Marshall Islands Reports
On the
Implementation of the UNCCD

Introduction: Under a signed Letter of Agreement between SPREP and Environmental Protection Authority (RMI-EPA), the Government of the Marshall Islands agreed to submit a National Report on implementing the UNCCD to the Secretariat by April 2002. However, it was not until September 20, 2002, that the Chief Secretary nominated RMI-EPA as the official Operation Focal Point.

The report gives the overall picture of the activities that the RMI Government had already initiated under the UNCCD and its future activities as well.

A. Geography:

The Republic of the Marshall Islands is a nation of 29 atolls and 5 islands which form two vast parallel chains scattered over 822,779 square miles of the Central Pacific. They make up a total of 70 square miles of land and are located between 4° and 19° North latitude and 160° and 175° East longitude. Twenty- two of the atolls and four of the islands are inhabited. Majuro and Kwajalein are the two most populated atolls.

While some of the islands are several kilometers long they rarely exceed a few hundred meters in width and are often considerably narrower. Land elevations are very low, with a mean height above sea level of only two meters (7 feet). The combination of small land areas and low land elevations contribute to the ecological vulnerability of the Republic. There is concern that any change in sea-level could seriously upset the fragile balance between the land and the sea.

The temperature in the Marshall ranges between 81-89°F with an average rainfall of 12-15" per month. The year-round tropical climate is conducive to aquaculture and tourism.

B. Population:

The total population of the Marshall Islands according to the 1999 Census is estimated at 50,840. The annual growth rate is approximately 1.5%. About 68% of the total population of the Marshall Islands reside and concentrate on Majuro and Kwajalein Atolls. The US army maintains a large installation on Kwajalein Atoll.

Majuro	**(46.6%)**	**23,676**
Kwajalein Atoll	**(21.4%)**	**10,902**
Outer Islands	**(32%)**	**16,262**
Total		**50,840**

Improvements in the quality of life of the Marshallese people are reflected in the population trends and health statistics.

Three decades of explosive growth (3.9%) between 1958– 988 are indicative of the improved standard of living and financial prosperity at that time due to the compact Agreement signed with the USA.

In 1988 the growth rate had slumped to 3.7% and for the period between 1988- 1999, the population growth was only 1.5%. This is partially due to decreased fertility rates (from 7.23 in 1988 to 5.71 in 1999) but primarily was the result of large scale emigration to the United states of America. This immigration was made possible under the provisions of the "Compact of Free Association" and came at a time of financial uncertainty due to the doubts about the renewal of the Compact Agreement and declining job prospects due to a reduction in the Public Service employment between 1995- 1997.

According to official projections the level of population expected in 1992 was 63, 319. In 1999 the census counted a population of only 50, 840.

C. History:

The Marshall Islands became a sovereign, independent country in October 1986, ending over 125 years of foreign control. That same year the 1945 UN Trusteeship Council Agreement under which the Marshall Islands were administered as the Trust Territory of the Pacific Islands, was terminated. With that termination the country became independent retaining however a special political, economic and defense relationship with the United States, under what is known as the Compact of Free Association Agreement. That Agreement recognizes the RMI's self-governing status and provides for reciprocal obligatory relationship with the United States, where the RMI allows the latter the right of strategic denial in exchange for annual payments, and receives the right of its citizens to live and work in the United States.

Over the past 15 years the RMI has successfully established itself as a fully sovereign nation within the world community. Diplomatic relations have been established with over 70 countries. The country has acceded to membership of several multilateral organizations including the United Nations, the International Monetary Fund (IMF), the World Bank, ACP/EU and regional organizations such as ESCAP, Pacific Islands Forum and Asian Development Bank. It has also acceded to many important international protocols and has established a Mission at the United Nations in New York. There are Embassies in Washington D.C., Tokyo, Japan ; Suva, Fiji; and the Republic of China, as well as a Consulate-General Office in Honolulu, Hawaii.

D. Government System:

The Republic of the Marshall Islands is a self-governing democracy in free association with the U.S. The Marshall Islands is a parliamentary democracy. The Constitution blends concepts from the American and British systems of governance.

The legislative body consists of 33 member Nitijela (Parliament) from the 24 inhabited atolls and islands who elects the President by majority vote. There in one house of Parliament (Nitijela) that is popularly elected every four years. The elected president is both the Head of State and in charge of a cabinet of ministers. From the Nitijela, the President appoints his 10-member Cabinet. The Nitijela meets twice annually for a total of 50 days.

There is also an 11 member Council of Chiefs (Iroij) which presides over traditional and customary matters. The Constitution ensures equal rights of all citizens, and grants visitors full protection under the law. According to a United Nations Children's Fund study on women and children the traditional system overlaps and dominates the modern system of governance. Land tenure system and traditional law is preserved by the Constitution.

Legislative power is centralized: there are no provinces or states. Each inhabited atoll or island has a local government, with a mayor and council members, also elected every four years. The local government has jurisdiction over most coastal zone and marine management issues on each atoll.

E. National Socio-Economic Land Management:

A Summit on Socio-Economic aspects of Land Management was convened to provide input into the preparation of a 15-year development strategy for the Marshall Islands. In relation to the environment and natural resources development and management, some of the recommendations from the Summit include the following:

- To remain actively involved in initiatives to limit the impact of climate change, raise awareness of climate change issues and if necessary, consider strategies to relocate Marshallese communities threatened by sea level rise.
- To develop a strategy for more efficient use of fresh water and energy, including promoting the use of solar energy reverse osmosis.
- To develop community based strategies in development planning where freshwater resources are mainstreamed as a priority.
- To promote the development of the aquaculture sector as a means to diversify outer island economies and promote local food security.
- To undertake a biodiversity survey for all outer islands. The results of the survey should be reproduced in a form suitable for raising community awareness of biodiversity issues and for inclusion in school curricula.
- To strengthen management of the fisheries sector and introduce quotas as a mechanism for sustainable resource use.
- To regulate the harvesting of corals.

- To encourage the re-introduction of the traditional system of "Mo", a reserve system, to protect threatened resources. Rotational and seasonal closure were recommended a options for promoting resource conservation including the recommendation that some reserves close to urban areas be declared in perpetuity.

F. Land

Traditionally, land on atolls is divided into *wetos*. *Wetos* are strips of land that run across an atoll from the lagoon to the ocean. Land is held communally by family groups called *bwij* which trace their claim to land matrilineal through the *alap* or the person in immediate charge of a piece of land. The *Irojlaplap* (the Paramount Chief of certain lands) is the acknowledged owner of all land interests under his jurisdiction and may not necessarily be a member of a *bwij* inhabiting certain land. The Constitution preserves traditional rights of land tenure such that decision-making powers over land are vested in the traditional, hereditary chiefs of the Republic.

Disputes in respect of land are resolved by a Traditional Rights Court established under the Constitution. The Court consists of a Chief Judge and two associates.

Land previously held in trust by the Japanese administration, and those acquired by the Government for public purposes, are governed under the Public Land and Resources Act. The Act states that all land below the high water mark belongs to the Government. However, exceptions include the customary ownership of fish traps and weirs and any other customary rights abolished by the Japanese administration during its occupation from 1914 until World War II. The Land Acquisition Act (1986) details compensation arrangements for land acquired by the Government for public purposes.

i. Land Resources-Agriculture

Food crops in the Marshall Islands are produced primarily for private consumption. The main staple food crops are green and mature coconut, breadfruit and pandanus, which produces fruit and leaf used for various purposes. Banana and taro are also staple crops. While there is some household consumption of local food crops there is a high preference for imported foodstuffs.

Imports into the RMI have grown rapidly and have increasingly outstripped the slow growing exports. The widening trade deficit from this situation has been financed from the Compact of Free Association with the United States and other foreign economic assistance and to some extent with borrowing.

The influx and consumption of less nutritious imported food has contributed to a dramatic increase in "life-style" diseases such as diabetes, high blood pressure, obesity and gout among the Marshallese population.

This situation is unnecessary as the percentage of underutilized, fertile land in the RMI is significant. There are well over 1,000 islets that have the potential to increase the output

of agricultural food crops and other produce if properly utilized. Some of the reasons that contribute to the unproductive state are due to land dispute, and out migration of the people to the center for better access to education and health care.

The following strategies are proposed to more effectively utilize the land:

- Traditional leaders and landowners will be encouraged to urge local communities to grow traditional food crops
- Public Awareness Programmes will be conducted on nutrition and the value of home gardening.
- The creation of Farmer's Markets in urban areas will be provided as an outlet for local foods and also to create a demand for local foods.
- Farmers will be trained in modern and appropriate technology such as hydroponics.
- Education programmes will be conducted in land management and conservation.

In addition, Food, Agriculture, and Nutrition policies are required to ensure that the people of RMI have adequate access to quality and nutritious food. Such policies will include the reinstatement of school lunch programs that serve more local food.

ii. Land Resources- Food Production.

The production of locally processed food and supplements has not been fully developed in the RMI. Locally processed food and supplements such as *nin* juice, breadfruit chips, coconut cooking oil, tuna jerky, preserved giant clams, fish, and breadfruit have the potential to generate supplemental income, food security, and foreign exchange earnings for the nation.

To increase the output of locally processed food and supplements, the 15-year National Strategic Development Plan advocates the establishment of requisite agricultural infrastructure to the Outer Islands. Coconut plantations will be rehabilitated and replanted with both coconuts and other commercially valuable trees and crops, used in the production of Marshallese handicrafts, traditional construction and industrial purposes. Small -scale agri-business and household processing industries will be encouraged. Both urban communities and those in the Outer Islands will be educated in food processing techniques and technology.

G. Water:

i. Water- Marine

Marine Water Regulations (1992) were enacted to identify the uses for which the marine waters of the Republic are to be maintained and protected and the procedures for sustaining water quality at specified standards. The Regulations were introduced against a policy background of ensuring that water quality is maintained for the propagation of aquatic life, protection of marine resources, enhancement of human subsistence uses and for recreation. The Regulations further stare that "no waters of the Republic shall be lowered in overall quality unless… such a change is a necessary result of economic or

social development and is in the best interests of the people of the Republic and will not permanently impair any marine resource…"

ii. Coastal Conservation

The Coastal Conservation Act (1987) provides for the survey of the coastal zone, the preparation of coastal management plans, the regulation of development activities in the coastal zone and the implementation of schemes for coast conservation particularly in relation to coastal erosion. Responsibility for the Act rests with the Director of Coastal Conservation, which under the Act may also be the General Manager of the EPA.

Local Government Councils on Kwajalein and Majuro Atolls, and any other local government council that may be declared under the Planning and Zoning Act (1987), are required to establish a Planning Commission, supported by a Planning Office, that serves as an advisory body to the local council on planning and zoning. Zones may be established to promote harmonious relationships among residents, to provide for recreational areas, to define residential and industrial areas and to preserve the natural landscape and environment. The extent to which this Act is implemented is limited.

iii. Water- Supply systems

The Trust Territory Marine and Freshwater Quality Standard Regulations remain in force under the National Environment Protection Act and provide the only legislation in the Republic for monitoring fresh water and ground water. They are supplemented by the Trust Territory Water Supply Systems Regulations (1978) to ensure water supply delivery systems are protected against contamination and pollution.

Under these regulations, the EPA is expected to perform the following functions:

- Daily monitoring on Majuro, Ebeye and Kwajalein of public water supply systems, including all drinking water sources such as groundwater (wells), distribution systems, processed and bottled water,
- Monthly monitoring of Majuro and Ebeye coastal waters, and
- Monitoring of public and private catchments on Majuro and Ebeye, and other atolls on request.

In the execution of some of the activities associated with these functions, EPA collaborates with the Division of Environmental Health and Sanitation.

iv. Water Monitoring and assessment

The Majuro Water and Sewer Company (MWSC) monitor the Majuro groundwater resources for certain chemical parameters while the RMI EPA monitors the bacterial quality. Reinforcement of applying RMI EPA water quality standards as set in the RMI EPA water supply regulations 1994, as well as applying US EPA and WHO water quality standards would further strengthen capabilities in this area.

EPA has gathered data on water quality for MWSC, Ebeye water distribution system, and some water quality data for the Outer Islands. However, there is the need to include water quality monitoring to the Outer Islands water resources periodically.

v. Dry weather demand

The capacity of the Marshall Islands water supply to meet dry-weather demand is inadequate and its technical and commercial viability remains problematic. Most households use mainly rainwater catchments for drinking water. Household water tanks have been widely installed, reducing the demand for the piped (and chargeable) supply during rainy periods. In addition, many households have wells. On Ebeye, the Kwajalein Atoll Joint Utilities Resources is responsible for the potable water system, using an artificially constructed area dedicated to collect water. This is supplemented by desalination of saltwater.

Several conservation strategies have been implemented including:

- rationing of treated water supplies,
- utilizing brackish water as a source of flushing for toilets

However, several areas require intervention from the RMI Government. There is a need to:

- Incorporate and enforce rainwater harvesting into building design,
- Assist households to have ground-wells and installed water catchments and storages at affordable costs. (Last year the National Government distributed over 1,000 plastic water-catchments to 2,334 households in the outer islands which is only 48% of the total needed. These water containers are 1,500 gallon capacity.)
- Promote water efficient appliances,
- Provide training and capacity building of EPA in Majuro and Ebeye (financial and human resources),
- Provide training and capacity building of the Water Supply Operator in Majuro and Ebeye,
- Assess, improve the management and increase the protection of the Laura groundwater lens,
- Improve water and sanitation on Ebeye.
- Increase the number of solar energy based reverse osmosis and distribution systems.
- Improve water-monitoring systems through the increased efforts of the Environmental Protection Authority and devolving responsibility for this task to the Local Councils in the Outer Islands. It is intended for EPA to provide the necessary training in this area.

A special committee is to address the main issues related to freshwater, including public health, the environment and consumers demand for fresh water. To support the committee, the National Government has recently appropriated $0.5 million to supplement other funding sources to procure more water-catchments for distribution to the drier atolls and islands located at 8˚ Latitude and above in the Northern Marshall Islands. The committee had also established a sub-committee with assigned

responsibilities for the delivery and procurement of water-catchments, public awareness in land management and drought mitigation, and other related services.

vi. Response to environmental impacts

There are limited procedures to monitor and respond to the impacts on freshwater resources of natural and environmental hazards. In particular the impacts of climate change and climate variability, (drought and sea level rise need to be further developed. Currently, EPA and MWSC monitor the salinity of groundwater resources on Majuro Atoll.

Mitigation measures to minimize the adverse impact of natural disasters to the agricultural crops and livestock must be taken into account. A National Disaster Management Plan is required. The National Strategic Development Plan advocates promoting a crop and livestock management system. This system will facilitate early response to distressed crops and livestock

vii. Acquisition of increased technology and staffing

EPA has only two dedicated staff positions and one actual staff person to meet its responsibilities of monitoring the public water supply, household catchments and ground-wells on a regular basis, to conduct public awareness campaigns and to protect water reserves to ensure safe drinking water. Hence, EPA will need to be strengthened in terms of increasing its skilled staff and assisting in and providing training in water testing in the Outer Islands.