

## Republic of the Marshall Islands

### **Review of the priorities of the Mauritius Strategy for the Sustainable Development of Small Island Developing States**

#### **Introduction**

This review was conducted over one week from 16 to 20 November 2009 with the assistance of the Ministry of Foreign Affairs.

#### **Background**

The Republic of Marshall Islands is situated in the Central Pacific Ocean between 4 degrees and 14 degrees North and 160 degrees and 173 degrees East in almost two parallel chains of 31 Atolls and Islands: the Eastern Ratak (Sunrise) with 15 Atolls and Islands and the Western Ralik (Sunset) having 16 Atolls and Islands. The total number of islands and islets is about 1,225.

The total sea and land area of the country is approximately 1.94 million square kilometres and 181 square kilometres respectively. In other words, the land area is less than 0.01% of the total surface area.

According to the 1999 Population and Household Census, the population of the RMI was estimated at 50,840 persons. In 1999, the annual population growth rate was 1.5%, with a fertility rate of 5.7. In comparison to the 1988 census, both rates declined significantly from 4.3% and 7.2, respectively. The crude birth rate also declined from 1988 to 1999 from 49.2 to 41.8, respectively. There was also a marked decline in the crude death rate between the two census years, declining from 8.9 in 1988 to 4.9 in 1999.

The population of the RMI is young with 42.9% of the population under the age of 15. Approximately 27.2% of the population is between the ages of 10 and 19. In 1999, 18% of all live births were to teenage mothers, compounding the young profile of the population. The overall dependency ratio was 82.2. In comparing urban versus rural areas, the child dependency ratio for the urban centres was 70.6, and the rural areas were higher at 94.8. The old age dependency ratio for the urban centres was 3.5, with the rural areas again higher at 4.9.<sup>1</sup>

Estimates for 2006 place the total RMI population at 57,000 people and assuming Majuro now has about 50 percent of this (its share of the total population during the 1980, 1988, and 1999 censuses grew from 38 to 45 to 47 percent, respectively) it is likely that Majuro's 2006 population has surpassed 28,000 people.<sup>2</sup>

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<sup>1</sup> *Millennium Development Goals National Progress Report*, UNDP and Government of the Republic of the Marshall Islands, September 2005.

<sup>2</sup> *Majuro Atoll, 2006 Community Survey Report*, EPPSO, Office of the President, October 2006, page 4.

The two main ‘urban’ areas in RMI are very densely populated. For example, the total land area of one of the most well know villages on Majuro Atoll, Jenrok Village, is .065 square kilometres containing 215 households averaging 9.47 persons per household and occupying 95% of the land. The population of Jenrok Village was recently estimated at 1,847 persons with 65% under the age of 25 years. Jenrok’s population density is equivalent to approximately 33,950 persons per square kilometre. Less than half of the households are connected to reticulated water supply, with reported high rates of water-borne diseases including diarrhoea and typhoid.<sup>3</sup> Ebeye Island, in Kwajalein Atoll, is the most densely populated island in the Marshall Islands, where 9,345 people live on only 0.23 square kilometres.

The *Strategic Development Plan Framework 2003 – 2018, Vision 2018*, (referred to as *Vision 2018*), was developed after a series of national consultations and workshops and followed the *Third National Development Plan 1996 to 2001*.

The first Compact with the United States was from 1986 to 2001. Under the new 20 year arrangements agreed to in October 2003, Compact support is phasing out which is placing a strain on the government budget.

*Vision 2018* covers a broad range of development issues and in summary sets out ten broad goals addressing:

- Governance
- Investment in education and research
- Investment and productivity
- Ability to take advantage of emerging global trends
- Effective economic and financial institutions
- Equitable development of the outer islands
- Spirituality
- Harmonized development with healthy lifestyles and sustainable environment
- Fostering change in attitudes throughout the community
- Partnership and coordination between levels of government, Atolls, NGOs and the private sector.

Objectives under each goal spell out how the different sectors and responsible ministries and agencies of government will contribute to the achievement of the goal.

### **Climate change and sea level rise**

As an atoll country made up of over 1,200 low lying islands and islets, the Marshall Islands is particularly vulnerable to climate change and sea level rise. Adaptation to the

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<sup>3</sup> Chutaro, B (2004). *Social and Economic Baseline Survey, Jenrok Village*. International Waters of the Pacific Islands, Republic of the Marshall Islands.

adverse impacts of climate change and sea level rise will prove a particular challenge for RMI given its limited resources and high level of vulnerability.

*Vision 2018* calls for wider community awareness on the affects of ‘climate change, sea level rise and ozone depletion on the atoll environment,’ strengthening of institutional arrangements, including central and local government, and laws to protect the environment. RMI has addressed many of these concerns in recent years.

A *National Action Plan for Disaster Risk Management 2008 - 2018*<sup>4</sup> was developed by a national taskforce and in consultation with a wide range of stakeholders. The plan makes explicit reference to *Vision 2018*, particularly Goal 10, which refers to the need to develop a regulatory system for sustainable development of natural resources while protecting the environment and the need to strengthen institutions to minimize the adverse impact of climate change. Five objectives under this goal address:

- Maximum benefits from environmental global conventions;
- Emerging threats from climate change including develop a National Disaster Plan;
- Awareness in the community to minimise environmental degradation;
- Compliance with environmental laws;
- Traditional environmental protection practices.

The Office of Environmental Planning and Policy Coordination (OEPPC) in the Office of the President, was established specifically to advise the President on RMI’s multilateral agreements and allow the Environmental Protection Agency (EPA) to focus on national environmental concerns. OEPPC is the focal point for Mauritius Strategy implementation, climate change and other international environmental concerns and commitments.

### **Coastal and marine resources**

RMI’s EEZ represents approximately 2 million square kilometres of ocean. *Vision 2018* calls for maximising rents from the fisheries sector within sustainable limits and recognises the importance of research and monitoring of fish stocks.

In response to the 2004 Convention on Biological Diversity, Micronesian leaders from RMI, Federated States of Micronesia and Palau took this a step further in 2006 and established a sub-regional arrangement known as the *Micronesian Challenge* with a secretariat based in Palau. The objectives of *Micronesian Challenge* are the conservation of 30 percent of near shore marine resources and 20 percent of terrestrial resources by 2020.

From 2006 a Coastal Management Advisory Council comprising EPA, EPPSO and other government agencies as well NGO representatives was established and convened by

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<sup>4</sup> Produced by the Government of the Marshall Islands, National Taskforce for Disaster Risk Management, with the assistance of SOPAC, PIFS, UNDP, SPC and the East West Centre.

MIMRA. An earlier version of the council developed a national Coastal Management Framework and Atoll Coastal Management Plans for some Atolls.

In 2007 *Looking to the Future: National Conservation Area Plan for the Marshall Islands* was published which outlines how the Government will go about conserving its terrestrial and marine resources in partnership with key NGOs, including the Marshall Islands Conservation Society (MICS), and with the support of the *Micronesian Challenge*. MICS works with various government agencies to implement the priorities outlined in the *National Conservation Plan*.

A *coastal fisheries conservation plan* was developed in 2007/08 with the support of the Forum Fisheries Agency and taking an ‘eco-system’ approach in recognition of the close relationship between communities and inshore fishing. The implementation of this plan is supported by the Micronesian Conservation Trust, Micronesian Challenge, IUCN as well as other private sources based in the US.

RMI maritime boundaries have been agreed with the Federated States of Micronesia although this agreement has yet to be ratified by FSM. Similarly, maritime boundaries have yet to be finalised with Kiribati as well as the US, however “working boundaries” have been agreed.

Although there are a number of DWFNs exploiting RMI deep water fish stocks, the local industry receives little in the way of support apart from limited training from Japan on a few technical areas including refrigeration and engineering etc. RMI receives technical assistance and monitoring support from the Pacific Tuna Commission (or sometimes known as the Western and Central Pacific Fisheries Commission) and the FFA.

### **Natural and environmental disasters**

*Vision 2018* provides the broader policy context for addressing this area, particularly Goal 10, objective 2: ‘To develop and have in place a contingency/adaptation plan to counter the emerging threats resulting from the adverse effects of climate change including a National Disaster Plan.’ The Government established a National Task Force on Disaster Risk Management convened by the Office of the Chief Secretary. As noted above a Task Force, with the assistance of regional partners, developed the *National Action Plan for Disaster Risk Management, 2008 – 2018*.

Although the *National Action Plan* was developed in 2008, Government has yet to allocate resources for its implementation.

The unregulated use of coastal zones, particularly in the densely population urban areas of Majuro and Ebeye, leave these communities vulnerable to natural disasters and sea level rise. However, the enforcement by EPA of Coastal Management Regulations should begin to address the vulnerability of key coastal areas.

Although EPPSO is mandated to address urban planning, the lack of a policy framework, commitment from landowners and ongoing financial solvency issues with the Majuro Municipal Council continue to hamper effective urban planning in Majuro and has led to unchecked urban development, poor waste management and environmental degradation in most urban areas.

### **Management of wastes**

*Vision 2018* called for the development of a ‘national waste management plan.’ A working draft of a ‘national waste management strategy’ has been developed by OEPPC and other government and NGO stakeholders with assistance from SPREP. In recent years, on Majuro at least, waste management has improved with the creation of the Majuro-Atoll Waste Management Company which has, through the support of health grants from ‘Compact Funds,’ development partners and other external funders, developed a waste management regime for most of the main urban areas of Majuro including distributing recycling bins to Jenrok Village and ensuring that rubbish is regularly collected. The Waste Management Company collects approximately 120 tons of rubbish per day. Although rubbish collection is a responsibility of the Majuro Municipal Council the financial difficulties of the council has meant that it has not provided any financial support for the Majuro-Atoll Waste Management Company which has compromised the Company’s ability to manage the landfill, particularly protect the landfill with sea walls to stop rubbish being washed out to sea.

Majuro-Atoll Waste Management Company also collects and separates metals (steel, copper, brass, aluminium), plastics, glass and rubber tyres. The metal is exported and some costs are recovered for operational costs. The company also makes compost for household gardens.

### **Freshwater resources**

*Vision 2018* calls for all people in RMI to be able to access clean and adequate water supplies.

Freshwater resources are limited and fragile with piped water supplied to households on Majuro usually only on two days of the week. Ebeye is the only other island with piped water supply. In all outer islands and most households on Majuro and Ebeye, drinking water is usually collected from rain catchments. With no rain, Majuro has approximately only 38 days of water supply. Although the piped water is treated on Majuro and Ebeye, it is not considered fit for drinking. Majuro has a backup supply with two reverse osmosis water pumps.

A survey of Jenrok village found that less than half of the houses were connected to the Majuro water supply with the remaining households relying on wells which have been tested and found to be highly contaminated. Many households also had rain water collecting tanks which were also surveyed and found to be highly contaminated.

Unsurprisingly there has been a high level of water borne diseases in the Jenrok area including diarrhoea and typhoid.

## **Energy resources**

An initiative that is part of the *Micronesian Challenge* is a proposal for *20:30:20 energy* approach:

- 20% improvement in energy efficiency by suppliers through improved energy conversion and transportation efficiency, electric power generation efficiency, distribution efficiency, and reduction of other supply losses.
- 30% improvement in the efficiency of energy use by end-users in government, business and households through energy efficiency, and fuel switching, or the use of less expensive or better fuels. This includes improved building designs and building renovations, more efficient land and sea vehicles, the use of solar water heaters or propane gas for cooking instead of electricity, more efficient lighting such as compact fluorescent lights and appliances such as air-conditioners and refrigerators that use less electricity for the same amount of cooling.
- 20% of electricity generation through renewable energy. The most technically and economically practical options for Micronesia are likely to be solar energy systems using photovoltaic cells, biofuel substitution of petroleum products especially in the larger islands, and wind energy using small wind turbines suitable for the tropics.

To date RMI generates all electricity in the outer islands using photovoltaic cells, whereas the energy generated on Majuro and Ebeye, where approximately 65% of the population lives, is through diesel generation. Most of RMI commercial and industrial activity occurs on Majuro.

Following the July 2008 state of emergency declaration when the government was struggling to meet generation costs the Government took a number of initiatives including convening a national energy forum in November 2008 and establishing an 'energy taskforce,' which developed the 'Energy Policy and Action Plan,' with assistance from the ADB. The Government of Australia funded the deployment of an energy adviser for two years.

In January 2009 the Government held an 'energy fair,' during 'education week,' involving schools from around RMI. The objective was to raise awareness on alternative energy sources and recycling.

The government is continuing with its outer island solar power projects, seeking to raise greater awareness in the wider community on energy conservation measures and with the assistance of donors is retrofitting street lights in Majuro and Ebeye to LEDs (Light Emitting Diodes are considered more energy efficient). Solar lights are being constructed in a few strategic public locations around Majuro.

Overall electricity consumption, particularly on Majuro, has declined, principally because of rising tariffs and an increasing number of households unable to meet their electricity costs and being disconnected from the grid as a result. The Government of the RMI is still vulnerable to external shocks, particularly with respect to diesel fuel because most energy generated in those areas where 65% of the population live and most commercial activities take place, rely on diesel electricity generation.

### **Tourism resources**

*Vision 2018* calls for an increase in the number of tourists visiting RMI, the diversification of cultural activities, a clean environment and enhancing of the industry's capacity to provide quality services. *Vision 2018* also calls for the development of 'eco-tourism' infrastructure and facilities in the outer islands to encourage and support more outer islands tourism experiences.

In 2008 RMI developed a "National Tourism Development Plan 2008 – 2011" for implementation by the Marshall Islands Visitors Authority and stakeholders. The Plan focuses on national awareness and support for tourism; creating a clean environment and strengthening environmental management and conservation; maximising local ownership; security; diversification of attractions; visitor information; international and domestic transport; marketing; private sector development; industry standards; development on Kwajelein; skills; sea based tourism, and strengthen MIVA.

RMI receives approximately 7000 visitors annually of whom 5000 would be for business purposes and the remainder tourists. There have been a number of new hotel developments over the last five years expanding RMI's tourism capacity. However, the unpredictable schedule of Air Marshall Islands and cancelling of some services have compromised and limited developments e.g. the dive operation on Bikini Atoll. Few of the outer islands have accommodation.

The Visitors Authority participates in the Coastal Management Advisory Council in recognition of the importance of protection of the environment for tourism and the head of the Authority sits on the board of the MICS. The Visitors Authority is also a member of the South Pacific Tourism Organisation (SPTO) as well as the Pacific Asia Travel Association and receives technical support and information from these regional organisations.

### **Transport and communication.**

*Vision 2018* called for the development of a national strategy on Information Technology. This is being developed through a taskforce convened by the National Training Council and comprising a range of government departments and supported by Pacific Resources for Education and Learning (PREL).

The Government developed a new national telecommunications policy in 2007 with the assistance of the ITU, PIFS and SPC and following public consultations. The draft policy received considerable support, particularly from the private sector and is consistent with ITU and regional commitments and guidelines.<sup>5</sup> The purpose of the policy was to open the market to competition and set new regulatory arrangements and give a greater role to government for control and monitoring service providers. However, legislation has not been developed to address the key elements of the policy, therefore, the policy has failed to be implemented.

It is expected that RMI will have a fibre optic cable connection by early in 2010 which will significantly improve telephone and internet services. The satellite link will then be used as a back-up service. However, RMI will need to address domestic infrastructure capacity and update legislation to address regulatory issues if the broadband connection is to be used efficiently.

Communications with the outer islands is through approximately 70 HF Radio sites servicing the 23 municipalities outside of Majuro. Each municipality will be upgraded over the next few years by NTA to 'Call centres' (fax/internet/voice) with wireless links to nearby schools to provide an internet connection and improve communications with Majuro.

### **Education and Health services**

*Vision 2018* sets broad goals for the health sector with objectives addressing primary health care; locally qualified health personnel; improvement of service provision; community health; reproductive health; population policy.

The Ministry of Health developed a 15 year strategic plan in 1989 and is currently updating this and developing a new national health plan with an increased focus on primary health care.

RMI has many pressing health issues and one of the highest fertility rates in the Pacific and the highest teen fertility rate (approximately 18% of births are to teenagers) sustaining a very youthful population structure, with approximately 61% of the total population under the age of 24 years and most (over 65%) living in Majuro and Ebeye. RMI has a high infant mortality rate of approximately 21 deaths per 100 live births and an under 5 mortality rate of 37.<sup>6</sup> However over 85% of births occur at health facilities and approximately 95% of all births are attended to by a skilled health professional.

In 2008 RMI reported five confirmed cases with HIV although testing is very limited. Health experts state that for every confirmed case there are another 20 that are yet to be detected.

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<sup>5</sup> E.g. Pacific Islands Forum Secretariat *Information and Communication Technologies Policy and Strategic Plan, 2002.*

<sup>6</sup> Republic of the Marshall Islands, *Demographic and Health Survey 2007.*

Because STI prevalence rates are high, especially among youth, the degree of risk faced by the youth for contraction of HIV is high.<sup>7</sup>

An estimated 28% of individuals over the age of 15 have Type II diabetes and nearly 50% of people older than 35 years. Type II diabetes is currently one of the major contributing factors of adult morbidity in the RMI, and is a major financial burden on the healthcare system. At later stages of the disease, many patients are referred for medical treatment in Hawaii or the Philippines at major expense to both patient and the MOH Medical Referral Programme. The incidence of leprosy also remains a major concern, given that this condition has been largely eradicated throughout most of the world.<sup>8</sup>

The rise in food prices, particularly in mid 2008 had health consequences according to the Ministry of Health with poor families not able to eat sufficiently nutritious food.

The bulk of health funding is provided through the 'compact arrangement' with additional funding for special programmes such as NCDs, cancer awareness, nutrition, reproductive health and surveillance provided by SPC, UNFPA and WHO.

Special programmes for HIV and AIDS are supported through the US CDC, SPC, WHO, UNFPA and the UN's Global Fund.

Surveillance programmes including the DOTS programme have been significantly compromised with the rise in fuel prices and the intermittent domestic air services. MOH has had to charter boats to transfer patients to the main hospital when there have been no domestic air services and disease surveillance teams, including DOTS teams, have not been able to undertake their regular visits because MOH has not had sufficient funds to meet the increased transport costs.

In delivering its health programmes the Ministry has partnerships with various NGOs and other Ministries e.g. EPPSO in coordination with MOH and others have conducted a number of surveys on water quality, sanitation, housing, socio-economic issues (including health, education, gender, governance, food security, quality of life and hardship) and demographic health surveys to inform policy and programme development MOH have also conducted public health awareness raising programmes with EPA.

## **Education**

School attendance for 6 to 14 years olds is high amongst both males and females at around 90% on Majuro and on average 87% nationally. Primary school completion is around 87% for both males and females.

As outlined in *Vision 2018*, there have been a number of new developments within the sector over the last few years.

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<sup>7</sup> Ben Graham and Youth to Youth in Health, *The Truth on our Youth: A market based assessment of the youth population and its major issues*, September 2006.

<sup>8</sup> UNDP, Republic of the Marshall Islands, *Millennium Development Goals Progress Report 2009*.

National 'Education Summits' have helped set goals, regulations have been reviewed and a policy section established in the Ministry. The Ministry has developed a three year sector plan focusing on 'education for sustainable development.' From 2003/04 there has been a particular emphasis to 'Marshallise,' to introduce cultural values into education, and 'vocationalise' education.

The Ministry through the curriculum is emphasising the use of local language, local food production, conservation as well as traditional crafts and related skills and has involved local stakeholders in the development of a national curriculum particularly with respect to the development of an integrated kindergarten programme.

A National Training Council has been recently established to address vocational and non-formal education and training.

### **Impact of the Global economic and financial crisis and rising costs of food and fuel**

With respect to food security, RMI is particularly vulnerable as it imports most food items, and it has no clear agricultural or food security policy. Following the state of emergency declared in July 2008 as a result of rising fuel prices as well as the impact of rising food prices, the government established a Food Task Force to provide advice on mitigation measures. To mitigate the burden of rising prices the government removed taxes on all staple food products e.g. sugar, rice, milk bread etc.

Recent initiatives have seen some emphasis on household food production with the Agriculture Department giving away vegetable seedlings for household food gardens as a pilot project targeting youth (16 to 24 years) and including advice on composting, seed handling and how to cook different crops. Assistance was also provided from regional and international organisations as well as bilateral partners.

Education officials noted that the 2008 crisis impacted on school attendance as the Ministry had to stop the school lunch programme which led to increased absenteeism. The lunch programme is not likely to be restored until the start of 2010 but at reduced rates which is likely to have an ongoing impact on school attendance.

### **Conclusions**

*Vision 2018*, although lacking specificity in some areas (e.g. tourism development), has provided a broad policy and planning framework for sector specific policy and programmes. It has addressed all of the key areas of the Mauritius Strategy and the government has taken various initiatives to implement and address policy priorities in the areas outlined in *Vision 2018* (e.g. disaster risk management, telecommunications policy) and the Mauritius Strategy, however, it has been severely constrained by the lack of allocation of resources to address agreed priority areas which continues to constrain development.

Given RMI's vulnerability to climate change and sea level rise and the high level of coastal exposure to high tides and wave action particularly in the highly populated areas around Majuro, the development of urban policy, coastal protection and environmental management measures must be high priorities for the Government. Water contamination and security of a quality water supply continues to be an important concern. Majuro has already experienced the impacts of polluted water supplies on community health and, compared to other Pacific island countries, has the most densely populated areas with few open spaces.

Together with the *Micronesian Challenge*, RMI has addressed a range of environmental and conservation issues and has utilised various national, sub-regional and regional partnerships to address these important concerns. The 20:30 initiative could have a valuable environmental and conservation impact in the RMI and the development of solar power generation in the outer islands, goes some way to addressing not only environmental impacts of diesel generation but also provides relief from a reliance on the importation of diesel.

The Health and Education Sectors are well developed, however, there are a number of emerging risks associated with the decline in compact funding and the likelihood of ongoing impacts arising from the global financial crisis as fewer people are employed affecting household incomes, and fuel and food prices start to increase once again.

The government is still exposed to rising fuel and food prices which, if this does occur, will likely lead to a similar situation to the June 2008 where the government faced an imminent crisis in not being able to purchase diesel fuel for electricity generation.

December 2009

## **Aconyms**

AIDS	Acquired Immune Deficiency syndrome
CDC	Centre for Disease Control (United State)
DOTS	Directly Observed Treatment Surveillance
DWFNS	Distant Water Fishing Nations
EPA	Environmental Protection Agency
EPPSO	Economic Policy, Planning and Statistics Office
EEZ	Exclusive Economic Zone
FFA	Forum Fisheries Agency
FSM	Federated States of Micronesia
HIV	Human Immune Virus
IUCN	International Union for the Conservation of Nature
LED	Light Emitting Diodes
MICS	Marshall Islands Conservation Society
MIMRA	Marshall Islands Marine Resources Authority
MOH	Ministry of Health
NGO	Non-governmental Organisation
NTA	National Telecommunications Authority
OEPPC	Office of Environmental Planning and Policy Coordination
PIFS	Pacific Islands Forum Secretariat
PREL	Pacific Resources for Education and Learning
RMI	Republic of the Marshall Islands
SPC	Secretariat of the Pacific Community
SPREP	South Pacific Regional Environment Programme
SOPAC	Pacific Islands Applied Geoscience Commission
STI	Sexually Transmitted Infection
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
US	United States of America
WHO	World Health Organisation