## GEOGRAPHIC BACKGROUND

### MARSHALL ISLANDS

#### **Location of the Marshall Islands**

The Marshall Islands consists of 29 coral atolls each made up of many islets and 5 islands in the Central Pacific between 4 degrees and 14 degrees North, and 160 degrees and 173 degrees East. The atolls and islands are situated in two almost parallel chain-like formations known as the Ratak (Sunrise) group and Ralik (Sunset) group. The total number of islands and islets in the whole group is approximately 1,225 spreading across a sea area of over 750,000 square miles. The total land area is about 70 square miles (181 square kilometers). The mean height of the land is about 7 feet above sea level (2 meters).

The Marshall Islands nearest neighbors are Kiribati to the south and the Federated States of Micronesia (FSM) to the west.

While many think of the Marshall Islands as a republic, this is in essence historically incorrect. Prior to the formation of the Republic each group of islands was governed by an Iroij, or tribal King, who did not report to any other authority in the islands and was responsible for the welfare of his own people.

The formation of the Government of the Republic of the Marshall Islands has been a modern exercise brought about by the relinquishment of the islands by the United States of America from their UN Trust Status.

## Geography & Climate of the Marshall Islands

The Marshall Islands total land area of 70 square miles, scattered over a vast 750,000 square miles of the Pacific, makes it the smallest of the 5 American-affiliated Pacific territories in Micronesia. At the same time its estimated population of 56,000 is the third largest (following Guam and FSM), with Micronesia's highest population density of 803 persons per square mile.

Both English and Marshallese are official languages, and the traditional society of complex matrilineal clans has gradually but carefully been blended into an American-style system of democratic institutions.

The Marshall Islands urban areas are Majuro, the capital of the Republic, on Majuro Atoll and Ebeye on Kwajalein Atoll. About half of Marshalls total population of 56,216 lives in Majuro and about 20 percent (about 10,000) on Kwajalein. The remaining 30 percent (just under 17,000) is scattered throughout the Republic.

Majuro, 3.75 miles square, and Ebeye, located in the southeast corner of 6.3 square mile Kwajalein Atoll, have some of the world's highest population densities. Kwajalein is a reserved US military area, site of the US Army's Kwajalein Missile Range, and access to it is limited, but it is connected to Majuro and other population centers by civilian aviation.

According to the most recent population census, in 1988, 24 atolls and islands were inhabited and their populations ranged from 10 on Bikini Atoll to 19,664 on Majuro. The same census also showed that the Marshall Islands population growth, 4.1 percent annually in 1980-88, was one of the world's highest, resulting from one of the world's highest birth rates of 7.2 children per family. Improved medical and health care services have contributed to high fertility rates in the Marshalls, while the mortality rate has dropped and average life expectancy has increased. Unabated, this growth rate means that Marshalls population will double in 17 years.

Family planning as practiced in industrial economies such as the United States is neither widely practiced nor strongly advocated by the RMI government as public policy. Further, an ancient family planning practice, voluntary separation of couples of child-bearing age for 2 years after the birth of each child which was common until a few decades ago, is no longer practiced. However, the social and economic implications of very rapid population growth have not gone unnoticed.

The climate of the islands is predominantly a trade-wind climate with the trade winds prevailing throughout the year. Tropical storms are very rare. Minor storms of the easterly wave type are quite common from March to April and October to November. In the past three years, however, there have been three major cyclones. The trade winds are frequently locally interrupted during the summer months by the movement of the zone of inter-tropic convergence across the area.

Rainfall is heavy, with the wettest months being October and November. Precipitation is generally of the shower type, however, continuous rain is not uncommon.

One of the outstanding features of the climate is the extremely consistent temperature regime. The range between the coolest and the warmest months averages less than 1 degree. Night time minimal are generally 2-4 degrees warmer than the average daily minimum because lowest temperatures usually occur during heavy daytime showers.

Skies at Majuro are quite cloudy. Cumuliform clouds are predominant but anostratus, altocumulus and cirroform clouds are also present most of the time.

Weather data for Marshall Islands is provided by the Majuro Weather Station. The station at Majuro is located on the southeastern end of the Majuro Atoll. This atoll is approximately 160 square miles in area with a lagoon of about 150 square miles. The lagoon is oblong, 22 miles long and about 4 miles wide. The station is located at Delap.

The highest land area is on Likiep Atoll, where the elevation reaches a maximum altitude of only six meters. Fragile coral reefs fringe the atolls, and serve as the only line of defense against the ocean surge. The clearance over the reef in the sections that are covered by water is usually no more than a couple of feet. In other places the reef is commonly only barely submerged.

The Marshall Islands lie in open ocean, and the islands are generally very close to sea level. The vulnerability to waves and storm surges is at the best of times precarious. Although the islands have by no means been completely free from weather extremes, they are more frequently referred to in folklore as "jolet jen Anij" (gifts from God). The sense that Marshall Islands was a God-given sanctuary away from the harshness of other areas is therefore part of the socio-cultural identity of the people. However, given the physics of wave formation and the increasing frequency and severity of storms, the Marshall Islands will likely be at even greater risk. The relative safety that the islands have historically provided is now in jeopardy.

It is likely that evacuation would have to be effected long before inundation is total. The Marshallese would become among the first of many environmental refugees. This would be a devastating disruption not only for the culture and the people of the island countries, but also for the countries that would need to accommodate the refugees. The impacts are not limited to the Marshalls and its immediate neighbors. The Marshall Islands are often referred to as a "front line state" with regard to the climate change issue. It is important to realize that once the potentially catastrophic effects begin to appear there, it is likely already too late to prevent further warming that will threaten virtually all of the worlds coastal regions.

# **Brief History of the Marshall Islands**

The Marshallese are known to have migrated to these islands about 1000 BC from Southeast Asia on rafts and other types of sea craft made mainly of wood and natural materials. However, they were known to have been great seafarers as shown in their navigational skills that led them to venture over long and dangerous distances to come to the islands.

The first European contact with the Marshall Islands occurred when Spanish explorers stumbled upon the islands in the sixteenth Century. However, it took about two centuries for actual European expeditions to take place. For example, in 1776, Captain Samuel Wallis, who also made the first European contact with the islands now comprising French Polynesia, came upon some of the islands in the northern part of the country. However, the islands were nameless until Captain John Marshall, Royal Navy, made the first, intended European contact in 1797, and named them after himself.

From the early to mid-nineteenth Century American whalers often visited the islands for water and food supplies on their whaling expedition in the Pacific. However, during this period, the Marshallese often repelled incursions from the outside; consequently, some whalers lost their lives. In 1857, the Reverend George Pierson and the Reverend Edward Doane of the American Board of Missions (Congregationalist) from Boston, Massachusetts, arrived to establish in Ebon Atoll in the southern Ralik islands the first Christian mission in the Marshall Islands. Catholic missionaries (Jesuits) first arrived in the Marshall Islands in 1899, and built a church in Jaluit Atoll. German companies were also established at about the same, dealing and trading mainly in copra (dried coconut meat). The use of whale oil was declining and coconut oil was becoming a popular substitute for whale oil, and businesses sprang around the country to take advantage of the new commodity.

By an 1878 treaty negotiated with the atoll's Iroij (chiefs), the German Reich secured rights to a coaling station in Jaluit Atoll. At the same time the German Reich appointed a consul resident in the Marshall Islands, stationed in Jaluit. In 1886, by agreement with the United Kingdom, the Marshall Islands became a German protectorate. As part of its administration of the Marshall Islands, the German Reich located trading stations in Jaluit and Ebon Atolls and carried out a flourishing trade in copra (dried coconut meat). Iroij continued to rule under indirect German administration from 1906, centered in Rabaul, the capital of German New Guinea. The German Reich governed the Marshall Islands until, on behalf of the Allied Powers, military forces of the Japanese Empire occupied Enewetak Atoll on September 29, 1914, and Jaluit Atoll on

September 30, 1914. On June 28, 1919, the German Reich renounced in favor of the Principal Allied and Associated Powers all its rights over its Pacific insular areas, including the Marshall Islands.

On December 17, 1920, the Council of the League of Nations confirmed a mandate to the Emperor of Japan for the former German insular areas north of the equator, including the Marshall Islands, to be administered in accordance with article XXII of the Covenant of the League of Nations. This was a period in which both copra production and the presence of Japanese military expanded. In 1944, the Americans drove the Japanese out by military force following some heavy fighting on Kwajalein, Enewetak, Jaluit, Mili and Wotje Atolls. On July 18, 1947, the United States Government entered into a trusteeship agreement with the UN Security Council and became the administering authority of the Marshall Islands and of the other former German islands north of the Equator whose mandatory power since December 17, 1920, had been the Emperor of Japan.

At its height, the districts of Trust Territory of the Pacific Islands (TTPI) were the Marshall Islands and Ponape (now Pohnpei), Kosrae, Truk (now Chuuk), Yap, Palau (now Belau) and the Mariana Islands (now the Commonwealth of the Northern Mariana Islands, a U.S. insular area). In 1979, however, the Marshall Islands held a district-wide referendum, whose results impelled the district to sever its ties with the rest of the TTPI in order to form its own national government. In 1983, the Marshall Islands and the U.S. Government signed the Compact of Free Association, which went into effective on October 21, 1986, providing the means for the Marshall Islands to gain international recognition as a sovereign state. The Compact between the Marshall Islands runs from its effective date until October 21, 2001. By October 21, 1999, the U.S. Government and the Marshall Islands Government must commence negotiations regarding those provisions of the Compact which will expire on October 21, 2001. If these negotiations are not concluded by October 21, 2001, the period of negotiations will extend until no later than October 21, 2003. During this two-year extension the provisions of the Compact will remain in full force and effect.

## Society

The Marshallese inherit their land rights and titles through their mothers. However, the control and use of land and other resources often fall on Marshallese men, who are looked upon to provide for and to protect:

- (a) the members of the men's immediate and extended families,
- (b) others not generally thought of as men's relatives but still historically or culturally associated with them, and
- (c) their resources and those of these members and others associated with them.

Women, on the other hand, are looked upon traditionally as caretakers and supporters of their families' needs. Since the late 1960's gender-defined roles have changed, and it is not uncommon to see women doing things that used to be for men only.

## The Economy

The Marshall Islands' economy is a mixture of subsistence and monetized economy. In the urban areas of Majuro Atoll and Ebeye Island, a cash economy is predominant. In the rural islands and atolls a subsistence economy predominates. People in the latter use money to buy imported goods, e.g. staples (rice and wheat flour) and other necessities, but depend heavily on taro, breadfruit, coconut and fish, which abound on or near their islands. However, there is high internal migration as people move from the rural islands and atolls to Majuro and Ebeye in search of jobs and better health and educational opportunities.

Now the two centers constitute more than two-thirds of the Marshall Islands' population of fifty-six thousand inhabitants. The over-crowding on these urban areas has caused shortages in housing, environmental degradation and problems in the availability of other essential services.

As a small, island country in the middle of the vast Pacific, the Marshall Islands faces the same problems as do most other similar situated nations. Due to their small size and relative isolation, such nations are unable to exploit economies of scale in the production of goods and services; they are vulnerable to external shocks and natural disasters; they have difficulty receiving private foreign capital; their independence is limited in creating macro-economic policies; they are remote from markets; their labor force is not highly skilled; their domestic markets are fragmented; and they encounter shortages of domestic capital resources for investment. However, the major constraints facing Marshall Islands economic growth and development are the country's remoteness from major centers of trade, a very small natural resource base, particularly land resources, and a population highly dispersed among numerous, distanced atolls.

The economy is aid-dependent and dominated by the public sector. The bulk of all aid funds goes to the Marshall Islands Government to fund both its recurrent and capital expenditures. The aid makes it possible for the country to import all kinds

of manufactured goods and services in excess of domestic resources. In the past three years exports averaged about thirteen million dollars and imports averaged about sixty-five million dollars per annum, resulting in a trade deficit of about fifty-two million dollars per annum.