

REPUBLIC OF THE MARSHALL ISLANDS
CONVENTION ON BIOLOGICAL DIVERSITY
1997 PRELIMINARY NATIONAL REPORT TO
THE CONFERENCE OF THE PARTIES

EXECUTIVE SUMMARY

This is a **preliminary** National Report by the Republic of the Marshall Islands (RMI) to the Conference of the Parties (COP) for the Convention on Biological Diversity (CBD) as required by Article 26 of the Convention. The RMI is currently in the process of formulating, through a participatory and analytical process, a National Biodiversity Strategy and Action Plan (BSAP) for conservation and sustainable use of the country's biological diversity. The BSAP will include strategies and actions necessary for the protection and sustainable use of biodiversity in the RMI and a formal plan for their implementation. This preliminary national report summarises current activities in the RMI to comply with the CBD, particularly with respect to the implementation of Article 6 and 8 of the Convention.

This preliminary report summarises key information on the status and trends in biodiversity conservation and the sustainable use of biological resources in the RMI. The main issues include:

- Conservation and sustainable use of agricultural resources, particularly traditional plant species that provide the people with food, medicine, and materials for building, handicrafts, and other uses;
- Sustainable management of the country's marine resources for both subsistence and commercial fisheries;
- Conservation of ecosystems and habitats for both ecological values and for sustainable harvests for traditional purposes;
- Access to information on biodiversity and biological resource use practices for awareness raising, training, and decision making;
- Developing systems for conservation and sustainable use of biological resources that bring together traditional systems and modern methods.

This preliminary report also summarises the participatory and analytical process being used to formulate the BSAP. This includes collection and analysis of existing information on the status of biodiversity in the RMI, and on legislative and institutional responses. An inventory of biological resources and their traditional uses and values, and use practices is also being collected through a national consultation process. Information from both areas will be collated and analysed for discussion at a national workshop which will serve as the basis for the formulation of the BSAP.

INTRODUCTION

This is a **preliminary** National Report by the Republic of the Marshall Islands (RMI) to the Conference of the Parties (COP) for the Convention on Biological Diversity (CBD) as required by Article 26 of the Convention. This **preliminary** report has been prepared as an interim measure to comply with Decisions II/17 and III/9 of the COP that national reports be submitted to the COP by 1 January 1998 in time for the fourth meeting of the COP scheduled for May 1998.

The RMI is currently in the process of formulating a National Biodiversity Strategy and Action Plan (BSAP) for conservation and sustainable use of the country's biological diversity. The BSAP is being prepared with financial and technical assistance from UNDP under the Biodiversity Enabling Activity of the Global Environmental Facility. This preliminary national report therefore summarises current activities in the RMI to comply with the CBD, particularly with respect to the implementation of Article 6 and 8 of the Convention.

The RMI intends to submit a more comprehensive national report to the COP after completion of its BSAP in mid-1998. This second report to the COP will provide detailed information on how the country intends to meet its commitments in acceding to the Convention, covering the priority areas identified in Decision II/17 of the COP on guidelines for national reporting, as well as baseline information for monitoring and evaluation.

The information for the second national report will be collated and analysed during the nation-wide consultations being held as part of the preparatory process for the BSAP. This consultation process will help to reflect national priorities in the BSAP, which will include information on biodiversity and an inventory of biological resource use practices. The BSAP will recommend measures for protection of biodiversity and biological resources, building on existing national strategies and plans.

The information presented in this preliminary report focuses on the **process** being used to formulate the BSAP and on summarising key **biological diversity issues** in the RMI. More detailed information is available in the publication included as an Annex to this report.^{*} The discussion in this preliminary report is confined to issues in the COP guidelines relevant to the RMI in formulating its BSAP; other issues required by the CBD will be included in the second national report to the COP after the preparation of the BSAP.

BACKGROUND

The guidelines for national reporting provided by the COP suggest that this section of the national report include an assessment of biological diversity in the country and the factors affecting conservation and sustainable use of these resources. This preliminary report presents a brief summary of the relevant

^{*} "The Republic of the Marshall Islands: State of the Environment Report, 1992.

issues, identifying those areas that are being addressed during the BSAP process and those that could be priority areas for action in the BSAP.

The Country

The Republic of the Marshall Islands is composed of 29 atolls and five low-lying islands in the north-central Pacific Ocean. Twenty-two of the atolls and four of the islands are inhabited. The atolls are scattered in an archipelago consisting of two roughly parallel island chains - the western "Ralik" (sunset) and eastern "Ratak" (sunrise) chains. The atolls extend about 1130 km from north to south, from 14°43'N to 4°34'N, and about 1290 km east to west, from 160°48'E to 172°10'E.

The total land area of the RMI is just under 110 square km, with a mean height above sea level of less than two meters. The total lagoon area is some 6511 square km while its Exclusive Economic Zone encompasses over 1.2 million square km of the Pacific Ocean. The soils in the RMI are nutrient poor, thus limiting the nation's agricultural base. The nation's marine resource base is, however, broader with respect to both lagoon and deep-sea fisheries.

The population of 48,084 in 1991 is expected to increase fourfold by the year 2030. Much of this population is urban: about two thirds of the population live in the two main urban centres of Majuro (45% of the population) and Ebeye (21%). These two urban centres cover only 11.4% of the country's land area.

Status of biological diversity

The status and trends in biodiversity in the RMI have been summarised recently in the State of the Environment Report (SOE) which is included with this national report as an annex. The SOE is based on a number of surveys and studies of biodiversity in the RMI carried out over the last fifty years and provides a baseline for the preparation of the BSAP.

The SOE summarises the main terrestrial and marine biological resources of the country. Understandably, the RMI's natural resources are primarily marine. The following summary of the status of and trends in biodiversity, is drawn from the SOE and other published reports:

- The **main terrestrial resource** is the coconut palm, with over 60% of the nation's land area covered by this species which provides income, food, housing materials, timber, and materials for handicrafts. Low prices for copra (the main source of income from coconuts) mean that coconut plantations tend to be neglected as people look for alternative sources of income. The status and trends in genetic diversity of this species are being documented as part of the BSAP process.
- Other **terrestrial plant resources** include Pandanus spp., breadfruit, taro, and bananas. Many of these species have been introduced by humans. Early results of the BSAP consultation indicate that there is a gradual decline in the genetic diversity of many of these plant species, with a loss of some important cultivars and species. For example, breadnut was considered to be

an important food and timber resource in Namdrik atoll but in recent years, this species has died out on the atoll. Similarly, traditional cultivars of other species are becoming scarcer, particularly with a decline in soil fertility, urbanisation and the erosion of traditional skills of handicrafts and medicine.

- **Natural vegetation** includes both indigenous and introduced species. Forests include *Neisosperma* species, *Pisonia grandis* and *Tournefortia* species, as well mangrove swamps. A survey of northern atolls (most of them uninhabited) in the RMI listed some 36 families and over 75 terrestrial plant species, two-thirds of which are native to the RMI¹. Although these species are not endangered in the uninhabited atolls, the impact of agricultural practices, urbanisation, and increasing pollution are threatening their viability in many of the inhabited islands. Urbanisation has also affected the use of many plants for traditional medicine, with a decline in popular species in the urbanised areas and a loss of the knowledge and skills for traditional medicines.
- Although information on most of the **terrestrial fauna** such as reptiles and arthropods is poorly documented, species such as the coconut crabs are a popular delicacy and as a result are a threatened species on the inhabited atolls. These crabs are also under threat on uninhabited islands or islets as visitors tend to harvest large numbers and repeated heavy harvesting can decimate stocks of this vulnerable species.
- Over seventy species of **birds** have been identified in the RMI, most of them seabird or migratory species. Of the thirty-one species of seabirds found, fifteen are reported to breed in the RMI, primarily in the northern atolls. Although bird species in the uninhabited atolls are not under threat at present, there is increased hunting of bird species in these islands by visitors because population pressures and unsustainable harvests have led to the disappearance of many species in the inhabited atolls. On the inhabited atolls, the impacts of population pressure and indiscriminate use of new hunting methods (such as rifles) have caused the extinction of some species such as the crimson-crowned fruit dove and endangered other species such as the Radak Micronesian pigeon.
- **Marine flora** include over 230 species of green, brown, red and blue-green algae, some of which may have commercial potential. There are also limited stands of seagrasses. Many of these have a potential for commercial use but are increasingly being affected by pollution in lagoons.
- The main **marine fauna** include a diverse range of coral species. For example, in Majuro, the most densely populated island, 146 species of stony corals from 50 genera have been recorded. In addition to corals, a number of other fauna such as sea cucumber, oysters, mussels, crabs etc provide a “pantry” for the Marshallese people. Again, in the more densely populated atolls and in other inhabited atolls, human activities and pollution have had a negative impact on the sustainability of these resources. A number of these species with commercial potential if well managed, are threatened.

Examples include the Giant Triton, black coral, and valuable shellfish such as *Trochus* species. Other examples such as the giant clam and the black-lip mother of pearl oyster are also endangered species which, if managed well, could provide a sustainable source of income for some of the smaller island communities.

- All five of the world's species of **marine turtles** are believed to occur in the RMI and two species, the green turtle and the hawksbill turtle, nest in the Marshall Islands. Both turtles are endangered species and are also harvested for food. They are rarely found in the southern atolls but are found in the northern atolls. However, unsustainable harvesting practices mean that they are also becoming rare in the northern atolls.
- Over 250 species of **reef fish** from 50 families are known to occur in the RMI. The **deep-sea fisheries** also provide a valuable resource with species such as skipjack, yellowfin and bigeye tuna. In the more populated atolls, overfishing and the use of new fishing methods has placed increasing pressure on lagoon and reef fishes, leading to a marked decline in subsistence harvests. Although not fully documented, it is suspected that current fish takes for some species such as tuna are greater than the maximum sustainable yields.
- **Marine mammals** including whales, dolphins, and porpoises are found in RMI waters but insufficient information is available on their status. Some species, such as dolphins, have been reported to be harvested by Marshallese fishermen² ; information on these will be collected during the BSAP process.
- In addition to the species biodiversity, there are a small number of **ecosystems and habitats** of significant biodiversity value. For example, the 1988 survey of the northern atolls identified Taongi atoll as “a rare and possibly the only example of a completely natural, unaltered, semi-arid atoll ecosystem remaining in the world today”. The conservation status of this atoll and the current threats to biodiversity on that atoll will be considered as part of the BSAP.
- A number of **habitats** on the inhabited atolls are of biodiversity value for the country and provide significant traditional resources for local inhabitants. An example is the mangrove swamp on an uninhabited islet of Namdrik atoll. Many of these habitats, some of them unique in the Marshall Islands, are under threat from human activities such as unsustainable harvesting and hunting, as well as pollution.

Legal and Institutional frameworks

The legal and institutional framework for biodiversity conservation and use is determined by the constitutional and administrative structures in the RMI³. The three components of government - national government, traditional systems, and local government - have roles that influence the conservation and use of biodiversity.

The RMI is a constitutional democracy with a **system of governance** that contains aspects of Commonwealth, United States, and traditional governing structures. Legislative power is vested in the Nitijela (Parliament) which consists of 33 members elected from 24 atolls and islands.

Customary law and traditional management structures are embodied in the RMI constitution. The constitution established a traditional governing Council of Iroij (Article III) and clearly enunciates the preservation of traditional rights. The Council of Iroij consists of 12 Irojlaplap (Paramount Chief) representatives, five from the Ralik chain and seven from the Ratik chain. This Council functions as an advisory body to the Cabinet, and may request the reconsideration of any Nitijela Bill which affects customary law, traditional practice, land tenure, or related matters.

A system of local government, established under Article IX of the constitution, operates in 23 of the atolls and islands. Local governments jurisdiction includes the land of the atoll or island, their internal waters, and extends to a distance of five miles to sea. The local governments have responsibility for a wide range of activities including land development, water and agricultural resources, intra-atoll transportation, drinking water, energy, and public safety.

In terms of the management and control of biodiversity and biological resources, these three components of governance in the RMI are intertwined with traditional systems of land tenure. Questions of land tenure and user rights, both of which impact on biodiversity, are determined by **traditional land inheritance patterns and systems of land use controls**⁴.

In the Marshalls, land is divided into sections of varying width which run from lagoon to ocean, called "wetos". These wetos of about two to five acres are held communally by lineage, or "bwij", members who work their land for agriculture. Each member of the bwij holds one of several interests in the piece of land. The four classes of interests in land are:

- The Irojlaplap (paramount Chief) is the acknowledged owner and final distributor of all land interests under his jurisdiction.
- The Irojledrik (lesser Chief) is a sub-chief who acts as an intermediary between the Irojlaplap and the Alap and Dri Jerbal in the Ratik (eastern) chain.
- The Alap is the head of the bwij and is therefore in charge of the land and the workers on the land.
- The Dri Jerbal is the worker on the land - s/he plants, clears and makes improvements on the land and pays a share of the produce from the land to the Alap, Irojledrik, and the Irojlaplap.

Conservation and sustainable use of biodiversity in the Marshall Islands is a complex issue, and requires the involvement of all four levels of traditional land tenure systems, as well of the three components of governance. The formulation of the BSAP is therefore being carried out through consultation with all four classes of land tenure and land use on six of the atolls and islands, including

Majuro (where there are representatives of the four classes from all the islands and atolls). In addition, representatives from the National Government, the Council of Iroij, and local government are involved in the consultations on the BSAP.

One of the aims of the BSAP is to strive to reach consensus on a system for conservation and sustainable management of biodiversity that brings together all the different players. This will require an emphasis on raising awareness of biodiversity issues amongst these players and to work out mechanisms and procedures that enable national government institutions and landowners to work together towards the agreed goals of the BSAP.

The **institutional responsibilities** for the management of biological resources in the RMI come under a number of different government agencies. These include:

- **Ministry of Resources, Development and Works** that has responsibility for resource management, development, agriculture, conservation, tourism development, and public works;
- The **Marshall Islands Marine Resources Authority** which has responsibility for the development and management of coastal and marine fisheries and biological resources;
- The **Ministry of the Interior** which has responsibility for local government and outer island affairs;
- The **RMI Environmental Protection Agency (RMIEPA)** which has statutory responsibility for environmental protection in the country.

All four of these agencies are included in the development of the BSAP as their role is crucial to the implementation and acceptance of the BSAP (see below). At present, there is no clear differentiation between conservation and development functions, with some of the agencies being responsible for policy development and implementation for both sets of functions. This leads to some conflict of interest and is an issue that needs to be sorted out as part of implementing the BSAP.

The **legislative and policy** responses for the conservation and sustainable use of biodiversity include a number of Acts that have been passed over the last two decades. These include⁵:

- The **Marine Resources Act** has its origins in the Trust Territory code of the 1960s and 1970s and provides for the control of destructive fishing methods such as explosives, poisons, chemicals or other noxious substances. The Act also sets limitations on the taking of hawksbill, green and sea turtles, and seasonal limitations on the taking of black-lipped mother-of-pearl oysters.
- The **Marine Resources (*Trochus*) Act, 1983** which regulates the harvesting of *Trochus* species by limiting taking of *Trochus* species during the open season of not more than 3 months in any period of 12 months.

- The **Endangered Species Act, 1975** which provides for the protection of endangered species of fish, shellfish and game. This Act prohibits importation into the RMI of any species listed by CITES[†].
- The **Marshall Islands Marine and Natural Resources Act, 1988** which sets the power and duty of the Marshall Islands Marine Resources Authority as “to conserve, manage and control the exploration and exploitation of all living and nonliving resources in the Fishery waters, seabed, and subsoil thereunder”.
- **National Environment Protection Act, 1984** which states that the primary purpose of the RMIEPA is to preserve and improve the quality of the environment, and includes objectives which address protection of marine and terrestrial areas.
- The **Marshall Islands Marine Resources Authority (Amendment) Act of 1989** which prohibits drift net fishing in accordance with the Convention on Drift Net Fishing.
- The **Marine Mammal Protection Act, 1990** provides for the protection of dolphins and other marine mammals captured in the course of commercial fishing operations by flag vessels of the RMI.

This legislation leaves a number of gaps in areas such as the development of a national conservation policy, protected areas and species conservation legislation⁶. Other gaps include a lack of clarity between different Acts and Agencies about responsibility for policy development and enforcement of legislation and regulations as well as effective organisational and institutional mechanisms to implement and enforce these policies and legislation. Penalties under some of these Acts are not severe enough to serve as a disincentive. For example, the maximum penalty under the Marine Resources Act is a fine of \$100 and/or six months imprisonment. These legislative and institutional responses will be discussed during the BSAP process at the national workshop and recommendations made to government for appropriate actions.

Threats to biodiversity

This brief description of the status of biodiversity and institutional arrangements highlights some of the **risks and constraints** facing the RMI in terms of the conservation of biological diversity and the sustainable use of biological resources. In the past, the country’s biological resources have been regarded as assets to be exploited for subsistence and commercial purposes, rather than as capital that should be managed in a sustainable manner. Traditional systems of resource management have been devalued and this neglect, combined with population pressures and newly introduced technologies, has resulted in over-exploitation of these biological assets.

The risks and constraints for biodiversity in the RMI include:

[†] This is in anticipation of the ratification of CITES by the RMI which has not happened as yet.

- Small land areas compared to the vast distances between atolls, combined with the relative isolation of the country, resulting in communication problems;
- Limited natural terrestrial resources placing a high pressure on cultivable land and agricultural crops;
- Coastal erosion due to construction activities in urban areas and to changes in sea-level;
- Destruction of coral reefs from human activities such as dredging, channel blasting, and boat anchoring;
- Pressure on marine resources within lagoons from overfishing and pollution, and on deep-sea fisheries from unregulated commercial exploitation;
- A high rate of population growth and concentration of people in a few urban areas leading to environmental pressures on land and sea resources;
- Increased pollution from solid and hazardous wastes, particularly in the urban areas;
- Increased eutrophication and pollution of coastal areas from sewage and industrial wastes; and
- Susceptibility to sea-level rise due to climate change.

These risks and constraints are some of the main issues being discussed during the formulation of the BSAP and may be some of the priority areas for action included in the strategy and action plan.

STRATEGY

The above summary indicates that the biodiversity and biological resources of the RMI make a small but significant contribution to global biodiversity. More important, however, is the fact that for the people of the RMI, the country's biodiversity and biological resources are essential for sustainable social and economic development. The BSAP will therefore include urgent actions that need to be taken to conserve and sustainably manage these resources.

Another important area for consideration by the BSAP is information. **Access to existing information** on the status of biodiversity in the RMI is a major constraint to decision making. Although a significant number of papers and studies have been published on natural biodiversity in the RMI, much of this information is not readily accessible within the country. This is being rectified through the BSAP process. In addition, many of these publications and surveys have focussed on the conservation values of the biodiversity alone, and have tended to neglect traditional uses of these resources. The BSAP process therefore focuses on an assessment of biodiversity based on both conservation values and on their uses as biological resources.

The BSAP will therefore focus on the following key areas to determine the status of biodiversity in the country and to determine appropriate responses through a process of national consultation:

- ⇒ In order to assess the **status and trends in biodiversity** in the RMI, existing published information on biodiversity is being collected and analysed for presentation at a national workshop on the BSAP. This exercise will also carry out a gaps analysis on legislation and institutional arrangements for biodiversity in the RMI, particularly with regard to traditional systems of resource management.
- ⇒ Copies of all existing publications on biodiversity in the RMI, many of which are only available in overseas academic institutes, will be collected, catalogued, and placed in a repository accessible to interested persons. One possible repository could be the library at the College of the Marshall Islands. This will provide a **local information resource** on biodiversity.
- ⇒ The second main focus of the BSAP process is to collect information on **biological resources** in the RMI. This will include an inventory of biological resource use practices. The information is being collected through consultation with all four groups of land interests on a number of atolls in the country and by interviews with traditional leaders and men and women resource users. This study will collect, for the first time in the RMI, information on terrestrial and marine flora and fauna from the perspective of the people of the Marshall Islands. This information will include their traditional uses, resource use practices, traditional values, and perceived threats to the sustainability of these resources. This information would also need to be kept in an accessible repository as a local resource.
- ⇒ Information from the consultations on traditional uses and resource use practices, and existing published sources on biodiversity, will be analysed and discussed at a national workshop on the BSAP. The aim will be to seek common ground and to work towards a **common agreed goal for the conservation and sustainable use of biodiversity and biological resources**. The BSAP will also help to identify, and increase public awareness, of the traditional and scientific values of biodiversity and help to build consensus on approaches to ensure conservation and sustainability of the biodiversity and biological resources.
- ⇒ A primary focus will be to develop systems of sustainable management of biological resources that bring together traditional systems and modern methods of resource management. This will require analysis and debate on the roles of various land interest groups and the national government in the conservation and management of biological resources in order to develop legislation and institutions that allow local landowners to retain control over their resources while helping to conserve valuable biodiversity for future generations.

The BSAP will include the strategies and actions necessary for the protection and sustainable use of biodiversity in the RMI, as well as a formal plan for their implementation. The BSAP will enable the RMI to fulfil its obligations under the CBD with regard to **Article 6** (General measures for conservation and sustainable use, **Article 8** (In-situ conservation), and **Article 10** (on sustainable use of biodiversity components). In addition, the BSAP will also address issues such as identification and monitoring (**Article 7**), research and training (**Article 12**) and public education and awareness (**Article 13**).

With respect to Article 12, the BSAP process will help to identify the human, information, and financial resources available for conservation and sustainable management of biodiversity in the RMI. The consultation and analysis for the preparation of the BSAP will also help to identify gaps in these resources that will need to be filled in order to achieve the priorities agreed in the strategy and action plan.

The emphasis on participation and consultation will help to ensure that all stakeholders are involved throughout the BSAP process. One of the aims of the consultative process is to increase public awareness of the issues and to promote ownership of the BSAP by all stakeholders so that implementation activities will take place both at the grass-roots levels in the atolls as well as within national government. Commitment and action by all stakeholders will be necessary if the biological resources of the RMI are to be managed in a sustainable manner.

¹ Thomas, P (Ed). The Northern Marshall Islands Natural Biodiversity and Protected Areas Survey. 1988. Published by the East-West Centre and SPREP.

² *ibid.*

³ Harding, E. Review of Environmental Law in the RMI. 1992. Published by SPREP.

⁴ *Ibid.*

⁵ *Ibid*

⁶ Thomas, P (Ed). The Northern Marshall Islands Natural Biodiversity and Protected Areas Survey. 1988. Published by the East-West Centre and SPREP.