



National Capacity Self Assessment Project Solomon Islands

Environment and Conservation Division

United Nation Convention Framework on Climate Change (UNFCCC) Thematic Assessment Report

“The blunt truth about the politics of climate change is that no country will want to sacrifice its economy in order to meet this challenge, but all economies know that the only sensible long term way of developing is to do it on a sustainable basis”

Tony Blair 2005

Table of contents

Executive summary	3
Acronyms	5
1.0 Introduction	7
1.2 Purpose and Expected Outputs of NCSA.....	7
2.0 National Context	7
2.1 Geography	7
2.2 Map Solomon Islands.....	8
2.3 Social context	8
2.4 Economic context	9
2.5 Political environment.....	9
3.0 Main Climate Change issues	10
3.1 Subsistence and Commercial Agriculture	11
3.12 Subsistence agriculture.....	11
3.12 Commercial agriculture.....	12
3.2 Forest, Terrestrial Resources and Biodiversity	12
3.21 Forest resources	12
3.22 Terrestrial biodiversity and ecosystem.....	13
3.23 Marine biodiversity and ecosystems.....	13
3.3 Terrestrial Biodiversity and Ecosystem	13
3.4 Coastal Environment and Systems	13
3.5 Water Resources	14
3.6 Human Health	14
4.0 Solomon Islands Obligations to the UNFCCC	14
4.1 Convention background and Solomon Islands.....	14
4.2 Solomon Islands obligations to the UNFCCC	16
5.0 UNFCCC Obligation Implementation Progress	16
5.1 Mitigation.....	16
5.2 Adaptation and vulnerability strategies.....	17
5.21 Traditional knowledge	18
5.3 Reporting to the Conference of the Parties.....	18
5.4 Gathering and dissemination of information.....	18

6.0 Kyoto Protocol	19
7.0 UNFCCC Compliance Development Opportunities.....	20
8.0 Enabling Environment and Institutional arrangements.....	21
8.1 National Policy, legislations and strategies	21
8.2 Provincial policies, regulations and strategies.....	23
8.3 Institutional arrangements and Functions.....	23
9.0 Major Capacity Issues in fulfilling commitments to UNFCCC.....	25
9.1 Financial resources.....	25
9.2 Development and implementation of adaptation strategies	27
9.3 Technology transfer and traditional knowledge	28
9.4 Renewable Energy (PIREP AND PIGGAREP are projects).....	28
9.5 Education, training, awareness raising and capacity building	30
9.6 Information management and networking	32
9.7 Systematic observation and research	32
10.0 Priority capacity developments needs to address Climate Change issues and meet UNFCCC requirements.....	33
11.0 Priority Action Plan	35
12.0 Conclusion	37

Annexes

Notes

Executive Summary

The National Capacity Self Assessment Project funded by the Global Environment Facility (GEF) through UNDP is assisting stakeholders in Solomon Islands self-assess their capacity to address global and environment issues and develop a plan of action to address priority capacity building needs. The project focuses on three international Conventions, the UN Convention on Biological Diversity (UNCBD) UN Framework Convention on Climate Change (UNFCCC) and UN Convention to Combat Desertification (UNCCD).

This thematic report focuses on the UNFCCC and is a follow up from an earlier stocktake report. The thematic assessment process is intended to identify climate change issues and a range of related convention requirements that are not adequately addressed, their underlying causes, the contributing factors, and the key barriers. The analysis leads to an assessment of the nature of the capacity needs and opportunities for capacity development. This report presents the outcomes of a comprehensive analysis of the stock take report and recommendations from a national consultation workshop in July 2006 that considered the Stock-take report, and establishes the root causes of the capacity gaps identified. .

Solomon Islands made up of hundreds of coral and small volcanic islands forming an archipelago that is very vulnerable to climate change, global warming and their effects. Such effects include; increased frequency of extreme events such as tropical cyclones, coastal flooding and severe drought. These affect coastal zones, water resources, agriculture and bio-diversity which are vital to the welfare and livelihoods of communities and to the economy of the country. Also, the many low lying islands are in danger of being affected by rising sea levels. Overall this level of vulnerability is exacerbated by the fact that about 70% of Solomon Island's population and infrastructure are located in the coastal areas/zones, rendering them highly vulnerable to climate change and sea-level rise.

The country also has the potential to contribute towards mitigating the causes of climate change. The country's forest cover provide a source of carbon sink and its many rivers are potential sources for renewable energy that can be harnessed to help reduce the country's demand for fossil fuels.

The country took an important step to address climate change issues when it ratified the UN Framework Convention on Climate Change (UNFCCC) on the 28th of December 1994. As a Party to the UNFCCC Solomon Islands has obligations that it needs to fulfill. The country is categorized as a Least Developed Country (LDC) and needs to address obligations under Articles 4.1(a) – 4.1(j) and article 12. While the country has been participating actively in a range of meetings and trainings at the regional and international levels, it still lacks the capacity to effectively address the convention requirements, strengthen its

adaptive capacity and contribute to global efforts to mitigate the causes of climate change. This report identifies the following as major capacity development needs in meeting its obligations;

1. Mobilization of Financial Resources
2. Development and implementation of adaptation strategies
3. Technology transfer and Traditional Knowledge
4. Education, training, awareness raising
5. Information management and networking
6. Systematic Observation and Research

Progress in fulfilling its commitment has been more a result of International and regional support programs for UNFCCC. Solomon Island has completed and submitted the initial national communication, undertaken a national green house gas inventory completed in 1994 with the support from PICCAP, vulnerability and Adaptation (V&A) Assessment undertaken, developed a draft National Implementation Strategy (NIS), completed its pacific islands renewable energy project (PIREP) and in the process of implementing the Pacific Islands Greenhouse Gas Abatement Regional Energy Project (PIGGAREP). The country is in the process of carrying out the National Adaptation Program of Action (NAPA) and has started the initial phase for the Second National Communication.

These major capacity issues involve a wide range of stakeholders. The systematic capacity issues that could be addressed in the development of National Climate change policy and the Implementation of the NIS. These are two key documents that could also further strengthen the institutions with stakes to climate change. Prioritization of climate change capacity development needs is therefore important to identify the priority actions needed to address the capacity issues. The ability of the country to fulfill its obligations to the UNFCCC requires a vigorous activation by the focal point as the implementing agency mobilizing itself to carrying out baseline studies and research and engaging respective stakeholders in addressing the issues of climate change and the country fulfilling its obligations.

Acronyms

CBD - Convention on Biodiversity
CBSI - Central Bank of Solomon Islands
CDM - Clean Development Mechanism (Kyoto Protocol Article 12)
CI – Conservation International
COP - Conference of the Parties
DFEC- Department of Forestry Environment and Conservation
ECANSI- Environment Concerns Actions Network Solomon Islands
ECD - Environment and Conservation Division
EHD - Environmental Health Division
ENSO - El Nino Southern Oscillation
EU - European Union
FAO - Food and Agriculture Organization
FSPI- Foundation for the People for the South Pacific
GDP - Gross Domestic Product
GEF - Global Environment Facility
GHG - Greenhouse Gas
GTZ - Deutsche Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation)
ICZM - Integrated Coastal Zone Management
INC - International Negotiation Committee
IPCC - Intergovernmental Panel on Climate Change
JI - Joint Implementation
JICA - Japan International Cooperation Agency
LDC - Least developing Country
MET - Meteorological Service
MFMR - Ministry of Fisheries and Marine Resources
MHMS - Ministry of Health and Medical Services
MTDS - Medium Term Development Strategies (Solomon Is. Government)
MTWC - Ministry of Transport Works and Communication
NCCCT – National Climate change country team
NAP - National Action Plan
NAPA-National Adaptation Programme of Action
NBSAP- National Biodiversity Strategic Action Plan
NC – National Communications
NCSA - National Capacity Self Assessment Project
NDC - National Development Council
NEMS - National Environmental Management Strategy
NERRDP - The National Economic Recovery, Reform and Development Plan
NFD - National Fisheries Development
NGOs - Non Government Organizations
NIS - National Implementation Strategy
PCRC - Pacific Concerns and Resource Centre
PACC - Pacific Adaptation to Climate change

PICCAP - Pacific Islands Climate Change Assistance Programme
PIGGAREP - Pacific Islands Greenhouse Gas Abatement Regional Energy Project
PIGCOS - Pacific Island Global Climate Observing System
PIFS - Pacific Island Forum Secretariat
PIREP - Pacific Islands Renewable Energy Project
RAMSI - Regional Assistance Mission to Solomon Islands
REAC - Rural Electrification Advisory Committee
RE - Renewable Energy
RET - Renewable Energy Technology
SIAC - Solomon Islands Alliance for Change Government
SIDT - Solomon Islands Development Trust
SIEA - Solomon Islands Electricity Authority
SIG - Solomon Islands Government
SITAFE- Solomon Islands Technical Advance for further Education
SIWA - Solomon Islands Water Authority
SPC - Secretariat of the Pacific Community
SPREP - South Pacific Environment Programme
TAFE- Technical Advance for further Education
TNA - Technology Need Assessment
TNC - The Nature Conservancy
UNDP - United Nations Development Programme
UNEP- United Nations Environment Programme
UNFCCC - United Nations Framework Convention on Climate Change
USIJI - U.S. Initiative on Joint Implementation
WMO - World Meteorological Organization
WWF - Worldwide Fund for Nature

1.0 Introduction

1.1 Purpose and expected outputs of the NCSA

The purpose of the NCSA project is to enable the people and government of Solomon Islands to assess their capacity to address global and local environmental issues, identify cross-cutting issues, capacity development needs and to develop a plan for implementing capacity development actions. . Solomon Islands has completed its major stock take report on the UNFCCC, UNCBD and UNCCD. This report presents the findings of the thematic assessment based on the UNFCCC stock take report.

Solomon Islands ratified the UN Framework Convention on Climate Change (UNFCCC) on 28 December 1994, and submitted its Initial National Communication (INC) to the UNFCCC Secretariat on 30 September 2004. These are important steps forward in terms of commitment to addressing climate change and other environmental related issues. Solomon Islands like other Pacific Countries (PICs) and Small Islands Developing States (SIDS) is aware of and concerned about its vulnerability to climate change and the effects global warming will have on low lying islands, major coastal environments due to climate change-induced extreme weather events and sea-level rise.

The thematic assessment report on the UNFCCC analyses and identifies various requirements of the Convention that are not being adequately met and why they are not being met. This analysis provides a better understanding of the nature of the capacity needs, constraints and the opportunities for addressing the issues. The TA report will also lead to the identification of environmental and capacity issues that cut across the three MEA's targeted by the NCSA.

2.0 National Context

2.1 Geography

The Solomon Islands form an archipelago of 725,197 sq. km. (280,000 sq. mi.) in the Southwest Pacific about 1,900 kilometers (1,200 mi.) northeast of Australia. The terrain ranges from rugged mountainous islands to low-lying coral atolls. , The country stretches in a 1,450-kilometer (900 mi.) chain southeast from Papua New Guinea across the Coral Sea to Vanuatu. The main islands of Choiseul, New Georgia, Santa Isabel, Guadalcanal, Malaita, and Makira have rain forested mountain ranges of mainly volcanic origin, deep narrow valleys, and coastal belts lined with coconut palms and fringed by reefs. The smaller islands are atolls and raised coral reefs, often spectacularly beautiful. The Solomon Islands region is geologically active, and earth tremors are frequent.

The islands' ocean-equatorial climate is extremely humid throughout the year, with a mean temperature of 27° C (80° F) and few extremes of temperature or weather. The annual rainfall is about 305 centimeters (120 in.). More than 90% of the islands are forested covering the interiors of the large islands. Soil quality ranges from extremely rich volcanic to relatively infertile limestone. Solomon Islands is listed among the worlds top 10 biodiversity hotspots with More than 230 varieties of orchids and other tropical flora and fauna high in density.

2.2 Map of Solomon Islands



(Source: ABC 2005)

2.3 Social statistics

Solomon Islanders are of diverse cultures, languages, and customs. Of its 496,000 persons, 93.3% are Melanesian, 4% Polynesian, and 1.5% Micronesian. Small numbers of Europeans and Chinese are also registered. About 120 vernaculars are spoken. Most people reside in small, widely dispersed settlements along the coasts. Sixty percent live in localities with fewer than 200 persons, and only 10% reside in urban areas.

The capital city of Honiara, situated on Guadalcanal, the largest island, has over 30,000 inhabitants. The majority of Solomon Islanders maintain their traditional social structure. Some main characteristics of the traditional Melanesian social structure in Solomon Islands vital in measures to adapt to and mitigate the effects of climate change are;

- The practice of subsistence economy;
- The recognition of bonds of kinship, with important obligations extending beyond the immediate family group;

- Generally egalitarian relationships, emphasizing acquired rather than inherited leadership status; and
- A strong attachment of the people to the land and sea.

2.4 Economic context

Solomon Islands economic growth has been restrained as a result of ethnic crises in the late nineties and since have been recovering at a slow rate. Since a majority of Solomon Islanders live in rural areas, a huge portion of the country population is subsistence-based not actively engaged in the cash economy. The economy heavily relies on natural resources exports such as Forests, fish, agricultural land, marine products and gold exports.

A majority (85%) of Solomon Islanders are dependent on the natural resources for their livelihood and more than 80%-90% of Solomon Island revenue comes from the Natural resources. This unavoidable reality requires serious consideration of environment issues for sustainable resources management. Maintaining the sustainability of Solomon Islands Natural resources for economic sustenance and livelihood must become the focal point of all development planning.

2.5 Political environment

Solomon Islands was a British Protectorate until it became independent from Britain in 1978. The country adopted the Westminster-style parliamentary democracy although characterized by weak political parties and unstable coalitions. Change in leadership is a common occurrence resulting in on-going political instability.

Serious civil unrest on Guadalcanal began in late 1998, leading to a state of emergency in June 1999 and a coup being staged against the government in June 2000. The deteriorating law and order resulted in the government requesting external assistance from Australia and the Pacific community. In July 2003 Australian and Pacific Island police and troops arrived in the Solomon Islands under the auspices of the Australian-led Regional Assistance Mission to Solomon Islands (RAMSI). The mission, consisting of a policing effort, military support, and a large development component, has largely restored law and order to Honiara and the other provinces.

The latest National Election in April 2006 led to riots in the capital city with damages worth millions of dollars. At the time of this report calm has been restored and a new Prime Minister has been elected to lead the Solomon Islands Grand Coalition of Change government. Although the country has not fully recovered from the civil unrest there is however a lot of optimism for the future with the assistance of RAMSI.

3.0 Main climate change issues in Solomon Islands

Solomon Islands, like many other small island nations, is very vulnerable to climate change and rise in the sea levels. Over longer timescales the country may be susceptible to anomalously long dry spells associated with the El Nino (warm) phase of the El Nino-Southern Oscillation (ENSO) phenomenon. This would result in an increase in climate related natural disasters (storms, floods and droughts), disruption to agricultural activities due to changes in temperature, rainfall and winds, and less resilience of forests subjected to greater pressures.

Although the contribution of Solomon Islands to global greenhouse gas emissions and its role in causing climate change is insignificant as a vulnerable island state the potential impact of climate change on the socio-economic and environmental life of Solomon Islanders is enormous. Major climate change issues have a lot of influence over Solomon Islands livelihood and socio-economic development thus making future changes in climate and extreme events, an issue of great concern nationally especially the coastal areas where most islanders' live.

3.10 Subsistence and commercial Agriculture

3.11 Subsistence Agriculture

More than 85% of Solomon Islands population still live in the rural areas although there has been a rise in migration to urban centers especially Honiara over the last five years. Most of these people are heavily dependent on a subsistence livelihood. Any substantial change in climatic conditions threatening rural livelihoods will be a national issue for Solomon Islands.

Climate change could affect subsistence livelihoods in different ways. These include direct destruction from extreme events like droughts and cyclones. Frequency of such extreme events could also lead to lower crop yields. The stock take report noted examples such as on the coastal lowland of Makira where taro production has less tubers and lower yields in recent years because of warmer temperatures. Similarly, the island of Malaita experienced a shorter fallow period during the warmer and drier conditions of the 1997/98 El Nino. There are also reports that salt water intrusion and flooding in low-lying coastal areas and atolls such as Ontong Java is already threatening livelihoods and has become a disaster issue which the National Disaster Council (NDC) is trying to address.



Salt water intrusion killing taro plants the major food crop for Ontong Java Islanders. (Photo; National Disaster Council 2005)

Land productivity could also be affected from climate change induced factors enhanced by soil erosion. There are socio-economic factors that could enhance such impacts, this include farming technology and practices and pressure on land from the demand fueled by population pressure.

3.12 Commercial Agriculture

Commercial agriculture is important to Solomon Island primary economy. Solomon Islands exports mainly palm oil products, copra, coconut oil, and cocoa. Before the ethnic crises Solomon Islands agricultural products account for more than 25% of total national exports. This has declined since from the recent crises and other factors. Climate is an important factor in crop yields especially the variations in temperature and rain/drought cycle.

Soil productivity is essential where climatic conditions dictate the state of soils with respect to moisture and texture. Thus farming practices require consideration of climatic conditions such as increasing surface temperature, salinity water log of low lying areas, increasing rainfall, and longer drought periods increasing temperature. Extreme cyclones such as the Cyclone Namu of 1986 severely affected palm oil production as a result of flooding and disruption to operations. A lot of commercial agricultural activities are located in low lying coastal plains and are susceptible to future effects of sea level rise or flooding.

Increasing frequency of extreme events such as storms and cyclone would require developing effective adaptive measures. This could require changes in farming practices, locations, research into crop yields, adequate supply of water and technologies. Weather mapping information to be provided by MET service could be very important for farmers to be better prepared for changes in weather patterns.

3.20 Forest, Terrestrial Resources and biodiversity

3.21 Forest Resources

The forest sector of Solomon Islands generates 50-70% of foreign revenue. Solomon Islands deforestation activity such as logging is 4.5 times the sustainable yield reaching more than 1,000,000 cubic meters in 2005. This has generated \$86.6 million revenue for the national government in 2005. (CBSI annual report 2006). A majority of Solomon Islanders are heavily dependent on the forest for their subsistence livelihood, cultural and traditional usage.

The current major threats seem to come from deforestation activities; which could be further escalated from climate change impact. The increase in frequency of storms and high rainfall escalates the rate of soil erosion causing huge impacts on river and coastal systems.

The importance of forests in alleviating climate change processes is a matter of global concern. Carbons are sequestered for long periods in old-growth ecosystems both in trees and in soils. Soils in undisturbed tropical rain forests contain enormous amounts of carbon derived from fallen leaves, twigs and buried roots that can bind to soil particles and remain in place for hundreds of years. When such forests are cut, the trees' roots decay and soil is disrupted, releasing the carbon dioxide

3.22 Terrestrial Biodiversity and Ecosystem

Solomon Islands is listed among the top ten biodiversity hotspots (WWF 2004) in the worldwide with high species endemism for both flora and fauna. While the impact of climate change on terrestrial biodiversity has not been investigated observations show that anthropogenic activities coupled with climatic factors are destructive. These include bush fire under very high temperatures that lead to bush and grassfire destroying certain flora, fauna, ecosystems and habitats. Shifting cultivation is a common subsistence agriculture practice and its slash-and-burn approach to land preparation is a major cause of biodiversity loss and carbon dioxide emissions.

Direct impact on habitats and ecosystem could come from increasing frequency of extreme events such as drought and cyclones. Increasing temperature could also affect the niche of certain species although this could not be quantitatively verified. The issue of the effect of climate change on flora and fauna needs further assessments.

3.23 Marine Biodiversity and Ecosystem

The most obvious effects of climate change on marine ecosystems in Solomon Islands and the wider Pacific region is coral bleaching. Corals are highly sensitive

to temperature changes and therefore a slight increase in water temperature can kill coral, a phenomenon referred to as ‘coral bleaching’. Therefore the symbiotic relationship that exists within a coral reef ecosystem with other marine life could be hugely affected.

Mangroves and reef ecosystems are breeding grounds for commercially important species of fish and shellfish located in shallow coastal waters. Mangroves in particular are important breeding grounds and habitats for crabs, prawns and important food species. Changes in water temperature or sea level rise can threaten such breeding grounds, and coastal habitats. Changes in weather and ocean temperature can affect fish behavior and migration patterns. The stock take report highlighted that Solomon Islands tuna industry could be affected with changes in ocean temperatures and catch records have already shown that increased volumes of tuna is usually caught in the eastern Pacific during El-nino occurrences.. El-Niño could therefore affect fishing industry in terms of quantities and species composition. This could lead to a decline in fisheries productivity and earning in exports

3.3 Coastal Environment and Systems

Huge populations of Solomon Islands reside along low lying coastal areas and therefore heavily rely on marine and fisheries resources. Climatic factors such as sea level rise rainfall, strong winds, storm frequency, salinity, unusual tides, salinity and groundwater level could affect the productivity of marine and fisheries resources.

Coral reefs and Mangroves act as buffers and barriers zones protecting coastal communities and low lying areas from storms, tides, cyclones and storm surges. They also have social and cultural importance Effects of climate change are worsened by human activities such as deforestation and land degradation activities and development. No proper assessment has been done on the impacts of climate change on the coastal environments in the Solomon Islands. However increased erosion rate has been experienced from climatic conditions associated with human induced factors. Low lying islands throughout the country such as Ontong Java and reef islands have experience the effects of sea level rise and droughts and have already requested assistance from the NDC.

3.4 Water Resources

Solomon Islands water resources could be affected by climate change in both quality and quantity. Climate change events such as El Nino will cause significant impact on water resources in certain parts of the country. Communities on low-lying islands and coastal areas are currently at greater risk from flooding, storm surges, high tides, and sea level rise that could result in water logging and salination. This has been reportedly experienced on Ontong Java atoll of infiltration into freshwater aquifers affecting staple food crops. Rising sea levels

on atolls could cause a decline in the size and quantity of freshwater lens threatening livelihood.

Longer periods of drought also increase evapor-transpiration rates of forests, reducing water retention rates. Water supply to communities and urban areas could be affected as a result of variation in rainfall patterns and destruction of watersheds due to human activities.

3.5 Human Health

The effect of climate change on the general populace health is an issue that requires a thorough assessment and investigative study. There are indications that certain health issues currently faced by communities are attributed to the climate change factors.

The National Implementation Strategy report (unpublished) identified both direct and indirect impact of climate to public health as follows; (1) Climatic stress and adaptation, (2) thermal factors, (3) effects of Ultraviolet Radiation on human beings-increase in skin cancer and (4) possible alterations in immune responses-effects on eye diseases. The indirect impacts of climate change on public health include changes in nutritional requirements, food production, and heat related morbidity and mortality.

In fact that there is a growing correlation between temperature changes and outbreaks of diseases. Higher humidity increases mosquito longevity and survival at higher altitudes. For example, it has been experienced that mountain areas of islands like Guadalcanal and Makira where malaria incidence is known to be relatively low are experiencing an increase in incidences.

4.0 UNFCCC Convention Background and Solomon Islands

4.1 Background

The UNFCCC was adopted and opened for signature by countries in 1992 at the Earth Summit in Rio de Janeiro, Brazil. Solomon Islands ratified the UN Framework Convention on Climate Change (UNFCCC) on 28th December 1994. Commitment is also made to the Kyoto Protocol which was ratified by Solomon Islands on 13 March 2003. Solomon Islands is also a Party to other UN conventions, such the UN Convention on biological diversity, Biosafety, persistent organic pollutants, and combating desertification. Article 2 of the UNFCCC Convention expressed the ultimate objective of the Convention as follows;

“The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be

achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”(*UNFCCC Convention text*)

Solomon Islands ratification of the UNFCCC reflects the country’s commitment to addressing climate change and related issues. Therefore Solomon Island has since been actively participating in regional and international initiatives in addressing the issue of climate change. The stock take report highlights the fact that much of the national climate change activities have been so far driven by support received through regional and international mechanisms. While that is a beneficial outcome there are huge opportunities for national initiatives for sustainable mitigating activities.

The Meteorology Division in the Ministry of Infrastructure and Development is the Convention focal point and is also the implementing agency carrying out national and international activities internationally funded under the UNFCCC funding mechanisms and GEF. It also leads national initiatives to address climate change issues through its climate change unit.

4.2 Solomon Islands Obligations to the UNFCCC

Solomon Island has obligations that it must fulfill under the requirements of the Convention. There are support mechanisms such as the UNFCCC Financial Mechanism and Global Environment Facility support that enable the country to meet some of the requirements. In the Pacific Islands region Solomon Island benefited from the support under the Pacific Islands Climate change Adaptation Program (PICCAP) created to assist Pacific Island Developing Country parties to the UNFCCC implement enabling activities on climate change. Other programs have been facilitated at regional level by South Pacific Regional Environment Program (SPREP) and through other regional initiatives and cooperation.

The Parties commitments are provided under Article 4 and 12 of the convention. Article 4.1 contains a list of commitments that all Parties like Solomon Islands must undertake, but taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances. Article 12 calls for all parties to communicate to the UNFCCC Secretariat information regarding the implementation of the Convention. The information is submitted in the countries ‘National Communications (NC)’. Solomon Islands obligations as a party are fourfold;

1. Mitigation
2. Adaptation and Vulnerability
3. Reporting to the Conference of the Parties
4. Gathering, Processing and Dissemination of Information

5.0 UNFCCC Obligations Implementation Progress

The stock take report has presented an overview Solomon Island progress in fulfilling its commitments under article 4 (1) and 12. (**Annex 2**). With the political climate arising from the recent crises there has been limited progress in implementing many of it's obligations to the UNFCCC.

5.1 Mitigation

Solomon Islands have embarked on initiatives to place it in a position to undertake measures to mitigate the causes of climate change in box 5.1a.

Box 5.1a

Measures to mitigate the causes of climate change

- A national green house gas inventory has been completed in 1994 with the support from PICCAP. Therefore enabling Solomon Islands considers adaptation strategies to address its CO₂ emissions.
- A national policy framework on renewable energy is being developed and about to be formalized.
- The Pacific Islands Renewable Energy Project (PIREP 2004) has identified capacity issues and constraints experienced by the country in its efforts to develop renewable technology. This report will guide the development of Solomon Island renewable energy policy and implementation of follow up projects.
- Solomon Islands will soon be implementing the Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project (PIGGAREP) – focusing on developing a clean and renewable energy sector to mitigate the impact of climate change. This is aimed at addressing the barriers identified through PIREP.
- A draft National Implementation Strategy (NIS) was developed under the PICCAP, which will accommodate a lot of the country's commitment under article 4. These include;
 - Formulation of national and regional programmes containing *mitigation* and adaptation measures.
 - Promoting sustainable management of sinks
 - Taking climate change into consideration in national social, economic and environmental policies.

5.2 Adaptation and Vulnerability strategies

Past and current initiatives that contribute to development of capacity for vulnerability assessment and determination of adaptation options are tabled below.

Box 5.2a

Adaptation and Vulnerability strategies

- The first Vulnerability and Adaptation (V&A) Assessment undertaken by Solomon Islands.
- An environment Act 1998 is in place but needs regulations for it to be effectively enforced
- Formulation of national and regional programmes containing mitigation and adaptation measures in the initial draft for the National Implementation Strategy (NIS).
- The implementation of PIGGAREP Project will be a step forward in overcoming barriers to developing renewable energy technology.
- National Adaptation Programme of Action (NAPA) is in the process of being implemented and will identify vulnerabilities as well as adaptation strategies.
- Solomon Islands developed a State of Environment Report 1991 but have no direct reference to climate change impacts
- A National Environment Management Strategy was developed in 1993 by the Environment and Conservation Division but has not been fully implemented. It needs reviewing and will need to incorporate adaptation strategies.
- Solomon Islands Government, 1996, Solomon Islands Environmental Impact Assessment Guidelines developed
- A report on coastal governance in Solomon Islands has been done under the International Waters Project – An evaluation of strategic governance issues relating to coastal management.
- Consultations are currently underway to design the Pacific adaptation to climate change (PACC) project. This is being coordinated by SPREP, will be closely linked to the findings of the NAPA and will enable the country to undertake priority adaptation measures.

5.21 Traditional Knowledge

The NCSA UNFCCC stock take report has taken into consideration the use of traditional knowledge as adaptation measures. This however needs a through quantitative and qualitative analysis. This is an important issue in developing adaptation measure as rural people have an understanding and could be thriven as measures that are practical at their level. A model law is developed by the South Pacific Commission focusing on traditional knowledge and could be a starting point for integration of traditional knowledge application in climate change mitigation and adaptation strategies.

5.3 Reporting to the Conference of the Parties

Solomon Island is obligated under article 4.1(j) to communicate to the COP in relation to article 12 implementation progress. Thus it has;

Box 5.3a

Solomon Islands reports undertaken
<ul style="list-style-type: none">• Completed and submitted its Initial National Communication.• Vulnerability and Adaptation (V&A) Assessment undertaken by Solomon Islands.• A national green house gas inventory has been completed by Solomon Islands in 1994 with the support from PICCAP.• The country is also currently in progress preparing the second national communication with the support of PICCAP.

5.4 Gathering and Dissemination of Information

Solomon Island is benefiting from its interactions with other Parties and its participation in regional and international level exchange of information.

Box 5.4a

Regional cooperation and coordination mechanisms
<ul style="list-style-type: none">• The Pacific Islands Framework on Climate Change, Climate Variability and Sea Level Rise• Communiqué of the nineteenth meeting of the South Pacific Forum in Nuku'alofa, Tonga, in 1988 raised the concern of climate change vulnerability.• Strategic Action for the Development of Meteorology in the Pacific Islands region.• Pacific Island Global Climate Observing System (PIGCOS) Action Plan (2003-2008)• Pacific Island Global Climate Observing System Implementation Plan (2002-2008)• Pacific Islands Energy Policy and Plan• Pacific Umbrella Partnership Initiative on Adaptation.• Pacific Islands Climate Change Assistance Program (PICCAP)

At the national level initiatives have been undertaken to promote and cooperate in education, training, public awareness and institutional strengthening related to climate change.

Box 5.4b

National initiatives

- Climate Change issues incorporated into the national curriculum – At form six level climate changes is a major topic in Geography and is a major research topic.
- ECD and Meteorology Directors are members of the scientific advisory committee for Curriculum Development.
- Training of experts in GHG Inventory and V&A has been undertaken
- A Climate Change Unit has been established in the Meteorology Division
- Ongoing information exchange between MET and NDC on climate change
- Training in negotiation skills has been undertaken
- Participation in international negotiations in addressing climate change issues.
- Live and Learn Environmental Education undertaking community awareness on environmental issues including climate change.

6.0 Kyoto Protocol

The Kyoto protocol was adopted at the third session of the COP in Kyoto Japan December 1997. Solomon Island signed the Kyoto Protocol in September 1998. In the Protocol, Annex I Parties to the UNFCCC agreed to a range of legally binding commitments with a view to reducing their overall emissions of six greenhouse gases (GHGs) by at least 5% to below 1990 levels between 2008 and 2012, in accordance with their “common but differentiated responsibilities”.

Solomon Island could benefit as a signatory to the protocol which establishes mechanism such as “emission trading” and “clean development mechanism” encouraging joint emission between developed and developing countries. This mechanism could be opportunities for Solomon Islands to use as mitigation measures.

7.0 UNFCCC Compliance Development Opportunities

International and regional support has enabled the country to meet some of its obligations and these existing opportunities must be utilized. Huge opportunities are also present in respective sectors in the country undertaken by respective government agencies, NGOs and the private sector relating to climate change that could become opportunities. **(Refer to Annex 4)**

Ongoing and future projects, activities and enabling activities in a range of sectors could be become mechanisms to address climate change. Solomon Islands challenge now is to utilize these opportunities. The following project current and up-coming programs and activities across all sectors can add value to Solomon Islands efforts to mitigate the factors causing climate change as well as adapt to its effects;

- The publishing of the National Implementation strategy could be further attract implementation projects and also bring awareness at policy development level
- Greenhouse gas inventory and V&A studies could provide the information for mitigation measure by important sectors such as energy, agriculture, forestry, and fisheries.
- NAPA if completed will enhance the awareness of the need to develop adaptation and mitigation and further open new funding windows
- GEF- funding opportunities - these need to be made use of through the development of good project proposals that also promote joint implementation by various stakeholders and have adequate co-financing
- Opportunities under the Clean Development Mechanism of the Kyoto Protocol can be explored.
- PIGGAREP will soon be implemented and will build on the findings of the PIREP project.
- PACC will soon be implemented by the Solomon Islands providing the country with opportunities to strengthen its adaptive capacity.
- NBSAP if completed will become a formal strategy that could enhance donor support to address major conservation needs.
- NCSA will have a follow up implementation project which has been approved by GEF and needs to be followed up and a project proposal based on findings initiated at early stage.
- Regional support from SPREP and international support mechanisms have been a benefactor to the country and needs to be fully utilized. This includes the upcoming Pacific Adaptation to Climate Change (PACC) Project.

Sectoral Opportunities could be limitless given the post-conflict environment. Under agriculture for examples so many current project will consider climate change as an issue related to food security because of the relationship between productivity and climatic conditions. The important sectors as included on the table in annex 4.

8.0 Enabling Environment and Institutional arrangements

8.1 National Policy, Legislation and Strategies

Solomon Islands is yet to produce a policy to address its vulnerability to climate change although opportunities are there to incorporate and mainstream climate change into other policy areas. The stock-take report highlighted the agriculture, fisheries, forestry, environment and energy sectors where climate change can be mainstreamed. . The current legal framework is also not conducive to directly addressing climate change issues. The following are national policy statements from current government under various sectors;

Agriculture

- *Encourage and support further research into the protection and use of existing cash crops. Introduce new agricultural methods, appropriate technologies and crop species suited to Solomon Islands' highland/lowland terrain and climatic conditions. Strive to increase local agricultural output for both consumption and import substitution/export;*
- *Ensure that food security for Solomon Islanders is improved and maintained to keep pace with a growing population;*

Energy;

- *Pursue the implementation of the Master Plan for Renewable Energy Development*

Forestry;

- *Support existing and planned reforestation programs, and make it mandatory for logging companies to carry out reforestation in the logged-out areas;*
- *Introduce new forestry legislation by working on the new draft legislation. Solicit the views of all stakeholders before changing the existing Act;*

Environment and Conservation;

- *Review and Implement the National Environment Management Strategies (1992) for Solomon Islands, which embraces a holistic approach to conservation;*

Fisheries and Marine resources;

- *Treat the development of in-shore fisheries and aquaculture, especially mariculture, with urgency for subsistence and commercial development for the benefit of coastal and atoll dwellers. Aquaculture will also be pursued for populations that live near rivers and lakes inland.*
- *Put in place a Sea Tenure legislation aimed at effectively managing in-shore marine resources so that owners of coastal resources can benefit substantially*

Solomon Islands have a development strategy 1992-2001 policy directed to hydro-projects and solar power energy development in rural areas. A renewable energy policy has also been developed by Solomon Islands in line with the PIREP project.

The National Economic Recovery, Reform and Development Plan 2003-2006 (NERRDP) focuses on productive sectors and needs to seriously consider environment issues when it is reviewed.

The National Environment Management Strategy prepared in 1992 is still the national strategy for environment management and the need for its implementation has been directly stated in current government's policy on the environment. No work has been done on it since its inception.

Solomon Islands have also developed an Environment Act (1998) which mandates the Environment and Conservation Division and calls for the establishment of the Environment Advisory Committee. Objectives of the Act were for the establishment of an integrated system of development control, environmental impact assessment and pollution control; prevention of environmental degradation; and to reduce risks to human health that may be associated with environmental changes and contaminations.

Other relevant Acts, Regulations and Policy include;

- The Environmental Health Act (1980),
- Fisheries Act 1998
- Forest Resources and Timber Utilization Act 1969
- Solomon Islands Government, 2003, National Forest Policy
- Environment Act 1998
- Wildlife Protection and Management Act 1998
- River Waters Act 1978
- The Town and Country Planning Act, 1979
- Lands and Titles Act 1970;

8.2 Provincial policies, regulations and strategies

Solomon Islands consideration at provincial level has been limited because of the lack of capacity even at national level. Most of the provinces have regulations that focus on resources management. The Western Province has an Environmental Policy, with guiding principles for the protection of the province's environmental heritage. Malaita province has directly included climate change a priority issues to address in the Malaita strategic plan 2007 – 2017. Other provinces have also developed regulations on environment considerations which could be revised and strengthened to take into consideration mitigation and adaptation measures. These include;

- Temotu Province Environmental Protection Ordinance 1994 (TPEPO)
- Malaita Province Wildlife Management and Licensing Ordinance 1995
- Malaita Province Management Area Ordinance 1990 (MalPWMLO)
- Isabel Province Conservation Areas Ordinance 1993 (IPCAO)
- Isabel Province Wildlife Sanctuary Ordinance 1995 (IPWSO)
- Isabel Province Marine and Freshwater Areas Ordinance 1993 (IPMFAO)
- Guadalcanal (sic: Guadalcanal) Province Wildlife Management Area Ordinance 1990(GPWMAO)

- Makira Province Preservation of Culture and Wildlife Ordinance 1984 (Mapco)

8.3 Institutional arrangements and functions

The UNFCCC focal point is with the Meteorology Division (MET) and is also responsible for implementation of activities under the Convention. Its capacity to implement projects is limited due to lack of adequate financial, human, expertise and technological resources. The initiation of the climate change unit within the division should enable a gradual development of capacity for coordination and management of all climate change related projects and programs in the country.

The execution of projects however involves a number of important government institutions that plays important roles in addressing climate change issues.

The Environment and Conservation Division is responsible for many environmental issues. Its functions are mandated by the Environment Act 1998 and it is also responsible for the implementation of the National Environment Management Strategy (NEMS). This strategy produced in 1992 has not been fully implemented although there are activities being carried out by NGOs on the ground that have not been recognized, documented or reported. Its ability to implement the Environment Act and NEMS has been constrained by the lack of human and other capacity issues.

The National Disaster Council (NDC) is directly responsible for coordinating national response to disasters that are natural, climatic or man-made. Drought has been a climate related disaster that has been experienced in Solomon Islands in the Reef Islands and currently Ontong Java atoll. The NDC has also been liaising with the MET on raising awareness on issues of climate change induced natural disasters and promoting adaptation measures. The NDC has been actively involved in areas affected by climate change in terms of assessments and developing response measures. Strengthened coordination between these two agencies should see improved response to climate change issues in the future.

The Energy division within the Department of Mines and Energy has been responsible for the energy sector in the country. Solomon Island has already developed a draft National Energy Policy Framework with a section on the promotion of renewable energy and environment considerations in energy development. The PIREP report has been completed and its main recommendations are ready for implementation under PIGGAREP. These are important first steps in reducing the country's dependence on fossil fuel and to reducing green house gas emissions. This has been one of the most significant steps forward in terms of policy development in relation to climate change mitigation measures.

The department of Agriculture has been undertaking a lot of activities relevant to mitigation and adaptation to climate change. A lot of projects they are coordinating for example the Sustainable Land Management project addressing food security and FAO funded 'Capacity Building for Farming Systems Development in Support of the Special Programme for Food Security' is targeting food security and alternative agricultural technologies that can be used as adaptation measures in response to climate change .

The Department of Planning and Aid Coordination can play an important role in mainstreaming environment issues into national development plans and strategies.. Currently neither climate change nor environment issues have been clearly stated in the 'National Economic Recovery, Reform and Development Plan 2003–2006' (NERRDP). The upcoming review of NERRDP is an opportunity to mainstream climate change issues into development planning.

Other important and relevant institutions include the Water Resources Division in the Department of Mines and Energy, private sector organizations. NGOs currently working in the currently with relevant program include WWF, TNC, CI, SIDT, FSPI, ECANSI, Green peace Live and Learn Environment Education and Kastom garden.

Regional and International agencies play important roles in promoting sustainable development in which climate change is a component. These include, inter-alia; SPREP, SOPAC, USP, SPC, SPTO, Forum Secretariat, Foundations of the Peoples of the South Pacific (Solomon Islands), Pacific Concerns and Resources Center (PCRC), UNDP and UNEP.

9.0 Major Capacity Issues in fulfilling Commitments to UNFCCC

Solomon Islands progress in implementing the UNFCCC has been limited to enabling activities. The constrains withholding Solomon Islands to fulfill its obligation has been accredited in the stock take report to be the lack of expertise and trained human resources, the limited technical know-how, the lack of relevant data and information and inadequate financial resources. This has not changed since the Initial National Communication report to the COP implying that much has not been done to address such capacity issues.

The country's current political and economic situation and the government focus on reconstruction and reconciliation has resulted in less attention being given to environmental issues such as climate change. Under these circumstances funding opportunities linked to the UNFCCC will go a long way to raising public awareness on the country's vulnerability to climate change and promote mitigation and adaptation measures. From a thorough assessment of Solomon Islands climate change issues, the capacity development needs are within the following areas;

- 1) Mobilization of financial resources
- 2) Development and implementation of adaptation strategies
- 3) Technology transfer and the documentation and promotion of traditional knowledge for adaptation purposes.
- 4) Education, training, awareness raising
- 5) Information management and networking
- 6) Systematic Observation and Research

9.10 Mobilization of Financial Resources

Solomon Islands is a least developed country needing financial resources to meet its obligation under the Convention. The country has just recovered from a crisis that has overshadowed the most basic development needs; therefore the current focus has been on development and maintenance of the essential services in the social and economic development of the country. Addressing vulnerabilities to climate change unfortunately has not been a priority area in terms of financial resource allocations. For example even the Meteorology Division receives very limited funds from the central government that is not enough to enable it to deliver some of its most basic services throughout the country.

Solomon Islands however can benefit from a range of funding mechanisms available to it as least developing country. These include bilateral funding opportunities as well as multilateral funding opportunities particularly through the GEF. Solomon Islands is eligible to access funds from the GEF Special Climate Change Fund, the LDC Fund and the Adaptation Fund. The country is also benefiting from GEF funding to develop the National Adaptation Plan of Action (NAPA)

The Global Environment Facility (GEF) has been instrumental through regional cooperation a financial supporter of climate change projects in Solomon Islands. GEF works through its implementing agency the UNDP, World Bank and UNEP. The GEF has four focal areas of funding that Solomon Islands needs to establish goals and priorities along; that is biodiversity loss, climate change, degradation of international waters, and ozone depletion. Through the PICCAP initiative Solomon Islands is able to complete its Initial national communication, develop the National Implementation strategy and stock take preparation for the second national communication. Funding is also forthcoming from adaptation activities under PIREP and PIGGAREP from GEF funding that Solomon Islands must effectively utilize.

It is obvious that direct financial resource from the government is not forthcoming and yet opportunities lies within the financial support mechanisms under the UNFCCC, GEF through regional cooperation initiatives and at national level in liaison with funding agencies, NGOS and the private sector. It can be assumed that finance is not an issue; rather, it is the lack of capacity to mobilize financial

resources, effectively implement projects and produce the required outputs within given time frames. .

9.12 Financial capacity constrains

The assessment identified Solomon Islands financial resources constrain attributed to;

- Very limited financial support forthcoming from the national budget to address Climate change issues
- Climate change country team not able to develop projects to attract funding by GEF and other funding agencies.
- Absence of research data of the impact of climate change to support funding proposals and convince potential donors of the impact of climate change on livelihoods.
- Weak capacity in Project Management resulting in very slow inception and implementation of past projects. This is a grave concern given the performance based funding approach under the new Resource Allocation Framework (RAF) of the GEF.
- Inability to formulate and develop funding proposal using the recent GEF RAF guidelines. This is due mainly to a lack of understanding of GEF policies, procedure, project cycles and process to access funding
- Absence of a national strategy to address climate change issues that can be used as a tool to attract funding from potential donor agencies. The NIS is a potential strategy but is currently on hold.
- Lack of a strategy for identifying and engaging with potential donor agencies with an interest in climate change issues. .
- Clean Development Mechanism under the Kyoto protocol not pursued or deemed not yet relevant
- Lack of National Climate change policy to guide the implementation by respective sectors
- No effective coordinating mechanism for stakeholders to complement each others activities in addressing climate change issues. This is in relation to work done by NGOs and other government agencies on climate change.

9.20 Development and implementation of adaptation strategies

Given its high vulnerability to climate change Solomon Islands must not only develop adaptation strategies but also be able to implement them. The effects of climate change in the near future would not only be detrimental in the primary sectors such as forestry, fisheries, agriculture and energy sectors but also on the subsistence livelihood of Solomon Islanders.

Solomon Island development of a climate adaptation strategy has been constrained by the lack of qualitative and quantitative on ground research data and on site analysis verifying the direct and indirect impacts of climate change. The

implementation of NAPA and a national coordinated research and data analysis for Solomon Islands is vital in developing adaptation strategies.

9.21 Adaptation capacity constrains

- Lack of National policy for climate change to guide the assessment of vulnerabilities and development of adaptation options.
- National Environment Management strategy (NEMS) does not directly address climate change impacts
- National adaptation strategy to address climate impact on important sector such as agriculture, forest, coasts, health and water resources not developed
- Lack of human resource capacity in environmental law person relating to climate change issues and technical know how in the country in adaptation policy and implementation.
- Limited capacity of the climate change unit in terms of human, financial resources and technical know.
- Climate change not included sectoral development planning and budgeting processes.
- Limited resources at national and provincial levels to strengthen human and institutional capacities to assess, plan and respond to climate related risks.
- Absence of mechanisms to evaluate and prioritize socio-economic sectors vulnerable to climate change
- Adaptation measures and models not developed for communities to enable them to assess and select appropriate adaptation measures.
- Weak capacity for systematic observation and climate monitoring technology is out of date.
- Stakeholders and communities involvement has been limited and not effectively coordinated
- Institutions important for effective implementation of adaptation measures identified under respective reports are not well coordinated and supported to implement climate change adaptation measures as part of their activities
- Lack of an integrated coastal zone management and planning system that incorporates mitigation and adaptation measures for the protection of coastal resources.
- Very limited capacity to enforce existing legislation relating to climate change
- Very limited access by public and key stakeholders to information via email and the internet. Climate change unit also not able to update knowledge and information on technologies, policy on climate change and gather information due to very limited ability to access the internet.
- Communities not prepared to address health issues relating to climate change

9.30 Technology transfer and traditional knowledge

Article 4.1g of the UNFCCC urges Parties to Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate systems.

There is a wide range of technology options for mitigation and adaptation purposes throughout the developed and developing countries. Institutions in Solomon Islands need to strengthen their capacity to assess these options and identify those that are appropriate and cost-effective. Capacity for research and assessment of technology options need to be developed across the various sectors of the country and a database developed on technologies that are already being used or tested. Government research institutions have very limited operational funds to enable them to undertake research into technology options and the private sector has yet to invest in research activities. There is a gradual increase in interest and adoption of renewable energy technologies however there are a range of barriers that limit the ability of people and organizations to use such technologies. These barriers are discussed in Section 9.40 Box 9.4a.

Traditional knowledge can be considered as technology in developing adaptation measures and therefore included within this section. The stock take report describes it as follows;

“Traditional information about climate change can complement scientific information, offering a more regional, more holistic, and longer-term perspective. Local information and local experience can provide a level of regional detail beyond the capacity of current scientific models and analyses” (UNFCCC stocktake report 2006)

Therefore given the diversity of Solomon Islands the potential of finding effective and sustainable technology is present. The need is for a research on traditional knowledge to be carried out and documented and models developed and tested in affected areas.

9.31 Technology capacity constrains

The constrains affecting Solomon Islands from accessing technology includes;

- Lack of financial resources to acquire and assess relevant technology
- Government fiscal policies do not encourage the importation and use of technologies. More research needs to be done to influence a policy shift in this area.
- Limited expertise in mitigation and adaptation technologies within the various government agencies.
- No technology need assessment(TNA) being undertaken for Solomon Islands

- No research and documentation on potential traditional knowledge and technologies undertaken.
- Inadequate awareness program on the benefit of technology used by stakeholders and communities.
- Limited in country technology innovation and creativity and private sector engagement in such developments.

9.32 Renewable energy technology (PIREP and PIGGAREP)

The Solomon Islands PIREP report has identified barriers in developing and commercialization of renewable energy technology. The range of constraints, based on the PIREP Solomon Islands report, can be categorized as ; fiscal, financial legislative, regulatory and policy, institutional, technical, knowledge and public awareness and availability and accesses to market.

Box 9.4a

Barriers that limit the ability of people and organizations to develop renewable energy technologies in Solomon Islands

- The government fiscal policies in import duties, taxes and charges does not favor RET development but more to traditional conventional energy
- Government financial support has not been sufficient to develop and implement adequate programs in the energy sector. While donors have been supportive in developing mini-hydro projects in certain parts of the country, that itself has not been sufficient given the needs of the whole country. Rural electrification is neither a development priority nor a priority for use of government funds.
- The current draft energy policy framework has well accounted RET and environmental considerations but the government has not as yet formalized the document. Support has been received in the past in developing rural energy policies from UNDP, GTZ, JICA and PIFS. The government on its part however has not formalized the policy or developed regulations to support any RE development.
- Lack of institutional capacity is an issue across all government sectors and that has been the case with the energy division. Currently the division has only four staff members and therefore cannot foster effective development on RE and the coordination of mechanism with stakeholders on energy issues. Sharing of information among government agencies has been a difficult issue in Solomon Islands.
- According to the PIREP report there are no standards to assure that RETs imported into Solomon Island are suitable for local conditions. Technical skill is although present is not broad to cover issues in hydro, geothermal, biomass and solar energy development.
- At the time of PIREP development there has been little evidence of awareness campaigns on energy and climate change. The issue of RE has been approached more on the issue of a cost-effective energy sources rather than addressing climate change issue.
- Transport to rural areas is very inefficient affecting the available market for RE in addition to high transport cost. There is a need for the government to become lenient in its fiscal policy to encourage RE development.

The PIGGAREP project will address the capacity constraints reported by PIREP and will contribute to Solomon Islands efforts in mitigating the causes of climate change.

9.50 Education, Training and Awareness

Education, training, public awareness and capacity building is important for educating people and raising awareness about the causes and effects of climate

change as well as the extent of the country's vulnerability to climate change. The range of technical issue that needs to be addressed through education and awareness require immediate action to be undertaken by MET as the UNFCCC focal point through the newly established climate change unit. The MET division needs to seriously develop its capacity to conduct training and raise awareness to ensure that climate change issues are given a higher profile amongst stakeholders and decision makers.

The absence of any policy on climate change also reflects the lack of awareness amongst policy makers of the reality the country is facing in relation to climate change. There is therefore an urgent need to have awareness and training sessions for policy makers and technocrats across the government agencies on climate change issues.

9.51 Education, Training and Awareness capacity constrains

Education and Training

- Insufficient technical studies undertaken on ;
Green house gas inventory
Vulnerability and adaptation
Mitigation Analysis
- Limited opportunities for nationals to undertake specific short term training in subjects such as climate change, environmental policy development, project management, renewable energy, climate modeling, vulnerability and adaptation assessments.
- No scholarship specifically targeting climate change fields
- No resources allocated for training of communities on vulnerability and adaptation assessments. .
- Climate change as a topic is covered as part of the secondary school curriculum only at form 5 and 6 levels. It needs to be included at primary and secondary level and also the informal education sector

Awareness

- No systematic plan for awareness raising for communities' schools, general public and policy makers.
- Inability to develop relevant materials for awareness raising due to limited human resources, technical capacity, technological and financial resources
- Not enough staff within MET to develop and carryout awareness programs as they are already engaged in other essential programs
- Lack of proper coordination between NGOs and government agencies to effectively complement each others work and to carry out joint awareness raising initiatives
- Media focus is not on environmental issues such as climate change therefore not engaged in consistent publication of the issues.

- No climate change website developed as a medium for raising awareness and disseminating information
- Communications and Transport mediums limited given the spatial geography of the country.
- Environmental issues affecting the country not well propagated thus the issue of climate change.
- There is need for more awareness raising on the benefits of renewable energy and related technologies and targeted capacity building activities to strengthen national capacity to make use of opportunities under the CDM.

9.60 Information Management and Networking

One of the many factors causing the inability Solomon Islands to implement environmental related activities supported by international funding is ; the lack of data and secondly, if available, data is not easily accessible.. Information management has been repeatedly mentioned in recent reports as major focus area not only in climate change but also other general environmental issues. The environment and conservation division responsible for all environmental issues has been repeatedly asked to set up an environment information database but has been limited by lack of manpower, office space and financial resources.

Data and information on the environment in Solomon Islands is gradually building up but is not easy to access as they are located in different government agencies, NGOs, regional organization and other local and international groups, individuals and organizations. Sharing information is difficult in many organization as information is regarded as confidential and owned by respective organizations therefore is not easily shared. .

9.61 Information Management and Networking capacity constrain

- Non-existence of an environment or climate change database.
- Very limited access to the email and internet where information could be available to public and as medium for networking
- Government agencies, NGOs and private sector not actively sharing data and information
- MET information networking with relevant regional and international organizations not maintained.
- Lack of technological hardware, software and knowledge to enhance data management and networking.

9.70 Research and Systematic Observation

A Solomon Islands approach to responding to climate change issues has been generally reactionary rather than proactive. Research and systemic observation are direct requirements from the Convention under Article 4 paragraph 1(g) and Article 5 that Solomon Islands need to fulfill. Lack of quantitative data, limited

analytical capability; and poor recording of previous studies has often hampered efforts to understand the impact of climate change on the environment, people's livelihoods and the economy. A lot of the sectoral capacity constraints facing the country require a thorough research to identify underlying issues and root causes.

Solomon Islands lack the resources required in terms of finance and climate change specialists. There has been past climate change studies undertaken however these have not focused on each of vulnerable sectors. Research data could provide the basis for the design of projects to address climate change issues. Technical officers also lack the skills in developing fundable research proposals to support further investigations and assessments on issues and topics such as; climate variability, climate change impacts on people and the environment, droughts, precipitation trends, El Nino effects and sea level rise.

The country has in a place a systematic observation system operating at a very limited capacity in technology. Systematic Observation currently is important in predicting weather patterns for the country and as warning systems cyclones and other extreme weather events for at least 3 months.

9.71 Research and Systematic Observation capacity constrains

- No research strategy developed by MET or Environment and Conservation on sectors affected by climate change
- Assessment of priority areas for climate change research in the country not done.
- Lack of access to past data and studies to guide further studies in climate change
- Limited financial and human resources to undertake quantitative research.
- Not a priority field for ministry of education to support local researchers
- No national research institutions in the country focusing on climate change.
- Incentives for research fellows and graduates for climate change not available or publicly advertised.
- Lack of awareness about climate change to prompt interest from students considering future study fields
- Outcomes of meetings and actions identified are not being fully implemented at the national level.
- Lack of capacity to participate in the conducting of studies on the impacts of ENSO on the fisheries and tourism sectors.

10.0 Priority capacity developments needs of Solomon Islands to address Climate Change issues and national obligations under the UNFCCC

The enabling activities under the UNFCCC have unveiled a lot of capacity development needs to address climate change. It is expedient however that the country priorities its capacity development needs because of its limited resources. The enabling activities from international funding agencies could build on the

limited support provided by national government agencies and institutions that can play an important role in climate change work. Such support will not only fill in the current gaps in addressing the issues but also would become a catalyst to raising awareness of the country's vulnerability.

The MET department under its climate change unit needs to drive activities that will open opportunities from multilateral as well as bilateral funding organizations. These can also prompt the government into recognizing climate change as an issue to be included in its policy framework, budget and development planning processes.

Current climate change needs cut across all the sectors, many of them could be addressed by developing proper coordination mechanism with the respective sectors and stakeholders.

The country's priority capacity developments need to fulfill its commitment to the UNFCCC is categorized under systematic, institutional and individual levels;

Systemic

1. The need for a national policy to be developed on climate change and sea level rise, to accommodate adaptation strategies for very vulnerable areas such as the low lying coastal areas, islands and atolls.
2. That environment and climate change issues be mainstreamed into the National Economic Recovery, Reform and Development Plan 2003-2006 (NERRDP) currently being reviewed
3. Review the NEMS and incorporate strategies for undertaking vulnerability assessments, adaptation activities and mitigation strategies.
4. Re-establish/review the national climate change country team as a co-coordinating national committee on climate and sea-level change Programme for Solomon Islands, to improve the understanding of the vulnerability of Solomon Islands to climate and sea-level change
5. That current deforestation activities be followed by reforestation and afforestation projects and as much as possible develop policy frameworks to protect mature forests to maintain carbons sinks.
6. The country needs to pursue the implementation of renewable energy policy framework to reduce dependency on fossil fuel and reduce emission of GHGs.
7. Develop effective public awareness programs through use of tools such as pamphlets, brochures, newsletter, and adverts in the newspapers targeting urban population, rural communities and policy makers. These need to be carried out in liaison with communities and NGOs.

Institutional

1. The Environment and Conservation Division need to seek funding to develop a national database on all environment issues which will hold all past and

present studies and data. This shall become the information centre for environment and climate change issues.

2. A national research and assessment Programme be launched by MET to collect quantitative and qualitative data on the environmental and socio-economic impact of climate change. This is in collaboration with concerned sectors such as agriculture, fisheries, National Disaster council, environment and conservation, NGOs and national training institutions
3. The Environment and Conservation Division needs to review the National Implementation Strategy to include climate change focus and implement its programs.
4. The need for a national climate change strategic centre focusing on project development, national coordination between stakeholders and management of all climate change programs and activities. Possibly through the climate change unit.
5. MET to liaise with Ministry of Education to provide scholarships for training in areas related to climate change and focusing on subjects such as national greenhouse gas inventory, vulnerability and adaptation assessment, mitigation analysis, climate change policy and project development
6. The human resource and technological capacity of the climate change unit needs to be strengthened. This includes; improved technologies, increased staff numbers, provision of computer hardware and software and other resources.
7. Effective coordination of climate change activities needs to be established and led by MET through consultations with stakeholders.

Individual

1. Need to train science graduates on climate change and also on technology applications for mitigation and adaptation.
2. The need for training on the GEF procedures and funding requirements, proposal and project development, policy development processes, mitigation and adaptation strategy formulation.
3. Provide training of nationals on relevant technology development and application such as renewable energy technologies
4. Improve staff work environment, ethics and competency to carry out tasks and produce outputs required to address climate change issues.

11.0 Priority actions to address capacity development needs

Solomon Islands need to develop action programs to address its capacity development needs in the area of climate change. Some training on vulnerability and adaptation assessments have been undertaken but needs to be reviewed. Climate change is now affecting the livelihoods of many people and communities particularly those on the country's low lying islands and atolls.

To effectively mitigate the effects of climate change and adapt to such impacts the following are priority actions that needs to be immediately undertaken by MET as the coordinating agency and the stakeholders.

1. MET need to ensure that enabling activities such as the NAPA and SNC are completed and an update of the vulnerability and adaptation assessment undertaken.
2. Solomon Islands needs to quickly develop a climate change policy and National climate change strategy framework that focuses assessing for vulnerabilities as well as planning and implementation of mitigation and adaptation interventions and programmes. .
3. That an initiative is taken to publish the National Implementation Strategy (NIS) that will be the basis for policy development and strategic actions plans for climate change.
4. That climate change considerations be included in the national planning and budgeting processes such as the National Economic Recovery, Reform and Development Plan 2003-2006 (NERRDP) currently reviewed.
5. Measures be quickly taken by DFEC, MET and stakeholders to establish a national environment database and information management system to document, analyze and monitor all environment and climate change occurrences and for long term vulnerability assessment over time.
6. A community focused awareness and empowerment program to be initiated by MET and DFEC to provide training and capacity building on vulnerability and adaptation assessments and the assessment and implementation of adaptation options. .
7. That the energy division pursues the promotion and implementation of renewable energy technologies for rural communities in collaboration with the central government, funding agencies and other stakeholders.
8. A technology assessment needs be launched by MET to identify Solomon Islands technology needs in relation to mitigation and adaptation measures. This can include all potential technologies, and traditional knowledge.
9. Priorities training of nationals to develop expertise and capability in carrying out research activities, data collection, information analysis, development of climatic models and systematic observation on climate change issues. This will also enhance the country's active participation in regional and global climate observing systems.
10. That an awareness strategy be developed by MET to inform the public on climate change issues. This will involve all stakeholders and target rural areas, policy makers and the general public.
11. That the climate change country team or the climate change unit coordinate the development of project proposals and a resource mobilization strategy for funding to address capacity needs at the systemic, institutional and individual levels.

12.0 Conclusions

This report has identified a range of climate change issues and their related capacity development requirements that need to be addressed if Solomon Islands is to address its UNFCCC obligations and play its part in the global agenda to address climate change. The future implementation of any capacity development initiatives and programmes need to be carried out in an incremental and integrated way taking into consideration the current challenging socio-economic context. The national and provincial governments will continue to have difficulties in committing adequate levels of resources for capacity development and stronger partnerships will need to be forged between the government and non-state actors, the private sector and the many communities and villages that are crucial to the success of any mitigation and adaptation measures.

The governments' National operating strategy such as the NERRDP, for environment NEMS and important sector such as agriculture fisheries and forestry needs to address in black and white climate change as an issue in their strategic plans. The publication of the NIS should be a priority area to be pursued by MET as the focal point to help bring awareness at policy development level and develop national climate change strategies. The implementation of current enabling activities such as NAPA and upcoming implementation activities such as PACC could be opportunities for institutional strengthening of the climate change unit established within MET.

Other important government agencies such as ECD, fisheries, agriculture and forestry have been faced with human and financial constrains. NGOs have been the most active stakeholders in the implementation of environment concerns and must be involved in climate change enabling and implementation projects. A clear understanding of the science of climate change gives rise to the need for training of expertise on climate change.

Capacity development approaches must ensure that the relevant government agencies are able to provide effective policy and technical guidance as well as provide a high level of coordination for all stakeholders. As highlighted in this report climate change is and will be affecting the people and environment of Solomon Islands in various ways. Effects will be felt across many sectors and across a wide range of geographical settings in various ways and intensities. Mitigation and adaptation programmes and initiatives therefore need to be implemented and coordinated in an integrated and holistic way with strong participation by all stakeholders. These various stakeholders must also be supported to contribute effectively to any collaborative initiatives.

ANNEX 1/5

SUMMARY TABLE OF SOLOMON ISLANDS FULLFILLMENT OF ITS OBLIGATIONS (Extract from stock take report)

Obligations	What it Addressed?	How far in addressing?
Mitigation		
Art 4.1 (a)	Develop GHG Inventories	First GHG Inventory completed
Art 4.1 (b)	Formulate national and regional programmes containing <i>mitigation</i> and adaptation measures	The draft National Implementation Strategy (NIS) should be a guide to formulate such programmes
Art 4.1 (c)	Cooperate in development and transfer of technology in all relevant sectors that reduce or prevent emissions	A regional mitigation option in energy undertaken under PICCAP. The draft NIS should assist in this area. A regional program on Mitigation is currently being developed by SPREP
Art 4.1 (d)	Promote sustainable management of sinks	The NIS is the avenue to address the issue
Art 4.1 (f)	Take climate change into consideration in social, economic and environmental policies	The NIS is the avenue for a way forward
Adaptation		
Art 4.1 (b)	Formulate national and regional programmes containing mitigation and adaptation measures	The draft NIS should be guide to formulate such programmes
Art 4.1 (e)	Cooperate in preparing for adaptation; develop integrated plans for coastal zone management, water resources and agriculture and for the protection of areas affected by drought and flood	The first Vulnerability and Adaptation (V&A) Assessment undertaken. The NIS and the National Adaptation Programme of Action (NAPA) should be avenues for a way forward
Art 4.1 (f)	Take climate change into consideration in social, economic and environmental policies	The NIS is a way forward
Reporting		
Art 4.1 (j) and Art 12	National Communications to the COP, with information related to implementation	Initial NC submitted. The proposal for the Second NC in progress
Gathering and Dissemination		
Art 4.1 (g) and Art 5	Promote and cooperate in scientific research, systematic observation, development of data archives	There are regional and national programmes in place to address this issue
Art 4.1 (i)/Art 6	Promote and cooperate in education, training and public awareness related to climate change	<ul style="list-style-type: none"> • Climate Change issues incorporated in the national curriculum • Training of experts in GHG Inventory and V&A • A Climate Change Unit is established • Training in negotiation skills • Participation in international negotiations

Other Obligations		
Art 4.3	Funding for developing countries	<ul style="list-style-type: none"> • The Global Environment Facility (GEF) provided funding to produce the Initial NC. • The GEF will fund the Second NC. • The Special Climate Change Fund is created under the Convention to assist developing countries implement the Convention
Art 4.4	Funding for particularly vulnerable developing countries	<ul style="list-style-type: none"> • Funding for NAPA
Art 4.5	Transfer of technology particularly adaptive technology	The Adaptation Fund once operational should fund such a technology
Art 4.7	Links commitment to funding and technology transfer	The funding mechanisms in place will ensure that appropriate technologies are transferred to developing countries
Art 4.8	Actions for developing countries	A five-year Programme on Adaptation is still being negotiated at the COP
Art 4.9	Actions to consider special needs of LDCs	NAPA is the avenue to deal with this Article.
Art 12	Communication of information regarding implementation of the convention – ‘National Communications’	Initial NC submitted in 2004

ANNEX 2/5

UNFCCC Convention Obligations and Capacity Issues

Article	Convention Requirement	Capacity strengths High Medium Low	Capacity Gaps & Constraints		
			Systemic	Institutional/Org	Individual
4.1 (a)	Develop, periodically update, publish and make available to the Conference of the Parties, in accordance with Article 12, national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties;	Low	<p>Absence of a consistent database to follow up from the last National Green house gas inventory undertaken in 1994</p> <p>No national initiative to monitor anthropogenic emissions</p>	<p>MET lacks financial, human and technological capacity</p> <p>Not environment database system or information centre with DFEC or within country</p>	<p>Lack of specialised expertise on anthropogenic gases</p>
4.1(b)	Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;	Low	<p>No national climate change policy developed to step up developing adaptation measures</p> <p>No laws and regulations specific to climate change issue</p> <p>No national research undertaken to identify specific vulnerable areas and develop adaptation measure</p>	<p>MET without human and financial resources to fully implement;</p> <ul style="list-style-type: none"> - national initiatives - regional initiatives - International initiatives <p>Not able to timely implement internationally funded projects.</p> <p>Lack of resources such as;</p> <ul style="list-style-type: none"> - computer hardware - software <p>not enough staff within MET</p>	<p>No legal person with background on climate change issues</p> <p>Lack of expertise</p> <p>Need to improve negotiation skills at regional level</p>
4.1(c)	Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry,	Medium	<p>No technology assessment undertaken at the national level for the whole country</p> <p>National renewable energy policy framework not formalised</p> <p>No national incentives to</p>	<p>Energy division with only 4 staffs and</p> <p>limited technology experts in the country and within energy division and MET</p> <p>staff loss to private sector</p>	<p>Experts not retain by the government</p> <p>Training on technology software</p>

	agriculture, forestry and waste management sectors		promote renewable energy technology through the fiscal policy		
4.1(d)	Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems	Low	<p>Current Forest and Timber Utilisation Act focus on utilisation and not conservation</p> <p>Forest cod of logging practice not fully implemented and enforced</p> <p>No conservation focuses on natural resources utilisation especially in fisheries and forest sector.</p>	<p>Environment and Conservation Division locality with forest sector gives rise to conflict if interest when considering carbon sinks conservation and other environmental issues.</p> <p>Forest division not considering climate change issues in its development and planning processes</p>	<p>Lack expertise on conservation practices/methods within forestry or environment division</p> <p>Broad based knowledge on environments</p>
4.1(e)	Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods	Low	<p>Lack of National policy for climate change to drive governments consideration for climate change</p> <p>National Environment Management strategy (NEMS) does not directly address climate change impacts</p> <p>National adaptation strategy to address climate impact on important sector such as agriculture, forest, coasts, health and water resources not developed</p> <p>Not integrated coastal resources and zone management developed by the country</p>	<p>Other sectors has limited financial and human resources therefore focusing only on immediate priority</p> <p>ECD with only two staff with overwhelming responsibilities could not able to implement the NEMS</p> <p>Lack of effective coordination of all sectors to address the climate change issues</p> <p>Integrated planning process not undertaken</p>	<p>Cross-sectoral and integrated approach applications trainings</p> <p>Consultation skills developed</p>
4.1(f)	Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments,		<p>Lack of national policy on climate change</p> <p>That climate changes not included in the national planning and</p>	<p>Need for effective and well communicated link with planning department effectively with MET to consider climate change issues</p>	<p>Negotiations and policy development skills</p>

	formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change	Low	budgeting processes such as the National Economic Recovery, Reform and Development Plan 2003-2006 (NERRDP) National Environment Management Strategy not implemented or reviewed	ECD with only two staff with overwhelming responsibilities could not implement the NEMS Health sector need resources to focus on climate induced health issues	Policy linkages/cross-cutting issues training, across all sectors
4.1(g)	Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies	low	No national environment database and management system to monitor all environment and climate change occurrences and for long term vulnerability assessment over time. National research council functioning only on to give research permits but need to stocktake research opportunities and needs for the country	ECD without adequate human and financial resources to develop a environment national database Systematic observation technology not updated and not considered No effective network Initiated with respective sectors for joint-research, data development and information sharing on climate change SICHE, USP needs to undertaken research activities in collaboration with respective government agencies Ministry of education not awarding scholarship for climate change related fields	Multi-discipline skills
4.1(h)	Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies	Medium	No national information sharing network for expertise, technology needs and scientific data social and economic implication of climate change not considered information not disseminated to public and communities	Sharing and acquiring information from government, NGOs and Private sector stakeholders institution difficult Not established mechanism for information coordination between NGOs and government agencies	Need for qualified expertise

4.1(1)	Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations	Low	Climate change topics not in primary school and early secondary school state Awareness programs not systemized in a national awareness strategy program	Education institution such as SICHE focusing on career, services needs and productive sectors Media attention not focused on and climate change issues MET without the necessary resources to do training and effective awareness programs	
4.1(j)	Communicate to the Conference of the Parties information related to implementation, in accordance with Article 12	Low	Lack of national policy or framework in relation to UNFCCC obligations implementation	MET without adequate human resources to focus on developing national communications	Lack personals with expertise on developing reports
Article 12.	1. In accordance with Article 4, paragraph 1, each Party shall communicate to the Conference of the Parties, through the secretariat, the following elements of information:				
12.1a	a) A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties;	Medium	Lack of strong coordination of activities relating to the preparation of the GHG inventory Difficulties in accessing accurate data and the lack of GHG database management system	Difficulty in Data collection and collation. Absence of quality data and poor data management has been singled out as the most pressing. MET lacks hardware and software for development and improvement of data management systems for the preparation of national communications.	Lack of knowledge or expertise and lack of studies in particular categories of GHG emissions.
12.1b	(b) A general description of steps taken or envisaged by the Party to implement the Convention; and	low	Lack of nation climate change policy	The need for a system data keeping within the MET service to follow up on activities relating to convention implementation	training is needed on the use Revised IPCC guidelines on national greenhouse gas inventories, the IPCC good practice guidance on the National GHG inventories and the IPCC Good Practice Guidance on

					Land use, land-use change and forestry.
12.1c	(c) Any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.		No national initiative to monitor anthropogenic emissions	Current capacity of MET to implement activities limited and information from other relevant agencies not forthcoming	No expertise

ANNEX 3/5

OPPORTUNITIES FROM ONGOING SECTORAL PROJECTS

Institution	Project	Funding agency	Objective/Issue addressed	Opportunity relevant to climate change
Depart of agriculture and livestock	Sustainable Land Management project	GEF	addressing food security,	Mitigation and adaptation strategy for land management and food security
	The International Board for Soil Research and Soil Management (IBSRAM		improving crop yields on sloping land	Mitigation and adaptation strategy to improve crop yield
	FAO funded 'Capacity Building for Farming Systems Development in	FAO	Support of the Special Programme for Food Security	Mitigation and adaptation strategy
	Development of Sustainable Agriculture in the Pacific [Project]' EU/SPC	EU/SPC	Sustainable agricultural practices	Mitigation and adaptation strategy
	South – South Cooperation Programme	PRC/FAO/Govt of Philippines	Food Security	Mitigation and adaptation strategy
	RAMSI & AusAID Rural Livelihoods Strategy project	RAMSI	improving rural livelihoods and reducing the vulnerability of rural people, in ways that are economically, environmentally and socially sustainable" (AusAID, 2004)	Mitigation and adaptation strategy through a holistic approach in livelihood
	World Bank, EU and AusAID - Agriculture & Rural Development Strategy	WORLD BANK/EU/AusAID	The focus of the Strategy will be on income-generating opportunities, service delivery and sustainable natural resource management.	Mitigation and adaptation strategy focusing in developing sustainable measures
Forestry	Forest management project	AusAID	Reforestation and afforestation programs	Help stabilize and regeneration of carbons sinks and develop reforestation programs
Environment and Conservation	National Capacity Self Assessment Project	GEF	Assessing capacity issues to UNFCCC and cross-cutting issues	Develop an action plan framework to address capacity needs for climate change
	International Waters Program	GEF/SPREP	Sustainable use of marine and coastal resources	Coastal adaptation and mitigation activities such mangroves protection and replanting
	Nation Biosafety Project	GEF	Propagation of Genetically modified food in the	Issue of climate change and environment factors

			environment	affect genetically modified organism (GMOs)
NGOs and Donor development related Initiatives on Climate change				
The Nature Conservancy	Arnavons Community Marine Conservation Area	TNC	Buffer site for breeding due to coral bleaching	Developing management of coastal areas
WWF	Roviana and Vonavona Lagoons Marine Resource Management Program	WWF	Development coastal management and logging activities	Mitigate the effect of climate change
FSPA	MPA in Langa Langa lagoon		marine resources management	
University of Queensland	University of Queensland project in IWP	John D. and Catherine T. MacArthur Foundation	its assessment of the health of the marine environment of Marovo lagoon	The issue of coral bleaching is highlighted but not widespread but could be a potential issue to prepare for in the near future
	Makira Highland Conservation Area		Preservation of watersheds and carbon sinks forests	
EU	An EU-funded Forestry project in Isabel.		Forest conservation	Preservation of carbons sink
	Numerous initiatives of FSPI and Live and Learn Environmental Education;		Awareness and educational programs on environment	Education and awareness on climate change and other environment issues
	Micro-projects program		Community based projects	Consider climate change – in project development and planning processes

Vulnerability and adaptation assessment major findings

1. An increase of the surface air temperature supported by Solomon Islands own historical data.
2. There is presently limited information on local sea-level changes and the present state of knowledge of possible sea level change is limited to scenarios of global average sea-level change.
3. Increasing population and development activities are placing increasing pressure on land resources and creating environmental and social problems such as land conflicts. These rapid changes are also increasing demands for health services, water supplies and other resources.
4. Coastal environments and systems are at risk from sea level rise and warmer sea temperatures. Areas most vulnerable to flooding and inundation as a result of sea level rise, with the combined effects of seasonal storms, high tides and storm surges associated with tropical cyclones, are the populated coastal lowlands and low-lying islands and atolls. Coastal erosion is already evident in many parts of the country. Additionally, coral bleaching has occurred during El Nino events.
5. The 1997/98 El Nino event reduced tuna catches in Solomon Islands, possibly due to changes in oceanic temperatures and circulation. Increased frequency and intensity of El Nino events may result in further reductions of tuna catches and any future changes in sea surface temperatures may diminish Solomon Islands tuna stocks.

ANNEX 5/5

REFERENCES

Asian Development Bank (ADB) 2005, *Solomon Islands Country Environmental Analysis: Mainstreaming Environmental Considerations in Economic and Development Planning Processes*, Honiara Solomon Islands.

Central Bank of Solomon Islands (2006), *Annual Report 2005*, Honiara, Solomon Islands.

Department of Fisheries and Marine Resources 2006, *Corporate Plan 2006-2008*, Honiara Solomon Islands

Environment and Conservation Division 1996, *Solomon Islands Environment impact assessment guidelines*, Honiara Solomon Islands

Leary, Tanya, 1993, *Solomon Islands State of the Environment Report*. Strategic Action Programme for International Waters, South Pacific Regional Environment Programme (SPREP), Apia, Western Samoa

Marcus Lane 2005, *Coastal Governance in Solomon Islands: An evaluation of the strategic governance issues relating to coastal management*, University of Adelaide.

Matt McIntyre 2006, *NCSA UNCCD stock take report*, Honiara, Solomon Islands

Michelle Legu and Jan McDonald 2006, *NCSA UNCBD stock takes report*, Honiara, Solomon Islands

Michelle Legu 2006, *NCSA UNFCCC stock take report*, Honiara, Solomon Islands

Norman Duke 2006, *Conditions of Environments in Marovo lagoon*, University of Queensland, Australia

Solomon Islands Government, 1998, *Medium Term Development Strategy 1999-2001*, Honiara, Solomon Islands.

Solomon Islands Government 2002, *National Economic Recovery, Reform & Development Plan 2003-2006*, Honiara Solomon Islands

Solomon Islands Government 2004, *Pacific Islands Renewable Energy Project*, Honiara Solomon Islands

Solomon Islands Government 2002, *Solomon Islands Human Development Report 2002*. (with technical assistance from UNDP).

Solomon Islands Government, Ministry of Forests, Environment and Conservation 2002, *The Revised Solomon Islands Code of Logging Practice*, Honiara Solomon Islands.

Solomon Islands Government National Parliament 1998, *The Environment Act 1998 (No. 8 of 1998)*.

South Pacific Regional Environment Programme (SPREP) 1993, *Solomon Islands National Environment Management Strategy (NEMS)*. Apia, Western Samoa.

Solomon Islands Coastal Marine Resources Consultancy Services (SICFCS) 2002, *Solomon Islands National Assessment World summit on Sustainable development (Synopsis of issues, activities, needs and constraints- 1992-2002) World Summit on Sustainable Development (Rio + 10)*, Johannesburg.

Solomon Islands government 2002, *Solomon Islands initial National Communication for UNFCCC*, Honiara Solomon Islands.

Solomon Islands Government 2005, *Enabling Activity for the preparation of Solomon Islands second National Communication to the UNFCCC*, Honiara Solomon Islands.

Solomon Islands Government; Department of National Reform and Planning. October 2003, *National Economic Recovery, Reform and Development Plan (NERRDP) 2003-2006: Strategic and Action Framework*, Honiara Solomon Islands

Solomon Islands Government, Office of the Prime Minister 2006, *Solomon Islands Government National Policy Document*, Honiara Solomon Islands.

South Pacific Regional Environmental Program (SPREP) 2004. *Action Strategy for Nature Conservation 2003-2007*, Apia Samoa.

SPREP-IWP [South Pacific Regional Environment Programme – International Waters Programme] 2001, *Report on Project Coordination Unit Visit to Solomon Islands 5-11 August 2001*. Apia, Samoa: SPREP

South Pacific Regional Environment Program (SPREP) 2005, *Pacific Islands Framework for Action on climate change (2006-2015)* Apia Samoa.

South Pacific Regional Environment Program (SPREP) 2004, *Review of the organizational requirements for the Environment and Conservation Division to implement the Environment Act 1998 and Wildlife Protection and Management Act 1998*, Honiara Solomon Islands

UNFCCC 2005, *Caring for Climate: A Guide to the Climate Change Convention and the Kyoto Protocol*

Wairiu, Morgan. March 2002, *Solomon Islands National Implementation Strategy* (draft report on climate change).

Notes