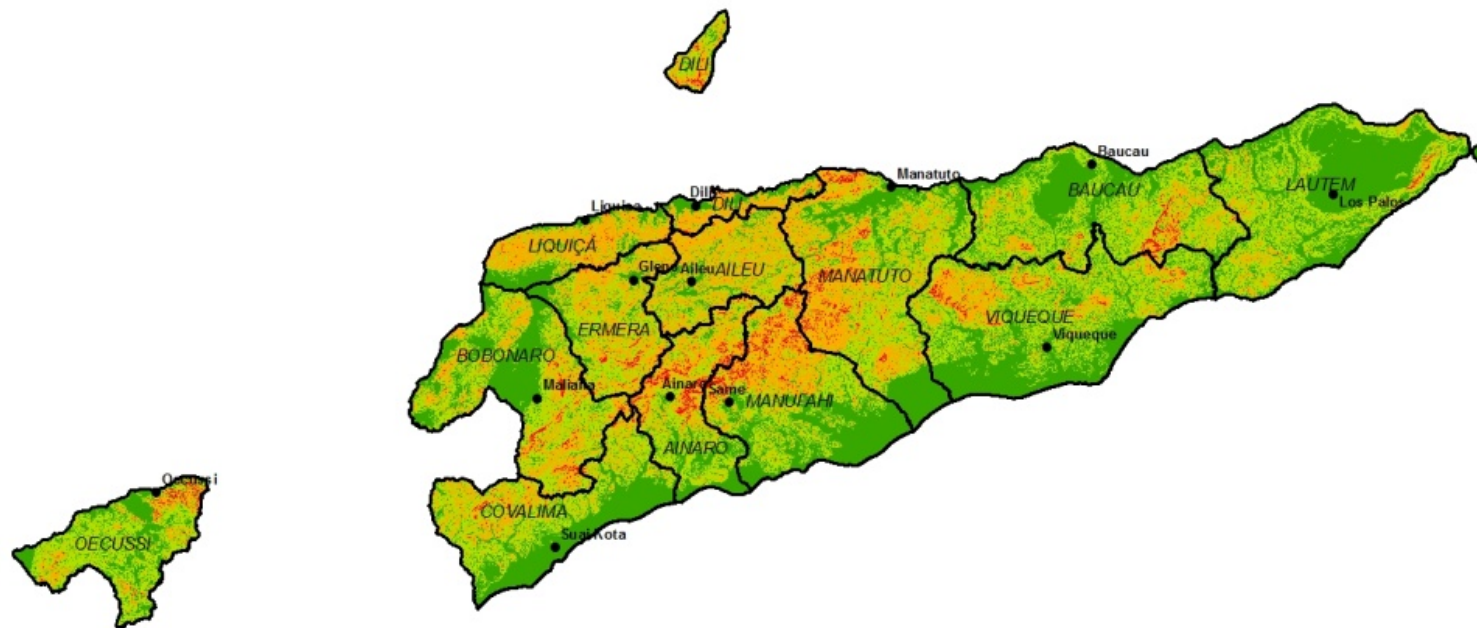
- i) Agriculture (12%)
- ii) Rice Paddy (1%)
- iii) Grassland (22%)
- iv) Woodland Sparse (8%)
- v) Woodland Medium (20%)
- vi) Forest Medium (27%)
- vii) Forest Dense (2%)
- viii) River Bed / Erosion (7%)
- ix) Urban (0.1%)
- x) Water (0.1%)
- xi) Unclassified (0.8%)

The following maps were also produced for this project (2010).

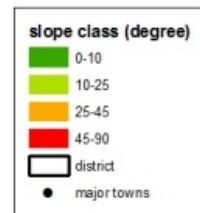
Timor-Leste, Land Cover (SPOT 2007-08)



Timor-Leste, Slope Classes - SLM Project



0 25 50 100 Kilometres



Despite this formative work there is still no general or Rural Land Use Policy within Timor Leste. Land use planning systems are not operative, although some useful embryonic work is occurring as part of the JICA Community based NRM project, which is a follow-up to the Integrated Watershed Management Project. It is only being applied to targeted villages, but provides a useful approach that could be extended.

The use of urban and rural space needs some form of control or regulation in a systematic way that is conducive to local community aspirations and practices. The National Development Plan of 2002 suggested the generation of Urban Land Use Plans and Strategic Zoning Plans – however this work has yet to be done. Government mandates for land use or spatial planning are as yet to be defined. Under the Ministry of Infrastructure, the Secretary of State for Electricity, Water and Urbanization is responsible for urban planning however much more concerted effort to bring in a systems based process suitable to the local communities is needed. The National Directorate for Land and Property (NDLP) handles cadastral matters related to land use and develops the legal framework for land and property administration. They will need to have involvement in the integration of land use planning systems if and when they eventuate.

Agricultural land use planning and mapping is currently managed through MAF and with support from ALGIS (the Agricultural Land Use GIS Unit) under MAF. It was the MAF through cooperation with UNDP that recently embarked on the Sustainable Land Management Project (2007). This project under the UNDP GEF Global Programme for Sustainable Land Management in LDCs and SIDS – covered the first stage (capacity building) of the Global Programme. There is a need to follow up this work to realize the full objectives of the global programme. Advice should be sought from GEF and the UNDP-GEF team on how to engage in processes to acquire additional resources to work toward a viable land use planning system.

Simply unplanned land use, activities and occupation can potentially undermine all efforts for rural and urban development to occur sustainably. Strategic urban and regional planning will, among other matters, need to tackle the issue of degradation, overconsumption, illegal use & occupation, and the uncontrolled use of land and coastal resources. A systems approach should not only address physical urban layout matters.

6.2.3 Tara Bandu and customary NRM

'Tara Bandu is an East Timor tradition, a customary law practice that is recognized as traditional ecological wisdom. It involves a kind of agreement within a community to protect a special area for a period of time. During the occupation this practice was prohibited, so many in Timor Leste are trying to revive it. An example of one of our agreements is in a village close to the capital Dili. "It protects the forest around that village. In the agreement there are volunteers, called *kablea*, who maintain the rules that have been agreed to. During the last three years, the people have respected this agreement" (Words from Interview with Carvalho)

The following information is taken from D'Andrea (2003) 'The Customary Use and Management of Natural Resources in Timor Leste.'

Tara Bandu is widespread throughout Timor Leste and usually applies to the harvest of agricultural produce, cutting of trees or collecting of forest products and hunting or fishing (D'Andrea, 2003). The words "tara bandu" literally means "hanging law" and requires a large public ceremony, usually following a public meeting that determines particular sanctions or fines for particular activities. These prohibited activities may include theft of produce or livestock as well as sexual misconduct. There are a wide range of applications and the usage of this customary law varies but the concept holds strong across Timor Leste. The idea of tara bandu involves an announcement of sanctions for cutting trees, harvesting fruits or fish from a forbidden area or from someone else's land at a public ceremony. The sanction is advertised by hanging the forbidden item. Tara Bandu can involve prohibition on harvesting

particular species, cutting trees in particular areas (ie by a river), burning in particular areas, or general mis-management of natural resources (D'Andrea, 2003).

Use of Tara Bandu has proven to be cost-effective management approach in some circumstances. Often the process will involve the participation and support of government officials in ceremonies – giving it some level of credibility. D'Andrea's research suggests that government officials may be able to play a useful role in helping communities to create more flexible systems of Tara Bandu and help deal with the anxiety surrounding outsiders on ancestral lands.

Traditional Timorese Words and Roles

Adat = customary law

Lisuk = communal rights

Lulic = sacred places

Suco = tribe/village

Aldeia = sub-village grouping

Kabo leha = same as below (from Sacoco Case study)

Kabo-oel = position appointed to oversee and guard natural resources – often a group of men from neighboring hamlets and assigned rotational guard watch duties. Guard against theft, illegal cutting or mis management of natural resources.

Naizuf = political leader

Tobe = ritual authority – with jurisdiction over land and forest resources

Uma lulic = sacred house

Liurai = King – hereditary institution: holds important political, ritual and administrative power within customary groups – leading rituals and supervising customary government. Involved in allocating land, determining boundaries, collecting rents and adjudicating changes of use.

The power of the liurai was diminished under Portuguese colonial policies – transformed customary authority so that the *dato* (prince or lord) assumed greater political power at the *suco* level. The male dato lineages continue to play an important role in protecting boundaries.

The concept of *lisuk* or communal rights is very strong in Timor Leste. The *lulic* or sacred places remain very important to everyday lives in most rural areas forming the basis of customary resource management. During Indonesian occupation many communities were displaced and resettled on land they had no ancestry links to. The management and use of the land in these circumstances is not always carried out in a sustainable or respectful manner and this raises concerns by the local communities. They see that development that may trigger new settlement of 'outsiders' on their ancestral land, as being threats to their traditional management practices.

Rural communities often have strong connections to ancestors expressed through ongoing ritual worship of lulic sites. Such sites may be associated with supernatural forces; hence special ritual precautions are needed before entering these places and often they are avoided all together. Consequently many of these places are forested. Sacred forests are tied to mythical places of the local clan groups known as *ratu*. Recognition of the historical claims of local communities to the sacred forest reserves was not extended under Indonesian rule. The benefits are that significant parts of the most sacred forested groves survived wider-scale cutting of forests.

Land and natural resource ownership and the application of Tara bandu can be quite complex and situations vary from place to place. Multiple levels of access and control over resources are common and there is often a horizontal separation of ownership where trees are owned by one person and land is owned by another. Customary control over resources has in many places been weakened, most notably through state policies during the Indonesian occupation. However there has been a strong

move initiated by traditional leaders often with support of local authorities to re-establish customary land and natural resource management practices to revitalize connection to ancestral territorial resources.

In almost all case studies conducted by D'Andrea 2003 customary leaders expressed a desire for some form of recognition of ancestral customary territory and customs as well as more control of NRM at the local level. The reintroduction of customary prohibitions such as tara bandu, to protect natural resources have seen many communities revive traditional practices quite successfully.

The strong link between communities and ancestral land is an important factor for customary management and should be addressed in future management of protected areas.

6.2.4 Cultural Heritage research – Lautem district

Some worthy archeological and anthropological research was undertaken in the NKSNP in 2006. "Cultural Heritage in the NKSNP Timor Leste: A Preliminary Survey" by Drs Sue O'Connor and Sandra Pannell May 2006 (with support by the Dept Environment and Conservation, NSW) has revealed some useful insights. Some extracts are included below.

"Within the NKSNP is one of the largest concentrations of rock art in Island Southeast Asia and the oldest human occupation site north of the Sunda Shelf (cave site - Lené Hara)...Discovery of fish hooks in an excavation expedition 2002 at Lené Hara cave indicates that intensive deepwater marine fishing was practiced here 6000 years before fish hooks appeared elsewhere in island Southeast Asia."

"*Téi* or in Tetun *lulik* is known as a sacred or prohibited site. In the Lautem district *téi* sites are marked by specific configurations of physical structures – platform of layered stones with a hole in the middle – carved wooden post or plain upturned tree root known as a *saka* or *siku* and beside this is a forked branch with sacrificial offerings are hung from. The structures are said to have been placed by apical ancestors to indicate the presence of the being that inhabits the hole in the middle of the structure. *Téi* beings are identified as non-human entities which can transmogrify into a number of forms – *aka* – human like figure with torso of a snake, a crocodile, eagle, owl, dog and a multi-headed snake. – Fataluku people do not consider these *Téi beings* as their ancestors. Humans are unable to create new *Téi* places – they can only replace broken, rotten or stolen markers. *Téi* are seen as malevolent and motivated forces, which occupy pre-existent places within the local landscape – said to 'guard' an area and the people of the clan group (*ratu*) associated with it. All *Téi* beings have a ritual name that is only known by the 'lord of the land' (*mua ca'u, weli hocawa*) and senior male *ratu* members. The name is considered to be 'hot' (*timiné*) and 'dangerous'. Former settlements, rock art sites and locales marked by the presence of a *Téi* structure are also regarded as dangerous. Entering settlement sites, and all other places marked by *Téi* without the custodial *ratu* members is seen as dangerous by the local people and invites all manner of catastrophes."

This form of archeological and anthropological research provides not only some useful inputs to the future Conservation Area Environmental Management Plan, but a useful guide of how similar work should be undertaken for other Protected Areas.

7.0 Threats to Biodiversity

Much reporting has already been undertaken by the DPANP and other supporters (including the UNDP and UNESCO) on the threats to Biodiversity with regard to Protected Areas planning, establishment and management.

7.1 *Habitat destruction or conversion*

These include activities that convert or degrade habitats and natural systems resulting in loss or degradation of habitat (including fragmentation), negative impacts on ecosystem function and ecosystem services, soil degradation, siltation, increase in weed and pest invasion, loss of water, decrease in water quality, etc. Current sources of terrestrial habitat destruction include shifting agriculture, coffee and other agricultural plantation crops, large development projects (including for energy generation, industrial scale cropping and fisheries), unregulated burning and grazing, unsustainable and unregulated fuel wood cutting for local and commercial needs, draining of wetlands, mining (currently limited to sand extraction from major rivers and beach areas), rubbish dumping, illegal wildlife trade and unregulated hunting (GoTL and UNDP, 2008).

The destruction of habitats and invasive species are reported to be the biggest threats to biodiversity in Timor Leste. (Trainor et al, 2007 p.6)

7.2 *Deforestation.*

Deforestation is arguably the most serious problems facing the biodiversity of Timor-Leste. For example, forest cover in East Timor has decreased by almost 30% over the period of 1972 to 1999 (Sandlund et al. 2001). Only 6% of the remaining cover is believed to be primary forest. Valuable timber species have been nearly logged out during the colonial and occupation periods. Other pressures on forests are driven primarily by the need for firewood, clearing for agriculture and bush fires during land clearing or hunting. (Grantham 2011 p.24)

7.3 *Habitat fragmentation*

In addition to the above threats transport and energy corridors and the infrastructure and activities associated with the building of them are often associated with habitat fragmentation and wildlife mortality. In Timor Leste these include roadways and dedicated tracks (*secondary roads, primitive roads, logging roads, bridges etc*). It is well documented that almost any sort of access for vehicles or foot traffic significantly increases threats from: hunting; Non Timber Forest Products (NTFP) collection; invasive weed species and animal grazing. Utility & Service lines can also have a significant impact and include electrical transmission lines, phone wires and pipelines (GoTL and UNDP, 2008).

7.4 *Conversion, encroachment and expansion for agriculture*

Several human activities such as agricultural farming, settlement, forest-product collection, wildlife hunting, and domestic animal grazing can be typically found in and surrounding protected areas. The effects of these human activities on the ecosystems of protected areas can be profound. Anecdotal evidence, supported by local knowledge and some limited field inspections suggest that this threat is widespread and persistent (GoTL and UNDP, 2008).

7.5 *Unregulated harvesting and collection*

Unregulated harvesting of natural products from protected areas, including timber and non-timber products for commercial, subsistence, research or cultural purposes are all potential threats. In Timor Leste this includes illegal and selective commercial logging of teak; fuel wood collection; fishing & harvesting of aquatic and marine resources. Potential threats include bio-prospecting for the pharmaceutical and other industries (GoTL and UNDP, 2008).

7.6 Bushfire

Bushfires are a major threat to biodiversity conservation and are common as landowners are desperate to use fire to encourage grass re-growth or to clear vegetative trash to get access to firewood or timber for building. The skeletal soil and steep areas are especially prone and make access difficult to fight fires. Concentrated efforts are required to educate landowners on alternative means for sustainable livestock management and agriculture. The roaming grazing practices, especially of goats, also degrades hill slopes and bush areas which encourage invasive species and leads to heightened bushfire hazard. Protected Areas management capacity development will need to include human resource capacity for bushfire control and bushfire fighting.

7.7 Poaching

Poaching of wildlife is also a major problem and endangered species are hunted for food, medicine, and ornaments, and also collected live for the pet trade. While there has been a start at protecting endangered species by the formulation of UNTAET regulation 2000/19, actual enforcement of this policy has been lacking. (Grantham 2011, p.24)

7.8 Introduced species

While the specific details of how invasion alien species are affecting ecosystems are unknown, many believe it is having a significant impact on the native biodiversity. Recent estimates are that one third of the 52 mammals are introduced on the island of Timor. Of these the problem species are: the Common Spotted Cuscus *Phalanger orientalis*; Long-tailed Macaque *Macaca fascicularis*; Common Palm Civet *Paradoxurus hermaphrodites*; Eurasian Wild Pig *Sus scrofa*; Rusa Deer *Cervus timorensis*; House Mouse *Mus musculus*; House Rat *Rattus tanezumi*; Brown Rat *Rattus norvegicus*; Polynesian Rat *Rattus exulans* and the House Shrew *Suncus murinus*. They have all probably accelerated the decline of some of the endemic fauna, through predation, competition, introduction of new diseases and/or consequential habitat change according to Trainor (2010) (from Grantham, 2011, p.24)

7.9 Land Degradation

The SLM project reported that between 1972 and 1999, the Democratic Republic of Timor-Leste had reduced its forest cover at a rate of 1.1% per annum or 24% of total forests. At present, the forest cover of the country is estimated to be about 35% (or 0.5 million ha) of the total land of the country. It is reported that the deforestation have been caused mainly by i) wildfires, ii) intensive fuel wood collection, iii) shifting cultivation and iv) uncontrolled illegal logging. Deforestation has further caused soil erosion, landslides, flash floods and inflow of sedimentation into rivers, and eventually affected the people's life in river basins.

Considering the situation where many crucial watersheds in the country have progressively degraded due to constant deforestation, the Government stated in the Forestry Policy in 2007 that the Government should restore and conserve watersheds, especially 10 critically degraded watersheds in the country in a sustainable manner.

7.10 Global climate change

As a small island developing state (SIDS) a major threat to protected areas includes the complicated and long lasting impacts resulting from global climate change, climate variation and rising sea levels (GoTL and UNDP, 2008).

8.0 Key Barriers and Challenges

As mentioned previously there has been much consideration of the key barriers, constraints and challenges to Protected Area planning, establishment and management since 2003 and primarily since 2006. This has included evaluations from PowPA early phase work, the work leading to the NKSNP declaration and ongoing inputs from Birdlife International, CTSP and others. The NEGA (Grantham, 2001) also re-summarized many of these. The many constraints are typical of a country in transition and very embryonic governance capacity. The following is an amalgam of these previous assessments aimed at distilling the key barriers to Protected Areas in Timor Leste from achieving the targets of the CBD PoWPA. Of particular relevance to the situation from current PoWPA activities was the GoTL and UNDP Application for funding, Phase 1, PoWPA, 2008.

8.1 *Barrier 1 – Limited capacity of the DPANP*

Few of the staff currently working for the DPANP have been trained or receive ongoing training and skills development needed to be effective PA managers. Capacity-building programs will be needed to increase the knowledge, skills, ability and competence of staff to carry out their particular roles or functions. Technological advancement will also be needed to assist HRD.

A key to the achievement of many of the PoWPA Activities is to increase the capability of the PA Managers. Noting the capacity-building work that has occurred over recent years, a range of matters have been identified as ongoing needs. These include:

- Biodiversity and Landscape surveys & assessments;
- Study tours (National and International);
- Extension training courses to introduce staff to basic systems and working principles as well as emphasizing the role of extension workers;
- Development Methods;
- Presentation and Moderation Skills;
- Mapping and Land Allocation Processes;
- Management Training

The capacity barrier has a physical component: poor communication systems, very basic tools and infrastructure such as roads, which will inhibit communication between the DPANP (central office) and implementation sites. These factors will also contribute to the effectiveness of enforcement and regulation of protected area measures, in particular relating to illegal logging and fishing, resulting in a greater emphasis on self-regulation by local communities.

8.2 *Barrier 2 – Legal inconsistencies*

Although there is a regulation that can be used to nominate PAs, there are no provisions in this legislative framework that accommodates the governance required, the principles and objectives of management, the means to implement the law and the administrative processes - needed to ensure that the PA system works.

Further, land tenure and property rights systems are evolving and uncertainty over land ownership may affect the nomination and management of areas identified as Protected Areas. Further, the incongruence between contemporary and traditional systems of land, sea and natural resource ownership, management and use rights has the potential to cause enhance conflict over resources and their use.

8.3 *Barrier 3 - Lack of institutional coordination*

Coordination between various agencies at the national level is growing but needs much further effort. Poor coordination impacts on broad government policy, implementation and planning processes.

Where coordination mechanisms are not established or affected there is often duplication of effort, conflicting actions, gaps in services and costly individual efforts. Mechanisms and systems need to be put in place to enhance both vertical and horizontal linkages of law, policy, processes and decision-making systems. Without these healthy linkages, the teamwork that is required for good governance will never eventuate.

Coordination in governance is not only a government agency matter. Other stakeholders are involved. Poor communication and coordination between agencies, NGOs and community groups – is often the case. There are often also discordant actions by the various development assistance agencies in developing countries. Methods to work effectively with development assistance programs that have an influence and / or impact on the PAs, including marine protected areas, economic development projects, infrastructure projects such as energy generation and agricultural and natural resource management programs - will need to be developed in an integrative manner.

8.4 *Barrier 4 – Financial sustainability*

The current financial resourcing of DPANP and MAF is currently very limited. The financial capacity of the Government to support the proposed PAs is currently doubtful and ongoing funding is not assured. Alternate sources need to be identified and investigation of Payment for Ecosystem Services (PES) options including that which may come with REDD+ - needs to be advanced. At present Timor Leste ranks low on all or most HDI factors which means that national priorities may direct funding away from environmental management. There is a high degree of expected wealth that will come from oil and natural gas and the country does have a progressive Petroleum Fund Law, however there is no guarantee of contributions and expenditure in the environmental sector.

8.5 *Barrier 5 – Local governance, communities and engagement of civil society*

The support of communities and civil society is reliant on the delivery of conservation and development outcomes that meet the expectations of the community. This will require inclusion of social, economic and environmental imperatives in the design and management of the Protected Areas.

A recent history of war and occupation, along with cultural norms, and poverty has made it difficult for gender equality. Many men, women and children have fought and or participated in war and have endured sexual and domestic abuse. An important implication is the need to encourage gender equity, with an emphasis directed towards specific capacity building programs for women.

Overall low levels of literacy, formal education and practical experience will impact on the design and delivery of capacity-building programs.

The diversity of national languages and varying levels of fluency in the national and ‘working’ languages (Portuguese and Tetun, and English and Bahasa Indonesia respectively) will impact on communication between Government officers, international advisers, counterparts and communities. There is a strong potential for civil society to contribute to development of the Protected Areas: national NGOs (such as livelihoods and environmental groups), community groups, the national university and other civil society groups have skills and experience that put them in a unique position to assist. However there is yet a coordination framework that facilitates this and collaboration while growing is still limited.

Box 5 below summarizes the key challenges that have been conveyed by the DPANP team and other stakeholders during the course of this work for Component 3 and 4 for PoWPA.

8.6 *Barrier 6 - Literacy, education and practical experience.*

Overall there are low levels of literacy across Timor Leste communities. Education and practical experience with modern concepts of biodiversity conservation and land management are also relatively low. Conversely the knowledge of their land systems and traditional knowledge that is useful for conservation is relatively high. Most in the rural communities speak and understand either local Tetun (or local dialects), Portuguese, Indonesia and less so English. The impediment is often the inability to communicate across languages and the difficulty in giving understanding of problems and potential means to address them.

The diversity of national languages and varying levels of fluency in the national and ‘working’ languages (Portuguese and Tetun, and English and Indonesian, respectively) often impacts on communication and therefore the relationships between Government officers, NGOs, international advisers, counterparts and communities.

Maintaining graphical communication mediums and dispersing training opportunities throughout the country need to be an important consideration. Additionally, regional or national entities or institutions that can provide training courses and practical resource materials in an appropriate language for the participants involved are equally as important.

One of the encumbrances to addressing literacy is that much reference material available at national, regional or international levels are only available in English. Translation costs are extremely high. Concerted effort will be required to identify the most important concepts for local communities to garnish their understanding – and to adopt or adapt these to graphic based communication mediums. Whether it be future text and tabular information of the adoption/adaptation of key messages to graphical format the unit costs of such ‘translation’ work is always going to be high. This should be recognized by future development assistance agencies.

9.0 Summary

Much has been documented since 2003 on the values of the remaining biodiversity in Timor Leste after years of degradation; the pressures that remain, the key threats and the needs of government and community to address the current situation. There has been formative work in research, mapping and flora and fauna surveying since 2006 to gain a better understanding of what is on the ground and the specific characteristics of species, communities the geo-physical systems. The preceding parts therefore often do not provide any new insight. It does however bring together prior disparate reporting in a rational format to provide context to capacity developing planning. It also tries to place prior findings and recommendations into the context of the broader environmental and sustainable development governance systems.

Box 5 below provides the best snapshot of the key challenges facing the progression of Protected Areas planning, establishment and management in Timor Leste.

Box 5. Summary of Challenges to protected area management in Timor Leste

- Inadequate and scarce financial resources
- Lack of human capacity
- Inadequate coordination among organisations
- Lack of strategic action plans
- Conservation agenda is not a national priority
- Managing customary lands
- Incomplete scientific data
- Inadequate enforcement of existing legislation and sometimes difficulties in enforcing
- Inadequate and ineffective educational programme—need to be more widespread and harmonised
- Competing national priorities— debt financing, poverty, etc.
- Finding creative ways to deal with threats (trade –offs)
- The inadequacy of the legal framework specific to protected areas
- Sustainability of funding of protected areas
- Road network/Infrastructure infringing negatively on natural resources
- Challenge in monitoring and evaluating specific indicators
- Identification of the need for alternative livelihood strategies for resource users
- Susceptibility to natural hazards
- Climate change, variability and sea level rise impacts

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