

■ FISHERIES MANAGEMENT SECTION

Refresher programme for Niue's community-based fisheries management plan

In response to a request from the Fisheries Division of Niue's Department of Agriculture, Forestry and Fishery, SPC's Coastal Fisheries Management Section (CFMS) set up Niue's community-based fisheries management plan (CBFMP). Initial consultations and meetings with various government and community stakeholders were conducted in 2003 and 2004 before a workshop for local facilitators was carried out in August 2004.

The main goal of the CBFMP is to assist village communities

develop their own individual fisheries management plans. With the development of village fisheries management plans, the Fisheries Division anticipates achieving the objectives set out in the National Coastal Fisheries Management Plan — to better manage and sustainable use Niue's coastal marine resources so that they benefit the current population and future generations); or, in other words, meeting the needs of the present population without compromising the needs of future generations.

In February 2007, SPC's Coastal Fisheries Management Adviser conducted a review for Niue's CBFMP. One of the recommendations was to conduct a refresher workshop for CBFMP staff and relevant stakeholders. The workshop aimed at training individuals on community facilitation processes and to create awareness among village communities on the status of inshore fishery resources. This workshop was conducted by SPC's CFMS from 26–30 March followed by a week of assessing the existing village fisheries management plans.



An update from Nauru

SPC's Coastal Fisheries Management Officer visited Nauru in June. The visit's objective was to work with the SPC Joint Country Strategy mission to Nauru, and to follow up on the progress of CBFMP activities and provide technical advice where necessary.

Meetings with District Executive Committee members and the staff of the Nauru Fisheries and Marine Resources Authority (NFMRA) revealed a need to facilitate the approval of community by-laws and related legislations for monitoring purposes. Three communities have now

developed district fisheries management plans with others showing interest.

The highlight of the activities was the launching of the canoe-building project coordinated by SPC's Nearshore Fisheries Development and Training Section and NFMRA's Coastal Fisheries Section. The project began with preliminary consultations with various district communities in developing their respective district fisheries management plans. During the consultation process, most communities requested assistance from NFMRA to develop off-

shore fishing opportunities in order to sustain food security and reduce fishing pressure on inshore resources. NFMRA requested assistance from SPC's Coastal Fisheries Programme, which resulted in the implementation of the canoe project.

The main goals of the canoe-building project are to sustain food security, divert fishing pressure from coastal fisheries resources, and to provide income generating activities for local district communities. (See article by Michel Blanc and William Sokimi on p. 49)



A Review of the Marshall Islands Management Programme for Island Communities

From 11–15 June, SPC's Coastal Fisheries Management Adviser (CFMA) conducted a review of the Marshall Islands' community-based fisheries management plan (CBFMP). This review is a joint undertaking between the CFMS and Marshall Islands Marine Resources Authority (MIMRA).

The review focused mainly on developing a draft fisheries management plan for Ailuk Atoll. Fisheries management plans had been developed for some of the other atolls since the inception of the programme in 2000, although new and improved information was needed in order to finalize

some aspects of the plans before they were approved. One outcome of the review was the need for additional information in order to improve the quality of the fisheries management plans to attract external funding for community projects

The following is a summary of the review conducted by the CFMA.

- The Marine Resources Act 1997 empowers MIMRA's Director to approve fisheries management plans prepared by local government councils for the management of atoll marine environmental and fisheries resources.
- An Atoll Fisheries Management Plan (FMP) should be treated as a guide (prepared by community members with assistance from MIMRA) that contains community responsibilities and undertakings that obligate an atoll community must carry out for the purpose of managing its fisheries resources and marine environment. The FMP also outlines technical services and supporting services that MIMRA must provide in order to support community undertakings and management actions.
- It should be remembered that an Atoll FMP belongs to the atoll community that prepares it.
- An FMP must be established through the information gained from discussions at community workshops. This will involve a lengthy process because the MIMRA staff may need to pay several visits to the atoll to run community workshops in order to obtain proper information to draft a management plan. MIMRA staff must ensure that the content of the plan reflects the community's interests.
- It is important that community workshops are conducted in the Marshallese language so that the community clearly understands the discussion. The first draft FMP must be written in a local language and later

translated into English for international communities and donor agencies.

- The drafting of an FMP should be done on behalf of the entire atoll community. Quite often community members have differing backgrounds and levels of education. An FMP must be written in simple language so that it can be easily understood by all community members.

The following are some of the issues suggested to be included in an atoll FMP. Some are required by the Marine Resource Act 1997:

- i. **FMP name:** Some communities will decide to give special names for their FMP. This can be done during community workshops.
- ii. **Vision:** the community needs to outline what it wants with regards to the management of its marine environment and fisheries resources.
- iii. **Introduction/Background:** A brief description of the atoll and community. This may include the location, population, religion, school and any peculiar or unique feature of the atoll. This section could also include a brief description of how the FMP programme began within an atoll and who the person was driving programme efforts. This is useful information, especially for outside donor agencies.
- iv. **Objectives:** Should state what the community want to achieve with the FMP (this is required by the Marine Resources Act).
- v. **Status of the fishery:** This includes fish species, fishing methods, state of exploitation, etc. This information will allow a comparison of

what happened in the past with what is going on at present. For example, "What fishing methods were commonly used in the last 10–20 years?" "Which are no longer practiced and why?" You may find out from very old community members that some fish or shellfish that were plentiful in the past years are no longer found today. This is useful information and is required by the Marine Resources Act.

- vi. **The process of developing a FMP:** This must detail how MIMRA facilitators collected the information and facilitated the preparation of the FMP. It may reveal the number of community workshops undertaken to obtain all the information required to prepare the FMP. This is very important as it reflects the degree of community involvement in the preparation of the plan.
- vii. **Strategies to achieve the plan's objectives (required by the Marine Resources Act):** These should outline how the plan may proceed and ways the FMP should be implemented in order to achieve its objectives and goals. It should cover the responsibilities of the community and those of MIMRA and other partners. This part of the FMP forms the key subject matter of the FMP as the undertakings of both parties will make them obligated to perform their respective assigned responsibilities. This section could be subdivided into:
 - a) **community responsibilities:** should be taken out from agreed results of community workshops and discussions with the local fisheries committee. These are mainly management actions that the community needs to perform

- for the purpose of managing its fisheries resources.
- b) **MIMRA responsibilities:** normally include technical services to support the undertakings and management actions of the community.
- viii. **Management Area:** There is a need to explain the coverage for which the FMP will apply in terms of activities and the imposition of rules and restrictions.
- ix. **Establishment of a Local Fisheries Committee:** This will cover how committee members are chosen and lists committee responsibilities.
- x. **Institutional Arrangement:** It is important to give a brief account of how the FMP operates in terms of the involvement of MIMRA, the Local Fisheries Committee, local government council, and other related partners. A flow chart will help with the explanation.
- xi. **Monitoring and Evaluation of the FMP:** This is important as it advises on the successes and achievements of the plan and is required by the Marine Resources Act)
- xii. **Review of the Plan:** A brief account of how the plan will be reviewed and the frequency with which it needs to be reviewed (This is required by the Marine Resources Act).
- xiii. **Conclusion:** The FMP can conclude with a short statement on the expectation of the community as a result of its plan.
- xiv. **Appendices:** It is important to keep detailed records of community discussions, a list of community members involved in the preparation of the plan, and other important information that is used during the preparation of the plan. Such information can be included as appendices to the FMP.
- xv. **Extra flavour (optional):**
- a) **Statement by Mayor:** A statement by someone very important in the community (e.g. a very high chief or mayor) adds weight and value to an FMP. Usually, when a high-ranking person in the community makes a commitment, then he or she will ensure that commitment is followed through on. Such a statement should appear at the beginning of the FMP.
- b) **Pictures or drawings:** Usually illustrations, especially colour ones, catch the eyes of readers, particularly those who do not have much formal education. Such illustrations or pictures could include that of a high chief or mayor, the atoll itself, community workshops, etc.

The above information was developed not only to help MIMRA's Director in approving several FMPs, but also to assist the programme staff for the revision of the FMPs that are yet to be approved.



■ AQUACULTURE SECTION

Update on aquaculture activities in the Marshall Islands

Aquaculture in the Marshall Islands is relatively diverse. Although much of it occurs on a small scale, there are a number of interesting developments on Wotja Atoll. Ben Ponia and Antoine Teitelbaum report on the situation in the Marshall Islands.

THE WOJA HATCHERY: SPAWNING PEARL OYSTERS AND DIVERSIFYING TO FINFISH

The pearl oyster hatchery at the Marshall Islands Marine Resources Authority (MIMRA) on Wotja (formerly owned by Black Pearls of Micronesia) is the main source of spat for pearl farms operating in the country. This hatchery has struggled to

produce sufficient numbers of spat — a major bottleneck to pearl development in the Marshall Islands.

The hatchery has recently been fully refurbished and equipped with water quality treatment equipment such as a settlement tank and UV filters. Plumbing and pumping systems were also renewed and hatchery tanks rearranged to make the hatchery more efficient.

Unfortunately, even after refurbishment, MIMRA's first spawning runs crashed continuously at the larval stages. After a lengthy process of elimination, and trial and error, it was

discovered that a dosage of EDTA (a heavy metal chelating agent) was necessary for successful spat settlement. However, the use of EDTA still points to discerning signals in lagoon water quality. The last hatchery batch produced by MIMRA consisted of several thousand oysters and was provided to the Robert Reimers Enterprises farm (on Jaluit) and Black Pearls of Micronesia farm (on Arno). Technically, the hatchery has the capacity to produce several hundred thousand spat, which is enough to meet the needs of the Marshall Islands. A two-year grant by the Center for Tropical and Subtropical Aquaculture has just been approved