

Secretariat of the Pacific Community

**2<sup>nd</sup> SPC Heads of Fisheries Meeting**  
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## **Reef Fisheries Assessment and Management Section**

Marine Resources Division  
Secretariat of the Pacific Community  
Noumea, New Caledonia



## **REEF FISHERIES ASSESSMENT AND MANAGEMENT SECTION**

### **Introduction**

1. Formerly known as the Coastal Fisheries Assessment Programme, the Section changed names in 1998 in order to highlight more reef and lagoon fisheries specific concerns, which are closely related to the living conditions of island communities, including problems with food security and grassroots economic development.
2. The Section has five staff members: Pierre Labrosse (Reef Fisheries Management Advisor), Being Yeeting (Live Reef Fisheries Specialist), Ben Ponia (Aquaculture Adviser, temporarily included in the Section), Eric Clua (training associate) and a social scientist position which is currently being filled.
3. Its funding sources depend largely on the programmes it carries out and include, in particular, France, Australia, the Asian Development Bank, MacArthur Foundation and European Union.

### **Objective**

4. Provide the Heads of Pacific Island fisheries services with information on the status, exploitation levels and prospect of the coastal resources they manage, offer recommendations and assist these services to define and apply pertinent ecosystem or fisheries management measures.

### **Activities**

#### ***Technical assistance***

5. The Section provides vital information on reef and lagoon resources of interest for local consumption and marketing. It conducts assessments of their exploitation potential and advises managers and decision-makers on devising and implementing reef fisheries management plans with a view to safeguarding the community's food security and maintaining a sustainable balance between resource conservation and economic development. The Section takes part in strengthening national reef fisheries assessment and monitoring capacities within Pacific Island fisheries services.

#### ***Research***

6. The Section has set up programmes and undertaken applied research aimed at strengthening knowledge of the reef fisheries resources and their management, including the theoretical bases for their assessment.

## ***Coordination***

7. The Section coordinates regional initiatives implemented in collaboration with other institutions on topics of high priority for Pacific Island fisheries services.

## **Overview of 1999-2001 activities**

8. During these past two years, the Section's activities have been guided by:

- an adherence to the concerns member countries expressed during the First Heads of Fisheries Meeting, i.e. carrying out concrete activities and providing support to managers, decision-makers and communities;
- an interest in implementing, over the next five to six years, a whole series of projects which will be both mutually complementary and based around the reef fisheries component of the up-coming European Union-funded PROCFISH (formerly SPRCARF) Project.

9. For these reasons, the Section's activities highlighted project design, formulation and implementation. They mainly involved acquiring and disseminating information about reef and lagoon fisheries resources and their management, and a few more specific regional initiatives.

## ***Acquiring and disseminating information on reef and lagoon fisheries resources***

DemEcoFish: Role of Demography and Ecology in the Fisheries of Coastal Resources in Pacific Islands

10. This two year-long project, which is now in its start-up phase, has been funded by the MacArthur Foundation (US\$210,000). It is designed to carry out studies in Tonga and Fiji on the correlation between the potential of available reef ecosystem resources (supply) and fisheries harvests in relation to the growth in island populations (both subsistence and market fishing demand). It also includes a phase for turning over this information, particularly in the form of indicators, to local communities for management purposes. Two people will work specifically on this project, i.e. a student research on detachment, who is already working within the Section, and a social scientist, who is currently being recruited.

## CoReUs: Living Marine Resources of the Pacific Islands: Diversity and Uses

11. This project involves an IRD research unit jointly designed by IRD and SPC and recently approved by that organisation's Scientific Council. It will begin officially in January 2002 and will last four years. Its activities will be situated upstream from both PROCFISH and DemEcoFish, which will be able to benefit from them. CoReUs proposes implementing a comparative approach to several reef and lagoon ecosystems, using a limited but contrasted number of representative islands in order to study community structure and organisation with regards to fisheries exploitation. The objective is to identify those factors which explain the spatial variation of biodiversity, on both local (biotopes, natural and human factors of the environment) and global (biogeography, island type, size, society) scales and to better understand the ecological processes which govern reef and lagoon resources and associated species. The countries and territories involved in the project are New Caledonia, French Polynesia, Wallis and Futuna, Fiji, Tonga, to which must be added the other countries involved in the PROCFISH Project for the second phase of promoting widespread use of the survey methods.

## Strengthening Fisheries Management and Biodiversity in ACP Countries

12. This 118,500-euro EU-funded project co-ordinated by ICLARM drew to a close in June 2001. SPC co-ordinated the project's Pacific node from 1998 onwards. Its role consisted essentially of disseminating information and providing training in using the FishBase knowledge base. Through the project, a technical workshop was held in Noumea in May 2001 to inform experts about these resources. A funding proposal should be submitted to the European Union for a second phase to the project.

## Devising and/or improving on-site methods and tools for studying reef and lagoon fisheries

13. This section aims at improving and validating resource and subsistence fisheries assessment methods at the regional level. This involves standardising these methods in collaboration with specialists already working in these fields, so as to obtain coherent information which would allow better comparisons and monitoring. Finally, strengthening local capacities within the technical departments of Pacific Island countries is one of the priorities of these activities.

14. For more than two years now, short-term activities have been underway in this area. An initial underwater visual census survey training course, held in 2000 through the financial assistance of the French Cultural Cooperation Fund for the Pacific, made it possible to train 12 fisheries service agents in these methods. In addition, French and Australian funding allowed us to acquire an underwater video camera system.

15. Since June 2001, activities in this area have received US\$78,000 in financial support from France as part of an overall project entitled “Devising and/or improving on-site methods and tools for studying reef and lagoon fisheries”, which includes:

- creating a series of tools to assess reef resources. The goal is to promote the use of standardised methods through practical descriptions on how to use them. The first publication will cover underwater visual census surveys and is planned for July (French version) and September (English version). This will be a joint effort with IRD.
- producing software to enter and process data from underwater visual censuses (RéacT), which can be downloaded over the Web. This will be the first in a series of utility software. This product is already being designed and should be available next July in an open source format.
- designing software to automatically count fish through electronic imagery. After this programme has been finalised, i.e. in about two years, this portable equipment and its operating technician will be made available to requesting countries to assess reef and lagoon resources.
- producing a methodological synopsis on assessing subsistence fishing catches, which should make it possible to validate a broad approach to be used in Pacific Island countries and territories.

### ***Regional initiatives***

#### **Regional Live Reef Fish Trade Management Strategy**

16. Recruitment of a specialist in 1998 made it possible to both conduct short-term technical assistance activities at countries’ requests and formalise this high priority initiative for member countries. The latter aspect was accomplished through a cooperation agreement signed with three different organisations, i.e. IMA (International Marinelife Alliance), WRI (World Resources Institute) and TNC (The Nature Conservancy). Funding of US\$214,943 from the Asian Development Bank allowed the partners to conduct a total of 13 target activities in 2001 which were coordinated by SPC in close collaboration with the island countries involved. TNC’s financial support (US\$ 55,000) also helped bolster this initiative.

17. As for the future, ADB funding, which will most likely be continued for the operational aspects, and the attribution of new funding from the MacArthur (already approved for a total of US\$300,000) and Packard Foundations, will make it possible to securely establish this initiative's operations over the next three years.

#### **Regional Aquaculture Development Strategy**

18. XB funding from AusAid in 1999 made it possible to recruit an aquaculture specialist, who was given the main task of designing a project to serve at the starting point for a future regional aquaculture programme. This work has temporarily been placed administratively within the Reef Fisheries Assessment and Management Section but reports directly to the Director of the Marine Resources Division.

19. This project's design is mainly based on recommendations made at previous aquacultural meetings. It is based on trilateral regional collaboration involving SPC, ICLARM (International Centre for Living Aquatic Resources Management) and the University of the South Pacific. Regional organisations were consulted on the role SPC should play in its coordination and in the implementation of a work network. AusAID has expressed interest in funding this regional initiative. Given the progress of both the project and ensuing discussions, it should get off the ground some time during the third quarter 2001. ACIAR could also lend its support to developing the project's research component.

20. At the same time, the Section dealt with other issues related to aquaculture as they arose. We regularly provided guidance in this area in response to questions from both the public and private sectors, both within the region and beyond. In particular, the Section lent its technical support to the Cook Islands in dealing with a disease which affected pearl oysters.

### **Future Activities**

21. Future activities will continue the work conducted over the past three years. They will be strongly influenced by the implementation of the PROCFISH (formerly SPRCARF) Programme in late 2001-early 2002. The Programme's reef and lagoon fisheries component will last five years and funding of 5.7 million euros has recently been approved by the European Union. This project will provide Pacific Island fisheries resource managers (governments and local authorities) with the assistance they need in terms of information along with relevant data to allow comparisons on the status and perspectives of their reef resources. These data will bolster the process of devising reef resource management measures. The project will involve the eight ACP countries targeted by the 8<sup>th</sup> EDF and the French OCTs.

22. The Section's activities will also be marked by the stability of regional initiatives over the next three years, particularly the aquaculture initiative, which will soon come under the new Aquaculture Section. Mention should also be made of our intention to further strengthen those partnerships already underway, particularly with IRD and ICLARM. The latter agency will soon open an office at SPC Headquarters which will host three researchers, whose work will, in large part, focus on aquaculture and reef fisheries.

23. All the activities planned should allow the Section to really take off in coming months, with a staff which could reach as many as 12 members, excluding aquaculture.