

Republic of Palau

National Report

to the

World Summit on Sustainable Development

April 2002

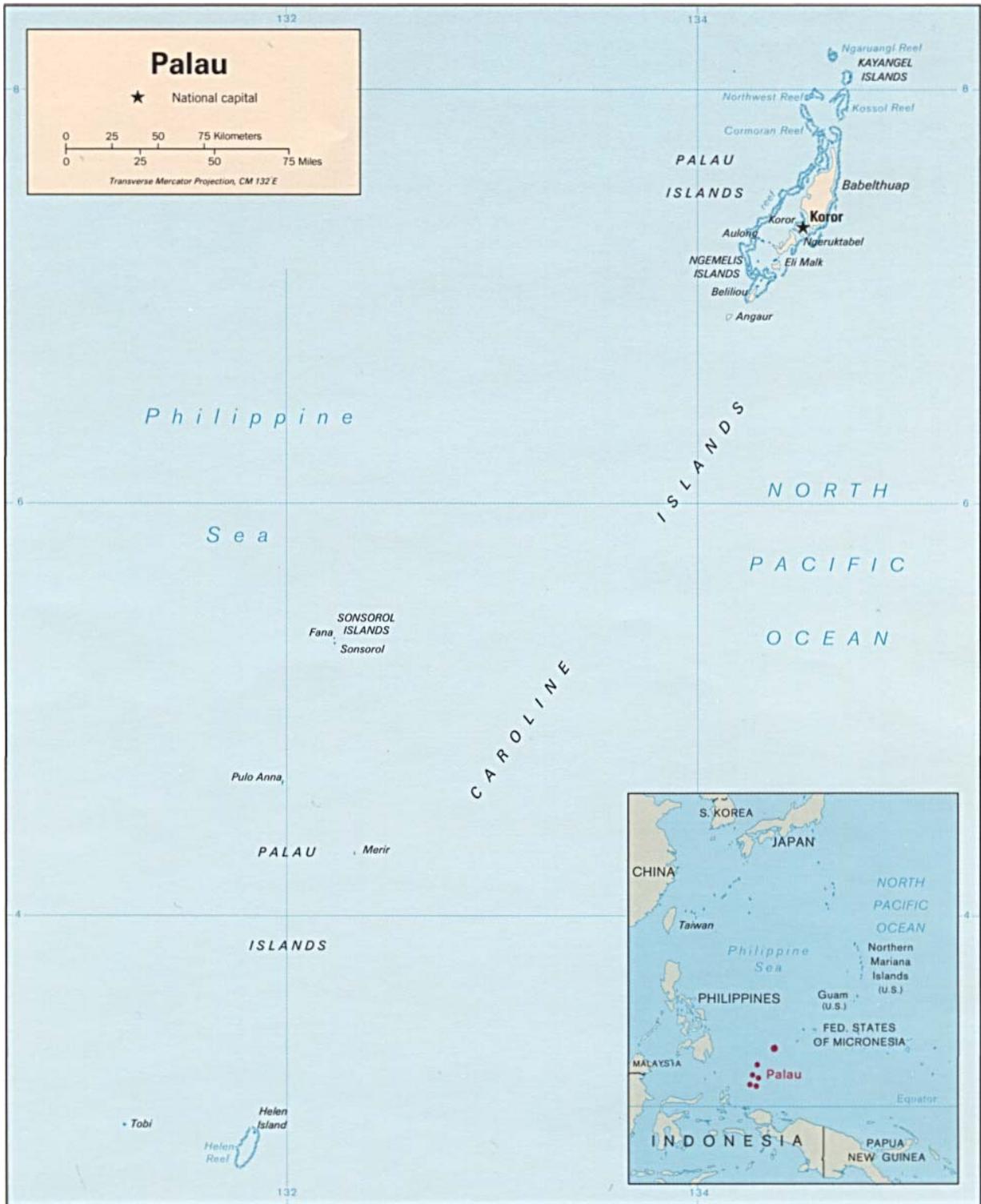
Office of Environmental Response and Coordination
Office of the President of the Republic of Palau

LIST OF ACRONYMS

CBD	Convention on Biological Diversity
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENSO	El Niño Southern Oscillation
EQPB	Environmental Quality Protection Board
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
MAP	Management Action Plan
MCT	Ministry of Commerce and Trade
MOA	Ministry of Administration
MRD	Ministry of Resources and Development
NBSAP	National Biodiversity Strategies and Action Plan
NEMS	National Environmental Management Strategy
NEPC	National Environmental Protection Council
NGO	Non Governmental Organization
OERC	Office of Environmental Response and Coordination
OEK	Olbiil Era Kelulau (National Congress)
PALARIS	Palau Automated Land and Resource Information System
PICs	Pacific Island Countries
STPAP	Sustainable Tourism Policies and Action Plan
STU	Sustainable Tourism Unit
UN	United Nations
UNDP	United Nations Development Programme
2020 Plan	2020 Master Development Plan

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EXECUTIVE SUMMARY

This report presents Palau's progress in implementing the outcomes of the 1992 Earth Summit as outlined in Agenda 21.

Major areas of concern for the Republic of Palau consists of:

1. the effects of climate change and sea level rise on Palau's social, economic, and natural environments;
2. minimal coordination of legislative frameworks to address sustainable development planning and management at the State and National levels;
3. lack of effective watershed management mechanisms and potable water distribution systems at the State and National levels;
4. inadequate pollution and waste management mechanisms to address the Republic's requirements;
5. no land-use plans and building codes in existence to guide sustainable development;
6. deficient long-term monitoring of environmental changes and germane data collection mechanisms for national planning purposes;
7. the realization of a holistic approach to the preservation of marine, terrestrial, and cultural resources from over-harvesting and unsustainable development practices; and
8. minimal financial, technical, and human resources to adequately address all sustainable development issues faced by the Republic.

In an effort to address these concerns, the Government has:

1. initiated several sustainable development management plans. Notable among them are the National Environmental Management Strategy, the 2020 National Master Development Plan, and the Sustainable Tourism Development Plan;
2. Presidential Executive Order 205, created the National Environment Protection Council to identify and prioritize national environmental issues within the context of sustainable development priorities of the Republic; and to establish concise national guidelines for environmental programs and projects pursuant to established national priorities;
3. initiated the Sustainable Tourism Taskforce in 2001 to update the 1997 Sustainable Tourism Development Plan and develop the Sustainable Tourism Unit to address community-based sustainable tourism development;
4. initiated multi-agency public awareness programs dealing with sustainable resource consumption and conservation practices;
5. the 2001 Presidential Management Action Plan emphasized the development of incentive measures to facilitate private sector diversification; and
6. created the Office of Environmental Response and Coordination to assist in the coordinated planning of environment conservation and protection issues within the Republic as it pertains to Palau's Party status to international environment and atmospheric agreements and conventions.

To further sustainable development initiatives within the country, the Republic of Palau is a Party to the following international conventions and agreements:

1. United Nations Framework Convention on Climate Change
2. United Nations Convention on Biological Diversity
3. Cartagena Protocol on Biosafety under the Convention on Biological Diversity

4. United Nations Convention to Combat Desertification
5. United Nations Educational, Scientific and Cultural Organization
6. United Nations Convention on Law of the Sea
7. Vienna Convention and Montreal Protocol on the Protection of the Ozone Layer
8. Stockholm Convention on Persistent Organic Pollutants (Signatory)
9. Food and Agriculture Organization
10. World Health Organization
11. Rights to the Child Convention

SOCIO-ECONOMIC CONDITIONS

Currency:	U.S. Dollar
GDP (2000):	117.2 Million (current price)
GDP Per Capita (2000):	\$ 6,127
Median household income:	\$12,845 per year
Unemployment (2000):	2.3%
Adult Literacy (2000):	96.9%

Population

Palauan (2000):	13,209
Non-Palauan (2000):	5,920
Total:	19,129
Annual population growth (2000):	2.1%
Infant Mortality (2001):	16.7%

Population is made up primarily of two age classes: 5-18 (28.6%) and 25-44 (39.8%).

26.8% Palauan citizens reside outside of Palau.

74.1% of Palauans 25 years or older are high school graduates and 10% hold bachelor degrees.

Maritime

Continental shelf:	200m depth or to the depth of exploitation
Exclusive fishing zone:	12 nautical miles
Extended fishing zone:	200 nautical miles
Territorial sea:	3 nautical miles

HABITAT

Geography

Total islands:	586, of which 12 are continuously inhabited
Total land area:	535km ²
Highest Elevation:	Mount Ngerechelchuus, 213.5 meters above sea level
Land mass below 10 meters:	25%

Climate

Average annual temperature:	27 ⁰ C (81 ⁰ F)
Average annual rainfall:	3,730cm (147 inches)

Terrestrial

Minerals:	Phosphate, bauxite, limestone, basalt rock, and gold
Soils:	93% latosols
Agriculture:	Approximately 3.7%
Tropical rain forest cover:	75% (1976)

Non-forest:	20% (1976)
Agroforest:	3% (1976)
Secondary forest:	2% (1976)
Swamp forest:	6% (1976)

Watersheds

Lake Ngerdorch watershed has the largest perennial stream with drainage of 47km². Lake Ngardok is the largest freshwater lake in Micronesia encompassing 0.18km² with a storage capacity of 100,000km². The Ngermeskang River is the second largest river and part of the Ngeremeduu, the largest watershed on the west coast of Babeldaob. The Ngirikiil watershed, located in southern Babeldaob is the main source of water for Palau's population, supplying 4 million gallons of water a day.

Marine

Barrier reefs:	264.7km ²
Lagoons, passes, & patch reefs:	1,136km ²
Atoll reefs:	65.0km ²
Fringing reefs:	195.7km ²
Mangrove forests:	45.0km ²
Marine Lakes:	12 meromictic and approximately 50 holomictic lakes
Coastline:	1,519 km

BIODIVERSITY

Species	Approx. Total	Endemic	Introduced	Endangered
Terrestrial Flora & Fauna				
Plants	1,260	109		
Insects	5,000	500		
Birds	141	16	3	1
Freshwater fish	40	3		
Terrestrial snails		300	1	
Amphibians & Reptiles	46	12		
<i>Frogs</i>	2	1	1	
<i>Lizards</i>	30	10	2	
<i>Snakes</i>	7	1		
<i>Turtles</i>	1			
Bats	3	2		
Marine Habitat & Biota				
Marine Lakes	62			
Soft corals	200			
Stony or scleractinian	385			
Mangrove species	18			
Marine fishes	1,387	11		
Sea grass	9			
Macro-invertebrates	>600	1		
Turtles	5			2
Saltwater Crocodile	1			1
<i>Dugon dugon</i>	1			1

- Palau has one of the largest portions of species that occur nowhere else (endemics) in the world.
- Palau supports more coral, fish, and other invertebrates per unit area of marine habitat than any other place on earth.
- Palau's *Dugon dugon* population is the most isolated in the world.
- Palau is home to seven of the nine species of giant clams.
- Palau is host to 10 of the worst invasive weed species.
- 17 significant invasive animal species are found in Palau.

NATIONAL STRATEGIES FOR SUSTAINABLE DEVELOPMENT

Since its independence in 1994, the Republic of Palau has developed and implemented strategies set forth in the National Environmental Management Strategy (NEMS), the 2020 National Master Development Plan, and the Sustainable Tourism Development Plan. In addition, the primary objective of the 2001 Presidential Management Action Plan (MAP) is “to integrate environmental planning into developmental planning efforts.”

National Environmental Management Strategies

Developed in 1994, the NEMS highlights strategies for the development of policy and planning mechanisms for sustainable development, human resource management, pollution control, education and information, preservation of cultural, archaeological and historical resources, and recommendations for long-term sustainable management plans for tourism development, marine resources protection, and agriculture.

2020 National Master Development Plan

The 2020 National Master Development Plan was developed in 1996. The 2020 Plan recommends strategies to protect Palau’s environment through the development or strengthening of policy mechanisms, legislative frameworks, institutional capacity building programs, education, research and data collection, waste management, and pollution control, among other development issues. The 2020 Plan was adopted by the Olbiil Era Kelulau (national congress) in December 1997. Since its adoption, a number of strategies highlighted in the Plan have been implemented.

Sustainable Tourism Development Plan

The 2001 Sustainable Tourism Policies and Action Plan (STPAP) was developed to implement 24 key issues identified in the 1997 Sustainable Development Policies and Action Plan. The recommendations include product diversification, capacity building mechanisms, development of a high-end tourism product, diversification of tour attractions on Babeldaob Island, and effective management of natural and cultural resources. A Sustainable Tourism Unit (STU) will be established within the Office of the President to implement the STPAP by the end of 2002.

Presidential Management Action Plan

The aim of the MAP is “to improve the quality of life of the people of Palau.” The MAP recommends the revival of the National Planning Commission with a mandate to provide a cohesive planning structure within the Executive Branch and to ensure the effective implementation of the 2020 Plan. The MAP calls for:

- a comprehensive national plan for the management and protection of marine resources;
- the collaborative establishment of marine conservation areas between States and the National Government;
- a strategic plan to implement the Agriculture Task Force recommendations;
- the establishment of guidelines for agro-forestry with the minimization of soil disturbance and environmental impacts as the primary objective;
- development of a comprehensive mangrove, forest, and watershed management and rehabilitation plan; and
- implementation of an effective fruit fly eradication program.

ORGANIZATION AND MANAGEMENT SYSTEMS

All of the ministries within the Republic of Palau address sustainable development issues at some level. However, the ministries most closely associated with sustainability issues as it relates to economic development are the Ministry of Commerce and Trade (MCT) and the Ministry of Resources and Development (MRD). Both are mandated to source sustainable economic development opportunities that emphasize minimal negative environmental and social impacts to Palau's people and natural habitats. The MCT's concentration is primarily focused on large-scale economic development while the Ministry of Resources and Development focuses on community-based economic opportunities.

In addition to sourcing community-based economic activities, the MRD has oversight over government initiated agricultural programs, fisheries activities and agreements, and the Palau Automated Land and Resource Information System (PALARIS), the national geographic information system.

The Environmental Quality Protection Board is a semi-government agency created in 1981 to be the national clearinghouse for all structural development activities within the Republic. All development projects are required to conduct an Environmental Assessment (EA). Depending on the scale of the project, a full Environmental Impact Statement (EIS) may be required. An EIS normally requires evaluation of water quality and capacity within a given watershed, soil characteristics, and terrestrial and/or marine inventories depending on the site location.

An important conduit in the organization and management framework for sustainable development is the Ministry of Administration (MOA). The MOA is central to the process of government as it is the key coordination ministry of the Government. It has primary responsibility for national planning and the budget process and influences the control and productivity of government expenditure, revenue, and financing. Changes to budget, economic, and accountability processes affect sustainable growth trends through their impact on public and private sector activities. In addition to producing the Republic's annual statistical figures, the MOA is also mandated to develop the annual Greenhouse Gas Inventory and Environmental Vulnerability Index for Palau.

Over the past ten years, non-governmental agencies have played an active role in protecting Palau's biologically significant habitats. The two significant environmental NGOs that have contributed to the protection of Palau's natural habitats over the past ten years are the Palau Conservation Society, Palau's only grassroots NGO dealing with environment issues, and The Nature Conservancy.

Office of Environmental Response and Coordination

President Tommy E. Remengesau, Jr., via Presidential Executive Order 189, created the Office of Environmental Response and Coordination (OERC) on January 2, 2001 to fulfill the Republic's obligations under the UN conventions on climate change, biodiversity, ozone, and desertification. The OERC is also mandated to facilitate a coordinated approach to Palau's response measures to environmental degradation, protection, and if possible, rehabilitation of natural habitats at the national level. The OERC is mandated to:

- provide coordinated planning for the Nation's response to issues of global climate change, biodiversity, desertification, land degradation and other internationally identified and funded environmental initiatives;
- develop a broad and coordinated planning approach to issues of environmental response within the Republic of Palau;
- integrate governmental environmental programs into Executive Branch environmental response planning;
- establish a coordinated grant writing capacity on environmental issues that are identified priorities within the Republic;
- assist environmental support agencies in the development of funding assistance for environmental programs in Palau;
- permit economies of scale in the government's staffing of environmental programs funded by international agencies.

National Environmental Protection Council

Created in January 2002 by Presidential Executive Order 205, the multi-agency National Environmental Protection Council (NEPC) was initiated to:

- identify and prioritize national environment issues within the context of sustainable development within the Republic of Palau;
- propose a comprehensive sustainable management plan highlighting the Republic's national priorities and policies;
- establish clear, concise, documented and endorsed national guidelines for environmental programs and projects pursuant to established priorities;
- comment on all proposed public and private development projects to ensure environmental sustainability and integrity;
- propose legislation to protect the environment; and
- serve as the focal coordinating group for all environmental initiatives at the national level.

The NEPC is the National Steering Committee for the United Nations Framework Convention on Climate Change, United Nations Convention on Biological Diversity and Biosafety Protocol, United Nations Convention to Combat Desertification, and the Vienna Convention for the Protection of the Ozone Layer. The NEPC will act as the National Steering Committee for all future international environment and sustainable development initiatives within the Republic.

INSTITUTIONAL CAPACITY

As with all developing countries, and especially with Pacific island countries, financial, technical, and human resources are limited. Agencies both at the National and State levels must fulfill their mandates with limited financial, technical, and human resource capacity. Often, agencies are expected to address internal and external environment and economic issues with little technical support and modest funding mechanisms.

Palau's scarce technical and human resources are primarily attributed to the outflow of higher educated Palauans to the United States and other more developed countries that are capable of providing higher pay and benefits. Consequently, many organizations and government agencies are severely constrained and, in many instances, lack the necessary expertise to address all issues pertaining to the management of natural resources.

Programmatic funding is also inadequate to address all sustainable development issues across all sectors. Palau is a small island nation with limited capacity to allocate significant financial resources to pertinent issues pertaining to pollution control, human resource management, population control, environmental preservation and protection, waste management, infrastructure development, education, and community health management.

In attempt to gain additional support for sustainable development initiatives, Palau is a Party to various international conventions and agreements that have implicit linkages to the environment and human health. However, the requirements of convention Party status coupled with internal environment and economic issues place added stress on already limited resources.

POLITICAL SUPPORT

With the new administration of President Tommy E. Remengesau, Jr., there is strong national support for sustainable development initiatives. In response to old and new sustainable development issues faced by the Republic, the administration initiated several taskforces to review, develop, and implement programs directly connected to Palau's priorities to achieve an equitable balance between economic development and environmental sustainability.

- The OERC was created to provide a coordinated multi-stakeholder effort to fulfill the Republic's obligations under the various UN atmospheric and environment conventions. The OERC is also tasked with assisting in the development and implementation of environmental initiatives within the objectives of the Republic's sustainable development priorities.
- The NEPC was created to provide an overall multi-stakeholder approach to sustainable development planning by identifying national priorities for conservation, development, and identifying mechanisms and incentives to achieve these priorities. This includes a thorough review of the current legislative frameworks for sustainable development, identifying gaps and assisting in the amalgamation, where necessary, of existing frameworks.
- The Palau Compact Road Conservation Committee was created to review, update where necessary, and implement conservation management plans and community-based eco-tourism plans for the Lake Ngardok Nature Reserve and the Ngarameduu Conservation Area respectively.
- The multi-stakeholder National Biodiversity Strategies and Action Plan (NBSAP) Ad Hoc Committee was initiated under the NEPC to implement the GEF/UNDP NBSAP Enabling Grant for the Republic of Palau.
- The Agriculture Taskforce was initiated under the Office of the President in 1999 to review, strengthen, and implement national public policies to facilitate the diversification and increased production of agriculture and aquaculture output.
- The Sustainable Tourism Taskforce was initiated with a mandate to review and update the 1997 Sustainable Tourism Development Plan within 6 months of the taskforce's initial meeting. The process included a multi-stakeholder consultation to identify national sustainable tourism development priorities, implementation schedule including timelines for identified priorities, and the fruition of the STU as the implementing agency to accomplish the subscribed tasks.

LEGISLATIVE SUPPORT

The 1981 Republic of Palau Environmental Quality Protection (EQPB) Act is the most comprehensive environmental law in Palau. Division 1 mandates that the EQPB ensure the protection of resources and promote environmentally sound development. Subchapter 1 of the EQPB Act recognizes that under the Palau Constitution each person has a fundamental right to a healthful environment. However, the EQPB is given little specific direction by statute and does not have broad authority to limit development.

Since 1992, the States and traditional leaders, through legislation and/or traditional conservation practices, have protected over 458km² of their natural reserves through a system of conservation areas, marine preserves, fish spawning areas, wildlife preserves, and sanctuaries. Nationwide, marine areas have been protected at a rate of 50km² per year from 1992-2001. All ecosystems are represented in these managed areas including more than 17% of the all mangroves, the inner reef areas in 8 States, two of the three atolls, twelve major channels or passes, and the two largest watersheds in Palau including its only freshwater lake.

In general, although Palau's legislative mechanisms are supportive of protecting Palau's natural resources, additional statutory standards and regulatory authority are needed. Further, due to a significant economic growth trend over the past ten years, the EQPB regulations must be updated to reflect Palau's changing socio-economic conditions. A review of existing environmental statutes and regulations is underway and numerous additional environmental bills have been and are being introduced.

A critical component to legislative support is the ability to enforce enacted legislation. With Palau's limited financial and human resources, enforcement of existing environmental regulations is strained. In addition, new legislation is enacted almost daily to address emerging sustainable development issues within the Republic. This adds additional responsibility to the agencies that already have difficulty monitoring and enforcing existing regulations.

STRENGTHENING INTEGRATION AND PARTICIPATION

Palau's approaches to sustainable development are sectoral in nature. Programs to achieve sustainable development are typically conducted with minimal, if any, multi-sectoral consultation. In general, agencies have their own set of sustainable development priorities, which, at times, are not reflective of a shared vision for sustainable development at the national level.

By creating the OERC, the NEPC, and the soon to be activated STU, the Executive Branch is strongly endorsing a multi-agency approach to sustainable development. The administration is attempting to move from a sectoral approach to addressing sustainable development issues to an open forum approach where private and public sector organizations and agencies are involved in the development and implementation of sustainable development initiatives at the national level.

NATIONAL CRITICAL ISSUES

The most critical issues facing the Republic are climate change, unsustainable economic development, and unsustainable resource consumption.

- Impacts of climate change include sea level rise and associated coastal erosion, effects of coral bleaching to Palau's economic and natural environments, and extreme events such as storms and frequent drought.

- Palau does not have existing land-use plans and a unified set of building codes to guide economic development activities. Due to this, some developments have taken place in highly critical habitats and the number of inappropriately constructed buildings is increasing.
- The move away from a traditional subsistence lifestyle to a more westernized culture is placing significant pressure on Palau's natural habitats. Traditional farming and fishing practices are on the decline, while increasing numbers of industrialized goods are on the rise. Due to this, Palau must now grapple with increasing pollution and waste management issues.

Climate Change and Sea Level Rise

The single largest threat to Palau's long-term sustainability is climate change and sea level rise. During the 1998 El Niño event, Palau lost an estimated 33% of corals or 563km² of patch reef, barrier reef, outer reef and inner reef due to elevated seawater temperatures. At the same time, Palau lost an estimated 20% of its forests, grasslands, and farmlands due to uncontrollable fires. Palau also experienced a 100% loss of taro crops (traditional food supply) on the islands of Anguar, Peleliu, and the western side of the big island of Babeldaob. To date, the taro patches have not recovered and as of January 2002, Palau is once again experiencing an El Niño event.

Changing migratory patterns of certain species are causing havoc to Palau's natural environment and social interaction. Invasive alien species have been responsible for decreased production of fruits and vegetable for local consumption and potential export. A 1995 agricultural survey showed that the introduction of the Oriental Fruit Fly caused up to 100% damage to the mountain apple and carambola and 80% damage to guava and bananas plants. The Bureau of Agriculture, under the Ministry of Resources and Development is currently developing and seeking support to implement a Fruit fly Eradication Program to manage this serious agricultural threat.

Currently the main industry in Palau is adventure tourism. In 1996, Palau derived \$US67 million or 47% of the Gross Domestic Product (GDP) from its tourism industry. From 1992 to 1997 tourist arrivals doubled from nearly 30,000 to 60,000. However, due to several factors, more noted being global warming, Palau's tourism numbers have been in decline since the 1998 coral bleaching event. This loss is reflected in a 3.3% drop in the GDP in 1998. The estimated value of reef lost during the 1998 ENSO event was estimated at \$100 million U.S. dollars or 88% of the total 1998 GDP for Palau. The agricultural loss was estimated at 0.75 million dollars or 0.7% of the GDP. Although the loss to Palau's economy is significant, it does not adequately reflect the immeasurable loss to Palau's natural environment.

Due to global warming and other factors, Palau now faces:

- frequent El Niño/La Niña conditions such as drought, coral bleaching, and storms;
- fragmentation of natural habitats;
- coastal erosion;
- degradation of agricultural lands;
- an increase of infectious outbreaks such as dengue fever and other diseases; and
- a growing number of introduced invasive species that damage crops and natural habitats.

Rapid Economic Development

The second significant threat to Palau is rapid economic development. During the early 1990's, 0.14-km² of the mangroves on Babeldaob was lost due to one road project. Vegetation loss as a result of the 52-mile National Highway, which will connect the big island of Babeldaob to Koror Island, totaled 3.087-km² from 1995 until 2001 or 0.617km² per year. On-going large-scale development activities include a national airport, the relocation of the National Capitol to Melekeok State, the National Highway, a golf course, and several hotels and resorts. In addition, a significant number of large-scale development activities such as additional golf courses and hotels are slotted for Babeldaob Island once the National Highway is complete. The rapid economic development trend in turn affects Palau's ability to:

- effectively manage its rapidly increasing population in a sustainable manner;
- expand its waste management facilities to accommodate the increase in population, primarily due to rapid economic development and a growing foreign labor force;
- develop and/or strengthen mechanisms to monitor and control pollution;
- expand its water delivery system to ensure efficiency and minimize leakages and contamination of the water supply;
- develop and implement effective data collection and monitoring mechanisms to measure the impacts of change to Palau's social and natural environments; and
- produce enough locally grown food to adequately supply agricultural products to the growing population and food and beverage industry.

Terrestrial and marine economic activities are also degrading the natural environment. Disturbances such as sedimentation from sea dredging and land development, untreated sewage, ship groundings, and oil spills are negatively affecting Palau's habitats.

Resource Consumption

During the past ten years there has been a growing shift toward western economic and social principles. Many of Palau's cultural traditions and practices are vanishing as a result of this shift. The value of economic development has now superseded traditional community-based farming and fishing activities. This trend has put significant strain on Palau's limited resources because the population is moving away from subsistence living to a more westernized lifestyle.

Although agriculture production has fluctuated since 1995, population has steadily grown at a rate of 2.5% from 1995 to the present time. For example, in 1995 fruit and vegetable production totaled 555,964 lbs, 1996 total production was 752,956 lbs, and 1997 total agriculture production was 764,814 lbs. Palau experienced a large increase in agriculture production from 1995 to 1996. Similarly, marginal production change from 1996-1997 shows only a 1% increase. However, this 1% growth in agriculture production is not compatible with Palau's 2.5% population growth rate, which has consistently increased over this period. Due to financial and human resource limitations, 1998 was the last year data was collected on Palau's agricultural production.

During the past ten years, there has been a significant shift from a traditional subsistence lifestyle to a more western style economy. A high percentage of young Palauans are professionally employed in trade and industry. This shift has escalated the growth of foreign labor commercial farming companies that conduct large-scale agricultural production.

In an effort to shift this trend, the National Task Force on Agricultural Development, under the Office of the President was established in April 1999. The Year 2000 was declared the Year for Agriculture in Palau. The task force was mandated to review national government public policies regarding agriculture and aquaculture for strengthening and implementing public policies that could lead to the diversification and increased agriculture and aquaculture production in Palau. The task forces identified several specific areas in need of attention:

- encourage greater consumption of locally grown fruits and vegetables;
- improve the level of nutrition of the Palau people;
- increase the prospects of food security and sustainable livelihoods;
- satisfy the local markets;
- provide income for the sale of locally grown produce to visitors; and
- reduce the reliance on imported fruits and vegetables.

The goals for agricultural development are to reduce dependence on imported foodstuffs, ensure household food security, improve food productivity, and expand the domestic marketing system opportunities for long-term, high volume export crops.

Over the past two decades, the number of cars on-island has increased at a rate of nearly 300 vehicles per year. Importation of car parts and accessories, appliances, and prepackages goods have nearly tripled in the past decade. Currently, only car batteries are reclaimed and sent off-island and a limited beverage can recycling operation exists in Palau. In an effort to address this growing problem, the Executive Branch is developing a national glass and tin can recycling program, which will eventually be operated by the Ministry of Resources and Development.

IMPLEMENTATION PROBLEMS

As one of the youngest nations in the world, Palau is facing many developmental challenges. Palau currently has insufficient legislative frameworks in place to address sustainable development issues such as:

- unsustainable economic development coupled with increased resource consumption due to rapid population growth trends are contributing to a decline in the overall health of Palau's natural environment;
- lack of regulatory environment that promotes a strong private sector for skilled Palauans;
- monetary leakages primarily due to foreign laborers remitting a high percentage of their income to their home country; and

Other impediments over the past ten years include:

- a sectoral approach to sustainable development has also contributed to the slow implementation of programmatic strategies to achieve a balance between economic development and a health environment; and
- coordination between the National and State governments to address resource management has impeded many sustainable development initiatives.

Contributing to the lack or slow implementation of sustainable development mechanisms are underlying constraints such as:

- a lack of sufficient financial, technical, and human resources to adequately address sustainable development issues faced by the Republic;
- a lack of land use plans and building codes to guide sustainable development activities;
- a lack of financial resources to develop data collection, management, analysis, and archiving through the PALARIS, national GIS program to assist in the decision-making process and monitoring of sustainable development activities;
- difficulties within some agencies moving from a sectoral approach to a coordinated multi-agency approach to sustainable development;
- each State in Palau owns its own resources; State priorities often do not reflect National priorities for sustainable development; and
- lack of sustained national public awareness programs focusing on a holistic approach to sustainable development and the long-term benefits of sustainable resource utilization.

WEAKNESSES & BARRIERS

The Republic's financial, technical, and human resources are inadequate to implement many of the programs and activities that must be accomplished in order to achieve long-term sustainable development for Palau. Due to this, Palau struggles to implement many recommendations in existing policy mechanisms such as the NEMS and other sustainable development strategies. Palau also recognizes the need to conduct the following, but lacks the necessary resources to develop and implement them:

- the EQPB statutes and regulations must be updated and the Environmental Assessment process expanded and strengthened to address the changing environment;
- a general legislative review of existing statutes and regulations must be conducted within the context of the goals and objectives of the Presidential MAP;
- develop and implement private sector sustainable development incentive programs to promote 'green development and management' and product diversification;
- conduct a study of Palau's carrying capacity to support the influx of foreign workers and tourism activities;
- develop and manage medium and long-term human resource strategies inclusive of foreign labor trends and incentive measures to retain educated Palauans; and
- develop and implement pollution control mechanisms with a focus on mitigation measures.

Insufficient human, technical, and financial resources are the primary impediments to full implementation of existing frameworks and the development of new sustainable development mechanisms to ensure the integrity of Palau's long-term economic, social, and environmental health. Consequently, Palau understands what it must do to ensure sustainable development, but lacks the necessary financial, technical, and human resources to effectively develop and address these requirements.

RECOMMENDATIONS/SOLUTIONS

At the national level, Palau must allow for economies of scale by moving away from a sectoral approach to a multi-agency approach to sustainable development initiatives. By moving to a coordinated multi-agency approach to economic development and environmental protection, Palau will ensure economies of scale by reducing overlapping programmatic activities, thereby allowing the most effective use of its existing resources. To achieve a holistic approach to sustained development and address financial, technical, and human constraints, Palau must also:

- down-size its government while at the same time stimulating private sector development to create jobs for the growing population;
- Strengthen and amalgamate, where applicable, existing regulations and regulatory bodies to monitor and enforce sustainable development policies;
- develop land-use plans and zoning that incorporates global warming trends and conservation mechanisms for areas of high biodiversity and cultural significance;
- develop an efficient and integrated approach to a nationwide system of protected areas - marine, terrestrial, and cultural significance;
- strengthen enforcement and deterrence measures to ensure compliance with sustainable development regulations;
- update the EQPB Act with additional measures provided to expand EQPB authority, enhance the Environmental Assessment/Impact Statement process, impose impact fee requirements, and increase penalties for non-compliance;
- evaluate the capacity of existing waste and water infrastructures to meet the demands of the growing population;
- upgrade the National and State water system infrastructures for storage capacity and enhance public awareness on the long-term benefits of effective water consumption practices;
- implementation of the Agriculture and Aquaculture recommendations in the 2020 Plan with an aim at reducing the high percentage of imported agricultural products;
- strengthen the PALARIS to provide decision making tools for sustainable development; and
- develop and implement a long-term holistic public awareness program geared at sustainable development and cultural appreciation and preservation.

At the international, regional, and sub-regional levels, initiatives addressing the following must be implemented if developing countries such as Palau are to achieve full implementation of Agenda 21.

- A regional study on the impacts of global warming trends on island economies;
- global warming adaptation strategies must go beyond recommendations, they must provide the mechanisms to build capacity at the national level and provide the necessary resources to implement the recommendations over the long-term;
- the development and implementation of a regional early warning system for disaster management and mitigation;
- a regional integrated approach to coastal management and oceans must be developed and resources retained to implement the outcomes;
- development and implementation of a regional program to assist Pacific Island Countries (PICs) define and effectively manage their exclusive economic zones and extended continental shelf areas;
- support initiatives for sustainable tourism development emphasizing product diversification;
- support technology transfer and removing economic barriers to renewable energy initiatives; and
- capacity building initiatives to support reporting requirements as a Party to international conventions and agreements that goes beyond initial National Communications.

THE WAY FORWARD

Over the next ten years, Palau intends to build a strong foundation for a holistic approach to sustainable development that incorporates effective and enforceable policy and legislative frameworks and enforcement measures to ensure the long-term health of Palau's social, economic, and natural environments. Within the next ten years, Palau intends to develop or expand on existing programs that fall under the Republic's five priority areas for sustainable development.

National Priority Area		Strategies for Implementation
1	Stop and reverse land degradation	Capacity building
2	Reverse coastal sedimentation	Resource management
3	Stop poor resource use practices	Pollution control
4	Improve environmental monitoring	Regulatory enforcement
5	Stop large scale biodiversity loss through the management and protection of habitats and endangered species	

By effectively addressing the National Priority Areas, Palau expects to:

- strengthen an integrated multi-sectoral approach to sustainable development planning;
- develop medium and long-term set of national sustainable development priorities;
- integrate sustainable development planning through all sectors of government;
- develop and implement medium and long-term human resource strategies that incorporates foreign labor issues and incentive measures for the return of off-island Palauans;
- develop and implement land-use plans and building codes that incorporate global warming issues such as sea level rise and energy efficiency measures;
- incorporate sustainable development issues in education and public awareness initiatives;
- develop and implement a State of the Environment Report to monitor sustainable development activities on an annual basis;
- further develop the PALARIS to effectively contribute to sustainable development planning across all sectors; and
- develop and implement of incentive measures to stimulate private sector sustainable development activities.