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Fisheries Development Section two-year overview

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Fisheries Development Section two-year overview

1. General

This Section functions under the technical supervision of the Fisheries Development Adviser, and had a name change from the Capture Section to the Fisheries Development Section in March 2000. The Section's name change was to better reflect the work actually being undertaken by the staff. The title of Masterfisherman was also changed to Fisheries Development Officer, in line with the new name of the Section.

The Section's primary role is to provide practical field support, hands-on training, advisory services and increasingly, studies on development options infrastructure and training needs, to member countries and territories, particularly in relation to their domestic tuna fisheries and FAD programmes.

Initially, funding for the Section was entirely from the Secretariat's core budget. However, over the years an increasing proportion of funding has come from non-core sources. Table 1 provides a breakdown of funding sources by staff members for the two year period from the first Heads of Fisheries meeting (9–13 August 1999) to the current meeting. Specific project funding has also been gained from: Taiwan/Republic of China for supporting operational costs of the Section and the purchase of tuna longlining gear; New Zealand (NZODA) for the purchase of sea safety equipment for the Section; the Western Pacific Regional Fishery Management Council in Hawaii for the production of brochures and posters on marine debris and derelict fishing gear in the marine environment; and the New Zealand Pacific Initiative for the Environment (PIE) fund for FAD research and monitoring.

Table 1: Fisheries Development Section staff and their current funding source.

Staff member	Position and status	Current funding source
Mr Lindsay Chapman	Fisheries Development Adviser (July 1996 to present)	SPC core
Mr Steve Beverly	Fisheries Development Officer (March 1996 to present)	SPC core
Mr William Sokimi	Fisheries Development Officer (September 1999 to present)	AusAID
Ms Marie-Ange Roberts	Project Assistant (February 1989 to present)	AusAID

The work of the Fisheries Development Section continues to evolve and the following headings cover the main work areas undertaken over the last two years being; national-level technical assistance, workshops, meetings and conferences attended, advisory services and publications. A brief evaluation of the last 2-year's work is then provided, with the final section looking at future work plans and possible new initiatives. This last section is provided to stimulate discussion to identify the needs and directions of member countries and territories, and will serve as a guide for future work, and future funding proposals where needed.

2. National-level technical assistance

Since its inception, the Fisheries Development Section has completed a large number of technical assistance projects, working with both the public and private sectors in member countries and territories. Since HoF 1 (August 1999), a mix of 16 short-term (from 1 – 3 weeks duration) and long-term (1 – 3 months) projects have been undertaken, one in several phases (Kiribati). Table 2 summarises the national-level technical assistance provided over the last 2 years.

Table 2: Summary of national-level technical assistance projects undertaken by the Section

Country, dates and staff	Project	Summary of activities
Samoa October to December 1999 William Sokimi	Conduct tuna longlining trials to try to increase the catch of higher-valued tuna species in the catch.	Fishing trials were undertaken using F/V <i>Tautai Matapalapala</i> , as well as training provided to the skipper and crew of the vessel in tuna longlining technology and correct fish handling.
Tonga Jan/Feb 2000 Steve Beverly	Technical assistance provided to private sector tuna longline company.	New electronic equipment in the form of temperature/depth recorders used as well as satellite sea surface data used during tuna longline trials to enhance catches.
Nauru February 2000 William Sokimi	FAD technical assistance provided.	Using the SPC echo sounder and GPS, training was provided in site survey work and the construction of one FAD and its deployment.
Kiribati Feb/March 2000 William Sokimi	Provide technical assistance to the Fisheries Department using their new tuna longline vessel.	Conduct tuna longlining trials on the Fisheries Department's new twin hull vessel and train the skipper and crew, and interested local fishermen in making up tuna longline gear and its use.
Yap, FSM March/April 2000 Steve Beverly	Conduct training in FAD site surveys.	Three FAD site surveys were undertaken using the Section's GPS and echo sounder, with local staff trained in this activity.
Kosrae, FSM April 2000 Steve Beverly	Provide technical assistance in all aspects of FAD work.	Two FAD site surveys were conducted using the Section's echo sounder and GPS unit. Local staff were trained in this and the construction and deployment of two FADs.
Samoa April/Sept 2000 William Sokimi	Conduct sea and fishing trials on board the Fisheries Division's new design tuna longliner.	Sea and fishing trials were conducted on board the new 12.2 m <i>super alia</i> tuna longliner to assess its suitability as a commercial tuna longliner under Samoan fishing conditions.

Tonga May/June 2000 Lindsay Chapman	As part of a collaborative FFA/SPC project, provide input to the development side of a tuna management plan for Tonga.	Undertake a study with all stakeholders on the development options and constraints including training needs within the tuna fishing industry and support services in the Kingdom of Tonga.
Vanuatu June/July 2000 Lindsay Chapman	As part of a collaborative FFA/SPC/C-SPOD project, provide input to the development side of a tuna management plan for Vanuatu.	Undertake a study with all the different stakeholders on development options and constraints including infrastructure and training needs within the tuna fishing industry and support services in Vanuatu.
Kosrae, FSM Sept/October 2000 Steve Beverly	Provide assistance to the FAD programme and introduce mid-water fishing techniques used in association with FADs.	Train the Fisheries Department staff and local fishermen in mid-water fishing techniques used in association with FADs. Also assist the Fisheries Department to construct and deploy one FAD.
Nauru Sept/October 2000 William Sokimi	Technical assistance provided to NFMRA's new tuna longline vessel	Undertake training of the skipper and crew of the NFMRA's new tuna longliner, including the correct on board handling of the catch to export standards.
Pohnpei, FSM October 2000 Steve Beverly	Provide technical assistance in FAD site surveys, and FAD construction and deployment.	Train the staff of the Fisheries Department in all aspects of FAD site surveys, and FAD construction and deployment using the Section's GPS and deep-water echo sounder.
Kiribati Oct/December 2000 William Sokimi	Undertake the final phase of a longline project, looking at exporting fresh tuna from Tarawa.	Work with and train the Fisheries Department staff in correct on board handling of tunas for export, and conducting trial shipments of fresh tuna to Hawaii via Fiji.
Tuvalu November 2000 Lindsay Chapman	As part of a collaborative FFA/SPC project, provide input to the development side of a tuna management plan for Tuvalu.	Undertake a study with all the different stakeholders on development options and constraints including infrastructure and training needs within the tuna fishing industry and support services in Tuvalu.
New Caledonia Feb/March 2001 Steve Beverly	Fishing trials for swordfish	Conduct trial fishing for swordfish with the local tuna longline company, Navimon.

CNMI April/May 2001 Steve Beverly	Implement a technical assistance project to introduce mid-water fishing gears and techniques to CNMI.	Train up the skipper and crew of the Fisheries Department's vessel, plus interested local fishermen in mid-water fishing techniques.
Papua New Guinea April to July William Sokimi	Implement technical assistance project with members of the Kavieng Commercial Fishermen's Association.	Provide training to members of the Kavieng Commercial Fishermen's Association in a range of small-scale fishing methods including deep-water snapper fishing, mid-water fishing techniques for tuna, and bait catching techniques. FAD site surveys were also undertaken and two FADs constructed and deployed.

3. Workshops and training assistance activities

An important part of the Section's work has involved the preparing and running of national workshops, as well as participating and providing training assistance in other regional and national workshops organised by other Sections of the Coastal Fisheries Programme and other regional organisations. The Section participated in 9 workshops during the last two years spread over seven countries and territories. Table 2 summarises the Section's participation in workshops over the last two years.

Table 3: Summary of workshops and training assistance undertaken by the Section.

Country, dates and staff	Project	Summary of activities
Fiji September 1999 William Sokimi	Assist with the production of a training video on safety on tuna longliners, organised by the Fisheries Training Section.	Organise the skipper and crew of a local tuna longline vessel to set up situations, both safe and unsafe, for filming specific sections of the training video.
American Samoa Sept./October 1999 Steve Beverly	Participate in Sashimi workshops organised by Fisheries Training Section	Resource person for demonstrating correct killing, bleeding, processing and chilling of tunas to export standards.
Nelson, New Zealand March/April 2000 William Sokimi	Participate in a Skippers Fishing Skills workshop organised by the Fisheries Training Section.	Resource person for a two week workshop introducing fishing skippers to the latest electronic equipment used in locating fish, and discussing fishing strategies.
Pohnpei, FSM May 2000 Steve Beverly	Workshop on correct on board handling, processing and chilling of the catch to export standards.	One workshop held with participants of a private sector tuna longline company, to promote the correct handling of the catch on board to export standards.

New Caledonia June/July 2000 Steve Beverly	Participation in practical module of the Nelson PolyTech course.	Conducted tutorials and acted as fishing master on one of the training vessels used over the 5 weeks this module was run.
Kosrae, FSM October 2000 Steve Beverly	Conduct workshops of mid-water fishing methods and deep-water snapper fishing.	Train local fishermen in several one week workshops, in different mid-water fishing techniques targeting tunas and deep-water snapper fishing techniques, with practical fishing sessions conducted after gear was made up.
CNMI April 2001 Steve Beverly	Workshops on mid-water fishing techniques used around FADs.	Conduct several workshops for the fisheries staff and local fishermen on mid-water fishing techniques used in association with FADs.
Auckland, New Zealand March/April 2001 William Sokimi	Attend skippers course.	Attend a 5 week course to upgrade skills to transfer current skippers ticket to the equivalent ticket under the new STCW requirements.
New Caledonia June to July 2001 Steve Beverly	Participation in practical module of the Nelson PolyTech course.	Conducted tutorials and acted as fishing master on one of the training vessels used over the 5 weeks this module was run.

4. Meetings and conferences attended

Part of the work programme for the Section is to travel to member countries and territories to meet with different user groups of marine resources to find out what is happening in-country and to find out what the needs are as they continually change. This allows staff to maintain the focus of the Section on the needs of our clients. There is also an increasing role in attending regional and international meetings and conferences to keep abreast of new ideas and changes that may assist SPC's member countries and territories. This also allows the presentation of papers by SPC staff to let people outside the region know what is happening in the central and western Pacific regarding fisheries development. Table 4 summarises the meetings and conferences attended over the last two years by staff of the Fisheries Development Section.

Table 4: Summary of meetings and conferences attended by Section staff

Country, dates and staff	Meetings/conference	Summary
Martinique October 1999 Lindsay Chapman	International symposium on FAD design and use.	Attend meeting and present a paper on FAD fishing techniques and co-present a second paper on FADs in the Pacific region.

Nauru November 1999 Lindsay Chapman	Meet with staff of the Nauru Fisheries and Marine Resources Authority (NFMRA) and staff of the fish market.	Discuss the work plan for a technical assistance project, as well as progressing the wording for a Memorandum of Agreement (MoA) between the two organisations.
Yap, Pohnpei, Chuuk and Kosrae, FSM November 1999 Lindsay Chapman	Meetings with Fisheries Department staff and other users of the tuna resource in all four states of FSM.	Discussions in each state to find out what is happening with development in domestic tuna fishing and to work on a MoA for technical assistance on FADs in Kosrae, Pohnpei and Yap.
Marshall Islands November 1999 Lindsay Chapman	Meetings with Fisheries Department staff and other users of the tuna resource.	Discussions to find out future directions for development so these could be considered and incorporated into future activities for the Section.
Eritrea November 1999 Steve Beverly	Three week consultancy undertaken by the Section.	Training provided to Eritrean people in tuna longlining gear and fishing technique, as part of a larger boat building and fisheries development project.
Hawaii April 2000 Lindsay Chapman	Attend sessions of MHLC 6 and FFC 43, plus meet with FFA staff for the annual SPC/FFA colloquium.	Attend the meetings and also meet individually with fisheries staff from each member country at the meeting to discuss future technical assistance that is required by the Section.
Hawaii August 2000 Lindsay Chapman	Attend International Marine Debris Conference on Derelict Fishing Gear and the Marine Environment.	Participate in the international conference and provide input based on what is happening and known in the Pacific region outside of the US and US territories.
Commonwealth of the Northern Mariana Islands (CNMI) August 2000 Lindsay Chapman	Meet with staff of the Fisheries Department and local fishermen regarding technical assistance.	Discuss the work programme for a technical assistance project on introducing mid-water fishing techniques for tunas in Saipan, Rota and Tinian, and draft up a MoA for the two organisations.
Seattle, USA November 2000 Steve Beverly	Attend the annual Seattle Fish Expo/Workboat Northwest	Attend the Fish Expo to become familiar with new fisheries products and technologies that may be of interest to Pacific Island countries and territories, and make contact with suppliers of these products.

Papua New Guinea March 2001 Lindsay Chapman	Meet with staff of the Fisheries Department, National Fisheries College, and Kavieng Commercial Fishermen's Association regarding technical assistance.	Discussions were held with the Fisheries Department on development of tuna fisheries in PNG. In Kavieng, the work programme for technical assistance was finalised and a MoA developed for this project with the Kavieng Association.
Cook Islands May 2001 Lindsay Chapman	Attend FFC 48 and discuss FAD research project to be commenced in the Cooks later in the year.	Attended most sessions of FFC 48 and had separate meetings with fisheries staff from around the region. Also discussed FAD designs, catch logbooks and survey sheets as part of the FAD mooring research project to be implemented in the Cook Islands and Niue.
Auckland, New Zealand May 2001 Lindsay Chapman	Meet with FAD materials suppliers	Meeting with several FAD suppliers to discuss FAD designs and the types of materials available to trial as part of a new FAD mooring research project about to be commenced.

5. Advisory services provided by the Section

Another important component of the Section's work programme is the provision of *ad hoc* advice on a range of issues. Over the last two years the advice provided has mainly been in the areas of vessel parameters, where to locate suitable fishing vessels, FAD material suppliers, fishing gear suppliers (with specific gear) getting quotes for materials for FADs and gears used in association with FADs, advice on what is happening in other countries and territories in the region, post-harvest activities, value-adding processes for tunas and associated species etc etc. The Section needs to expand its knowledge base to try to answer the wide-ranging inquiries being received at present. This advisory service is an area the Section feels is very valuable, and we intend to continue to encourage member countries and territories to use this service.

6. Publications

All completed country assignments of technical assistance over the last two years have had the report finalised and presented to government for clearance. Of those cleared, all have been printed and distributed. Due to the specific nature of most projects and reports to the country or territory they were undertaken in, the Section is moving away from formal 'published' reports, which are very costly to produce. The approach of the Section is now to produce 'Field Reports' for each assignment, with a limited number of these produced within the Section for distribution. Ten field reports have been produced, covering the Section's work over the last two years. Full published reports will only be produced in future for assignments where there is a perceived benefit for a number of countries and territories in the region. Two published reports were produced in the last two years.

The Section has also cleared most of the outstanding list of manuals, with these finalised, printed and distributed. Funding support from AusAID has allowed the finalisation and distribution of a manual on 'Deep-bottom fishing techniques for the Pacific Islands—a manual for fishermen' in French, which was the last of the backlog.

The Section is currently working on another manual, 'Horizontal longline fishing methods and techniques' and will draw on the expertise within the Section. Fisheries Development Officer, Steve Beverly, has produced a draft text for the manual. The Section will be looking to have this manual completed in both English and French by the next Heads of Fisheries meeting in 2002.

Collaborative work has also been undertaken with various regional organisations to produce a brochure and several posters on 'Marine debris and derelict fishing gear in the marine environment'. These materials are designed to raise awareness amongst fishermen, or anyone who heads to sea, to try to reduce the discarding of plastics and oils into the marine environment. These materials have been very well received by government departments and fishermen, and there is great interest within some education systems to get this information to pass on to school children in the classroom. Funding for this project was provided by the Western Pacific Regional Fishery Management Council in Hawaii, AusAID and SPREP. A reprint of the brochure is scheduled for August 2001, with numbers based on the requests from member countries and territories.

7. Evaluation

The last two years have been very busy for the Fisheries Development Section. Overall it has been a very successful period for the Section, with past work in the form of outstanding manuals now complete, and all field reports up to date. Most country requests have been met within a timeframe acceptable to both SPC and the countries and territories concerned. New requests continue to come in for technical assistance and there are increasing enquiries for advice on vessels and gear for fishing and FAD work. In addition, the requests for studies to be done on development options and infrastructure and training needs for the fishing industry have added to the increasing diversity of work being undertaken by the Section.

8. Commitments and future directions for the Fisheries Development Section

The future for the Section looks to be busy. There are two outstanding official requests for technical assistance, Niue and Tokelau, with projects to be implemented when the countries are ready. In addition, the Section is expecting official requests from Nauru, Tonga, Kiribati and Palau for assistance and training in tuna longlining activities or FAD work. Vanuatu, Marshall Islands, Nauru, Cook Islands and New Caledonia (Loyalty Islands) have all expressed interest in gaining technical assistance in a range of development areas, from FAD projects, to compiling development plans for domestic tuna fishing to advising on suitable vessels to be used in fisheries development. Tuvalu and PNG are also interested in receiving assistance in the post-harvest sector.

It is anticipated that additional requests will be received for technical assistance in the areas of tuna longlining assistance, FAD construction, site surveys and deployment and the running of workshops. A study is tentatively scheduled for Kiribati in late 2001, on development options for domestic tuna fishing operations as part of the development of a Tuna Development and Management Plan. This work will be carried out in conjunction with FFA, who will be assisting the Kiribati Fisheries Department in the writing of the Plan.

There are several areas where the Section will be focusing its activities during at least the next 12 months in addition to the activities presented above.

8.1 FAD mooring research project

Following the direction from member countries and territories at HoF 1, the Fisheries Development Section drafted a funding proposal to look at FAD systems, especially the upper half of the mooring and buoy systems. The aim is to find a cheaper mooring system that will hopefully last at least two years on average. Coupled with this is the use of FADs as a management tool, especially where Marine Protected Areas (MPAs) have been implemented, to assist displaced fishermen and reduce fishing pressure on inshore resources. Surveys are to be conducted in coastal communities to try to measure the effects, plus a logbook system will be implemented to record catch and effort data, so that a cost benefit analysis can be undertaken.

New Zealand has funded this project over three years, through their Pacific Initiative for the Environment (PIE) fund. The project will be implemented in the Cook Islands and Niue, with a commencement date of July/August 2001. Member countries and territories will be kept informed of progress on this project, especially any design changes that improve the lifespan of units and reduce costs.

8.2 Production of a tuna longlining manual

This activity was commenced over two years ago, with an initial draft text produced by Steve Beverly. Time constraints and budget limitations have hindered the progression of this manual to date, and there is much work to be done to get this manual to a final stage, including the production of many diagrams. The Section is now placing a high priority on getting this manual completed over the next 12 months in both English and French.

8.3 Information and awareness brochures and posters

The Section has produced a brochure and posters on the marine debris and derelict fishing gear issue to raise awareness of fishermen and others who go to sea. The Section is also working on a brochure and poster(s) to provide fishermen with information on tuna longline bycatch and ways to reduce or mitigate the problem, or in the event of catching an unwanted species, ways to release it with the best chance of survival. As other specific awareness issues are identified, the Section will undertake to produce relevant literature and distribute this throughout the region.

8.4 Post-harvest activities (value-adding, HACCP training, and other health and hygiene issues)

There is an increasing interest in the Pacific to add value to marine products at the source of capture. This not only increases the value of the product, it cuts freight costs for export products (less weight being sent), and it generates employment and income within the country doing the value-adding. Some value-adding is being conducted on tuna and by-product from tuna fishing operations, however, there is scope for this to be further developed.

There is also an ongoing need for HACCP (hazard analysis and critical control point) training and advice provided on correct health and hygiene requirements for exported products. This includes the EU, which has specific requirements that include legislation and the need for a 'Competent Authority'. The Section and Coastal Fisheries Programme do not have staff with the expertise necessary to assist member countries and territories in this area, and consultants need to be hired on an as-needs basis. This is an area where the Section would like to get some expertise, however, this will be subject to funding availability.