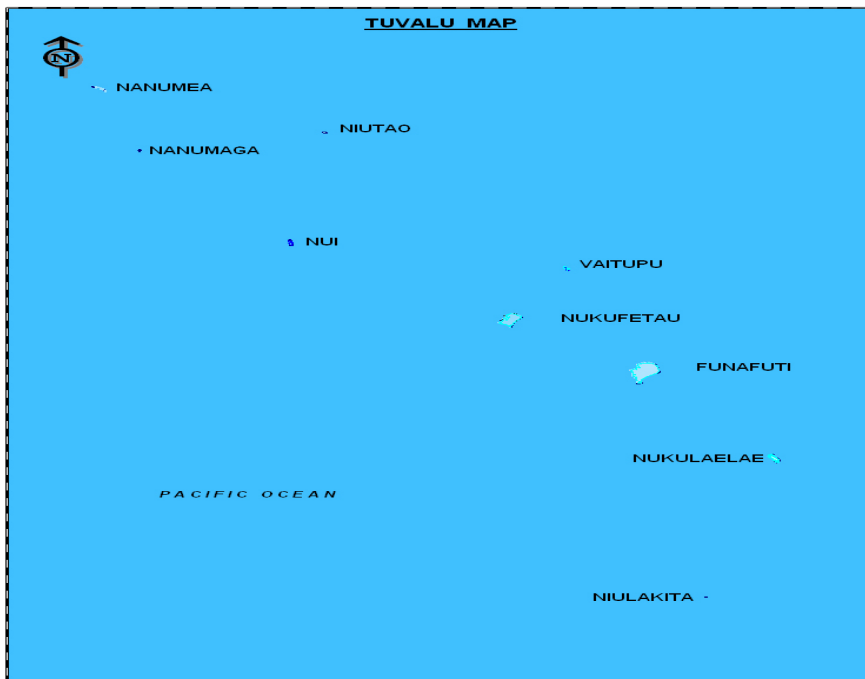




Report on the

**Assessment of the Implementation of the Barbados Programme of Actions for
Small Islands Developing States, and the Mauritius Strategy for the Further
Implementation of the BPOA**

January 2010



Prepared by *Te Maile Consultancy* for the Economic and Social Commission for Asia and the Pacific

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Abbreviations and Acronyms

ADB	Asian Development Bank
AUS	Australian Dollar
BPOA	Barbados Programme of Actions for SIDS
BrPOA	Brussels Programme of Action for LDCs
CEDAW	Convention on the Elimination of Discrimination Against Women
CPSC	Central Pacific Shipping Commission
DCC	Development Coordination Committee
DFA	Department of Foreign Affairs
DCC	Development Coordination Committee
DoF	Department of Fisheries
EPRD	Economic Policy and Research Department
FFA	Forum Fisheries Agency
FORSEC	Pacific Islands Forum Secretariat
GEF	Global Environmental Facility
ICDF	International Cooperation Development Fund, Government of ROC, Taiwan
JPOI	Johannesburg Programme of Implementation (outcome of the WSSD)
LDC	Least Developed Countries
LLDC	Land Locked Developing Countries
MDGs	Millennium Development Goals
MEAs	Multilateral Environment Agreements
MFEP	Ministry of Finance and Economic Planning
MSI	Mauritius Strategy for the Further Implementation of the Programme of Actions for Small Island Developing States
NSDS	National Sustainable Development Strategy

ODA	Overseas Development Assistance
PACER	Pacific Agreement for Closer Economic Relations
PICTA	Pacific Island Countries Trade Agreement
ROC	Republic of China, Taiwan
RSE	Recognised Seasonal Employment Scheme of New Zealand
SIDS	Small Islands Developing States
SD	Sustainable Development
SPREP	Secretariat of the Pacific Regional Environmental Programme
SPC	Secretariat of the Pacific Community
SOEs	State Owned Enterprises
SOPAC	Secretariat of the Pacific Applied Geoscience Commission
TCT	Tuvalu Consumer Tax
TKII	Te Kakeega II, Tuvalu National Sustainable Development Strategy
TNCW	Tuvalu National Council of Women
TTC	Tuvalu Telecommunications Corporation
TTF	Tuvalu Trust Fund
TuFHA	Tuvalu Family Health Association
UN	United Nations
UNDP	United Nations Development Programme
UNCD	United Nations Convention on Desertification
UNFCCC	United Nations Framework Convention on Climate Change
UNCBD	United Nations Convention on Biological Diversity
USP	University of the South Pacific
WSSD	World Summit on Sustainable Development
WTO	World Trade Centre

**THE REVIEW OF THE MAURITIUS STRATEGY FOR THE FURTHER
IMPLEMENTATION OF THE BARBADOS PROGRAMME OF ACTION FOR THE
SUSTAINABLE DEVELOPMENT OF SMALL ISLAND DEVELOPING STATES (SIDS)**

TUVALU REPORT

EXECUTIVE SUMMARY

Tuvalu is a ‘special case’ (Agenda21, UNCED1992), challenged by its unique vulnerabilities. Its sovereignty rights and unique island features provide it with amazing beauty and potential opportunities. But its extreme small size, and geographical fragmentation and isolation also present the country with enormous social, economic and environmental challenges, two of which are of particular concern: its marginalization in global decisions-making impacting on its already vulnerable people, and its long term security to survive and exist as a nation.

Tuvalu was once labeled as the State that is “economically unviable”. Over thirty years of statehood, it has proven the analogy misplaced. Increasingly, however, the ability to sustain basic services for its people and ensure the long term security of Tuvalu is seriously challenged. Impacts of globalization, and especially of climate change, are seriously undermining Tuvalu’s ability to cope on its own.

Tuvalu is party to the Agenda21, BPOA, MDGs, Monterrey Consensus, WSSD/JPOI, BrPOA, and the MSI, and a number of regional agreements. In 2004 it produced its first national sustainable development strategies, *Te Kakeega II (TKII)*, its own roadmap and a response to integrate these global MDGs and SD strategies into NSDS, owned and driven by Tuvalu.

ASSESSMENT FINDINGS

This report assesses the implementation of the MSI for the BPOA and other relevant internationally agreed development agreements and their processes in Tuvalu and the progress made since the Mauritius International Meeting in 2005. It finds that while significant progress has been achieved, implementation is hampered by several cross-cutting challenges, chief amongst which are, but not necessarily in any order of priority, as follows:

- i. Lack of knowledge: there is an acute lack of knowledge of SD principles and the inter-linkages between Tuvalu NSDS needs, and regional and international SD processes together with their undertakings for SIDS like Tuvalu. Except for the MDGs process, most of the people interviewed were unaware of the Agenda21, BPOA, Monterrey Consensus, WSSD/JPOA, Brussels POA, and MSI processes, and their inter-linkages to other relevant processes like the Pacific Plan.
- ii. International relations for inter-linkages to NSDS are crucial: Tuvalu joined the UN and formally the Commonwealth in 2000, but there exists a great need to strengthen the management and coordination of Tuvalu foreign relations to enhance the development of partnerships, based on mutual understanding and appreciation.
- iii. Communications is crucial for clarity, coordination and monitoring. However, within GOT agencies there is a need for better communications systems, as well as with island communities, and members of civil society. Infrastructure is lacking and so is publicity material in Tuvaluan language – TKII, the ‘national’ strategy, has not been translated into Tuvaluan language.
- iv. Participation of civil society in SD consultations, planning and implementation has improved, but needs to be properly systematized. For example, in the annual budget preparation, there is no participatory process to involve local communities and civil society in the identification, planning and formulation, and implementation of projects and programmes. There is also a point of separating the ‘wants’ from the ‘needs’. And, despite the concentration of the majority working population on Funafuti, there is no process for civil servants individually to participate and contribute in policy and legislation formulations.
- v. Integration of regional and international SD programmes into national policies to some extent has been achieved through TKII NSDS. More needs to be done. But there appears to have been no integration of MSI into regional and multilateral SD strategies despite UNGA Resolutions (Res 59/311 of July 2005 and 60/194 of 22 December 2005) to mainstream the MSI on SIDS into all UN agencies programmes activities, with dedicated SIDS focal points of contact.
- vi. There is a need for better coordination mechanisms to facilitate coordinated implementation of SD programmes, projects, and national budgets and policies.
- vii. Evaluation and monitoring systems together with measurable indicators at national level are lacking. At regional and international level, there is also a need to dedicate special bodies with SIDS close involvement in the evaluation and monitoring processes. For example in the UN/CSD process, a working group on SIDS should be established to monitor and evaluate progress of implementation and report to the CSD and UNGA. Experts from SIDS should lead.
- viii. Data collection, analysis and dissemination needs to be improved to better inform policy and actions. The Statistical Division is exerting all efforts, but each line Ministry and Department should also be encouraged to develop own internal database, to be systematically incorporated into national statistics. Regular publication of these is crucial.

- ix. There is severe limitation of resources to improve human, technological, and financial capacities in Tuvalu. Despite all the rhetoric's on the 'special case' and unique vulnerabilities of Tuvalu, this has not been matched with actions on the ground in Tuvalu.

RECOMMENDATIONS

While specific actions are proposed under each of the topic issues, this report recommends that the following cross-cutting actions are urgently needed:

1. Strengthen knowledge of SD principles and inter-linkages between Tuvalu's SD needs as in *TKII* and relevant regional and multilateral agreements, through workshops, schools, educational programmes, radio and through publicized materials in the Tuvaluan language:
 - Assess and develop knowledge of SD principles and Tuvalu's social, environmental and economic vulnerabilities;
 - Promote understanding of environmental vulnerabilities index as they relate to Tuvalu.
2. Improve the management of foreign diplomatic relations, to:
 - better manage Tuvalu's Vote in the UN, linked to its SD needs;
 - strengthen the staff of Tuvalu Mission to the UN – closer to the CSD, UNDP, GEF, and UNGA – and strategize closer with Suva (FORSEC, SPC, SPREP and FFA);
 - encourage DFA to develop a list of Conventions to which Tuvalu is Party, and make available to all Ministries and members of civil society;
 - develop and update the Diplomatic List of countries and organizations;
 - better resource the DFA, to enhance capacity in MEAs, human rights, SD and UN SD and MDGs processes;
 - include topics on foreign relations and SD processes in any national development workshop.
3. Establish effective communications networks:
 - review communications systems to improve communications between Ministries and Departments, and with Tuvalu overseas diplomatic missions;
 - establish channels of communications between Government agencies, private sector and NGO's, and with the outer islands;
 - upgrade communications infrastructures in all islands;
 - establish focal points of contacts for SD in each Ministry.

4. Enhance further the participation of all people in SD:
 - allow civil servants on Funafuti and on outer islands chance to individually contribute in the formulation of policy and legislations;
 - support participation of all stakeholders and island communities in the identification, planning and implementation of national budgets.
5. Promote effective integration of the MSI:
 - encourage proper integration and mainstreaming of internationally agreed SD commitments into all NSDS sectoral plans and budget activities to ensure local ownership;
 - ensure mainstreaming of MSI into UN agencies and multilateral work programmes, including in bilateral and regional programmes, in line with UNGA Resolutions on SIDS;
6. Improve coordination:
 - rationalize the role and operations of the Development Coordination Committee (DCC);
 - consider the establishment of a national SD council with representation of all stakeholders to oversee NSDS implementation.
7. Support the monitoring and evaluation of implementation:
 - task national SD council to also monitor and evaluate the implementation of MSI and TKII, to report directly to Cabinet;
 - develop and agree on a list of indicators with timelines on implementation;
 - advocate for the establishment of a UN working group with SIDS experts to monitor and evaluate MSI implementation and report to CSD and UNGA each year.
8. Develop data collection and safekeeping systems:
 - require all Ministries and Departments to establish data collection in respective areas, and to synchronize with national accounts with the Department of Statistics;
 - coordinate sectoral data with national data;
 - publicise sectoral data on a regular basis both in English and Tuvaluan languages;
 - support computerisation of data collection, analysis, and dissemination.
9. Strengthen technological capacity through quality education and training:
 - improve educational standards in all schools by regulating standards and tuition;
 - expand educational opportunities through strengthening vocational training;

- strengthen informal adults education, include females in Amatuku TMTI.

10. Improve financial capacity of Tuvalu:

- re-launch TTF world campaign for new injections of capital – new partners;
- improve fiscal management and coordination of local spending to avoid duplications, and launch campaigns for more overseas jobs on ships, NZ, Australia and Guam/USA;
- promote income generating and expenditure cutting activities: copra, fishing, tourism, local food, and renewables.
- advocate strongly at the UN for simplified access to new and adequate international and regional financial resources for SD in Tuvalu, in particular to fundings under the GEF;
- seek for special funding windows for Tuvalu given its ‘special case’, in line with UNGA Resolutions on SIDS in UNFCCC, UNEP, UNCBD, and GEF, etc, and seek for grants;
- establish special financial facilities with bilateral and multilateral partners, to cushion external financial shocks and adverse impacts – foreign exchange, transitional costs of trade liberalization, and hikes in food and fuel prices,
- advocate strongly for the upgrading of the UN presence in Tuvalu from a country programme manager to a residential representative level – as full UN member, it has full rights to the same level of UN presence in-country as other countries have.

1. SOCIO ECONOMIC CONTEXT: Key Characteristics, Challenges, and Responses

1.1 Key Characteristics



Pictorial Map of the Pacific Island Countries

Tuvalu continues to be challenged by its own unique vulnerabilities. Its extreme small size makes the islands very susceptible to environmental disasters. The land tenure system while providing for social security, it restricts business development and agricultural activities and there is a serious problem of coastal erosion. The geographical fragmentation and isolation of the islands requires high costs for providing transportation and communications infrastructures and services, particularly due to the high costs of imported fuels.

Against this background, population has increased since the 2002 Census, adding immense pressures on vital services and fragile resources. Urban migration to the Capital Island of Funafuti from the outer islands continues to be a serious problem, exacerbating housing, water and sanitation, and land disputes. The dependency on imported food and materials has further increased Tuvalu's exposure to the world economy, and thus its vulnerabilities to external forces.

The Land

Tuvalu is extremely small in size, geographically fragmented and isolated. It is the third smallest independent State of the World. It is both a Least Developed Country and a Small Island

Developing State (SIDS), composed of nine islands sparsely spread over 1.2 million of the Pacific Ocean. Six of the islands are atoll (with lagoons) namely Nanumea, Nui, Vaitupu, Nukufetau, Funafuti (Capital) and Nukulaelae. The remaining three Nanumanga, Niutao and Niulakita are raised limestone reef islands.



The total land area is approximately 26.5 square kilometers.

All the islands are low-lying with no point higher than four metres above sea level. The islands face serious problems of land erosion, and any further adverse effects on Tuvalu's limited land will have serious consequences for its people. Tuvalu is recognized as amongst

the most vulnerable countries (Agenda 21, UNFCCC, JPOI, and BPOA/MSI).

The land is composed of porous coral soil and is of low quality with poor fertility. There is low capacity to support major agricultural activities, and the land tenure system by which land ownership is largely based on *kaitasi*, (*extended family ownership*) that is owned by families, land availability for business development is restrictive. The main tree crops include coconuts, pandanus, and breadfruit, and root crops like pulaka and taro have to be cultivated in pulaka pits which are dug out of the soil to the ground water level. Subsistence agricultural activities form the basis of the economy, although recently outputs in this area have declined as the economy becomes more monetized.

Exclusive Economic Zone

Although the total land area is small, Tuvalu's Exclusive Economic Zone (EEZ) covers a vast area of approximately 950,000 square kilometers of the Pacific Ocean. Together with its EEZ, lagoons, and inshore waters Tuvalu is blessed with high quality fish stocks vital for local household subsistence and highly potential for commercial fishing and foreign exchange earning activities. Tuvalu issues fishing licences to foreign companies. The main challenge in this area is the lack of human and financial capacity to formally delimitate Tuvalu's EEZ, fully domesticate the UNCLOS into legislation, and to ensure surveillance and proper management of its marine resources within its waters.

The Geography

Situated between latitudes 5 and 11 degrees south and over longitudes 176 and 180 degrees east, Tuvalu stretches in a north-south direction over 560 kilometres. To the north about 1400 km is the Republic of Kiribati and to the south, 1100 km is the Republic of the Fiji Islands. Distances to the nearest metropolitan countries, Australia and New Zealand with whom Tuvalu has very close economic and social ties, are about 4000 km to Sydney and 3200 to Auckland. The furthest distance between any two islands is 172 km (Nui/Vaitupu), and the nearest distance between any two islands is 67 km (Vaitupu/Nukufetau).

The Climate

The climate of Tuvalu is tropical, characterized by almost consistent temperatures ranging from 26 to 32 degrees centigrade, high humidity, and rainfall averaging 256.6 millimeters per month. Droughts of up to three months can happen, especially in northernmost islands. Some of the islands lie within the cyclone belt, and the last cyclone to hit the islands was Cyclone Amy in 2003. The worst natural disaster to hit Tuvalu is Hurricane Bebe in 1972, which crushed down all buildings and killed seven people on Funafuti. Bebe also caused severe damages on all the other islands of Tuvalu.

People and Population

The people of Tuvalu are of Polynesian decent. We speak a local language that closely assembles the Samoan language, with English and I-Kiribati also spoken on a daily basis. The society is

founded on the traditional chiefly systems under which traditional decisions of each island community are made by the *'Falekaupule'*, comprising the chiefs, heads of households, and island elders.

The population of Tuvalu by the 2007 Population and Household Census was 11,126. Between 2002 and 2007 the population increased at annual rate of about 2.7 % from 9,561 in 2002. The remarkable increase was caused largely by the returning of former employees of the Nauruan Phosphate Commission (NPC) and their families who were repatriated from Nauru to Tuvalu in 2005-2006. Most of these returnees settled with their families on Funafuti, in search of further employment opportunities, hence the relatively big increase to the population of Funafuti between 2002 and 2007. Table 1 shows the population figures based on the 2002 and 2007 Census.

Table 1. Total Population size, change, distribution and density by island, 2002-2007

ISLAND	Area (km ²)	Total Population		Population Change (2002-2007)			Population Distribution (%)	Density (persons per km ²)
		2002	2007	Total	%	r/av.	2007	
Funafuti	2.79	4,492	5,227	735	14.0	0.7	47	1,873
Outer Islands	22.84	5,069	5,899	830	14.0	0.7	53	258
Nanumea	3.87	664	773	109	14.1	0.7	6.9	199
Nanumaga	2.78	589	685	96	14.0	0.7	6.2	246
Niutao	2.53	663	772	109	14.1	0.7	6.9	305
Nui	2.83	548	638	90	9.5	0.4	5.7	225
Vaitupu	5.60	1,591	1,851	260	14.0	0.7	16.6	330
Nukufetau	2.99	586	682	96	14.0	0.7	6.1	228
Nukulaelae	1.28	393	457	64	14.0	0.7	4.1	357
Niulakita	0.42	35	41	6	14.6	0.7	0.4	97
Tuvalu	25.6	9,561	11,126	1,565	14.0	0.7	100.0	434

The 2007 census results indicate that Funafuti accounts for 47% of the total population, the same as in 2002, and up from 42% in 1991, and only 29% at the time of independence in 1978. Indigenous Funafuti people however are estimated to be less than a quarter of the resident population on the Capital Island.

Population drifts from the outer islands to Funafuti is a continuing concern, exacerbated by the recent return of former phosphate workers who used to work in the defunct Nauruan Phosphate Commission (NPC). There is also a stream of Tuvaluans emigrants from overseas notably from Fiji and New Zealand, most of whom have re-settled on Funafuti. These have led to increasing population pressures on Funafuti, increasing environmental problems of waste management, squatters and congested settlements of low quality housing, water supply. These have further increased pressures on land ownership on Funafuti hence exacerbating the issue of land disputes amongst landowners.

The Economy

Tuvalu's economy is small, fragmented and highly vulnerable to external economic influences. This has led to a heavy reliance on outside development assistance and to a degree of complacency in fiscal and financial management.

A substantial amount of both government revenues and private incomes is generated from overseas. For Government, revenue comes primarily from the Tuvalu Trust Fund (TTF) (capital), the 'dotTV' internet top-level name domain (asset), foreign fishing licences (natural resources), and remittances from overseas seamen (labour). (*Source: Adapted from Tuvalu MDGs Report 2006, pp4*).

Between 2002 and 2007 annual real growth in Gross Domestic Product (GDP) averaged percent per annum, with high variability from year to year: from highs of 19% (1998) and 14% (2000), to lows of -6% (1999) and -1% (1996). For the latest 2008 and 2009 growth rates were 1.3 % and 0.9% respectively.

In the two years 2006-07 the trade deficit was equivalent to an average of 78% of GDP. Exports represent 1% of the value of imports. However, foreign exchange earnings from foreign fishing licences, remittances from seamen, returns from the TTF, and aid revenues generally covered for

the trade deficit. The country's only major domestic export commodity has been copra, however this has been subject to high level of price volatility and volumes have declined markedly in recent years, despite high levels of subsidy paid to growers. (*Source: Adapted from Tuvalu MDGs Report 2006*)

Remittances from seamen working overseas and other Tuvaluan foreign workers such as those employed in New Zealand and Australia make a very significant contribution to the economy in general and to individual families. The recent upgrading of the Tuvalu Maritime Training Institute (TMTI) on Amatuku will inevitably improve the quality of training and certification standards of seamen, and hence their marketability to work overseas on foreign merchant ships.

Government

Tuvalu became independent from the British Government on 1st October 1978. The Constitution provides that fundamental human rights and freedoms are upheld with Tuvaluan values of agreement, consensus building, courtesy, mutual respect, and recognizes the importance of culture.

In 1997 the decentralization and local autonomy for local government through the Island Council system was reformed with the institutionalization of the local development planning process through local government's executive arm (*Kaupule*), in collaboration with the local government or Assembly of Elders (*Falekaupule*), and non-government and sectoral organizations. Public sector reform has been a government priority, with the aims to improve public administration, public financial management, and public enterprise performance. Good governance was adopted as a key strategic area of Tuvalu sustainable development.

1.2 Key Socio-Economic Challenges

The key socio-economic challenges are home-grown, dictated by the unique vulnerabilities of Tuvalu to external forces, and particularly to impacts of environmental degradation and the lack of capacity to address them.

Tuvalu's isolation from major centers of commercial activities presents enormous challenges in sustaining costs of imports, and incentivizing competitiveness and investments for the development of trade to the outside world. However, while Tuvalu aspires for more trade and

hence is a Party to the Pacific Islands Trade Agreement (PICTA), it is concerned with the impacts of trade liberalisation particularly on the loss of revenue, pressures on local marine and land resources, and adverse impacts on the local environment through unrestricted inflow of environmentally harmful products and wastes. The harvesting of marine resources for commercial purposes such as sea-cucumber and fisheries is depleting stocks fast, and may lead to threats to food security.

Sustainable development and security of Tuvalu is also challenged by natural and environmental disasters particularly the adverse impacts of climate change, as well as by the lack of capacity to properly protect Tuvalu's EEZ from pollution, poaching, drug trafficking, and other forms of crimes.

Tuvalu is no longer immune from effects of globalization. The global economic downturn has led to the significant loss of jobs for Tuvaluan seafarers on foreign ships, and also to the loss of revenue from the Tuvalu Trust Fund (TTF), and reduction in foreign direct investment in development projects which is a major source of employment in Tuvalu. More young graduates from universities and high schools have joined the ranks of the unemployed. The weakening of the American dollar against the Australia dollar has also impacted adversely on Tuvalu's sources of revenues.

Health issues are a challenge, and while HIV/AIDS, malaria, and TB remain serious, cases of diabetes and cardiac are becoming the major cause of deaths and incapacitation. They are a major drain of human and financial resources. Freshwater problems persist, and there is a great need for increased water storage capacity to all islands of Tuvalu.

The safe disposal of household, human, pharmaceutical and garage wastes continues to be a major concern. Likewise the transshipment of radioactive materials in Tuvalu's EEZ is threatening to the whole economy.

The implementation of concrete adaptation activities on the ground to adapt to the effects of climate change and sea level rise remains to be a real concern. NAPA has been developed along with project profiles, but there is a pressing need for accelerated disbursement of funding to kick-start implementation of the projects. Further delays in releasing NAPA funding managed by the GEF, and accessing the resources of the Adaptation Fund and other climate change funds, could

lead to the worsening of local capacity to respond. The most serious challenge of all is the lack of funding and access to available funding to improve local capacity to address the vulnerabilities of Tuvalu – perhaps due to lack of appreciation.

The promotion of better appreciation and understanding of the unique vulnerabilities of Tuvalu at the international level, through effective diplomatic representations is imperative. Adequate funding is needed, and given its special case recognized by the Rio Summit, BPOA, MDGs, WSSD and MSI, there is a need to translate responsibility to real actions. Better access by Tuvalu to public and private capital investment is critical to ensure its SD and security.

1.3 Key Responses

Good governance is recognized as vital to creating an enabling environment for partnerships and ensuring sustainable development. Strengthening of good governance is an integral part of Tuvalu's NSDS, requiring the improvement of legislations on SD issues and the devolution of power to *Kaupules* and *Falekaupules*, and ensuring the full participation of island communities in decision making on issues relating to their wellbeing.

At the national level, necessary reforms are being undertaken to realign the role and size of the public service, set strict compliance to fiscal targets and guidelines in line with the Public Finance Act, establish a macro-economic policy committee, restructure tax and tariffs regime, establish a leadership code and office of ombudsman, strengthen the office of the Auditor General, revise laws, strengthen the effectiveness of the Public Accounts Committee (PAC), promote fair and impartial media, assess the viability of State owned enterprises (SOEs), define the costs of Government subsidies, establish guidelines on the roles of Ministers, Boards and Management of the SOEs, produce audited accounts, and ensure timely submission of financial accounts.

The development of benchmarks for Parliamentary elections and procedures under the Pacific Parliamentary good practices code will also help strengthen good governance. These need to be properly integrated into local legislation and codified into procedures and practices.

Tuvalu NSDS, *Te Kakeega II 2005-2015*, developed in 2004, provides a framework for the addressing of SD issues acute to the SD and security of Tuvalu. TKII also requires the

development of sectoral plans and strategies for the achievement of SD in alignment with the MDGs and the MSI.

TKII also encourages the strengthening of participation of all stakeholders, including of the island communities in decision making on issues affecting their lives, and the development of plans and strategies for the SD of each island community, and sustainable management of resources and services. It also encourages the development of effective and mutual partnerships to address the issues identified in the TKII framework.

Embedded in the TKII strategies is the need to strengthen foreign diplomatic relations with the world to be able to develop effective partnerships. The setting up of the Permanent Mission of Tuvalu to the United Nations will be a catalyst avenue to advocate the special SD concerns of Tuvalu and to secure external funding from partners.

2. NATIONAL FRAMEWORK FOR SUSTAINABLE DEVELOPMENT (SD).

The National Summit for Sustainable Development (NSSD) July 2004, for the first time, brought together island and community leaders, government officials and local and international experts to brainstorm issues of importance to the development of Tuvalu. It resulted in the development of *Te Kakeega II*, Tuvalu National Sustainable Development Strategy 2005-2015 which now serves as the key reference for annual budgets and for development programmes.

The Strategy, which was officially launched in New York September 2005 in the margin of the UN General Assembly and in the presence of development partners, provides the national framework for sustainable development of Tuvalu over the next ten years. It identifies eight strategic focal areas, namely: good governance; macro-economic growth and stability, social development: health, welfare, youth, gender, housing, and poverty alleviation; outer islands and *Falekaupule* development; employment and private sector development; human resource development; natural resources: agriculture, fisheries, tourism, and environmental management; and infrastructural support services.

Te Kakeega II is Tuvalu's framework to achieving sustainable development in line with the United Nations of Millennium Development Goals (MDGs), as well as with the internationally agreed sustainable development goals. The Strategy was also developed in anticipation of the

UN Mauritius International Conference to review the implementation of the Barbados Programme of Action (BPOA) for the Sustainable Development of Small Island Developing States (SIDS) that produced the Mauritius Strategy for the Further Implementation of the BPOA (MSI) 2005. TKII recognizes the need for full and effective implementation of the MDGs and MSI.

A major challenge in this regard is the lack of knowledge of the SD principles and inter-linkages between the NSDS needs identified in the TKII and regional and internationally agreed SD processes particularly the Agenda21, BPOA, MDGs, Monterrey Consensus, WSSD/JPOI, Brussels POA (for LDCs), the MSI, and Pacific Plan. For better coordination, there is a clear need to promote local understanding of the inter-linkages between the processes.

Need to develop and manage knowledge of the SD principles and inter-linkages of Tuvalu NSDS needs to:

- regional SD process – NEMS, Pacific Plan
- international SD processes – Agenda21, BPOA, MDGs, WSSD/JPOI, BrPOA, I
- MEAs: UNFCCC, UNCBD, UNCD;
- Financing mechanisms: GEF, (LDC Fund & SCCF) and Adaptation Fund

The implementation of *Te Kakeega II* is managed by all Government Ministries and Departments, under the coordination of the Economic Planning and Policy Research Department of the Ministry of Finance and Economic Planning, and in close collaboration with development partners, including regional and international agencies. The role of effective international relations in this respect is of critical importance. There is therefore a need for the Department of Foreign Affairs to also involve in coordination, maintain list of SD conventions to which Tuvalu is Party, and to advocate and negotiate, given its diplomatic role to lubricate good relations with foreign entities.

International relations needs to be inter-linked to NSDS needs:

- Strengthen management of foreign relations, Tuvalu votes linked to NSDS;
- Compile list of conventions to which Tuvalu is Party
- Department of FA to be better resourced and exposed

A requirement of TKII is for each Ministry to develop their sectoral plans and strategies with clearly identified goals and timelines to guide implementation. Although some Ministries and Departments have achieved this target particularly Health, Education, Energy, Women, and several are still trying to develop their strategies. Each year, the sectoral policies and strategies provided in *TKII* are elaborated into budgets and plans by each Ministry and Department, and later legislated into law through the enactment of the national budget by Parliament.

At the policy level Cabinet oversees the whole coordination of implementation of TKII. A committee comprising all Permanent Secretaries of Government called the Development Coordination Committee (DCC) coordinates the day-to-day implementation of TKII and the national budget, and provides the Cabinet with technical advice and update on progress. The DCC, whenever necessary, incorporates representation from NGOs, private sector and other members of civil society, to participate in meetings, and also establishes sub-committees and special task forces to focus on designated issues. DCC is chaired by the Secretary to Government, and is based under the Office of the Prime Minister.

While this system works, it sometimes creates confusion and disconnection because of the lack of clear communications between the DCC and its secretariat in the OPM, and the Economic Planning and Policy Research Department in a different ministry (MFEP) which also involves in the coordination of TKII activities and coordinates ODA. Consideration of the establishment of a national sustainable development council chaired by the prime minister will be in order.

National Sustainable Development Council:

Consideration should be given to the establishment of a national sustainable development council, with the role of overseeing the whole national SD process, and implementation of MSI and TKII.

On the outer islands, sustainable development policies and strategies are implemented by *Kaupules* (Executive), under the overall supervision of *Falekaupules* (Assembly of Island Chiefs) for each of the respective islands. All annual budgets of *Falekaupules*, are closely inter-

linked to the national budgets, but they are considered and approved by *Falekaupules* themselves, and endorsed by the Ministry of Home Affairs and Rural Development. Implementation and coordination on the outer islands is strongly supported by sectoral and thematic committees, like the Island Women Committees, School Committees, and indeed by local church groups and NGOs.

Participation of Stakeholders

There is a need to encourage more participation of all stakeholders, particularly island communities and civil society members in the identification, planning and implementation of SD programmes and the national budget process.

3. NATIONAL PROGRESS MADE & PROBLEMS ENCOUNTERED IN THE IMPLEMENTATION OF THE BPOA AND MSI

The Mauritius Strategy for the Further Implementation of the Barbados Programme of Action for Small Island Developing States (MSI) recognizes that fundamental to the sustainable development of SIDS like Tuvalu are the addressing of two central issues: (i) continued marginalization of Tuvalu from international monetary, financial and trading systems, and (ii) Tuvalu's long term security.

International Relations and Access to International Monetary, Financial and Trading Systems

The MSI recognizes the need for international processes particularly those concerning monetary, financial and trade to provide more representative and active participation of Tuvalu in their decisions making. However, except for the Asian Development Bank, Tuvalu has not been able to join any of the international monetary, financial and trading institutions because of its lack of capacity, but more especially because of the stringent nature of the terms and conditions of membership in such bodies. Tuvalu is not a member of the World Bank or the Global Environment Facility (GEF), and the possibility of Tuvalu ever becoming a WTO member appears remote, exacerbated of course by its own capacity constraints.

There is therefore a serious deficit of appreciation in these bodies of the extent of marginalization that is faced by Tuvalu, and the need to refocus bilateral and multilateral relations on creating special arrangements for better access and participation of Tuvalu and similarly endowed SIDS in these bodies. There is a clear need for institutional reforms in all international monetary, financial and trading institutions to facilitate the participation of Tuvalu in the process of setting norms, rules and standards that are friendly to the situation of SIDS like Tuvalu. Tuvalu's membership in the ADB should provide for the World Bank and World Trade Organisation to seriously consider providing special considerations of Tuvalu's accession into membership of those institutions, in line with the UNGA Resolution 60/12 on SIDS.

Integration of MSI and Mainstreaming of SIDS

Integration is happening on the ground, in TKII. Bu there is a clear need for institutional reforms in all international monetary, financial and trading institutions like the World Bank, GEF, and WTO in line with the UNGA Resolution on SIDS, 60/194.

Tuvalu International Security

The MSI also recognizes the necessity for a variety of security protection measures for Tuvalu, considering that security for Tuvalu and SIDS is multi-dimensional and much broader than simply terrorism: including environmental degradation, and food, energy and water security. Although *Te Kakeega II* has not incorporated security as an area of focus for Tuvalu, there is a need for the international community to afford more attention to the security concerns of Tuvalu in the United Nations, Security Council and other international security processes. There is also a need for the international community, including regional bodies like the Pacific Islands Forum, to avail adequate financial and technical resources to help Tuvalu meet its security challenges in a broader context.

3.1 SECTORAL AREAS

3.1.1 Climate Change and Sea Level Rise

Climate change presents the most serious security challenge confronting Tuvalu. Tuvaluans believe dangerous climate change is already occurring. The problems of sea level rise, high temperatures and corals bleaching, increased frequency and severity of droughts and strong winds, coastal land erosion, ground water contamination, salt-water attacks on food supply like food-crops, and flooding (page 21 Tuvalu NATCOM 1999), are threatening the security and sustainable development of the Tuvaluan people. There are also new emerging issues of human health including new epidemics that are being experienced for the first time in Tuvalu (*Health Ministry Annual Report 2009*).

All these translate into real threats to the sustainable development, livelihoods and existence of Tuvalu, despite our negligible contribution to the cause. It is a long term policy of Tuvalu to push for accelerated global actions against climate change through ambitious global greenhouse gases (GHG) emissions reductions of no less than 85% by 2050, and through adequate and accessible financial and technical support for concrete adaptation in-country.

Tuvalu submitted its First National Commission (Natcom) in 1997, and is in the middle of developing its 2nd National Communications, coordinated by a local coordinator. Tuvalu faces the real possibility of its islands being submerged due to sea level rise within the next 100 years, and its people forced to resettle. However, it is our policy to continue to try and save Tuvalu, and seek for us all to continue to live in our islands with our culture and ways of livelihood.



Climate Change Progress

Tuvalu signed on 8 December 1992, and ratified the UNFCCC on 26 October 1993. It signed and ratified the Kyoto Protocol on 16 November 1998. It has also signed and ratified the other two Rio Summit Conventions, namely the UN Convention on Biodiversity (UNCBD), and the UN Convention on Desertification. Tuvalu has joined partnership with the rest of the Pacific Island Countries on climate change under the Pacific Plan, and is an active participant in the Pacific Climate Change Action Programme, Pacific Framework on Climate Change, and Pacific Islands

(Box 11.8 Environment: Priorities and Strategies 2005-2015, Te Kakeega II, p43)

- *Develop and implement an urban a waste management plan for Funafuti;*
- *Establish national adaptation and mitigation policies;*
- *Encourage international adoption of Multilateral Environmental Agreements*

Adaptation
Programme
all under the
Secretariat
for the
Pacific

Regional Environmental Programme (SPREP) of which Tuvalu is a founding member.

In line with the objectives of the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action for the Sustainable Development of Small Islands Developing States (BPOA/MSI) and the Millennium Development Goals (MDG), Tuvalu has integrated the addressing of climate change and sea level in its national sustainable development strategy, *Te Kakeega II (TKII)*. The Strategy fully recognizes that the challenges facing environmental management and the sustainable development of Tuvalu will be further compounded by the adverse effects of climate change and sea level rise (Malefatuga Declaration, Te Kakeega II p49).

In pursuance of these priorities, Tuvalu completed its National Adaptation Plan of Actions (NAPA) in 2006, which was developed with the close participation of all stakeholders including Government agencies, the outer islands communities, *Kaupules* and *Falekaupules*, National Council of Women, TANGO, and other non-State actors. With the support of funding from the GEF and through the UNDP, Tuvalu has recently developed project profiles for the implementation of the NAPA activities based on the seven core areas of priorities identified, namely:



- Increasing Resilience of Coastal Areas and Settlements to Climate Change;
- Increasing Subsistence Pit-grown pulaka Productivity through Salt-tolerant Spices;
- Adaptation to Frequent Water Shortages;
- Strengthening Community Health Through Control of Vector Borne diseases;
- Strengthening of Community Based Conservation Programme on Near Shore Ecosystems;
- Adaptation to Near Shore Fisheries;

- Strengthening Community Disasters Preparedness and Response.

The project proposals are being completed and submitted for funding considerations. At the time of writing no funding has been disbursed from GEF for the implementation of the adaptation activities included in NAPA. Difficulty of access to funding under GEF, is a real bottle-neck to be addressed.

However, with bilateral assistance from Australia, Italy and the EU a water storage programme has started, beginning with the construction of water tanks for increased water storage capacity on Funafuti. Dedicated funding under the EU EDF10 will allow the water programme to be extended to the outer islands in the New Year (2010). It is expected that over 95% of all households in the country will have been supplied with at least one 10,000 ltr tank each.

Tuvalu has entered into research and studies partnership with JICA, Government of Japan under the *Japan Cool Earth Partnership* initiative to develop climate change adaptation projects. It is also collaborating with regional bodies like the Forum Secretariat, SPREP, SPC and SOPAC in several regional projects relating to climate change and sea level rise. Top amongst the planned adaptation activities are the establishment of foreshore protective measures on Funafuti including mangrove planting, and capacity building and food security.

Progress has also been made in integrating climate change into schools curricula. Several non-governmental bodies like Tuvalu Association of Non-Governmental Organisations (TANGO) have been active in promoting awareness. TANGO has developed a Master Plan on Preparedness

and Management, and an NGO body called Tuvalu Climate Action Network (TCAN) has been established.

Climate Change Challenges

The main challenges confronting implementation of the MSI and Te Kakeega II on climate change include the lack of strong international leadership for urgent global actions against climate change, limited understanding of climate change, lack of adequate and accessible adaptation financing, limited awareness of the climate change funds available and accessing them, lack of human capacity to participate and report, lack of technology development and transfer on renewable energy, integration into all sectoral plans and climate proofing of all development projects, and the need to develop a holistic national approach to climate change.

(i) Lack of International Political Leadership

The entry into force of the Kyoto Protocol February 2005 is a significant achievement. However the lack of international political leadership for the full implementation of the Protocol targets on GHG emission reductions and for comprehensive and urgent further commitments on mitigation will continue to be a serious concern. To avoid harm from climate change, Tuvalu believes all countries, with industrialized countries taking the lead, must make a concrete effort to reduce their emissions. All developed countries must take nation-wide targets to reduce their emissions by 2017. Major developing country economies must also take targets below business as usual scenarios. Other developing countries should voluntary take actions to reduce their emissions. The global effort to reduce emissions must ensure temperature increase is below 1.5 deg C of post-industrial levels.

(ii) Lack of Understanding

Understanding of climate change issues has improved greatly due to the efforts of Government agencies and non-governmental bodies notably the TANGO. But there appears to be a lack of clear understanding of the serious threats of climate change, especially on the outer islands, and the inter-linkages between the impacts of change and sea level rise and other development challenges and how these can be addressed in an integrated and coordinated manner. The lack of literature written in Tuvaluan language about the issues of climate change is a real challenge in this regard.

(iii) Lack of Adequate and Accessible Financing

As noted above Tuvalu has implemented several water adaptation projects in collaboration with its traditional bilateral and regional development partners. However, the difficulty of accessing climate change funds particularly those managed by the Global Environment Facility (GEF) due to the bureaucracy and conditionality involved continues to be a major challenge. There also continues the lack of implementation of concrete adaptation activities in Tuvalu due to the difficulty in accessing funding under the GEF.

(iv) Lack of Awareness of the Adaptation Fundings

The proliferation of adaptation funding initiatives is encouraging. However, there is also an accompanying level of confusion and lack of awareness of the different adaptation funding initiatives and the processes on how to access these fundings. Awareness of the different sources of adaptation funding, and the development of local capacity on how to access these fundings, is critical to successful implementation.

(v) Lack of Human Capacity and Technology

Government agencies, and Ekalesia Kelisiano o Tuvalu (EKT), and other NGOs have exerted efforts to contribute to awareness development and adaptation activities. TANGO, TuFA, and TuCAN, for example, have been active in advocacy work and disseminating information on climate change, biodiversity, conservation, and adaptation technologies to address impacts of climate change.

However, there continues to be a lack of human capacity, due to lack of knowledge and exposure. There is also lack of capacity to fulfill the reporting requirements of the UNFCCC and Kyoto Protocol and related multilateral environment agreements (MEAs). Lack of local human capacity to access adaptation funding is also a major challenge. There is also a severe lack of local technological knowhow in developing adaptation models and designs appropriate for adaptation activities in the outer islands and on Funafuti, without further creating environmental problems.

(vi) *Lack of Technological Capacity*

Despite the MSI commitment to promote increased energy efficiency and the development of renewable energy as a matter of priority in SIDS like Tuvalu progress has been challenged by the lack of technical and financial support to develop and use renewable technology in Tuvalu. Concerned with the high costs of petroleum and its environmental impacts, the Government has launched a National Energy Plan, supportive of more use of renewable energy, particularly solar, and prioritizing full implementation of the Plan by 2020. The Government is also keen to further promote energy efficiency through public awareness campaigns and education. However, to support these aspirations there is a great need for new and adequate funding to help provide for initial capital costs of equipment and installation.

(vii) *Lack of Climate Change Integration*

The need for integration of climate change into sectoral planning and development programmes, including climate-proofing of infrastructural development projects is a real issue. This further illustrates the lack of human capacity to properly integrate climate change into planning and implementation of development projects in the country.

(viii) *Lack of Holistic National Approach*

While there is MSI and NSDS commitment to establish national adaptation and mitigation policies, there continues to be a lack of a national, holistic approach to address climate change. A joint climate change committee comprising representation from all sectors is urgently needed. Climate change activities are the responsibility of the Environment Department, but it may be worthwhile to consider the establishment of a full-time climate change office under the wings of the Ministry of Foreign Affairs since most of the dealings involves international negotiations on conventions and agreements.

There is yet to be established also a national climate change policy. A master climate change plan to integrate climate change into all sectors, which should also provide options on re-location, and to address the issue in a holistic manner, is also yet to be established. It is imperative that such a plan is inter-linked properly with the national disaster master plan to ensure a coordinated response to environmental disasters when they strike.

Climate Change Actions Needed

It is critically important that Tuvalu maintains its high level international profile on climate change issues. There is therefore a pressing need to pay particular attention to improving the human and financial capacity to enhance Tuvalu's participation in international negotiations. It is also important to further strengthen appropriate alliances, and encourage local visitations to Tuvalu linked to Tourism activities, to facilitate the mobilizing of greater international public appreciation and support.

At the local level, it is important to further develop a broader public awareness campaign in particular on the outer islands, which may be done through the *Kaupule*, schools and non-governmental organizations like *Te Ekalesia Kelisiano o Tuvalu (EKT)* and TANGO which are already active in awareness promotion in Tuvalu. There is also a need to develop literature on climate change in the Tuvaluan language.

Quality education and training for local personnel in climate change and sustainable development issues, is imperative. High level education in the areas of international relations, English language and any of the other six UN languages, climate change science and causes and effects, diplomacy and environmental laws are needed for Tuvalu to be able to negotiate and engage more effectively in the processes of climate change. There is also a need to develop local engineering skills to help Tuvalu develop sustainable and appropriate adaptation technologies to adapt better and sustainably to the adverse impacts of climate change on the ground.

A national climate change policy that covers all sectors, including a master climate change plan to guide a response to environmental disasters, including possible options of re-location is urgently needed. Such a policy may suggest ways of integrating climate change and adverse impacts into national development planning, development programmes and projects, and may also provide for the climate proofing of all major infrastructural projects in Tuvalu.

The lack of awareness but particularly of access to international funding for climate change adaptation is a major obstacle in implementing concrete adaptation projects on the ground in Tuvalu. UNFCCC recognizes SIDS like Tuvalu as particularly vulnerable to the impacts of climate change. However, despite the well documented vulnerabilities (Tuvalu 1st National

Communication 1999) and the rhetorics, accessing adaptation funding from the international community has been difficult for Tuvalu.

There is an urgent need to improve international adaptation funding coordination and simplify procedures to facilitate easy access to funding by the most vulnerable SIDS like Tuvalu. It is also a critical need for the international community to seriously consider establishing special adaptation funding windows, including trust funds, to meet the costs of all adaptation needs of Tuvalu particularly in the Adaptation Fund (Kyoto Protocol), the Special Climate Change Fund and Least Developed Countries Fund of the UNFCCC (with GEF) and other international adaptation funds.

Lack and Difficulty of Access to Funding Resources

- Simplify procedures for Tuvalu to have easy access to climate change funds particularly those managed by the Global Environment Facility (GEF);
- Promote awareness of the different funding initiatives for climate change, and how to access them.

3.1.2 Natural and Environmental Disasters

Considering its physical size and limited capacity, Tuvalu is extremely vulnerable to natural and environmental disasters like hurricanes and tropical cyclones, tsunami effects, and droughts, and to man-made disasters like epidemics, oil spills, chemical wastes, fires and impacts of climate change.

The MSI (paragraphs 19a and b) recognizes the need for SIDS like Tuvalu, with the support of the international community, to develop disaster early warning capacity and insurance and re-insurance arrangements to help meet the costs of natural and environmental disasters. Although the NSDS, *Te Kakeega II*, does not specifically address the issue of natural and environmental disasters, it identifies policy objectives for sustainable environmental management, including avoiding the unregulated development and degradation of the environment, increasing the number and improving the management of conservation areas, and minimizing the adverse impacts of climate change on Tuvalu.

Natural and Environmental Disasters Management Progress

Tuvalu is party to the UN International Strategy for Disasters Reduction (ISD) and the Yokohama Natural Disasters Reduction review of 2005 on disasters preparedness, early warning, and rehabilitation, and is engaged in several disasters management initiatives under the UNEP and UNDP. It has also been collaborating closely with the Pacific Islands Forum Secretariat, the SPREP and SOPAC in the Pacific in the area of disasters preparedness, management and response.

A national disaster management office has been established under the Office of the Prime Minister charged with the responsibility of providing policy advice and coordination of disasters early warning systems, preparedness and rehabilitation activities to recover from disasters damages. A National Disaster Management Plan has been developed and a national disasters management working committee also established.

Government has also provided financial support for post-disasters rehabilitation. Under the Plan big coconut and breadfruit trees nearby living houses on all islands have been cleared, and in collaboration with *Kaupules* planting of such trees close to living houses in the future is discouraged.

Activities under the UNEP Strategic Actions of Implementation on Chemical Wastes Management (SAICAM), are about to be implemented in Tuvalu. These will address the serious issue of chemical wastes including pharmaceutical wastes and plastic especially on the Capital Island, Funafuti.

Natural and Environmental Disasters Challenges

Implementation of the MSI goals on natural and environmental disasters management in Tuvalu is challenged by several constraints. Chief amongst which is the lack of national recognition within the National Sustainable Development Strategy, *Te Kakeega II*, of the issue of natural and environmental disasters as a priority strategy. Apart from references to address adverse impacts of climate change and sea level rise, and wastes, *Te Kakeega II* is almost completely silent on natural and environmental disasters and especially the need for improving early warning systems and disasters insurance and reinsurance for Tuvalu as a SIDS.

There is also a lack of a national disaster framework for the whole country, despite the establishment of a national disasters office, committee, and natural disasters plan. A tsunami related plan of preparedness, mitigation and recovery is being developed, although this will need to be further elaborated to properly integrate with the other national natural disaster plans.

The lack of human capacity to support the promotion of public awareness on the national disaster plan on all islands and communities is a real challenge. There is also a dire lack of financial capacity to manage the disaster plan and implement public awareness promotion, and to provide for adequate equipment to mitigate and recover from natural and environmental disasters.

The issue of poor communications between the islands due to the absence of proper infrastructures is a real concern. It is imperative that communications networks and better infrastructure are established on all islands to ensure proper awareness and effective forewarning systems to the public.

Poor coordination within and between Government departments and relevant national agencies, and between the national disasters committees and island disasters committees is a serious challenge. The lack of financial resources to support and improve coordination at all level is a challenge that needs to be urgently addressed.

Natural and Environmental Disasters Actions Needed

At the international level, there continues to be a pressing need for the development of effective disasters early warning systems that are easily accessible by Tuvalu and other SIDS. While Tuvalu has benefitted tremendously from improved Meteorological services from under the New Zealand ODA and the USA tsunami and natural disasters early warning systems for the Pacific, the implementation of the MSI goal for the international community to consider initiatives to develop new early warning systems that are targeted especially for SIDS like Tuvalu is yet to be achieved.

The UN Strategy on Disasters Reduction is headquartered in Geneva. Accessing the resources available under these UN programmes is difficult largely because of lack of a fully accredited UN presence on the ground in Tuvalu. Procedures also need to be simplified noting the situation in Tuvalu.

The need to improve Tuvalu's access to adequate and predictable financial resources to promote awareness, and prepare, mitigate and recover from the damages of disasters has not progressed beyond verbal commitments. The issue of developing initiatives for insurance and re-insurance financial facility for SIDS like Tuvalu remains much wanting to be seriously considered for proper actions. While the Disaster Fund of the Pacific Islands Forum Secretariat kindly supported by the Governments of Australia, Japan and New Zealand has helped provide relief to Tuvalu from natural disasters, this is far from being adequate to cater for the pressing needs. There is merit for the consideration of using the Pacific Disaster Fund as basis of a regional trust fund to help Tuvalu and others on disasters.

At the national level a national framework for all disasters is needed to be formulated and incorporated into proper legislation. It is necessary that the framework provides for the development of sectoral disasters plans both for natural and man-made disasters like fire, oil spills, wastes, and health epidemics, and for public awareness and education on disasters preparedness, immediate response and long term rehabilitation from damages including the sourcing of financial and technical resources.

There is also a great and urgent need to establish emergency communications equipment and networks on Funafuti, and between Funafuti and on the outer islands and ships and local fishing vessels to ensure effective communications and coordination on early warnings, preparedness and recovery.

Improved coordination procedures are also urgently needed. The role and composition of the disasters management committee is badly needed to be properly revised, and the coordination of this committee's activities with duplicates on each of the outer islands needs also to be rationalized. There is also a need for proper integration of disasters management plans to other related plans such as the climate change NAPA, climate change master plan, health hazard plan, epidemic plan, and SAICAM.

The need for improved human capacity to manage and implement the disasters framework and its plans is critical. In view of the severe lack of human capacity in the national disasters management office, there is merit in rationalizing that office's capacity, and building local capacity through offering proper training in disasters management to personnel in all other

relevant Government agencies such as the Police, Media, Transportation, Communications, Environment, and Agriculture and Fisheries, and PWD, and also in non-State bodies like the Tuvalu Red Cross, TANGO, TUFA, TuCAN, and all relevant public enterprises.

In-country short term training and workshops must also be encouraged to compliment formal training on disasters management. Proper manuals on disasters management must also be developed and disseminated in both English and Tuvaluan languages to all schools and communities.

3.1.3 Coastal and Marine Resources

The MSI commits technical and financial support of the international community to help Tuvalu and SIDS develop initiatives for sustainable conservation and management of coastal and marine resources. In particular support was committed to the strengthening of measures for conservation and protected marine areas, delimitation and management of exclusive economic zones, stopping trans-boundary shipment of radioactive wastes, stopping the disposal of waste in the seas, avoiding illegal, unreported and unregulated (IUU) fishing, addressing coral bleaching, strengthening of monitoring of distant water fishing nations' activities, prohibiting ballast water waste, and implementing relevant international conventions including the UNCLOS, CBD, London Dumping Convention, and International Maritime Organisation Convention (IMO).

The commitment also provides for the full support to Tuvalu in implementing the UNEP Global Plan of Action on the Protection and Management of Marine Environment from Land-Based activities.

Coastal and Marine Resources Progress

Tuvalu acceded to the UN Convention on the Law of the Sea (UNCLOS) in December 2002, and ratified the UN Convention on Biological Diversity (UNCBD) the same year. It is a Party to the London Dumping Convention and a Member of the International Maritime Organisation (IMO). It is also a full member of the Pacific Regional Environmental Programme (SPREP), Pacific Community (SPC), Pacific Applied Geoscience Commission (SOPAC), Forum Fisheries Agency (FFA) and the newly established Western Pacific Tuna Management Commission (WPTC) - bodies that are all concerned with conservation and management of marine resources.

Reporting on the implementation of the above international conventions has started, and Tuvalu has completed its first National Communication on the UNCBD coordinated under the Department of Environment. However, progress is hampered by the lack of financial resources and technical and human capacity to fulfill the reporting requirements of the Conventions some of which are found to be cumbersome for a small administration.

The conservation and management of coastal and marine resources is a key strategic area that has been given prominence in Tuvalu's National Sustainable Development Strategy, *Te Kakeega II*. The key policy objectives are to improve the management of fisheries resources inshore and within the EEZ, eliminate subsidies to Community Fishing Centres (CFC) and to make the National Fisheries Corporation of Tuvalu (NAFICOT), a State owned entity, commercially viable.

Work on delimiting Tuvalu's exclusive economic zone (EEZ) with France (Wallis and Futuna), Fiji, and Kiribati has started and is about to be completed, with the constructive support of the SOPAC and FFA. Final negotiations on the coordinates, overlaps, and baselines are expected to be completed in 2010. There is a dire need to provide professional and technical training in this area, perhaps under the work of UN Department of Oceans and Law of the Sea (DOALOS) in New York.

The enactment of the environment protection law in 2009 has indeed improved legislation on the protection of the coastal and marine resources. But proper domestication of the UNCLOS, UNCBD, IMO and other relevant conventions such as the UNCED Conventions, JPOA, BPOA and MSI into appropriate legislation is crucial and needs to be progressed. Several conservation areas, however, have been established in the country, the most successful one being the Funafuti Conservation Area established in 1997 and managed by the *Funafuti Kaupule*. Other islands have also established, or are in the process of legislating bye-laws to establish conservation areas.

On the foreshore, protected areas have been established but legislation on these is weak, and needs to be strengthened and properly enforced. In some protected areas, the hunting of birds, turtles, crabs and the mining of gravel and sand is prohibited. A mangrove planting pilot project

has been initiated on Funafala Islet in Funafuti funded by a Japanese NGO, *Overview*, in partnership between Funafuti.

With the assistance of the FFA and SPC and funding from the EU, work on fish stock assessment has started with the aim of developing marine resources management systems for Tuvalu. A review of the Community Fisheries Centres (CFC) has also been carried out, with a major recommendation to transfer ownership of the CFCs to *Kaupules* in 2010, and stop GOT subsidies to these CFCs and to provide professional training in management to operators on each of the outer islands.

A new joint venture between the NAFICOT and Fong Haur of Taiwan established in 2009 provides one off-shore long-liner vessel for Tuvalu, and offers professional training to NAFICOT staff in commercial fishing and management of fishing activities. It is expected that the JV will enhance the financial situation of the NAFICOT and improve its commercial viability in the future.

A new master plan for the Fisheries Department was launched in 2008 with the assistance of the FFA and SPC. In addition tuna and inshore fisheries management plans are also being developed by the DoF supported by SPC and FFA, and currently the DoF is awaiting the outcome of the ADB supported Pacific fisheries survey to assess the tuna stock in Tuvalu waters to finalise the development of its own tuna management plans.

There are ongoing efforts to try to improve the management of tuna resources within Tuvalu's EEZ, and maximize the benefits from the resources through strengthening Tuvalu's control over the resource. The recent establishment of the Office for the Parties to the Nauru Agreement (PNA) of which Tuvalu is a Party in Majuro is a means of achieving more control and management of the tuna resources of Tuvalu.

Coastal and Marine Resources Challenges

The main challenge for GOT is to provide the policy and legislative framework to strengthen conservation and improve management of coastal and marine resources. Effective implementation of relevant MEAs and internationally agreed arrangements on coastal and marine resources management in Tuvalu is critical.

While the mining of sands and gravels from foreshores has been prohibited in some islands, coastal erosion is worsening and there continues to be lack of proper enforcement. There is also a lack of awareness of the importance of protecting coastal and marine biodiversity, and putting in place legislation to regulate amount and size of fish and type of fishing activities. Fish poisoning from World War II and shipwrecks is also creating a challenge.

The shift to the use of modern and bigger outboard engines for fishing rather than traditional canoes, creates a major challenge to the sustainability of reef fish and also pelagic fish. Whereas traditional canoe fishing was more eco-based in that it is determined by weather and direction of winds allowing species time to replenish stocks, the new engines type of fishing has the ability to exploit resources almost irrespective of weather, and there is the serious lack of scientific capacity to monitor activities, and enforce management measures.

The problem of lack of adequate funding and technical capacity also is seriously challenging implementation of the strategies on coastal and marine resources.

Coastal and Marine Resources Actions Needed

Significant efforts have been made to improve conservation and management of coastal and marine resources. However, there is a necessary need to develop a national policy of conservation and sustainable harvesting of oceans, coastal and marine resources of Tuvalu in full and effective implementation of the MSI paragraphs 26-32. It is critical that the policy includes building of local technical and financial capacity to establish effective, monitoring, reporting, and enforcement, and control of fishing vessels, to prevent, deter and eliminate illegal, unregulated, and unreported fishing and to manage fishing capacity.

There is also a need to strengthen monitoring and surveillance capacity perhaps using regional arrangements under the FFA, and with the support of the SPC and FFA, strengthen capacity to analyse and assess fish stocks. Tuvalu is already party to the 1995 Agreement for the Implementation of the Provisions of the UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks and to a number of regional arrangements for the conservation and management of fisheries. However, there is a great need to establish in-country the necessary infrastructure and legislative and enforcement capabilities

to ensure effective compliance with, and implementation of enforcement, of Tuvalu's responsibilities.

A need also exists to strengthen legislation, bye-laws, and enforcement arrangements for improving the enforcement of environmental impact assessment (EIA) of all development projects on the foreshores including the construction of jetties and harbours, and likewise to prohibit the dumping of wastes into the harbours, lagoons and at sea of Tuvalu especially by foreign, and fishing vessels.

Public awareness and consultations are important and need to be improved to establish a better appreciation of the importance of proper conservation and management of resources, and therefore facilitate the establishment and implementation of the policy. Construction of protective measures on the foreshores, as appropriate, like seawalls and land reclamation as well as planting of mangroves and protective vegetation should also be encouraged and supported. There is also a great need to improve the management of the existing conservation areas supported with proper equipment and personnel, and to establish conservation areas in all the other islands.

Activities to address the increasing problems of coral bleaching need to be supported with adequate financial and technical resources, and the implementation of regional initiative such as the Pacific Islands Regional Oceans Policy in Tuvalu also require adequate funding and technical support to be properly implemented.

To achieve these actions, adequate funding is needed and these may be sought through local budgetary resources, and from proper partnerships with development partners and regional and international cooperation including under the facilitation of FAO, UNEP, and GEF. There is also a need to consider the inclusion of conservation and management levies on all fishing licences issued to foreign fishing companies to support public awareness promotion activities, and fund legislative, institutional and human capacity development activities in Tuvalu to improve overall capacity in-country to conserve and manage resources.

3.1.4 Land Resources, including Terrestrial Biodiversity

The MSI recognizes the need for Tuvalu to fully implement the multilateral environmental agreements (MEAs) in relations to land resources, and these include the UNFCCC, the UNCBD, and the UNCD. It also commits for Tuvalu to be given technical and financial support by the international community.

In full implementation of the latter, it also recognizes the need for the use of GEF resources to develop and implement projects to address land degradation through sustainable land management, enhance agricultural productivity, and create enabling environment to ensure food security for Tuvalu.

The key policy objectives of TKII relating to lands resources are to reverse the decline in subsistence agricultural production, increase the availability of land for agricultural production, increase production and consumption of local agricultural produce, and mitigate climate change-related agricultural impacts.

Land Resources Management Progress

Tuvalu is a Party to all the three MEAs, and is a full Member of the FAO. However, there are serious gaps in the actual implementation of the MEAs requirements in-country particularly in providing effective legislative and policy domestication of these MEAs into national legislation, and in fulfilling the agreements' reporting requirements because of the severe lack of human and financial capacity.

However given the critical importance of land to survival in Tuvalu, remarkable progress has been made. Land boundary surveys for islands have been completed, and island lands courts and panels established. The delimitation of Tuvalu's EEZ is about to be finalized, and protected areas have been established in some islands to prohibit the mining of gravel and sand, and hunting of other island biodiversity. Materials for construction are now sourced mainly from outside Tuvalu.

Land Resources Management Challenges

With limited land, the challenges to land resources management are many. There is a lack of human capacity to effectively manage lands, and also to fully implement the MEAs requirements relating to land resources management. There is also lack of capacity to cope with the requirements of international trade agreements on land products, particularly quarantine requirements. The un-even population distribution on Funafuti and outer islands coupled with the lack of long term land use planning and legislation creates overcrowding, wastes and water and sanitation challenges, and to a great extent also restricts business and investment development.

At the same time, however, there is limited capacity to fully utilize land available, as land-use is mainly confined to the villages and immediate surroundings leaving large areas in the bush unused – overcrowding in some land areas but some totally deserted. The lack of access to markets for land products is another major challenge. Finally, the adverse impacts of impacts of climate change and sea level rise, especially coastal erosion, are creating another layer of challenges in the proper management of land resources in Tuvalu.

Land Resources Management Actions Needed

There is a need to strongly advocate at the regional and international level for harmonized, dedicated and coordinated funding and technical assistance to support capacity building for locals in land resources management, reporting of MEAs, training in planting and re-planting of protective trees and home gardening. Funding is also needed to support research and development (R&D), and regional institutions such as the Institute for Research and Training in Agriculture (IRETA) at the University of the South Pacific (USP) on which Tuvalu is dependent for its capacity building needs.

Emergency disasters response plans including plans to control pests, rats, diseases and epidemics are needed. There is also a need for long term land use plans for all the islands, and to improve the safekeeping of lands records and boundaries. To support full use of lands available, it is also a necessary need to consider the possibility of reviewing the land tenure system in all islands and to improve lands valuation and compensation through copra production, bio-fuels, and animal feeds. Diversification of lands use for cash revenue from toddy production, growing of papaya, taro, sweet potatoes, or leasing land production for small production companies is necessary.

Terrestrial Biodiversity Management Progress

Land based protected areas have been established on some islands. On Funafuti the foreshores both on the lagoon and ocean sides of Fongafale are off-bounds for the mining of gravels and sands. Likewise the islets within the Funafuti Conservation Area have been declared protected areas against the hunting of birds, coconut crabs, and hunting of turtles. On the main settlement in Fongafale, it is prohibited to build a house or extension to an existing building even in private land unless approved by the *Kaupule* in cases of privately owned lands, and by the Lands Management Committee in cases of lands leased by Government. The same management arrangements are being employed by some of the outer islands.

A National Biodiversity Action Plan has been developed with the kind support of GEF through UNDP together with a National Implementation plan both coordinated by the Department of Lands in the Ministry of Natural Resources and Environment. Ongoing community awareness programs on sustainable land management and the preservation of biodiversity are being promoted by the same Ministry and Department in all islands.

Terrestrial Biodiversity Challenges

The development of understanding of intellectual property to protect biodiversity has not improved. Strengthening of legal systems to address the fast depletion of biodiversity, improve solid waste management to reduce the impact of wastes on biodiversity in all islands of Tuvalu, protect traditional knowledge of preserving the biodiversity are also urgently required. Coral bleaching is increasing, believed to be caused by land-based activities and especially by the effects of global warming, but also by over exploitation of certain species, e.g. sea cucumber, fish, clams, and trees for fuel wood. There is limited surveillance and management capacity to properly manage and enforce conservation and protected areas. There is also a lack of funding and technical capacity to conduct assessment of stocks and damages, and to improve biodiversity management in the future.

Terrestrial Biodiversity Management Actions Needed

There is an urgent need to establish laws and policies on intellectual property rights of Tuvalu in all areas particularly on Tuvalu traditional knowledge, cultural materials and practices, *vailakau*

or traditional herbal medicine, black-magic and fishing skills. There is a strong need to promote traditional skills such as fishing skills, canoe building and sailing skills, and gardening skills perhaps leveraged and inter-linked with Tourism activities to revive their practice and sustainability.

The harvesting of marine resources for commercial purposes such as sea-cucumber, shells, pearls and fish will need to be properly regulated to avoid early depletion.

There is a strong need to secure harmonized, coordinated and dedicated regional and international funding and technical resources to improve local capacity, and to assist in the proper management of terrestrial biodiversity of Tuvalu.

3.1.5 Energy Security

Energy dependence is recognized in the MSI as a major source of economic vulnerability. MSI commits international support to help SIDS like Tuvalu to promote energy efficiency and development and use of renewable energy sources. It also commits the development and more use in Tuvalu of technology appropriate for the promotion and more use of these renewable energy sources in isolated island countries.

The priorities of promoting energy efficiency, conservation and developing renewable energy sources are also captured, albeit covertly, in the TKII key policy objectives to improve infrastructural development and services in Tuvalu to ensure the provision of affordable, environmentally friendly, and sustainable, energy sources. This is crucial considering the geographical isolation and fragmentation of the islands and the high costs of providing vital services such as shipping and communications which are so energy dependent.

Energy Management Progress

Progress has also been made in the implementation of energy, as follows:

- A National Energy Action Plan (NEAP) 2009-2020 (100% renewable energy by the year 2020), has been developed with the assistance of SOPAC under the Regional Energy Plan;
- Energy efficiency initiatives are being pursued, including the fuel bulk purchasing initiative for the SIS under the Forum Secretariat, and the Japan's Non-Project Grant to end in 2010;

- Energy efficiency and renewable energy promotion have been initiated, including: public awareness campaigns throughout the islands; the Tuvalu Maritime Training Institute (TMTI) solar/biogas project conducted by an NGO called 'Alofa Tuvalu', the Italian \$0.8m funded PV project for the installation of solar panels for the Motufoua Secondary School in Vaitupu;
- Transport fuel efficiency policies which will include new tariffs rates, and electricity pricing to reduce GOT subsidies are being pursued under the coordination of the Ministry of Water, Works and Energy (WWE), and the Ministry of Communications, Transport and Tourism;
- The incorporation of solar energy together with diesel as a pilot project in the electrification of the urban area(95% diesel and 5% solar on Funafuti) has started including the grid-connection PV from the National Sport Pavilion funded by the e8 Group 40kw 5% of max, and the Japan proposed expansion of PV in Funafuti and replacement of telecommunications solar power equipment on the outer islands;
- Aligning with the Environment Act 2007, the Waste Act is being drafted that will regulate corporate social responsibility, waste disposal management systems and use of waste as source of energy;
- Monitor and manage use of fossil and renewable energy: energy database and links to national data and information system disaggregated by gender are being developed;

Energy Management Challenges

Below are some of the major challenges:

- Develop a national sustainable energy resource base, aligned with the Energy Plan, focusing on the development and more use of renewable energy sources in all islands;
- Provide a better and affordable energy service for the whole nation, bearing in mind the high costs of providing services to the geographically isolated and fragmented islands;
- Lack of qualified HR's, and there is very slow progress in the development and transfer of technology to local capacity on renewable energy sources, production and management;
- Limited land area for development of renewable energy (solar panels);
- Establish consistent sources of financial resources to promote local capacity in the development and use of renewable energy sources, and to facilitate initial capital costs of renewable energy installations;

Energy Management Actions Needed

Actions needed are as follows:

- Public opinion is key to shifting to a new energy mix of more renewable sources, and public awareness promotion and education is crucial at all levels;
- Integration of the National Energy Plan 2009-2020 into all other sectoral plans, and communicating the Plan to all sectors of the community are of pertinent importance;
- There is a need to consider the establishment of a national sustainable energy coordination council or body comprising representatives from GOT, private sector, NGOs and consumers, to provide policy advice on energy sources issues. This will also allow more participation of local communities in policy setting and better coordination on energy sources issues;
- There is a pressing concern for the earliest development and use of biofuels from coconut oil, and to explore other potential sources of renewable energy to reduce reliance on imported petroleum.
- It is critically important that the promotion of using renewable energy sources is progressed in a coordinated manner together with the promotion of energy efficiency and conservation, including with the Forum Secretariat initiative for regional petroleum bulk-purchasing;
- A monitoring and evaluation system is needed to be established for energy development and management, together with indicators and data-collection and dissemination;
- Tuvalu deeply appreciates funding from Italy and Austria for renewable energy development. However, availability of and accessing adequate funding from other bilateral partners and multilateral funding agencies particularly from the GEF and other international sources is critical to successful implementation, and therefore urgently needed.

3.1.6 Waste Management & Provision of Water and Sanitation Services

MSI (paragraphs 22-25) recognizes the need for SIDS like Tuvalu to develop effective regional and international partnerships to further develop innovative solutions to wastes management, in particular to control the transshipment of radioactive wastes in Tuvalu EEZ as under the Basel and Waigani Conventions, disposal of wastes at sea as under the IMO and London Conventions and the International Atomic Energy Agency. It also requires Tuvalu to identify cost-effective wastes management systems to avoid over pollution.

TKII fully captures the MSI concerns on wastes management, and sets out policy objectives to: (i) stop unregulated development and degradation of the environment, especially on Funafuti, (ii) increase the number of marine and terrestrial conservation areas, and (iii) minimize climate change impacts. The main priorities and strategies include (TKII para 42-43)

- Develop and implement an urban and waste management plan for Funafuti;
- Establish national climate change adaptation and mitigation policies;
- Encourage international adoption of the UNFCCC and Kyoto Protocol;
- Increase the number of conservation areas and ensure regulatory compliance.

Waste Management Progress

- A waste management programme funded by AusAID 1999, was launched on Funafuti, with the intention of expansion to the outer islands.
- A national waste management programme focusing on vegetable and animals wastes composting to continue from the AusAID programme has commenced, funded by ROC and EDF10 of the EU under the coordination of the Ministry of Home Affairs and Rural Development (MHARD);
- Institutional coordination issues have been resolved between the Ministries of HARD, NRE, and *Kaupule* of Funafuti;
- An Integrated Water Management and Sanitation Management Plan is being developed with the support of SOPAC coordinated by the Ministry of Works, Water and Energy (MWWE);
- A pilot project for piggery waste management programme has been initiated on some outer islands;
- A SAICAM programme under UNEP funding is being sought;
- Efforts are in progress to draft the Waste Act to better regulate the management of wastes.

Waste Management Challenges

- Develop a national waste management plan to better integrate the MSI and other regional and international agreements on wastes, but especially to address the pressing concerns of non-degradable wastes in Funafuti and all outer islands;
- Underground fresh Water being polluted by both solid and liquid waste – lack of a national plan;
- Increased pollution both on land and the surrounding coastal area;

- Limited land area for dump site for solid waste;
- Unavailability of Technology for the disposal of liquid waste and hospital waste
- Lack financial commitment for awareness programs, new equipment for collection of both liquid and solid waste and human resource training.

Waste Management Actions Needed

- Set up a Solid Waste Agency of Tuvalu (SWAT)
- Agency to work together with Local authorities on each island in combating the problem of waste disposal on each island – coordination, evaluation and monitoring.
- Legalization of the process of waste disposal including wastes disposal at sea and lagoons within EEZ.
- Separation of solid waste at the capital island Funafuti and setting of .(Compost and other waste);
- Disposal measures for engines oils and waste oils – regulations under the Environment Act, and Wastes Operation Services Act -;
- Continue dialogue on stopping transshipment of radioactive materials in Tuvalu’s EEZ;
- Funding and technical availability;

Freshwater Resources Management

The commitments in the MSI on freshwater resources management provide for Tuvalu to meet its MDGs and WSSD water targets. Fresh water management is also well recognized as a strategic priority in TKII, to expand the collection and storage of freshwater for housing, business and other structures, and to promote water conservation through education and awareness programmes.

Freshwater Resources Management Progress

Progress has been made in improving freshwater resources management including:

- Construction and distribution of water storage (tanks) to all household on the capital island (3,000 gal), under the Italian and Australian funding, to be continued under the EU EDF10 to all outer islands households;

- Draft water policy with building codes and TKII expectations have been prepared to be properly legislated;
- Water project 2009: International Water Resources management(IWRM), and Pacific Adaptation for Climate Change (PACC) has been integrated into implementation of the NSDS;
- IWRM and PACC to formulate National framework on the improvement of fresh water Resources

Freshwater Management Challenges

There are also significant challenges to the management of freshwater resources, including:

- Contamination of underground freshwater by both solid and liquid wastes and intrusion of salty water due to rising sea levels;
- The insufficiency of freshwater resource storage/reserves to sustain demands especially on the capital island;
- Increased population and pressures on freshwater resources and sanitation, particularly on Funafuti;
- The lack of sewerage legislation to protect resources and improve management of freshwater;
- Integration of climate change resilience, to address impacts on freshwater resources from adverse impacts of climate change and sea level rise;
- To be able to continue the momentum of water project when donor assistance discount
- Bureaucracy on the transfer of funds from UN agencies for approved projects: coordination of donors;
- Lack of financial and technical resources to assist address the above challenges.
- No national framework in place for the development of fresh water resources

Freshwater Management Actions Needed

- Develop a national water storage plan together with coordination, and proper national targets;
- Establish strategy for availing land for huge water storage systems, and infrastructures
- Secure adequate financial resources for awareness and training programs on water conservation and usage efficiency;

- Improve public awareness on freshwater resources conservation and management, and data collection on access to safe drinking water and clean sanitation;
- Advocate at regional and international levels for the provision of adequate funding to fully implement freshwater storage programmes and to fully implement Tuvalu NAPA on water projects;

3.1.7 Tourism

MSI recognizes that tourism is an important contributor to economic development. At the same time it also recognizes the necessity of ensuring a balanced approach to promote tourism while ensuring management of its social and environmental impacts. TKII identifies key policy objectives for tourism as to increase the number of tourists arrivals, support the development of an eco-tourism industry; and support the development of private tourism related enterprises. TKII also identifies two priorities and strategies for tourism: to implement long-standing recommendations for tourism; and to lease out or privatise the management of the (Government owned) Vaiaku Langi Hotel.

Tourism Development Progress

A review of the past Tourism Plans has started so as to formulate a new medium-term tourism plan aiming at the development of a viable and sustainable tourism industry, and a market guideline for tourism has been developed with the assistance of the South Pacific Tourism Council (SPTO), and a medium-term tourism plan with focus on eco-tourism is also being developed. Plans are well advanced for the holding of the 1st national festival called the King Tide Festival planned to be held in Tuvalu in early 2010. Ongoing plans for the involvement of Tuvalu at the Shanghai Expo to promote tourism and trade are also being pursued. Central Pacific SIS (Tuvalu, Kiribati Nauru and Marshall Islands) are planning to have an annual activity to attract tourists to the islands including Tuvalu

Tourism Development Challenges

The main challenges facing tourism development include the need to review past tourism policies and plans to better integrate tourism development into other SD sectors, and formulate a new sustainable development tourism plan. Promotion of the idea of eco-tourism practices, and advocating the need for a balanced approach, is a challenge that will need proper consultations and advocacy at all levels with the island communities.

Coordination of implementation and improving institutional and human capacity, and absence of measurable indicators on progress is a challenge that requires attention. At the same time developing an evaluation and monitoring process together with indicators and targets of implementation is required, and so is improving the development of integrated tourism infrastructures on all outer islands. There is also a severe lack of funding and technical resources including from local private and public investments to improve the development of sufficient infrastructures and services in Tuvalu.

The Tourist Office is manned by one man who graduated recently from Taiwan University. He is assisted by one official from the International Cooperation Development Fund (ICDF) of the ROC who will engage in Tuvalu for three years.

The high costs of travelling to Tuvalu due to air fares by the only airline servicing the country are creating a lot of problems to attract tourists. This needs to be addressed.

Tourism Development Actions Needed

There is a need to review past and existing tourism plans and to develop a new Tuvalu national tourism development plan. It is also required to review the organizational structure of the Tourism Office so as to strengthen the coordination and promotion of tourism development activities. In this effort, integration of Tourism into other relevant sectors of TKII, the creation of coordinating networks with the private sector, businesses, island communities and Government agencies and all other relevant stakeholders is crucial. It is also vital, in this respect, to establish an effective monitoring and evaluation system together with indicators to better monitor progress and trends in the industry. Data collection and surveys of arrivals and visitors is also useful to establish realistic statistics for better policy formulation.

A national tourism advisory body is also necessary to be formally established to support development and provide policy support to the Tourism Office. There is also a great need to encourage the development of eco-tourism in all the islands, and to link better tourism to SD priorities and strategies including to conservation and protection of natural resources, and to the issue of climate change and sea level rise. The packaging of tourism activities around the preservation of culture and traditions including the revival of skills in canoe building and operation and others, and conservation and saving the islands from effects of climate change and sea level rise should be developed in earnest.

Securing an additional airline service to Tuvalu would encourage competition, and might help drive down costs of air fares. This needs to be pursued as well.

3.1.8 Trade: Globalisation and Trade Liberalisation

Trade liberalization and globalization presents both opportunities and challenges, in particular the erosion of trade preferences, for SIDS like Tuvalu as recognized by MSI. The potential benefits to Tuvalu, however, can be best realized if the specific limitations and vulnerabilities of Tuvalu are addressed at all levels.

In terms of integration, amongst its eleven key policy objectives on private sector development, TKII recognizes the need to create a conducive investment environment, improve access to export markets, create jobs and other areas of economic opportunity.

Some of the priorities and strategies in the area of trade are, to: ensure compliance with Pacific Island Countries Trade Agreement (PICTA) and Pacific Areas for Closer Economic Relations (PACER), actively support foreign direct investment, as well as in domestic investment in job creation enterprises, set fiscal policies, including subsidies to public enterprise, so it does not crowd-out the private sector, tax tariff reform, and reform, facilitate better access to markets and information on markets for local businesses, investigate new offshore employment opportunities, and strengthen consumer protection by establishing a Consumer Council to monitor products and service standards.

Trade Development Progress

Much progress has been made in the effort to develop trade opportunities for Tuvalu. However, the reality remains to be of some discouragement. Despite the WTO commitments of August 2004 to include in the Doha Work Programme mechanisms for the full and effective participation of small economies and SIDS like Tuvalu in the decision making processes of WTO, Tuvalu like many SIDS, continues to find great difficulties in joining WTO due to the cumbersome procedures of accession and its own severe capacity constraints.

Tuvalu is Party to both the Pacific Island Countries Trade Agreement (PICTA) and the Pacific Area for Closer Economic Relations (PACER). While it subscribes to the spirit of trade liberalization under these regional trade arrangements, however, it is also concerned with the loss

of revenue from liberalization of trade, so badly needed to provide for vital services for the development of critical sectors like education, health, and youth development. A PICTA-PACER National Task Force has been established chaired by the Minister of Finance to provide advice on compliance.

Tuvalu trade deficit has remained at an average of 78% of GDP, with exports representing less than 1% of the value of imports. The trade deficit has been covered mainly by foreign exchange earnings from foreign fishing licences, remittances from seafarers, returns from the TTF, revenue from the internet name domain.TV, and ODA revenues.

Progress has also been made in the area of trade in services or labor mobility in terms of securing new offshore job opportunities for seafarers and for workers under the NZ Government jobs initiative. Under the NZ Recognised Seasonal Employment Scheme (RSE) – a total of over one hundred men and women from Tuvalu have benefitted from the RSE scheme in terms of employment, since Tuvalu's accession to participate in RSE in 2008. The main challenges in this effort is the high transportation costs of travelling and repatriation from New Zealand, and the management of social conduct by the workers particularly in terms of drinking problems while in New Zealand.

In terms of institutional arrangements, a Foreign Investment Facilitation Board has been established, but there is a need to better elaborate its role to maximize benefits to local private businesses. A trade office has also been established within the Ministry of Finance and Economic Planning, but this is a one-woman office, totally insufficient to cater for trade coordination needs. Tuvalu Consumer Council has been established to protect the rights of the local consumers, and a Price Control Board also established resulting in the recent initiation of price control on four basic food items: rice, sugar, flour and biscuit.

A Chamber of Commerce is theoretically established, it coordinates private businesses development. However, it is facing serious problems of management due to lack of human and financial capacities.

Trade Development Challenges

Although globalization and trade liberalization provides opportunities for economic growth, there are serious challenges that will need to be properly managed to ensure a balance between trade, environment and development. One of the main challenges is the lack of participation of Tuvalu in the decision making processes of global trade under WTO. The restrictive procedures and conditionality of membership make it extremely difficult for a SIDS like Tuvalu, given its capacity constraints, to participate and be represented in WTO decision making process. There is a need for stronger advocacy at the diplomatic level for special consideration to have these simplified, and to improve Tuvalu capacity to join and participate in WTO.

On trade and the environment care has to be taken to protect the fragile environment from the influx of non-degradable and toxic wastes particularly plastic bags and bottles, aluminum cans, nappies and old second hand motor vehicles into Tuvalu. Serious efforts need to be made to regulate and levy environmental fees on the importation of these products. There is also a need to manage the impacts of trade demands on local resources, particularly on fishery and other marine resources, and land resources to ensure food security.

In regards to trade and development, the imminent graduation of Tuvalu from the UN list of least developed countries (LDCs), could create significant challenges particularly due to the erosion of trade preferences for Tuvalu's few exportable resources such as coconut, copra, and fish, and loss of special financial and technical assistance to Tuvalu. Efforts are needed to strongly advocate at the UN and at the international level for the possibility of revising the application of the three sets of index benchmarks for LDC eligibility so that the economic vulnerability index be amongst the main considerations of LDC eligibility and graduation. Consideration of Tuvalu's unique vulnerabilities to environmental degradation, particularly to climate change and sea level rise, must also be strongly advocated as eligibility criteria to remain in LDCs category.

The loss of revenue due to the elimination of customs duties on imports under trade liberalization creates one of the main challenges to a resource poor SIDS as Tuvalu. The imposition of the new Tuvalu Consumer Tax (TCT) regime as a means of addressing the loss of revenue from liberalization, in effect is loading on the local consumers the burden of paying for the loss of revenue from their own pockets. Tuvalu being both an LDC and SIDS, there is a genuine need to

advocate for regional and international support to provide for transitional funding to Tuvalu to help it cope with these new impositions. The imbalance of trade, and between the loss of revenue and imposition of taxes on local consumers despite lack of increased opportunities for Tuvalu to export for revenue is a real issue that needs to be properly justified and compensated.

The state of infrastructural development for trade is sporadic in Tuvalu. Internally, the provision of transportation to the outer islands is unsustainable due to the high costs of fuels, and the absence of scale of economies. To the outside world, shipping and transportation of goods presents significant challenges again because of the high costs of fuels given the distances from major ports of supplies, isolation, and the lack of volume in the imported cargoes for Tuvalu.

There are also serious capacity constraints particularly in the areas of data collection and dissemination, and organizational information sharing to facilitate policy formation and decision making both to Government agencies, but particularly to private businesses.

Trade in services through the New Zealand RSE under regional labour mobility arrangements, helps to narrow the huge gap of trade imbalance with the outside world. However, significant challenges also persist, amongst which are the lack of funding facility to support the high costs of transportation to and from New Zealand, the lack of developmental opportunities to incentivize worker's return and investment in the local economy, and addressing the social conducts of workers in NZ.

Trade Development Actions Needed

Actions are needed to strongly advocate at all levels for special arrangements to facilitate the participation and representation of Tuvalu in the WTO in accordance with the spirit of the Doha programme of Action on small economies. There is also a necessary need to strengthen legislation to ensure the protection of the local environment from the influx of non-degradable wastes from trade and to control pollution, perhaps based on the 'polluter pays principle' of the Agenda21. Protection of biodiversity and natural resources from the pressures of trade demands needs also to be legislated.

The impacts of loss of Tuvalu's LDC status, especially the erosion of trade preferences and loss of special financial and technical assistance needs to be properly advocated at regional and international levels for better understanding and appreciation for their continuance for Tuvalu.

There is also a great need to revisit the issue of loss of national revenue due to trade liberalization and new taxation on consumers, and seek for special financial support to help Tuvalu cope with the financial implications of the new taxation and tariffs regime.

The development of human capacity in trade matters is crucial, and needs to be promoted and support. Proper training of personnel in international trade and finance is important. The one-lady Trade Office, obviously, needs to be better resourced and supported.

On labour mobility under the NZ RSE, there is a strong need to explore the possibility of establishing a revolving fund to help with transportation costs to NZ, and in encouraging the workers to save and invest back in Tuvalu money earned under the scheme.

In the area of infrastructural development for trade, developing Tuvalu's ability to take more control in international shipping services to the islands is pertinent, in terms of ensuring frequency, reliability, and cost-effectiveness. In this regard, collaborating with other Small Island States (SIS) to jointly manage and control shipping services and costs to the SIS will be beneficial. The idea of establishing the Central Pacific Shipping Commission (CPSC) for SIS under the kind coordination of the SPC, is of direct relevance to these efforts. Similarly trade opportunities with Rotuma should be pursued.

3.2 CROSS-SECTORAL AREAS

3.2.1 Financing and Investment for SD

Financing of SD in Tuvalu is reliant mainly on the revenue from the Tuvalu Trust Fund (TTF), remittances from overseas employment of seafarers working on foreign going merchant ships, and fruit-pickers working under the RSE scheme in New Zealand and other sources of revenue such as licensing of foreign fishing vessels, licensing of Tuvalu's internet top-level name domain .TV, and revenue generated locally through taxation and services charges. An annual budgetary

support facility of AU\$5.7 million from the Government of the Republic of China on Taiwan, significantly helps.

At the regional level financing comes from regional intergovernmental bodies such as the Forum Secretaria, SPC, SOPAC, SPREP and FFA but mainly for dedicated developmental projects. ODA from bilateral partners which totaled AU\$5.2 million in 2004, also provides financing.

At the multilateral level financing comes mainly from the UN development programmes through the UNDP, and especially from the MEAs channeled through the GEF as the financial mechanism. Most of this financing is for enabling activities particularly for capacity building. Financing for direct SD concrete projects has been negligible. The two loans secured from under the ADB have indeed helped. But for Tuvalu, given its circumstances, it needs grants not loans because of inability to repay.

Private foreign investment in Tuvalu has been nil, and there are no insurance schemes active in Tuvalu. In addition to the lack of natural endowments to exploit for financing, the key problems encountered in securing financing/investment for SD in Tuvalu include the lack of human and national capacity to access available international financing and investments particularly to those managed by the GEF. There is also the issue of lack of institutional, effective communications, and banking infrastructures necessary for investment transactions into and out of Tuvalu. The threats of environmental degradation and isolation from major centres of commerce also make Tuvalu less attractive to foreign investments.

3.2.2 Institutional Capacity and Coordination

The implementation of SD is coordinated by the Development Coordination Committee (DCC) placed under the Office of the Prime Minister and Minister of Foreign Affairs, which meets once a month and provides updates and advice to Cabinet of Ministers on progress. Management of progress of implementation though is done by the Department of Economic Research and Development (ERPD) of the Ministry of Finance and Economic Planning.

At the regional level coordination is done largely under the processes of the Pacific Plan which involve all technical bodies in the Pacific, under the overall coordination of the Forum Secretariat.

There is a need to establish a national sustainable development council, expanding from the DCC to include representations from the private sector and members of civil society. It will also be useful to designate SD focal points of contact in all different sectors.

3.2.3 Regional Cooperation

The Pacific Plan initiated and endorsed by Pacific Forum Leaders in 2005, is the Pacific regional blueprint for SD. The Plan is complimented by regional strategies and plans developed and managed by regional technical bodies, all aligned with the Pacific Plan and aimed to achieve SD for the region.

While there has been improvement in coordination, there continues to be a need to improve coordination amongst the regional bodies themselves and amongst development partners and other stakeholders to avoid duplication of efforts in countries.

3.2.4 Human Resources (Capacity) Development for SD

Equal access to education for males and females for Tuvalu has somewhat been achieved. However there continues to be a need to ensure quality education and education in technology. There is also a need to develop equal opportunities for employment for both males and females.

Development of skills in appropriate technology for Tuvalu is critical and needs to be pursued. At the same time management skills at all levels both in Government agencies and private sector is also important. Exposure and skills training in diplomacy and negotiations is also necessary to support engagement for SD partnerships development.

Youth development is critical. While the formal education sector provides for opportunities to youth males and females in higher education, there is a need for the informal sector to be improved to help the majority of youth. Promotion of better vocational and training for youth is imperative to prepare them for the jobs market. Similarly support should be improved to develop youth in sports to harness talented resources for the sports market.

3.2.5 Transport and Communications



Inter-island transportation using the two merchant ships, MV Nivaga II and MV Manufolau, has improved over the years. But the high costs of fuels have necessitated efforts to improve the management of services to ensure reliable but cost-effective shipping schedules to the outer islands. Under the proposed Rotuma/Tuvalu trade service, shipping schedules to the southern islands will include trips to Rotuma. Major maintenance works are planned for MV Manufolau to be carried out in first quarter of 2010 to be kindly funded by JICA, Government of Japan. A project proposal for the replacement of MV Nivanga has also been forwarded to the Government of Japan for consideration.

An inter-island air service is crucial to improving transportation and connectivity between Funafuti and the outer islands, but at the moment it has never been revived since trial in the early eighties. There is as such a genuine need to explore the feasibility of re-introducing an inter-island air service as a long term plan starting with the restoration of the American built runways on outer islands and introduction of appropriate airplanes to provide the much needed service.

On air connections with Fiji and the outside world, Pacific Sun is the only airline servicing the route following the termination of Air Fiji services in April 2009 due to financial problems.

There remains a need to explore the feasibility of introducing an additional air service to create competition and ensure affordable and reliable services, particularly in view of Tuvalu's heavy reliance on air connectivity to Fiji for reasons of medical, education, and seafarers travelling and access to the outside world.

Proper communications networks on all islands are vital for SD coordination and security purposes. There is a need to upgrade all communications infrastructures, and to install internet and telephone connectivity on the islands including Funafuti, accessible by users in by all islands.

3.2.6 Science and Technology

Technical and scientific capacity desperately needs to be developed to cater not only for local needs but also to strengthen research and development of appropriate technologies for SD in Tuvalu. There is a need to plan and prioritize technical aspects of development, and for the dedication of special scholarships for technical and scientific training each year.

The setting up of technical groups of graduates, through peer work, and through collaborations with other SIDS groups through Centres of Excellence project, should be encouraged to promote motivation in the areas. There is also a need for wide education and extension of appropriate technologies to all communities to promote interest and support. The provision of regional and international financial support is critical to the development of appropriate technologies for Tuvalu.

4. MILLENNIUM DEVELOPMENT GOALS (MDG's) AND SD IN SIDS

4.1 Poverty Eradication

It is widely accepted that there is no poverty in Tuvalu. Although Tuvaluans are not well-off in financial and materials, they have strong family and community ties which have provided social safety nets for the most disadvantaged and vulnerable. According to the Participative Poverty Assessment (PPA) of 2003 carried out by the ADB, the major cause of hardships and poverty are:

- limited access to quality basic services and infrastructures;

- limited income generation opportunities, particularly for women and youth and those with low levels of education;
- overcrowding and overpopulation of households and communities, particularly on Funafuti;

The Government pays close attention to improving the country's food security and nutrition situation to adequately nourish its people. It also pays attention to other unwanted health habits such as smoking, exercise, clean toilets, and cleanliness in the home and work place.

4.2 Education and Reduction of Child Mortality

Education Development Progress

Tuvalu has achieved 100% Universal Primary Education (UPE) in terms of access. However, a lot of work is still needed to improve the quality of education. The Education Strategic Plan 2006-2010 has been developed which includes: Curriculum Assessment, Student's access to participation Education,

Improving the Quality and efficiency of management, HRD, Strengthen community Partnership and develop a culture of working together. The Plan will be reviewed in 2010 and 2015, to make sure close alignment with the TKII and MDG's. The Tuvalu vocational Education Training in Motufoua Secondary School and primary schools have been re-introduced in 2009, and upgrading of infrastructures in school has been ongoing.

Education Development Challenges

The main challenges in education include:

- Insufficient human resources capacity within the Department of Education;
- Slow in the implementation of programs, hampered by geographical location of the islands and transport problems;
- Communication and transport problems;
- Support from the community at all levels especially at the Kaupule level and the parents.
- Staff turn-over and brain drain
- Teachers commitment to plans set out by the ministry

- Financial support and commitment for programs, HR and infrastructure
- Increased urban drift

Education Actions Needed

- Education for All –compulsory access to education
- Provide a quality education for all Tuvaluans, through improved teacher training and including regulating teaching standards and tuition;
- Upgrade all school levels to meet the need of the human resources development of the nation
- Implementation of strategic plans
- Strongly advocate for more dedicated funding and technical resources to help implementation of educational policies and plans.
- Consider regulating education standards and tuition for all schools;

Child Mortality Progress

Much progress has been made on reducing child mortality and this can be attributed to training of nurses, more and improved facilities and ongoing programmes for regular ante-natal and post-natal check ups and immunization. If the current trends continue, Tuvalu may achieve its MDGs targets.

A National Health Plan which places priority on Mother Child Health (MCH) is in operation. Under the Plan activities mortality rates have been significantly decreased in all child age groups: infant mortality rate (IMR) and under five mortality rate.

Child Mortality Rate Challenges

The main challenge is the sustainability of funding to maintain and sustain achievements.

Child Mortality Rate Actions Needed

It is crucial that adequate funding for the MCH programmes implementation is secured through the national budget and bilateral and multilateral assistance as well.

4.3 Gender Equality and Empowerment of Women

Progress Made

Tuvalu is Party to the Convention on the Elimination of Discriminatory Actions Against Women (CEDAW), and participated at the Beijing UN Conference on Women. It has presented its first report on CEDAW to the Commission on Women, UNGA, in September 2009.

A Department of Women (DoW) has been established, and a three-year plan 2010-2012 also developed. The plan includes the strengthening of the DoW, and strengthening coordination with civil society women groups, TNCW (Tuvalu National Council of Women) and other NGO's. A national women policy has also been developed and formalized.

Challenges

The main challenges facing women development include:

- Lack of human and financial resources to support development activities;
- Lack of capacity to fully integrate SD into women work plans and programmes;
- Reconciliation of women in development and cultural and traditional practices;
- Provision of equal employment opportunities through targeted vocational training;
- Awareness and exercise of women's rights in implementation of SD activities;
- Participation of women in island communities decision making processes;
- Coordination and integration of regional and international conventions on women;
- Monitoring and evaluation of progress, and lack of measurable indicators;

Actions Needed

To ensure gender equality and empowerment of women in SD several actions are needed including the following:

- Improve education and training of personnel in the DoW as well as in the TNCW and other NGOs in SD issues and integration into other sectoral strategies and plans;
- Continue Government's grant to the TNCW to improve capacity;
- Continue advocating for better recognition of the rights of women to education and training opportunities and employment opportunities;
- Sensitize all stakeholders on the rights of women and the need for better recognition in the implementation of SD;
- Promote local knowledge on the inter-linkages between NSDS and regional and international conventions on gender equity and empowerment of women;
- Establish monitoring and evaluation systems together with measurable indicators to monitor progress;

4.4 Health, HIV/AIDS, Malaria and Other Diseases

Health Development Progress

A ten year Master Plan for the Ministry of Health had been formulated -2009 – 2019, in alignment with TKII, MSI and MDG's. Government has committed Au\$7,000.00 for the HIVAIDS programs in its annual budget and the Global Funds through SPC is also assisting in almost all HIVAIDS programs including the employment of 2 full time officers.

A Non-communicable disease plan had been formulated to strengthen the combating of this issue, and a decentralization plan to upgrade outer islands medical clinics to be able to have one medical doctor is being developed with the aim to lower the rates of referral from the outer islands. A plan for Vector born diseases had been in place and also for other disasters.

UN agencies and other donor partners are assisting in providing TA's and technical support for the Ministry.

Health Development Challenges

Health main challenges include:

- Provide a much better health service by 2019
- Ensure the sustainable health of the people given the limited resources
- Upgrading of Princess Margret Hospital as well as all outer island health clinics
- Reduce the non-communicable disease by 2019 to a manageable number
- Set up a HIVAIDS and STI(sexual transmitted infection)unit within the ministry health
- Strengthen the Public Health Sector to practice prevention is better than cure
- Address climate change and health as an emerging issue
- To be able to face natural and environmental disaster.

Actions Needed

To facilitate implementation of Health sectoral strategies and plans the following actions will be needed:

- Ensure financial commitment to implement health programs, equipment, drugs, TA's and infrastructure.
- Prioritize development activities in relations to financial commitments;

- Promote and support capacity building in all sectors of the Health Ministry but especially specialized doctors and nurses;
- Promote positive public opinion and cultural perceptions on the dissemination of information to the public especially on HIVAIDS and STI.
- Address the issue of brain drain
- Re-organise the whole health system;
- Establish a safe system in all islands for the disposal of hospital wastes;
- Address the increase on the non-communicable diseases, including diabetes and high blood pressure;
- Develop policy guidelines to encourage people to remain on the outer islands, and hence to lower migration to the Capital island.

4.5 Environmental Sustainability

Environmental sustainability is perhaps the most important of all MDGs, in that all development activities centre around it. MSI and TKII both echo the importance of environmental sustainability, and recognize the need for EIAs as a pre-requisite to any major development project.

In practice, the subsistence based economy of Tuvalu is built on the sustainable use of its limited natural resources to ensure conservation and sustainable use of the fragile atoll ecosystems. The fragile island environment, however, is increasingly threatened by:

- Changing habits and attitudes in the island communities due to exposure to the outside world;
- Adverse impacts of climate change and sea level rise;
- Increased integration of the economy to the global economy, and monetization; and
- Decline in traditional subsistence production and associated resource management.

Actions Needed

- Promote education and public awareness programmes to encourage the necessity of conservation and sustainable use of the fragile atoll resources;
- Secure regional and international financial and technical support to construct protective measures and to adapt to the impacts of climate change and sea level rise;

- Strengthen policy and legislations to improve the management and use of fragile natural resources;
- Encourage the use of ecological approach to production and management of natural resources.

4.6 Global Partnership for Development

Tuvalu is heavily dependent on ODA grants for financing development priorities and technical assistance and capacity building. Regular grants represent an average of 30% of total revenue. Major donors are Australia, Asian Development Bank (ADB), Japan, New Zealand, ROC/Taiwan, UN agencies and the Pacific regional organizations. Tuvalu also relies on its Tuvalu Trust Fund, which provides support to balance the national budget every year.

Actions Needed

- Strengthen institutional arrangements and capacity to better coordinate ODA partnerships;
- Establish clear mutual understanding with partners on Tuvalu's NSDS needs, and gaps for their respective contributions;
- Encourage better coordination amongst the development partners, including regional and multilateral agencies, to avoid duplication and confusion;
- Improve the ability of the Department of Foreign Affairs, and EPRD to be more responsive to development partners collaborations and coordination;
- Improve local capacity to access regional and multilateral funding resources;
- Promote prudent management of ODA resources to avoid unsustainable spending, and to ensure conservation and sustainable use of resources;

5. EMERGING CONCERNS AND SPECIAL NEEDS

The emerging issues for Tuvalu are many, but notably the following:

- Adverse impacts of climate change and sea level rise, particularly land loss due to erosion, water shortages, food security due to contamination by sea water, new health issues caused by change of weather patterns, and the uncertainty of their future should the islands be submerged;
- Adverse impacts of globalization and trade liberalization not only on services and revenue sources, but also on the fragile ecological resources;

- The change of consumption habits and attitudes, particularly amongst youth, influenced by greater exposure to the media and IT, and social impacts on culture and traditions;
- Health issues as result of increased dependence on imported food stuff, particularly increase in diabetic and high blood pressures cases;
- The need for quality education and training to keep up with the pace of technological development;
- The need for better monitoring and evaluation systems and for lists of indicators.
- Data collection and safekeeping to support SD planning and inform decision making.
- Youth response, as individuals become more and more individualist, and the need to involve them in envisioning the future strategies and plans for the SD of Tuvalu.

6. The Way Forward

In this assessment of the MSI implementation and integration into Tuvalu NSDS, major obstacles to implementation have been highlighted. Many of these are fundamental, and have been identified in many national reports and other assessments, and may remain simply as part of SD in Tuvalu.

The need though is for all sectors to develop sectoral SD plans, policies, and budgets which should be aligned closely with the MSI and MDGs, and with the TKII Strategies. Crucial in this effort is ownership, that is, to ensure that sectoral SD plans, policies, and programmes of activities are owned and driven by Tuvalu and are coherently coordinated.

Indeed as demonstrated over thirty years of statehood, Tuvalu is fully committed to improving services and SD for our people. But increasingly we find gaps, huge gaps. There is a need for partnerships, not to replace, but to fill up these gaps to help Tuvalu address its vulnerabilities.

The improvement of knowledge of SD principles and inter-linkages, partnerships, participation, integration, communications, monitoring and evaluation, establishing indicators and data will point to the right direction forward. But most critical of all is the securing of adequate and predictable financial and technical resources to fill up the gaps of implementing Tuvalu NSDS. □

APPENDIX I

List of People Interviewed

NAME	TITLE
1. Mrs. Alamai Sioni	Culture Officer
2. Mrs. Annie Homasi	Coordinator – Tuvalu Association of Non-Government Organisations
3. Mrs. Batedepa Esela	Community Development Officer
4. Mr. Faatasi Malologa	Director of Lands and Survey
5. Mr. Fakasao Tealei	Tourism Officer
6. Mr. Fatoga Talama	Chief Engineer – Tuvalu Electricity Corporation
7. Mr. Fepuali Kitiseni	General Secretary for the Tuvalu Overseas Seamen Association (TOSU)
8. Mr. Itaia Lausaveve	Director of Agriculture
9. Mr. Kakee Kaitu	Permanent Secretary, Ministry of Local Government
10. Mr. Kilifi Talakatoa	Environment officer
11. Mrs Limasene Siaeke	Assistant Secretary/Acting Permanent Secretary for the Ministry of Finance and Economic Planning

12. Mrs. Loia Molipi	Project Officer: Water
13. Mrs. Lorraine Filipo	Human Resource Development Officer
14. Mr. Malosiaga Tauetia	Project Officer- Second National Communication on Climate Change
15. Mr. Mataio Tekinene	Director of Environment
16. Mrs. Mila Amilali	President of the Tuvalu National Council of Women
17. Mr. Molipi Tausi	Assistant Secretary/Acting Permanent Secretary for the Ministry of Works, Water and Energy
18. Mrs. Olioliga Iosua	Permanent Secretary for Education and Sport
19. Mr. Pisi Afaso	Director of Water
20. Ms Pula	Assistant Trade Officer/Acting Trade Officer
21. Mrs. Saini Simona	Director of Women
22. Mr. Samuelu Telii	Senior Fisheries Officer/Acting Director of Fisheries
23. Mr. Semu Malona	Director of Statics
24. Mr.Solofa Uota	Acting Secretary to Government

25. Mr. Solomon Lotoala	Project officer /Biodiversity
26. Dr. Stephen Homasi	Director of Medical/Acting Permanent Secretary for the Ministry of Health
27. Mrs. Suia Pesega	Accountant TNCW
28. Mrs. Sunema Aunese	Senior Economic Adviser/Acting Director of Economic Planning
29. Mrs. Susana Taafaki	Vice President of the Tuvalu National Council of Women/ Acting Coordinator (TNCW)
30. Mr. Taeka Satupa	Accountant- Tuvalu Electricity Corporation (TEC)
31. Mr. Tanielu Italeli	Acting Director of Marine
32. Mr. Tefiti Malalau	Labour Officer
33. Mrs. Tupulaga	Project Officer: Waste Management
34. Mr. Uiga Paelate	Assistant Aviation Officer
35. Mrs. Valisi Alimau	Curriculum Officer/Acting Director of Education

APPENDIX II

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