

No. 25

April 2000

# SAMUDRA

REPORT

INTERNATIONAL COLLECTIVE IN SUPPORT OF FISHWORKERS



Illegal Trawling in Indonesia  
Canada's Corporate Wars  
FISHERIES MANAGEMENT IN BARBADOS  
CO-MANAGEMENT IN CANADA  
THE FISHING LANGUAGE OF MÄORIS  
MECHANIZATION IN SRI LANKA  
News Round-up

# Contents

SAMUDRA No. 25 APRIL 2000 TRIANNUAL REPORT OF ICSF

<input type="checkbox"/>	<b>COMMENT</b>	<b>1</b>
<hr/>		
<input type="checkbox"/>	<b>INDONESIA</b> Up against trawling	<b>3</b>
<hr/>		
<input type="checkbox"/>	<b>CANADA</b> Corporate capers	<b>7</b>
<hr/>		
<input type="checkbox"/>	<b>BARBADOS</b> Only partnerships work	<b>10</b>
<hr/>		
<input type="checkbox"/>	<b>CANADA</b> The way forward	<b>14</b>
<hr/>		
<input type="checkbox"/>	<b>NEW ZEALAND</b> Fishing for a language	<b>18</b>
<hr/>		
<input type="checkbox"/>	<b>AUSTRALIA</b> Shepherding the seas	<b>24</b>
<hr/>		
<input type="checkbox"/>	<b>MADAGASCAR</b> Pink gold, muddy waters	<b>27</b>
<hr/>		
<input type="checkbox"/>	<b>ANALYSIS</b> Angling for disaster	<b>31</b>
<hr/>		
<input type="checkbox"/>	<b>JAPAN</b> A time of surrender	<b>34</b>
<hr/>		
<input type="checkbox"/>	<b>WEBSITE</b> oneFish, many uses	<b>37</b>
<hr/>		
<input type="checkbox"/>	<b>RESPONSE</b> Not an easy task	<b>41</b>
<hr/>		
<input type="checkbox"/>	<b>RESPONSE</b> Redistributing wealth	<b>44</b>
<hr/>		
<input type="checkbox"/>	<b>SRI LANKA</b> Mechanization ahoy!	<b>46</b>
<hr/>		
<input type="checkbox"/>	<b>NEWS ROUND-UP</b> Belgium, China, US, Argentina, Australia	<b>50</b>
<hr/>		

## A core issue

In the context of the crisis gripping the world's fisheries, everyone seems to agree that only sound and judicious management of resources will salvage most fisheries. Is co-management one of the practicable tools in this mission?

In "Only Partnerships Work" (page 10 of this issue), Patrick McConney from Barbados, a Small Island Developing State in the Caribbean, observes, "Fisheries authorities must recognize that they need to form partnerships with the people in the fishing industry, whether the process is called co-management, community-based management or something else." Yet, in the context of Canada, a developed nation, where co-management processes have been used to manage marine fisheries since 1995, Marc Allain tells us that many leaders of fishermen see co-management as "yet another example of government talking about grass-roots participation and consultation, but doing the opposite" ('The Way Forward', page 14). He further points out the most serious criticism levelled against the co-management approach in Canada, that it is a "smokescreen to advance the government's agenda to privatize fish resources and force everyone on to individual transferable quotas". Based on a document produced by the Canadian Council of Professional Fish Harvesters, he elaborates how a co-management approach could actually be adopted to a multi-species, inshore fisheries, to the potential satisfaction of fishers.

This approach of co-management has its origins in the single-species fisheries of developed countries. However, how relevant is it to the multi-species fisheries of developing countries? Co-management essentially means an arrangement between the fishers and the government at different levels to manage fisheries through sharing decision-making powers. Depending on how you use it, it can either lead to a dangerous situation where genuine fishers are excluded from participating in a fishery or to a situation where fishers are given an opportunity to responsibly manage their fishery.

Although fish is an important source of animal protein, foreign exchange and employment, there is hardly any meaningful, planned fisheries management in most developing countries. Fisheries are in crisis not because of poor management but often because of **no** management at all. Many developing countries, although aware of the magnitude of the problem, are unable to do anything because of paucity of funds and conflicting priorities. In this context, a well-designed co-management regime, based on clearly defined rights and responsibilities, could be quite useful, especially to save costs and to legitimately manage the resources.

Since most developing countries lack the institutional framework within which a co-management approach could succeed, attention should first be given to setting up such arrangements. Though these are likely to be expensive in the short run, they should become priority areas for governments and donor agencies. If we are bothered about equity considerations, genuine fishworkers' organizations are essential for the success of the co-management approach. The emphasis on building successful and genuine fishworkers' organizations in the 'development' era in many Third World countries now needs to be re-emphasized in the 'management' era as well.

A bottom-up co-management approach that is cost-effective, participatory and enjoys the confidence of fishworkers might work in developing countries. But it all depends on the kind of institutional capacity that can be built beforehand. More importantly, it depends on building up genuine fishworkers' organizations.

Traditional fishers

## Up against trawling

**The traditional fishermen of North Sumatra have united to battle the threats posed by trawling**

After the New Order government of Suharto came into power in 1966, a new phase in Indonesia's development was initiated. This was articulated in the *Trilogi Pembangunan* (the Three Basic Principals of Development) that aimed to achieve a certain level of development. At the same time, the New Order also took some steps to maintain national stability, based on the assumption that development targets could only be achieved if national stability was guaranteed.

One of the strategies adopted for this was to maintain the community's focus on development efforts. Another was to keep the community away from political activities, including the activities of political parties. At the same time, political parties were not allowed to make contact with communities, especially in rural areas.

The New Order also established people's organizations, such as *Himpunan Kerukunan Tani Indonesia* (HKTI)/ Indonesian Farmer Brotherhood Organization) and *Himpunan Nelayan Seluruh Indonesia* (HNSI) / Indonesia Fishermen's Organization). These were actually linked to the ruling political party. Fishworkers were allowed to join only HNSI and farmers only HKTI. Members of these organizations were obliged to vote for the ruling party. Any attempt to establish a new independent organization would be branded as a communist initiative by the government. In practice, this system blocked the aspirations of local people and made it difficult for them to engage in any political activity, except during the public elections, once every five years.

To accelerate the country's development, the government emphasized the

modernization of every sector. In fisheries, the emphasis was on substituting traditional fishing equipment with modern craft and gear, in order to improve the income of fishers. As part of this drive, traditional fishers were encouraged to replace traditional gear with trawls, known in Indonesia as *pukat harimau*. Credit incentives were provided for this. Trawls were seen as having several advantages, particularly greater efficiency, which made possible higher levels of fish production with minimal human resources. Due to these various benefits, the trawl soon became the gear of choice in the modernization drive.

However, this policy did not take into account the fact that traditional fishermen lacked the knowledge and training needed to operate trawls. Moreover, they could not afford to purchase the highly priced trawls, despite credit incentives. As a result, the policy actually benefited the professionals within the sector, and did little to improve the situation of traditional fishermen. More often than not, trawls were owned by investors, who used skilled labour to operate the gear.

For the traditional sector, several negative impacts resulted. With the use of trawls, large catches became possible. But their use also destroyed the coastal environment and important spawning and breeding grounds. Most of the trawlers operated in the same coastal waters used by traditional fishermen, their 'customary sea', and competed directly with them.

### Public property

This affected both the catches and the income of the traditional fishermen. Significantly, the concept of the 'customary sea' vanished when the Government of Indonesia declared the sea

as 'public property', as stated in Ministry of Agriculture Decree No.607/KPTS/UM/9/1976.

**F**orced to respond to the protests of traditional fishers, the Government implemented a trawl ban in 1980, through Presidential Decree No.39/1980. The use of trawls was banned in all Indonesian territory, except in Irian Jaya and Maluku, by Presidential Decree No.12/1982). This ban was also supported by a Decree of the Indonesian Supreme Court (No. 8/1988). Despite this, in practice, the ban has not been operational. Vessels using trawls continue to operate in Indonesian territory, especially in the North Sumatra region. This situation has forced the traditional fishers of North Sumatra to undertake various actions.

It is also significant that, until now, the HNSI has failed to solve the problems resulting from continued trawling activities and has not been able to work towards the implementation of the ban. On the contrary, there is a tendency for the HNSI to favour the trawler owners and to even protect and provide cover to their operations.

There are several reasons that make it difficult to implement the trawl ban. The ban on trawling, under the Presidential Decree No. 39/1980, was not supported by effective monitoring and enforcement at the regional level. Other government policies have supported the continuation of trawling activities. For instance, a fisheries regulation of 4 July 1996 supports the purchase of foreign boats by investors. This, in effect, means the procurement of trawlers. This has occurred in Belawan, where there are at present 144 modern fishing boats using trawl-like gear, named otherwise to get past the law.

There is no policy that specifically protects traditional fishers, their gear and their customary area of operation, from the operation of modern fishing gear such as trawls. Although there is a Fishery Law that acknowledges the rights of these traditional fishers to their customary sea, this regulation is not operational.

The Regional Government Offices that issue permits to fish often do not take into account their impacts on the traditional

sector or, for that matter, on the coastal environment. In fact, they tend to favour the interests of the investors.

The institutions that are meant to implement the trawl ban, such as the marine force, the police and the fisheries department, often have overlapping responsibilities. Collusion tends to occur between trawl owners and government officials. For example, trawls that have been confiscated by traditional fishers and handed over to the authorities, are released the very next day.

This situation has angered traditional fishermen. And, not surprisingly, they have taken several actions, such as burning of trawlers. They feel that they cannot depend on the official system to take care of their interests.

The resentment of traditional fishermen towards trawler owners is further aggravated by the fact that they have established a three-tier marketing network of intermediary middlemen that controls fish prices. The price at which the consumer finally purchases the fish is very high. Since traditional fishermen can only sell their fish to the first middleman, they get a very low price. They have no other option but to go along with this system; if not, they run the risk of not being able to sell their catch at all. Any effort to establish an alternative marketing structure is soon destroyed by the marketing network controlled by owners and investors. The Fish Auction House that was supposed to have functioned as the place for fishermen to auction their catches has become part of the owner-controlled marketing system. The situation is similar in fishermen's co-operatives.

Several meetings were held by fishworkers between 1993 and 1998 to discuss this situation. Fishermen and a number of public figures in North Sumatra participated in these meetings. It became evident that to deal with these problems, traditional fishermen in North Sumatra must establish an independent organization managed by the fishers themselves.

#### **Independent organization**

Finally, on 14 July 1998, in Medan, an independent fishermen's organization

was formed, called the *Sarekat Nelayan Sumatera Utara* (SNSU) or North Sumatran Fishers' Union.

About 900 traditional fishermen from three regions in North Sumatra (Langkat, Asahan and Deli Serdang) participated in this event. SNSU aims primarily to draw the attention of the government to the long-neglected problems of traditional fishermen—for instance, the problems caused by trawling and other similar operations, and their impacts on traditional fishermen and on the coastal environment.

The SNSU declaration was presented to the Governor of North Sumatra and to the Head of the Provincial Fishery Department in North Sumatra. This led to a dialogue between fishermen and the Governor. The Governor promised that the problem of trawling would be resolved within a year.

But this promise was never fulfilled. In fact, the number of trawlers operating in the area has increased, even as conflicts between the trawlers and traditional boats have risen.

Along the Sialang Buah coast, in the district of Mengkudu in the Deli Serdang region alone, 51 fishermen were injured between 1993 and 1998. Of these, 31 fishermen lost their lives as a result of injuries from clashes between the

traditional boats and trawlers at sea. There have been several other such incidents in regions such as Langkat, Asahan and Belawan. However, there are no official records of these incidents.

As an organization founded by fishermen, SNSU actively promotes the interests of traditional fishermen by putting pressure on the Provincial Governor of North Sumatra, the President of Indonesia, and agencies such as the Office of the Attorney General, the District Military Office of Bukit Barisan, Lantamal I Belawan, Provincial Fishery Department in North Sumatra, and District Officers (*Muspika*) in coastal areas, etc.

A number of activities have been undertaken to draw attention to the problems of traditional fishermen, such as delegations, demonstrations, presentations, and even the direct arrests of trawlers.

The SNSU aims to create unity among fishers in North Sumatra and to support them in their struggle for social, cultural, economic and legal justice, as citizens of Indonesia. More specifically, it aims to:

- develop economic activities for all members through the formation of fishermen's co-operatives;
- improve the social welfare of all members;

- train members through educational activities;
- defend the interests of members through advocacy; and
- establish fishermen's groups in every district along the coast of North Sumatra.

**I**n order to achieve these objectives, SNSU has developed various programmes. These can be broadly classified as Advocacy, Community Economic Development, Human Resource Development, and Networking.

The present era of reform in Indonesia, where freedom to organize and express one's views is part of the democratization process, has provided a good opportunity for traditional fishermen to articulate their concerns. It is hoped that the establishment of the Ocean Exploration and Fishery Department will promote the welfare of traditional fishermen in Indonesia and particularly in North Sumatra. Hopefully, the mistakes of the past, when the traditional fishery sector was ignored, will not be repeated. ♣

This piece is by Tries Zamansyah, Secretary General of the Sarekat Nelayan Sumatera Utara (SNSU), North Sumatra, Indonesia

## Corporate capers

**A takeover bid by a Canadian seafood company underlines the need for clear public policy on critical industries**

In recent years, the fishing industry of Newfoundland and Labrador, Canada's newest and most easterly province and one that has a traditional dependence on the fishery, has seen market forces being relegated to second place by the organized strength of coastal people.

It all began with a bid by a new consortium called NEOS Seafoods Inc. for a hostile takeover of Newfoundland's (and indeed North America's) largest seafood company, Fishery Products International (FPI), a publicly traded company.

Eighty per cent of the equity of NEOS is divided equally between the company's Newfoundland and Nova Scotia partners, the seafood companies known as the Barry Group and Clearwater Fine Foods respectively, and the remainder 20 per cent is owned by the Icelandic seafood trading company, Icelandic Freezing Plants Corp.

FPI is a seafood company which was formed in the mid-1980s out of the ashes of a virtually bankrupt Newfoundland deep-sea fishing sector. To avoid massive job loss, the federal and provincial governments of the day poured hundreds of millions of dollars into the restructuring of the deep-sea sector.

A number of virtually bankrupt companies operating in Newfoundland were combined into FPI, a company in which both levels of government took an equity position. Provincial legislation included a requirement that the company maintain its head office within the province and have majority of Newfoundlanders on the Board of Directors. In addition, the legislation contained a share restriction that limited

to 15 per cent the proportion of FPI shares that could be held by any one individual or association of individuals acting in consort.

After highly profitable years in the mid- to late-1980s, FPI bought out the government shares, privatized the company and restructured itself into a company traded on the stock exchange. It obtained raw material both from offshore company ITQs and by buying from independent inshore and midshore harvesters.

The collapse of the key groundfish stocks in Atlantic Canada by 1992-93 created another crisis for FPI, which lost 95 per cent of its groundfish allocations. Once again, the company went back to the drawing board, shifting its emphasis to international seafood trading.

The company made this transition successfully, enjoying modest profitability by 1998, and in the acquisitive mindset of the market, was seen to be "ripe for the picking". The first potential cherry picker was NEOS, a company created for that very purpose. On 5 November 1999, NEOS offered Can\$9 a share for FPI shares, up from the then current rate of about Can\$7.20. But it was a highly conditional offer, contingent upon, among other things, removal of the legislated 15 per cent share restriction as well as a similar provision in the FPI byelaws, and also upon the presumptuous condition that there be no review of the matter by Canada's Competition Bureau.

### **More concentration**

This latter condition was significant in that the takeover, if successful, would lead to an extremely high degree of concentration in the Newfoundland fishery, one that had set off alarm bells



among Newfoundland's 10,000-strong inshore/midshore fish harvesting sector, as well as among fish plant workers.

**T**he Fish, Food and Allied Workers (FFAW/CAW) Union represents both fish harvesters and fish processing plant workers, including about 3,000 plant workers and 300 trawlermen employed by FPI. Even during the darkest years of the groundfish crisis of the 1990s, the union had negotiated wage increases for plant workers in every year but one, and labour relations with FPI were positive and constructive.

Normally, shareholders could not care less what a union thinks about a share offering, but the 15 per cent share restriction made the takeover bid a political issue as well as a financial one. Without the approval of the Newfoundland and Labrador governments, the bid would fail.

The governments' position was that they would be convinced to lift the legislation only if the people of the province were convinced. Suddenly, the union was in a highly influential position, as were the municipal councils in towns with FPI plants.

FFAW/CAW were first off the mark in developing a position on the takeover bid. A week after the bid was announced, the union executive board, together with the

elected union leadership of the FPI plants and CAW National President, Buzz Hargrove, met first with the NEOS principals then with FPI management. The union then arrived at a position and moved to an adjoining meeting room to advise a press conference that it would be asking the provincial government to maintain the 15 per cent share restriction.

The union's position was based on three main considerations:

1. The financial vulnerability of FPI arising from the conversion of Can\$150-Can\$200 million of shareholder equity into debt, as proposed by NEOS.
2. The high level of corporate concentration that would have resulted in the fishery in Newfoundland and Labrador, particularly detrimental to fish harvesters as a result of significant lessening of competitive forces in the buying of raw material.
3. The positive labour relations history between FPI and its unionized workforce, in contrast with the pronounced, high-profile, anti-union background of at least one of the partners in NEOS.

#### **Election-style campaign**


NEOS expressed disappointment in the union's position, and immediately launched an election-style campaign, including highly publicized visits by the

NEOS principals to several towns in which FPI operates. NEOS announced plans to rebuild FPI's oldest plant, at a cost of Can\$10 million, and also promised new facilities in two additional locations. It also promised year-round work in plants which had been limited to seasonal work by raw material constraints.

**T**he reaction of the workforce and the communities was one of scepticism. Plant workers turned out in large numbers at membership meetings to oppose the NEOS plan. One by one, municipal councils in towns with FPI plants followed the union's lead in opposing the lifting of the share restrictions. The social democratic New Democratic Party had come out early opposing the takeover, and once it became clear that public opinion was strongly against the takeover, the opposition Progressive Conservative party took a similar position.

Having promised initially to respect public opinion, the provincial government advised NEOS, on 7 December 1999, that it would not lift the share restriction. The next day, NEOS withdrew its bid, less than five weeks after it had first been announced.

Fundamentally, the NEOS bid failed because its proponents had developed their plan in isolation from organized labour, and failed to convince anyone that their plan would enhance and strengthen the Newfoundland and Labrador fishing industry generally and the prospects and job security of FPI employees and fish harvesters in particular. The whole experience underlines the importance of government legislation to stabilize and set ground rules for public policy for critical industries.

Pressure to remove the restrictions will continue, from FPI's management and Board of Directors as well, because the financial world prefers that only its rules apply. But, as we enter the new century, the same vigilance that FPI workers, fish harvesters and their union displayed through five crucial weeks at the end of the 20th century will be needed even more as workers respond to global pressures for unrestricted and untrammelled corporate rights. 

This article is by Earle McCurdy,  
President of FFAW/CAW,  
Newfoundland, Canada (email:  
tpretty@ffaw.nfld.net)

## Fisheries management

## Only partnerships work

**The experience of Barbados throws light on fisheries management plans, and not just for Small Island Developing States**

**T**he need to introduce Fishery Management Plans (FMPs) was first appreciated by eastern Caribbean fisheries authorities in the early 1980s. Fisheries are important socially and culturally, if not economically, in these Small Island Developing States (SIDS).

The fishing industry of Barbados, the most eastern of the islands in the Lesser Antilles chain, is small-scale and based largely on the migratory pelagic fishes such as flying fish, dolphin, tunas and billfish that traverse its Exclusive Economic Zone (EEZ). Due to their movement during some parts of their life cycles, these fish resources are shared with several other marine jurisdictions and countries.

The Food and Agriculture Organization (FAO) and the CARICOM Fisheries Resource Assessment and Management Programme (CFRAMP) assisted in producing a draft FMP for Barbados to meet the requirements of a 1993 Fisheries Act which took the provisions of the Law of the Sea into account. The Fisheries Act requires the Chief Fisheries Officer to develop fishery-specific FMPs and keep them under review. According to the Act, each fishery plan must include:

- The present state of fishery exploitation
- Management and development objectives
- Management and development measures and policies
- Statistical information requirements
- Specifications of licensing and limitations to fishing

The work of developing the initial draft plans was confined largely to fisheries consultants and the fisheries officers of the Fisheries Division in the Ministry of Agriculture. However, the Fisheries Act requires that the Minister appoint a Fisheries Advisory Committee to advise him on the development and management of fisheries.

In the absence of functioning fisherfolk organizations at the time, members from the fishing industry were selected on the basis of their personal expertise through an informal system of peer recommendations and shortlisting. The appointed members of the Fisheries Advisory Committee were the Chief Fisheries Officer as Chairman, an offshore fisherman, an inshore fisherman, a boatowner, a fish processor, a fisheries consultant, and the Deputy Director of the Coastal Zone Management Unit. Early in 1996, the newly formed Fisheries Advisory Committee faced the task of completing the FMP through consultation as promoted in the Fisheries Act.

The Committee anticipated that several months of private and public meetings would be required to re-formulate the draft FMP. The Act recommended that the fishing industry and other stakeholders have a meaningful say in determining the content of the FMP. These are the people who will be most affected by the plan, whether it is successful or not. It is widely recognized that FMPs will succeed only if the fishing industry is an integral part of plan formulation, implementation, monitoring and evaluation.

### Legal guidance

Clearly defining the task and then tackling it methodically was important. The law gave guidance on content, and the Fisheries Advisory Committee decided on

a sequence of steps, each with feedback and a schedule, as follows:

1. Fisheries Division formulates the draft FMP
2. Fishery Advisory Committee (FAC) appraises the draft FMP
3. Fishing industry and other stakeholders review the draft FMP in public
4. Minister approves the final draft FMP (after several reviews and revisions)
5. Fisheries Division and fishing industry implement and monitor the FMP
6. Stakeholders and Fisheries Division evaluate and improve the FMP

The circulation of the Fisheries Advisory Committee's draft FMP for public review stimulated active and constructive participation. We intentionally went beyond the fishing industry, since the benefits from managing fishery resources must be shared among the general public. All taxpayers share the costs of fisheries management, and there are many interactions with stakeholders in other sectors of the economy such as tourism and agriculture. Therefore, special

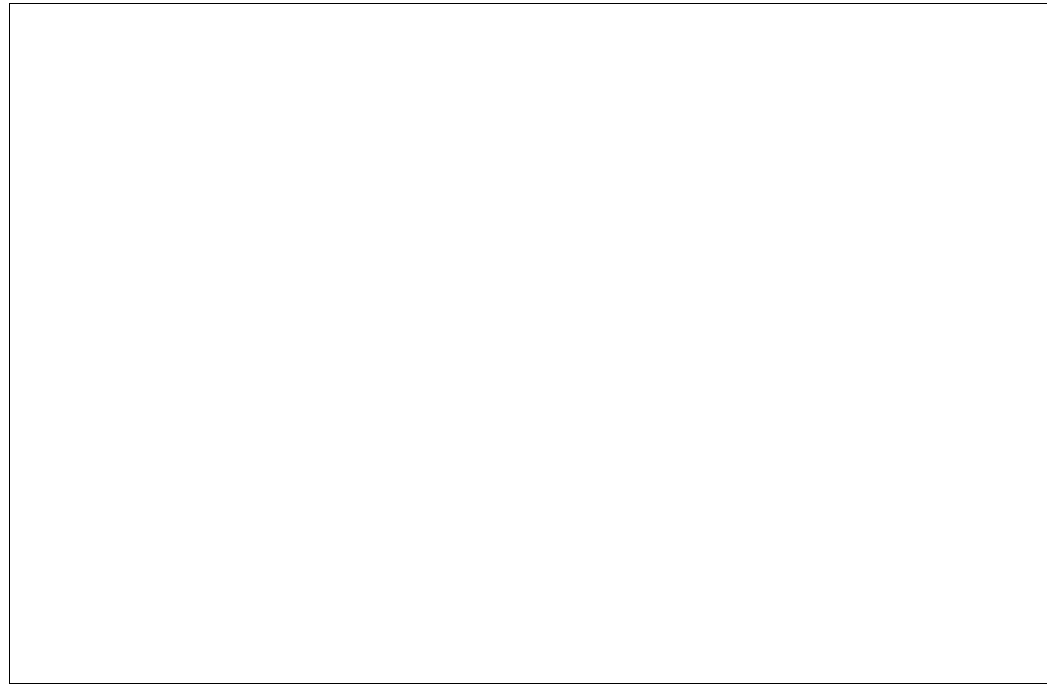
attention was paid to coastal zone issues and inter-sectoral linkages.

Public meetings were held in both central and community locations. Although the Fisheries Division took the lead, members of the FAC also attended the site meetings. Copies of the draft Plan were distributed, and the public at large informed that written comments were welcome. However, more emphasis was placed on receiving the oral comments of fisherfolk at the informal field meetings. All issues affecting the fishing industry were open for discussion, whether in the draft Plan or not, so that the stakeholders set the agenda for the review. From the public review process, we got additional ideas to incorporate into the Plan. We were told, often in no uncertain terms, which were the priority areas and burning issues.

The Fisheries Division and Fisheries Advisory Committee revised the FMP to include the recommendations of stakeholders, whether they agreed with the government or not. The fact that the FMP was now the people's plan made it more acceptable to the political directorate.

#### **Legal regulations**

When legal regulations are drafted on the basis of the plan, Ministers must feel confident that the fishery management measures will be supported by the ordinary man in the street. It was easy to



persuade the fisheries Minister to approve the plan for implementation as required by law.

**T**he first FMP for Barbados was approved in 1997, and the regulations to give effect to the agreed upon management measures became law in 1998. Meanwhile, the Fisheries Division started a public education programme to remind stakeholders and the public about the benefits of fisheries management and the important role individuals and groups can play to help it succeed. The majority of participants in the fishing industry and the public are unfamiliar with fisheries management planning. The first plan was intended primarily as a communication and education document. In this respect, it has been quite successful.

The legally required information for each of the eight fisheries to be managed was put in a format that was easy to follow even if one knew little about the fishing industry. The first half of the plan document gave a general overview of the fishing industry so the reader could place the plans into context. Issues regarding fisheries development, which is of prime interest to people in the industry, potential investors, banks and donor agencies were placed in a separate section. Each fishery-specific plan follows a common layout and minimizes the use of technical or scientific language. For each, there is

also an implementation plan that seeks to address the main issues confronting the particular fishery. This layout is intended to facilitate quick access to the essential information. A glossary is appended to explain some essential technical terms and management concepts.

The fishery-specific plan sections are: Target Species; Catch and Effort Trend; By-catch; Regulatory History; Ecology; Management Policies and Objectives; Description of Fishery; Selected Management Approaches; Management Unit Development Constraints; Resource Status; and Development Opportunities.

The plan has also been effective in having its contents translated into legal regulations intended to manage the fishery. However, compliance with the regulations has been mixed largely due to the inability of the small staff of the Fisheries Division to follow up with the technical support required to establish some of the fishing gear measures for responsible fishing.

#### **Collaborations**

The Fisheries Division has been vigorously promoting and facilitating the formation of fisherfolk organizations in order to improve participation and collaboration in the process. Even though fisherfolk organize themselves mainly for income-generating development, rather than fisheries resource conservation or

management, the collective action is mutually beneficial for information exchange and exploring shared interests with other stakeholders and government.

**T**he planning process recently introduced in Barbados has provided a variety of lessons that may apply elsewhere. First, the fishing industry is not familiar with fishery management issues and techniques. Therefore, it can not be assumed that Fisheries Advisory Committee members drawn from the industry, or the public, are in a position to contribute to the scientific and very technical aspects of the plan. However, their contributions on other aspects are invaluable.

The planning process brought to the fore the wide array of responsibilities of the Fisheries Division, and the urgent need for attention to many of these issues. It, therefore, underscored the limited institutional capacity of the Fisheries Division to address these issues expeditiously with its currently scarce resources (human, physical and financial).

The selected approach starts with a rational framework that describes, in simple terms, what is known and generally agreed upon by the management stakeholders. It identifies desired end points and the approaches to getting there, based on the best available and shared information.

In this manner, the foundation is laid for proceeding with management actions that are reasonable and generally acceptable even before there is a well-established scientific basis for them. These types of approaches, which rely less on large quantities of scientific information, and more on negotiated objectives derived from modest science and shared perspectives, are perhaps better suited to small-scale fisheries management, given the limited capacities of most fisheries management units in SIDS.

The Barbadian approach is precautionary in first setting up the management policies and objectives with simple, achievable steps to meet them. It is not based upon conducting stock assessment and detailed scientific research as an essential prerequisite. It, therefore, includes

obtaining scientific information as management proceeds.

At public meetings, the industry tended to focus more on the problems associated with infrastructure and economic development, than on management or conservation issues. In preparing the FMP to meet local needs and expectations, it was decided to explicitly include fisheries development.

The close and complementary link between management and development was thought to be an important perspective in the context of promoting sustainable resource use in a SIDS. People and politicians in developing countries expect management to include both conservation and development. However, the bias towards capital development is based on an implicit assumption of continued resource availability. This can be a dangerously incorrect assumption.

These lessons reiterate the need for increased and continuous information exchange amongst stakeholders in the fisheries management process. This is necessary to bring about more informed, meaningful and effective participation by the fishing industry. It will also strengthen the capability of the State to manage the fisheries successfully through collaboration and co-operation, rather than command and control. Indeed, exchange of information between the fishing industry and fishery managers is one of the most critical dimensions of fisheries planning. This is especially so in countries like ours unable to engage in elaborate fisheries research. Fisheries authorities must recognize that they need to form partnerships with the people in the fishing industry, whether the process is called co-management, community-based management or something else. **3**

This article is by Patrick McConney, Chief Fisheries Officer, Fisheries Division, Barbados (email: fishbarbados@caribsurf.com)

## Co-management

## The way forward

**Inshore harvesters throughout Atlantic Canada are gradually extending their influence over fisheries management through co-management processes**

Creating New Wealth from the Sea, published by the Canadian Council of Professional Fish Harvesters (CCPFH) in June 1996, included the following statement: “We support the concept of co-management with industry shouldering more management responsibilities together with government.”

Since the report was published, however, the idea of co-management has become increasingly confused and controversial, and industry organizations now express views on the topic ranging from cautious interest to outright distrust.

Many harvester leaders see co-management as yet another example of government talking about grass-roots participation and consultation, but doing the opposite. They point to top-down decision-making on issues like fleet reduction, licence fees, small craft harbours, downloading of surveillance and enforcement costs, and resource allocations. The most serious criticism is that the co-management policy of the Department of Fishery Operations (DFO) is just a smokescreen to advance the governments agenda to privatize fish resources and force everyone on to individual transferable quotas (ITQs).

The fact that the DFO has targeted specialized corporate or mid-shore fleets for their initial ‘partnering’ agreements (on, for example, offshore scallops, Pacific halibut, groundfish mobile gear, snow crab, etc.) has also made the multi-species inshore sector suspicious of the government’s motives.

Against this background of mistrust and controversy, the DFO asked the Council to consult with its member organizations about guidelines for co-management in

the multi-licence inshore fishery. The project provided an opportunity for the Council to look closely at some of the many fisheries management activities that inshore harvesters in Atlantic Canada and Québec have initiated in their local areas, and for harvesters to discuss and debate wider policy issues related to co-management. What follows is a brief summary of the Council’s report.

The DFO’s co-management policy has been in place since 1995. It involves two principal elements which impact on the multi-licence inshore sector: Integrated Fisheries Management Plans (IFMPs) and partnering arrangements. IFMPs are gradually being introduced by the DFO for each individual fishery. They are built on the established system of advisory committees and fisheries management plans, but are intended to involve wider consultations with licence holders and other stakeholders. They are also supposed to pull together the activities of all the DFO sectors—Resource Management, Science, Conservation and Protection, Policy and Economics, etc.—in one planning process.

Fisheries management ‘partnering arrangements’ involve negotiated agreements between the DFO and industry groups to share regulatory, administrative and other responsibilities. At present, such arrangements are set up as joint project agreements (JPAs) which define the administrative and financial aspects of the legal contracts between the partners.

### Micromanagement

In most cases, industry is expected to take on some responsibilities and costs for the day-to-day micromanagement of the fishery that were previously carried on by the DFO, in return for greater security of

access to resources and expanded control over their own fishing operations.

**A** proposed new Fisheries Act contains legislative mechanisms for more comprehensive and longer term transfers of management authority, subject to the Minister's continuing responsibility for conservation, through formal fisheries management agreements.

Multi-licensed inshore harvesters throughout Atlantic Canada and Québec have consistently raised concerns about co-management throughout the consultations leading up to the Council's report. These concerns can be summarized as follows:

1. The need for multi-species approaches to fisheries management: From a conservation perspective, as well as in terms of the way they conduct their multi-species enterprises, inshore harvesters want to see mechanisms that promote integrated planning and regulation of all fishing activities in a given area.

2. Privatization of the resource: Co-management is seen by many harvesters as part of a continuing push by the DFO for privatization of fish resources and of the management system, particularly through the implementation of ITQ regimes.

3. Concerns about 'economic viability': In contrast to the DFO's narrow approach to enterprise viability based on single-species fisheries, multi-licence harvesters favour a comprehensive accounting system that would also look at the viability of fleets and fishing communities.

4. Cost downloading: Harvester groups are concerned that the continued downloading of costs through higher licence fees, dockside monitoring costs, etc. is having negative impacts on enterprise viability in the inshore, multi-licence fleets.

5. Ineffective capacity reduction: Harvesters want to see more industry control over capacity reduction and programmes that are sensitive to local conditions and will produce optimal gains in terms of overall fleet viability.

Inshore harvesters would like to see provisions in the new Fisheries Act to define clear roles and responsibilities for broad-based organizations with regard to co-management in their sectors. They also want the Act to define clearly who can be partners in a transparent process of negotiation for fisheries management agreements.

#### **Exciting projects**

The report of the Council describes a number of exciting local projects where



harvesters, with or without the support of the DFO, are taking the initiative to build new fisheries management systems that work effectively at the local level.

**I**n Newfoundland's Eastport Peninsula, harvesters are doing their own lobster stock assessment research, after setting up a new system to enforce minimum size limits. In Gulf Nova Scotia, groups have come together to design a comprehensive capacity reduction strategy. On Digby Neck and in Shelburne County, Nova Scotia, local harvester groups are managing their groundfish allocations through innovative community-based management systems.

All around the Atlantic region, local harvester groups are adapting new approaches to research and education to improve recruitment levels in the critically important lobster fishery.

These current activities are clearly part of a long tradition of multi-licence harvester groups taking responsibility for the management of their industry.

While the DFO has only recently embraced the concept of co-management, harvester groups have long pushed for genuine partnership with government whereby the knowledge, competencies and economic interests of harvesters are fully recognized, and where they have a

meaningful say in the decisions that shape their working lives.

The Council's Board of Directors is circulating the co-management report to stimulate discussion among harvesters and their organizations and within government. While it is not able to take a clear policy stance until its member organizations have fully considered the issues, the Council is putting forward for discussion the following three action steps to advance co-management in the multi-licence inshore sector:

**1. Co-Management Advisory Councils:** The DFO and the legitimate harvester organizations could work together to design and put in place representative advisory councils to act as consultation, planning and co-ordinating bodies for the continuing elaboration of co-management in multi-licence inshore fisheries. The councils would generate advice and seek industry consensus in areas such as harvester registration systems, professionalization, long-term fleet planning, community-based management, and locally based co-management projects.

#### **Harvester communities**

In determining their coverage by area, such councils would be built from the ground up and shaped by harvester communities who choose to group together. DFO staff and harvester

representatives would work together through the councils on fisheries management plans, local co-management projects and partnering agreements.

2. Regional Working Groups on Capacity Building: The DFO and the established harvester organizations in each region would work together to help harvester groups to participate in co-management for multi-licence inshore fisheries. Among the issues to be addressed would be: the need for stronger, better financed harvester organizations; education and training programmes to strengthen local knowledge and skills; better networking among local and regional harvester groups; and ongoing evaluation of regional and local co-management initiatives to support the sharing of experience, knowledge and skills.

3. A Co-management Investment Fund: These regional working groups could undertake to set up funds for local harvester groups to support the development of co-management projects. Harvester groups often have excellent ideas for ways to improve their fisheries but have difficulty getting the start-up money. An investment fund should be self-sustaining by investing in activities that can pay for themselves over the medium term.

It is hoped that the CCPFH discussion paper on co-management for multi-licence inshore fisheries will contribute to a well-informed debate on fisheries management issues and to better understanding among government and the harvester community. ¶

This article is by Marc Allain, a fisheries consultant based in Quebec, Canada (email: sjma@istar.ca)

## Fisheries management

## Fishing for a language

**The experience of the Ngāi Tahu Maori tribe could be a model on how to implement a common language for fisheries management plan**

**A**t a certain level, everyone involved in fisheries management would agree that our aim is to manage the fisheries resources sustainably. Divergence on what this means rapidly emerges in any discussion on the term 'sustainability'. The divergence results from the lack of a common language with which to approach fisheries management.

This is not to say there is a lack of fisheries language. On the contrary, the field of fisheries management is renowned for its substantive and often peculiar terminology. Examples of 'resource rents', 'TACs', 'carrying capacity' and 'fishing down' are just a few that readily come to mind. These terms are widely bandied about by those involved in fisheries management. But what do they really mean and how often has the lack of common understanding of the language of fisheries management led to disastrous results for both the fisheries and the people who rely on this natural resource?

This article will briefly clarify some of the language used in the context of customary fisheries management in New Zealand. It will then go on to sketch the path taken by New Zealand in grappling with the language of Māori fisheries, in the context of a rights-based fisheries management system. The bulk of the article will then describe how the Māori tribe, Ngāi Tahu, implemented their customary fisheries management system and how they communicated the language of this system to the rest of New Zealand.

An oft-misunderstood concept is that of property and how it relates to the fisheries resource for indigenous peoples. Implicit in much of the discourse surrounding property rights and fisheries is the idea that the fisheries resource is an asset that

can be owned, divided and transferred. Linked to this presupposition is the idea of the State being the owner of the asset on behalf of the public.

The indigenous people of New Zealand (Māoris) have a different interpretation on the relationship between people and the fisheries resource. It is widely held by Māoris that people do not, and can not, own the fisheries resource; rather, it is the responsibility of people to steward the resource. They have the authority, confirmed by genealogy, to define boundaries, to determine seasons and methods and any other measure to manage the fishing. Thus, the access to the fisheries that Māoris had exercised over generations was a right undertaken in intimate relationship with their responsibilities to look after the resource.

With these beliefs guiding their access and use of the fisheries resource, Māoris were understandably aghast at the action of the State in introducing a Quota Management System (QMS) over the fisheries resources in New Zealand's EEZ.

In response, Māoris then challenged the very presupposition of patrimony being adopted by the State, and launched the successful litigation that then led to the settlement of the Māori fisheries claims.

A basis of the litigation was that the State did not have the patrimonial right to allocate the fisheries resources as an asset. The State did not have this right, as there was a pre-existing relationship of rights and responsibilities held by Māoris for the fisheries resource.

### Māori aims

The aim of Māoris, throughout the years of litigation, negotiation and now implementation of fisheries settlement

legislation, is to have sovereignty over their rights and responsibilities — that is, to determine for themselves how to manage their access to the fisheries resource and how best to fulfil their responsibilities in looking after the resource.

**L**egislation governing fisheries management in New Zealand had, since the late 1800s, made reference to the “Māori fishing right”. The legislative references did not define or articulate what this right was in the context of the fisheries management of the day; rather, the references maintained recognition of the relationship of rights and responsibilities held by Māoris for the fisheries resource.

It was to these legislative references that Māoris turned when faced with the introduction of a QMS in the mid-1980s. The State, by acting on the presupposition that they could allocate the fisheries resource as an asset, had contravened legislation, and directly affected the recognized Māori fishing right.

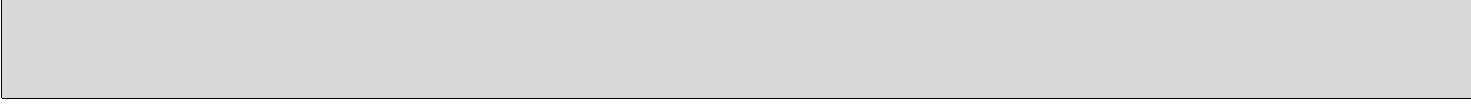
The language understood by the State had run headlong into the language understood by Māoris. Māoris resorted to litigation to put their message across, which resulted in the Court directing the parties, Māoris and the State, to negotiate a way through the impasse. The challenge facing the parties was how to reach a

common language with which the intentions of both parties could be achieved. In more detail, the key question facing the parties was how did the Māori fishing right work in the context of the current fisheries management system in New Zealand? It was at this juncture that a crucial decision was made. The Māori fishing right was separated into commercial and customary non-commercial facets. The commercial aspect of the right could then be aligned with the language of property rights as understood by the State, that is, the fisheries resource could be regarded as an asset. The customary non-commercial aspects of the right would need to be further defined and articulated by legislation to enable a common language and understanding.

With the decision to separate the Māori fishing right in this manner, the path was cleared for subsequent negotiations to proceed, and the two settlements of 1989 and 1992 to be reached. The 1989 legislation was an interim settlement that provided for 10 per cent of quota currently in the QMS and NZ\$10 million in cash to be transferred to Māoris.

#### **Cultural reasons**

This legislation also provided for areas to be established that had customarily been of special significance to a tribe as a source of food or for spiritual or cultural reasons. A management committee would then be



**New Zealand**



established to give advice to the Minister of Fisheries on how best to manage the fisheries in the area.

**T**he 1992 legislation built on the earlier interim settlement and provided additional assets to Māoris of a 50 per cent share of the fishing company, Sealord Ltd., and guaranteed 20 per cent of the quota of future species to the QMS. Provision was also made for regulations to be established that would confirm the customary non-commercial rights of Māori.

Progress on implementation of the commercial aspect of the fisheries settlements was rapidly undertaken, and, today, Māori interests control (through ownership, lease or pre-emptive right) approximately 57 per cent of the commercial quota in the New Zealand QMS. Final delivery of this control to individual tribes has yet to be completed, with internal discrepancies amongst Māoris as how best to allocate the assets.

Progress on implementation of legislation defining the customary non-commercial aspect of the fisheries settlements was less rapid, and it was six years before legislation was promulgated for customary fisheries in the South Island of New Zealand. In 1998, the Fisheries (South Island Customary Fishing) Regulations were passed. These regulations were soon followed by similar legislation for the North Island of New Zealand.

Ngāi Tahu, the largest Māori tribe in the South Island, which has one of the longest coastlines, is a key player in the management of fisheries in New Zealand. The initiatives that Ngāi Tahu has taken in the last few years with customary fisheries management are, without doubt, vanguard measures for the rest of the world to consider.

It was Ngāi Tahu, along with the eight tribes at the top of the South Island, who initiated a final round of negotiations with the State to agree on a set of regulations governing customary fisheries. The national negotiations had grown stale after years of mismatching language between the State and Māori negotiators. The negotiations between the State and

the tribes of the South Island were, however, successful, and, in 1998, a set of regulations were promulgated. These regulations defined and articulated the customary non-commercial fishing right within the context of the New Zealand fisheries management system.

Regulations alone, however, are not enough to communicate a common language to all people involved in fisheries management. Ngāi Tahu decided to take a strategic approach to the challenge of communicating their understanding and language of customary fisheries management. The underlying philosophy or mission statement for all Ngāi Tahu customary fisheries management is “to secure and develop Ngāi Tahu customary fishing rights within a context of sustainable use of the fisheries resource, empowering Ngāi Tahu whānui to take up their responsibilities in fisheries management”.

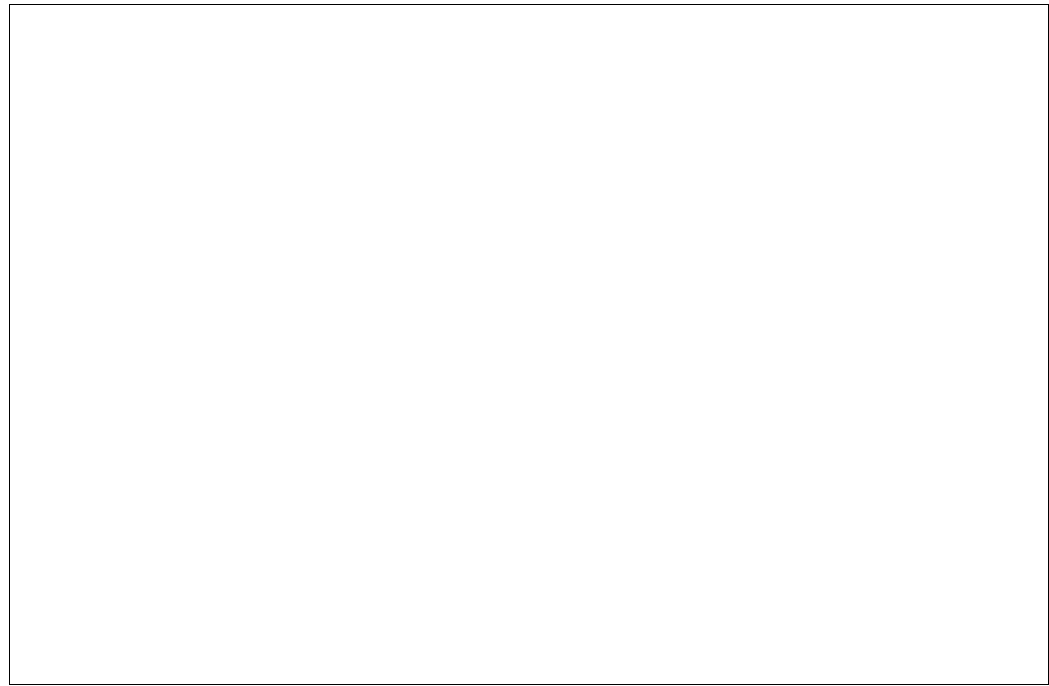
Ngāi Tahu then identified six key areas to be their strategic framework for customary fisheries management: organisation; research; information management; education and empowerment; external relations; and compliance and monitoring.

The aim of the customary fisheries organisation is to have in place the necessary legislation, structures, processes and resources to be responsive to the needs of the tribe and to achieve the mission statement. This work area is the foundation for all other work undertaken in customary fisheries management.

A customary fisheries management team was developed within Ngāi Tahu Development Corporation. The team comprises nine staff positions, six of which are funded by contracts of service with the Ministry of Fisheries. The remaining three positions are funded by Ngāi Tahu internal funds. This is a crucial aspect of the robust management structure.

#### **Contracts of service**

Without the capability to manage contracts, it is doubtful whether the government department would have entered into the contracts of service. Equally, the ability to attract contracts of



service provides the necessary motivation for continuing internal funding. These contracts are a new way for indigenous people to achieve the outcomes they want.

**T**he key role of the nine-person team is to support the role of Tangata Tiaki. Tangata Tiaki are those people with recognized authority under the customary fishing regulations to manage the customary fisheries.

The aim of the research work component is to establish priorities for research, identify and support key human resources within Ngäi Tahu for undertaking research, and support projects that address Ngäi Tahu research priorities. Ngäi Tahu are well aware that information is influence, and the more information they can hold on the fisheries resource, the better the Tangata Tiaki can manage the resource.

Directly linked to undertaking research for information on fisheries is the ability to hold and manage this information. The aim of the information management component is to establish a user-friendly and secure Geographic Information System (GIS) that will support and inform tribal development in customary fisheries management.

Spatial mapping technology is eminently suitable for the nature of customary fisheries management, with the highly

visual characteristics of GIS appealing to tangata whenua.

Ngäi Tahu commissioned a New Zealand-based GIS company, whose Managing Director is of Ngäi Tahu descent, to design a GIS specifically for the needs of customary fisheries management. The result is a user-friendly system that tracks the activities of the customary fishers, the Tangata Tiaki and any other people connected to the customary fisheries management system. The GIS was designed to be extensible and it is anticipated that, in time, the system will be utilized by other fisheries managers.

The most effective message is one that is well understood. The aim of the work area of education and empowerment is to widely promote the role and function of customary fisheries management, empowering and assisting Mäoris to identify and pursue their aspirations. This area has been a priority of the customary fisheries management system, as it is believed that if people understand the principles and necessity for customary fisheries management, they will support management initiatives.

#### **Sense of ownership**

It has been important to encourage a sense of ownership by Mäoris for their customary fisheries. Educate and empower Mäoris first, then broaden the

focus to educate others to support customary fisheries management. In other words, ensure the language is well understood at home and then, together, take it to others to understand.


**T**he initiatives undertaken to spread the common language of customary fisheries management have ranged from production of resources (video, booklet, stickers and T-shirts) to training programmes. A comprehensive two-day training course is available for all the established Tangata Tiaki. The common characteristics of all the initiatives have been their simplicity, creativity and fun. That has allowed the information to be easily understood.

The message of Ngāi Tahu needs continual promotion and discussion to be fully understood as a language of fisheries management. The aim of the external relations component is for Ngāi Tahu to be proactive in developing their external relations, ensuring their strategic objectives are reflected in the work programmes of all fisheries management groups and agencies. In some cases, relationship agreements are developed between the parties as a way of confirming that the common language is understood. Ngāi Tahu has found that strategic alliances with other stakeholders are a path to smoother relations and successful outcomes.

The aim of the compliance component is to encourage voluntary compliance with fisheries laws, and to monitor the effectiveness of customary fisheries management. Ngāi Tahu is well aware that the language of customary fisheries management is constantly evolving. In order to ensure adherence with the current understanding of the language and monitor any changes, Ngāi Tahu took up a compliance contract with the government.

It was a leap of faith for the government and Ngāi Tahu to enter into the compliance contract. Yet it was a leap that has been well rewarded. This contract enabled the employment of the five Kai Arahi, and triggered the formation of the entire customary fisheries team. It has also given visible and tangible proof to all watching that the language of customary

fisheries management can be commonly understood regardless of your cultural background.

It is this proof that makes the example of Ngāi Tahu customary fisheries management a model for others to study and possibly follow. This model demonstrates how a language incomprehensible to many, a language of spiritual beliefs and connections to the natural environment, was interpreted, articulated and defined in such a way that people could understand it. That is not to say that each individual understands the language of customary fisheries management in the same way. After all, every individual reads the world in a unique way that is bound by her/his beliefs. Yet, the language of Ngāi Tahu and customary fisheries management has been communicated well enough for people to understand and support the common intention. 

This article is by Miranda Cassidy, fisheries and communications consultant, Amuri, New Zealand (email: mcass@clear.net.nz)



## Fisheries management

## Shepherding the seas

**The International Operations Group of Fisheries Western Australia offers expert advice on issues of monitoring, control and surveillance**

**T**he modern environment of fisheries and marine management is complex and demanding. High-seas management, raised levels of technology, and state-of-the-art vessel operations all ensure that the monitoring, control and surveillance (MCS) of our precious marine resources needs to be of the highest standard.

The International Operations Group of Fisheries Western Australia is a dedicated and experienced team of professional compliance officers who undertake a wide variety of demanding tasks on behalf of the Australian Fisheries Management Authority (AFMA), Australia's Federal fisheries management agency. Group members possess a diverse range of skills and qualifications in the areas of fisheries management, MCS of capture fisheries, environmental management, education and enforcement techniques. All members have Maritime Masters qualifications of varying levels.

The group has been operating continuously since 1979. Officers regularly operate in such diverse regions as the warm waters of the tropics and the less hospitable waters of the sub-Antarctic. Patrols cover the Australian 200-nautical mile Fishing Zone (AFZ) adjacent to Western Australia, and the remote offshore territories of Christmas Island and Cocos Islands, as well as the Antarctic regions of Heard and McDonald Islands. They conduct aerial and surface patrols on vessels and aircraft supplied by the Royal Australian Navy, Coastwatch and the Royal Australian Air Force, as well as private charter vessels.

In-port inspection of foreign and domestic fishing vessels is also a primary task undertaken by the group. These inspections are conducted in ports

throughout Australia, covering the local tuna longline operators as well as the large-scale Japanese tuna fleet. Licence and logbook checks, pre- and post-fishing briefings, and freezer volumetric inspections are routine. More than 250 vessels are checked annually. In the 1980s, licensed Taiwanese pair-trawlers were also inspected on a regular basis in the northwest port of Broome.

International Operations staff operate in harsh and difficult conditions, using comprehensive occupational health and safety guidelines. The group has developed specialized equipment and procedures to operate effectively in extremely low temperature freezers aboard fishing vessels.

International Operations Officers have extensive experience in the volumetric estimation of fish catches in freezer holds. Their methodology allows for auditing of vessel catches that are subject to quota restrictions in situ, without compromising the quality of the product by removing it from the freezer. Monitoring of quotas can often be difficult in any fishery and, in many circumstances, can be the weak link in the chain when considering accuracy in the measurement of fishing effort. Volumetric surveys are ideal where the unload can not be supervised or measured, as is the situation with visiting Japanese tuna vessels.

### Illegal fishing

Officers have been kept extremely busy since the late 1980s, with a constant influx of Indonesian fishermen illegally fishing within the AFZ. A Memorandum of Understanding (MOU) exists between the Indonesian Government and the Australian Government to allow traditional Indonesian fishermen to fish within the AFZ in an area off the northwest

coast. Nearly all the Indonesian vessels apprehended have been fishing outside this allocated area. The main target species for these vessels are trochus, trepang and shark (for fins).

**I**n addition to the surveillance in the northern waters adjacent to the mainland, regular patrols are conducted to Christmas Island and the Cocos Islands in the northern Indian Ocean. As territories of Australia, each has a 200-nautical mile fishing zone and thus comes under the care and protection of the International Operations Group. Fishing vessels from other nations are occasionally found operating illegally within these waters. With the vast distance to mainland Australia and limited resources on the Islands, a successful prosecution becomes much more of a challenge for the group.

Another Australian territory coming under the watchful eyes of the International Operations Officers is that of the Heard and McDonald Islands. Situated below the Antarctic Convergence Zone and nearly 2,300 nautical miles southwest of the Australian mainland, the surrounding waters of these islands are home to the highly prized Patagonian toothfish (*Dissostichus eliginoides*).

Patrols have been made to the area since early 1998. Over the years, these patrols have resulted in the apprehension of

several illegal foreign fishing vessels. In January this year, a patrol to the region set out with several aims. Initially meant to maintain a surveillance presence in the area, the patrol created history by taking the first step in what will become an ongoing level of international co-operation and assistance. Liaison with French authorities has paved the way for future joint support and operations in the region.

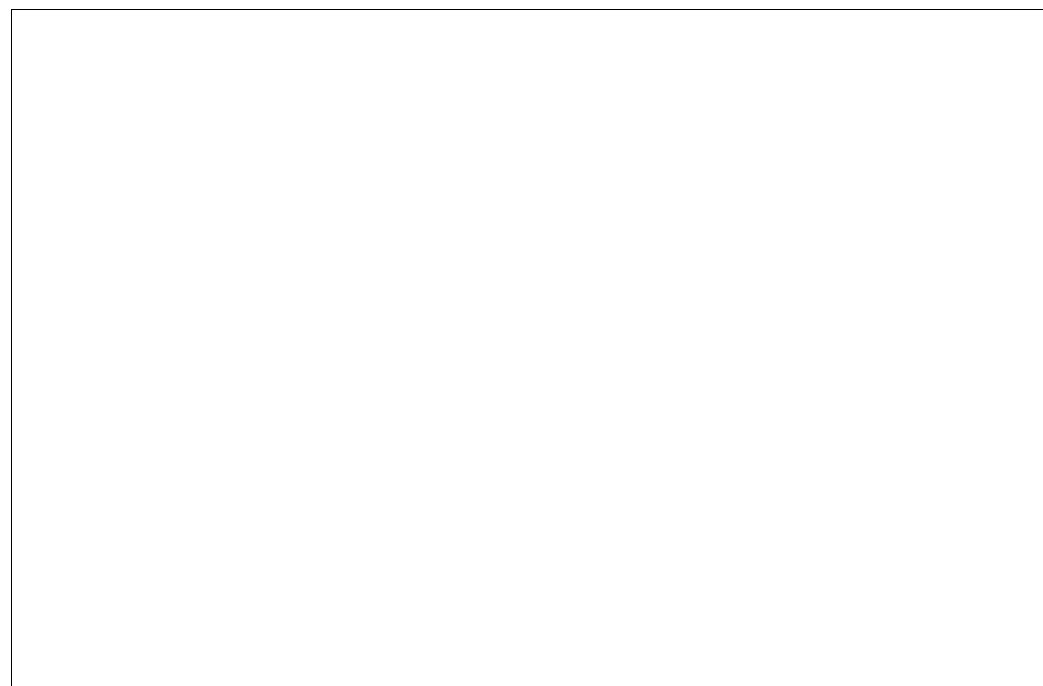
Only two licensed Australian trawlers are permitted to fish within the AFZ of these islands. However, in recent years, other nations have fished illegally in the area.

Once again, the distance from the mainland and the extreme weather conditions prove hazardous to operations conducted by the group in this region.

Specialized boarding procedures, equipment and techniques have been developed by officers to ensure safe and effective outcomes.

#### **Prosecution**

Two Australian Navy patrols to the area resulted in three illegal foreign fishing vessels being apprehended and prosecuted. Regular patrols to this remote area are now being undertaken using a civilian chartered vessel. Illegal fishing activity in the region appears to have lessened due to the much publicized apprehension of the three fishing vessels



and the presence of International Operations Officers in the region.

**A**lthough surveillance and compliance issues appear at the forefront of the group's duties, these highly trained officers are equipped with a diverse range of skills and experience. In situ delivery of education services to fisheries-related personnel in neighbouring countries has also become an expanding function of the group.

While enforcement and subsequent prosecutions can be seen as a deterrent to breaches of fishing laws, education and awareness can often help to deter the initial illegal action. The result is a saving of time, effort and costs for all concerned, as well as the protection of natural resources.


In Indonesia, in May 1999, the first stage of Project Wakatobi was completed. The three-month operation took place in the Tukangbesi Islands group in southeastern Sulawesi. International Operations officers trained 53 Marine Park Rangers in basic marine skills and MCS techniques to be used in the operation of the newly established Wakatobi Marine National Park. Officers also provided community development assistance by training and advising locals in the construction of fish aggregating devices (FADs) and the initial development of seaweed mariculture projects.

As an alternative to apprehension and prosecution, the project aims, in two ways, to try and reduce the number of Indonesian fishermen coming to fish illegally in Australia—first, by ensuring the sustainability of local fish stocks, and second, by developing alternative income generating opportunities for the fishermen. Funding for the first stage was provided by AusAID. Further funding is being sought to continue the project.

The International Operations Group also delivers 'in-country' Fisheries Prosecution Workshops on behalf of Forum Fisheries Agency (FFA) for surveillance and fisheries officials of member nations. Countries benefiting from the group's expertise include Fiji, Vanuatu, the Solomon Islands and the Federated States of Micronesia. Topics

covered during these training courses include :

- Regional (Pacific) Fisheries Law
- Distant-water Fishing Nation (DWFN) Operations
- Longline fishing
- Purse-seine fishing
- DWFN vessel construction
- Illegal reef platform fishing - use of sodium cyanide and explosives
- Boarding procedures
- Evidence gathering
- Basic search techniques
- Note-taking techniques
- Preparation of acceptable written statements
- Giving evidence in court
- Catch calculations and freezer capacities (volumetrics)
- Design and supervision of an apprehension boarding scenario
- Design and supervision of a mock fisheries prosecution trial.

As the world's marine fishery resources come under greater pressure, the need for effective management will become even more vital. The International Operations Group of Fisheries Western Australia is well equipped to not only meet the world's current demands of MCS and training, but the future expectations as well. 

This article is by Tom J. Morris, Fisheries Officer, International Operations Group, Fisheries Western Australia (email: [tmorris@fish.wa.gov.au](mailto:tmorris@fish.wa.gov.au))

Traditional fishers

## Pink gold, muddy waters

**A neglect of its traditional fisheries sector could spell jeopardy for Madagascar**

**L**ooked at in terms of its resources, Madagascar is a rich country, with its spices, precious stones and rich fish stocks. Yet, more than half of Malagasies are living below the poverty line, with declining per capita incomes. In recent years, this increased poverty and hunger has encouraged a reverse migration from urban areas, such as Tananarive, to traditional fishing communities. Up to 100,000 Malagasies, men and women, are employed in the traditional fisheries sector, and the numbers are growing. The traditional fisheries sector provides not only employment but also a source of protein to coastal communities, with 70 per cent of the fish protein consumed in Madagascar derived from the sector.

However, the role of the fisheries sector in meeting the protein needs of an increasingly impoverished Malagasy population could be even greater, if the underdeveloped nature of Madagascar's transport and public utilities infrastructure (poor or non-existent road links, the absence of electricity and hence cold storage facilities, etc.) did not effectively isolate coastal fishing communities from inland markets. This lack of economic integration keeps national fish consumption down to below 7.5 kg per capita per annum. This effectively limits the scope for the development of the traditional fisheries sector, which primarily serves the underdeveloped national market.

Were these infrastructural constraints to be addressed, a national market for cheap fish protein could be developed. This would give a major stimulus to the traditional fisheries sector, generating employment and increased cash incomes for an expanding sector. This would, however, require substantial investments

to overcome the physical and economic isolation of traditional coastal fishing communities.

While the traditional sector accounts for 50 per cent of the national fish catch, this largely consists of small pelagic and spiny lobsters. Access to the commercially high-value tuna and shrimp resources are largely closed to the traditional fisherfolk. EU-based fisheries operators, however, are strongly represented in these sectors.

Since 1986, the EU has concluded five fisheries agreements with Madagascar. Initially, these agreements secured access to both the shrimp and tuna fisheries. At the end of the 1980s, however, access for EU vessels to the shrimp fishery under the fisheries agreement was discontinued. Since then, the EU-Madagascar fisheries agreement has been exclusively a tuna agreement.

The agreement has, however, provided access for an increasing number of EU tuna vessels. Under the latest agreement, which runs from May 1998 until 2001, access is provided to 75 tuna purse-seiners and long-liners, up from 58 under the previous agreement and 27 under the initial fisheries agreement. This tuna agreement, along with similar agreements with the Comoros, Seychelles and Mauritius, provides EU tuna vessels with access to the entire Indian Ocean tuna fishery.

### **Discrimination**

Malagasy seafarers often face a hard time on EU tuna vessels. Discrimination is rampant, with unequal salaries and contractual conditions. Malagasy seafarers can find themselves dumped in strange lands at the end of their contracts, with no rights of repatriation. Since 1995, with the assistance of the Coalition for Fair

Fisheries Agreements (CFFA) and CFDT (a French maritime trade union), the issue of Malagasy seafarers' rights has been raised with French boatowners.

**T**o date, however, they have denied being the employers of the Malagasy seafarers. Against this background, a round-table discussion is planned to: clarify the responsibilities of employers; elaborate on collective bargaining rights; and discuss the possible inclusion of a code of fair practice for workers on board EU vessels in future fisheries agreements.

Under the current fisheries agreement, 175,000 euros have been allocated to the Maritime Institute in Madagascar for the training of seafarers, so they can obtain the internationally recognized qualification. Unfortunately, this still requires a sizeable 'own contribution' from seafarers and, hence, remains unaffordable. A further 125,000 euros were allocated to the traditional fisheries sector.

To date, however, as far as the fishermen can tell, these funds have not been used in their sector. In addition, in recent negotiations, the EU representative expressed the wish to preserve the coastal zone for traditional fishermen. Local fishworkers would like to see the 10-mile exclusion zone established for tuna vessels applied to the shrimp fishery as well.

Madagascar benefits from this agreement in two main ways: through the financial compensation paid directly to the government and through the tuna processing plant established at Diego Soares. In the latest agreement, financial compensation paid out totalled 2,280,000 euros, with 60 per cent being deployed in the fisheries sector in support of research, training, monitoring and control. However, only around 5.5 per cent has been allocated to the development of the traditional fisheries sector. Since 1992, the unit value of tuna exports has doubled, with tuna increasingly being exported in the processed form.

The ending of EU access to the shrimp fishery under the EU-Madagascar fisheries agreement did not result in the withdrawal of European enterprises from the Malagasy shrimp fishery. Indeed, European enterprises continue to be heavily involved in what is the most commercially important component of the Malagasy fishery, the 'pink gold', namely, the shrimp sector.

#### **Joint ventures**

While fisheries agreement access for shrimp has ended, EU vessels continue to operate in the Malagasy shrimp fishery within the framework of joint ventures, occasionally with financial aid from the EU's Financial Instrument for Fisheries Guidance (FIFG). EU and member States' aid has also been extended to European

companies moving into shrimp aquaculture. This European corporate involvement in the Malagasy shrimp fishery is, however, often complex, with commercial deals being struck with Japanese importers and sister companies from Europe, everything being tied together in a complex web of cross-holdings. All in all, however, European enterprises still play a dominant role.

**W**hile European investments in the shrimp fishery do not generate much direct competition for resources with the traditional fisheries sector, they do generate competition for priority access to the coastal fishing zone, while threatening the sustainability of the coastal marine ecosystem.

Malagasy law restricts access to fishing in the two-mile coastal zone exclusively to non-motorized activities, or, in other words, exclusively for traditional fishing activities. This means that industrial shrimp trawlers are legally prohibited from fishing there. However, the reality is that these trawlers commonly fish illegally within this exclusion zone. Indeed, figures for 1998 show that more than two-thirds of the industrial shrimp trawler catches were made within this two-mile zone.

The Malagasy Shrimp Boatowners Group (Groupement des Armateurs à la Pêche Crevetière de Madagascar—GAPCM), argues that respecting the two-mile exclusion zone imposed on shrimp trawlers would make exploiting the shrimp fishery uneconomic. Indeed, it has gone so far as to suggest that “for strategic and foreign policy reasons, it would not be appropriate to apply international Law of the Sea in Malagasy fisheries rules.”

This flagrant disregard for regulations safeguarding the two-mile coastal zone for traditional fisherfolk has resulted in some serious consequences for the traditional fisheries sector:

- pollution of the sea from the dumping of by-catches;
- destruction of fishing gear on which the traditional fishing

sector depends for its non-shrimp catches;

- direct conflicts with some traditional fishermen fishing for shrimp; and
- increased pressure on non-target species in general, with seven tonnes of dead by-catch often being dumped at sea for every tonne of live shrimp caught.

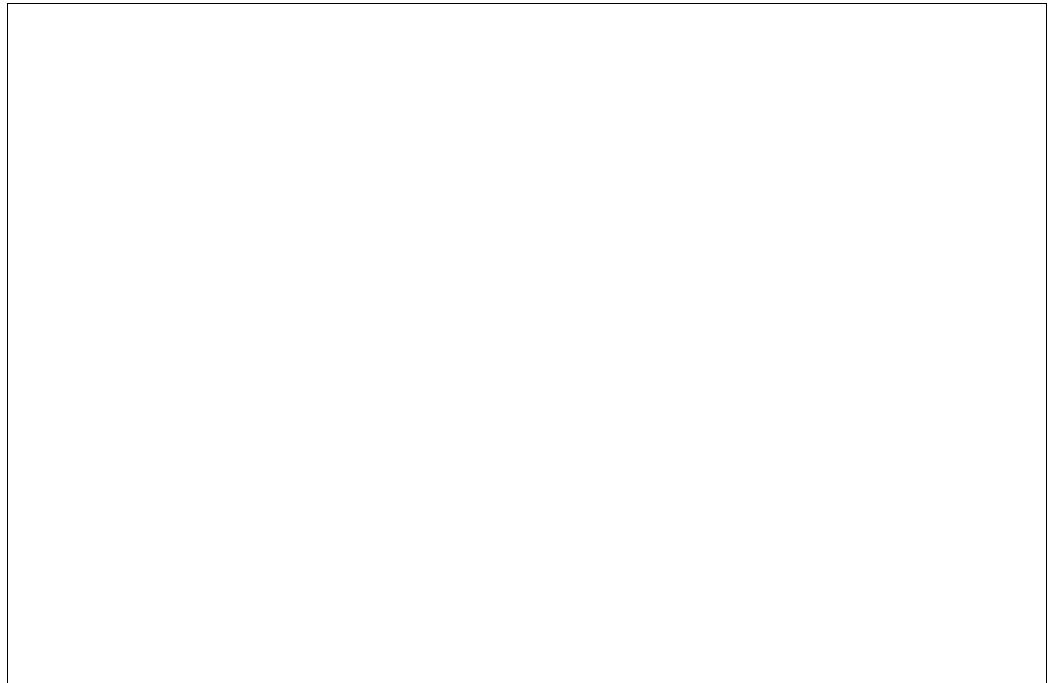
This situation of conflict with, and undermining of, traditional fishing activities seems likely to intensify, for, as shrimp stocks decrease, industrial fishing pressure within the two-mile exclusion zone is likely to increase. Indeed, the GAPCM is strongly pressuring the Malagasy government to ‘regularize’ the ‘illegal’ situation by lifting the current two-mile exclusion zone.

Currently, the development of the traditional sector is seriously constrained by the lack of access to the domestic market. Malagasies have seen their per capita GDP decline from US\$480 in 1976 to US\$200 in 2000. They have seen absolute levels of hunger and malnutrition increase. Concentrating on programmes to expand the traditional fisheries sector to meet the growing food needs of an increasingly impoverished population would appear an obvious priority.

However, between 1985 and 1995, of the 17.8 million ECU in EU funds made available to projects in the fisheries sector, less than one per cent was dedicated to the traditional fisheries sector. As much as 67 per cent went to aquaculture projects, and a further 13 per cent to a rice-cum-fish project designed to enhance rural food security.

#### **Shrimp fishery**

While the traditional sector mainly fishes for low-value species for the currently limited local market, in recent years, traditional fishermen have begun to move into the shrimp fishery. In 1998, around 2,000 tonnes of shrimp—20 per cent of the official catches—were caught by traditional fishermen, although this was mainly for local consumption. In addition to poor infrastructure, a major constraint for the traditional sector is its inability to



meet the quality standards of the export-orientated shrimp market.

**U**nfortunately, the initiatives made so far by the traditional sector to exploit commercial shrimp resources have only linked them to a network of collectors who supply export houses. Yet they gain little, due to price fixing, problems of preserving the catch and the exploitative practices of the collectors.

Currently, for every 100 tonnes of shrimp caught by the industrial sector, only 42 jobs are created, while for every 100 tonnes of shrimp produced in the aquaculture sector, 44 jobs are created. In contrast, for every 100 tonnes of shrimp caught by the traditional sector, 230 jobs are created. Clearly, therefore, expanding the role of the traditional sector in the shrimp fishery, while involving comparatively little investment, will offer tremendous scope for alleviating poverty in Madagascar. ❧

This article has been written by Béatrice Gorez of CFFA, Brussels (email: gilletp@skypro.be)

## Angling for disaster

**The growing power of sport fishing presents a bleak future for small-scale fishers in the West**

**D**iscussions about small-scale fishers are commonly driven by the perspectives of less developed countries and are analyzed through formulations such as East vs West, capital-intensive vs small-scale, community-based, and private vs public/community property.

This approach, however, ignores the fact that small-scale fisheries dominates the fishing industries of many Western countries such as Australia, the US and Canada, amongst others, at least in terms of employment. In Australia, for instance, registered fishing vessels under 10 m in length far outnumber those considered large (over 24 m).

The participants in these small-scale fisheries tend to be family businesses, often multigenerational and characterized by low levels of both capital investment and profitability. These fisheries face many of the same issues as their Eastern counterparts such as poor fisheries management, competition from larger players, and habitat degradation. Although the issue of access alienation has cropped up in some of the Eastern fisheries, Western small-scale fisheries are facing a major assault on their abilities to access fish resources, primarily due to the increasingly influential recreational angling (sport fishing) sector.

Major fishing closures resulting from political agitation by numerically dominant and, commonly, well-funded angling groups have resulted in uncertainty, stress and unemployment in coastal fishing communities, as governments seek to appease the recreational sector.

For many of these small fishing communities, the debate over property

rights has assumed greater validity as they seek to preserve their way of life and their ability to earn a living. The downside of property rights are increasingly being juxtaposed against the possibility of extinction.

For generations, recreational anglers have sought sole access to many inshore fish stocks. The larger area and greater time closures for the commercial sector reflect the previously held view of many fishery administrators that recreational fishing was harmless and, therefore, could be allowed to continue relatively unchecked, while the more important need of controlling commercial catches was addressed.

If we ignore the (probably significant) impacts of habitat loss and pollution on these inshore areas, there is mounting evidence that recreational catches (and bycatches) have a major impact on inshore fish stocks in many areas. Recreational fisheries are not immune from bycatch either. Discarding rates can be of commercial-sector proportions. Protected species are often taken; hooking mortality can be high; and habitat modification occurs from intensive boating — these are some of the more obvious impacts of angling.

The rise of recreational catches has been driven by a mix of technology and increased leisure time. More reliable outboard engines, cheaper (and better) fish finders and, more seriously, the advent of cheap Global Positioning System (GPS) devices have put commercial-sector fishing power into the hands of millions of anglers.

### **Slow to realize**

Fisheries administrators have generally been slow to recognize this threat. They



also face handicaps, such as limited access, for any effective control. A failure to address the burgeoning recreational catch has resulted in resource conflict and demands for politically driven resource reallocation solutions.

**E**ven as recreational fishers move further offshore and begin taking larger quantities of deeper water species traditionally thought of as being limited to the commercial sector, there is a reluctance by fisheries administrators to act to limit recreational catches.

The recreational sector makes use of lines as the dominant means of fishing, while the most common commercial sector gear is the net. What better way to limit the catching power of the commercial sector than to campaign for net bans?

In the southern US, a number of States have banned the use of nets as a result of pressure by sport-fishing interests. A number of other States have been subject to major anti-net campaigns. In Florida, around 5,000 small-scale commercial fishers were put out of business by a vote to ban nets. The vote was preceded by a major television campaign against nets that the small-scale fishers were unable to counter, for lack of funds. Although government funds were made available to buy back the nets (thus providing some limited 'compensation'), the sport-fishing sector campaigned against such a buyout.

Since the net ban, many related businesses have closed, rendering several fishers unemployed. This has become a major issue, as many fishers were too old for other jobs, levels of education were low, and there was no exit programme to enable fishers to find alternative sources of employment. In short, the pre-voting vilification campaign made these people out to be resource rapists and unworthy of the support of the wider community.

Similar campaigns are also being waged in Australia and Canada. In Lake Macquarie, New South Wales, Australia, small-scale fishing families have been subject to five years of intense vilification by an angling group in a campaign that has caused great stress and uncertainty. This campaign has proceeded despite independent evidence that commercial

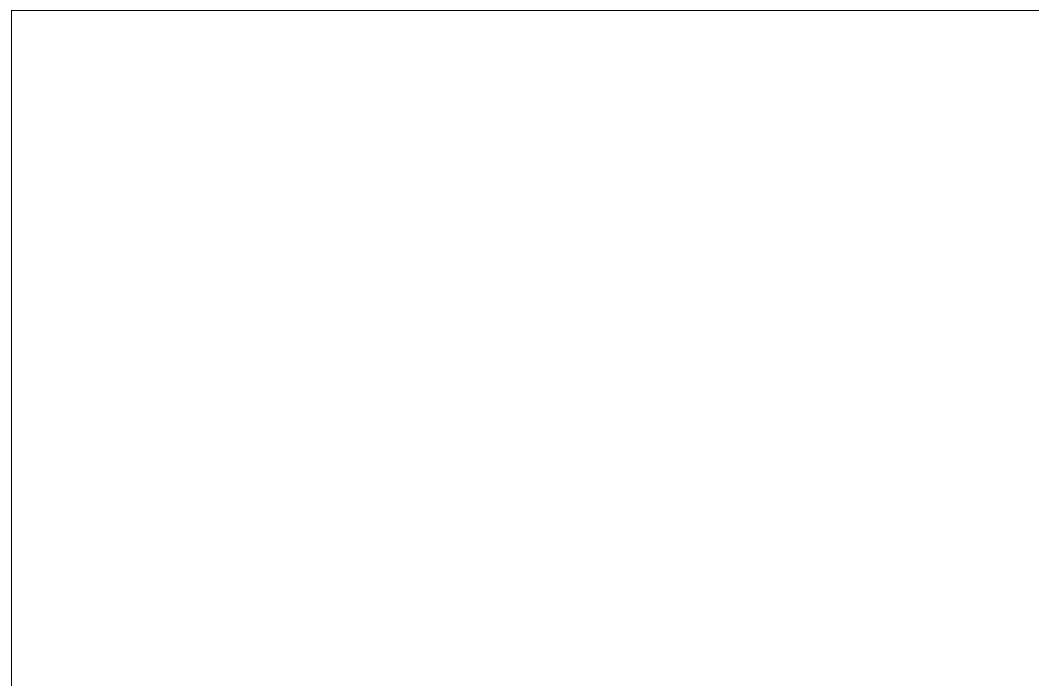
catches have been stable for decades, and recreational catches continue to increase. Moreover, as occurs elsewhere, the commercial catch is dominated by non-angling species such as mullet, and the recreational catch of many of the shared species exceeds the commercial catch.

Small-scale fishers subject to campaigns by anglers face a major dilemma. The current management/licensing systems are not based on strong property rights. Thus, there is little chance of compensation for loss of access rights. Such compensation could have been used to move into another small business, or to move elsewhere for fishing, or to undertake some retraining. Governments prefer this situation as they want the flexibility to cater to political pressure at no cost to the public, and the small size of many of these fishing communities mitigates against them forcing government to allocate funds for an exit package.

Gone are the days when fisheries administrators would provide some protection. The increasing politicization of these agencies has increased the uncertainty for small-scale commercial fishers. Not surprisingly, many of the fishing communities facing recreational fishing pressures are seeking greater security of access. Stronger access rights have their own downside. The allocation of tradeable rights, whether they be ITQs or tradeable input controls, will undoubtedly change the way fishing communities operate. Fishing communities face some hard choices—change or be phased out. However, tradeable rights systems do not exist by themselves. They are the creations of people, and can thus be designed to achieve the goals of those who design them.

#### **Innovative ways**

At the FishRights Conference held in Perth, Australia in November 1999, among the highlights were the few presentations that dealt with innovative ways of designing rights-based systems that work for, and not against, fishing communities. Although the conference was dominated by the ITQ debate, and full-fledged, corporate-orientated




property rights, it was clear that there was much to be learned from listening to smaller groups that were designing rights-based systems that, while far from perfect in an economic sense, provided increased security and additional management tools.

**C**ommunity ownership may provide a halfway house between individual and public ownership, and may thus provide some of the protection required by fishers, without all of the negative consequences of full privatization.

Such a move may require some adventurous thinking and some real leadership from fisheries administrators, attributes which are not in great supply in many fisheries agencies. The incentives for such behaviour are not strong. Politicians and their appointees, and angling lobbyists, would not want strong rights for the commercial sector, as they have no vested interest in the survival of small-scale fishers. Fishing communities, however, do. There is thus a major challenge to ensure the continuation of these communities.

The strengthening of rights will cause changes in the ways these communities function. However, as the pressure on coastal resources increases, and the threat of extinction of these communities becomes ever present, the palatability of

these changes may also change. Even if stronger rights do not become the key to survival, they may at least tip the balance at the bargaining table when the reallocation axe falls. 

This article is by Duncan Leadbitter, Executive Director, Ocean Watch Australia Ltd., New South Wales, Australia (email: [oceanwch@geko.net.au](mailto:oceanwch@geko.net.au))

## A time of surrender

The fifth instalment in the series on  
the pioneer of Japan's co-operative movement

**J**ust when our co-operative movement was starting to operate smoothly and we saw some hope for the future, we were faced with this crucial development. I became very worried about the future of the fishing villages and the FCAs in Hokkaido.

At about that time, we had a large stock of dried squid and, as there was an extraordinarily good harvest, the price plummeted. The price of one bag of squid fell to ¥80, which was not even enough to cover our costs. The fishermen had to get at least ¥90 in order to make a profit. The merchants in Hakkodate, who claimed that their city was the nation's major trading centre for dried squid, also faced a severe lack of funds, and had to sell some of their stocks at a loss.

In an attempt to deal with these problems, they established the Japan Squid Distribution Association, and I hoped that, by dealing with them, we could keep the price at an acceptable level.

We sold all the dried squid that Dogyoren collected from the FCAs in the southern regions, as well as the stock of the individual merchants. The price soon rebounded to ¥95, but the government again set the official price at ¥80, thereby spoiling any advantages which the association had gained.

I had, in fact, negotiated with the Fishery Agency prior to the announcement, and they had agreed to a price of ¥97.

I felt betrayed, but, at the same time, I realized that this decision had been made not by the Fishery Agency, but by officials at the Ministry of Commerce and Industry who had not researched the situation and did not have enough information to understand the situation fully.

Furthermore, the aforementioned Japan Marine Products Trading Company had considerable deficits. While we were taking measures to bolster the prices, Matsuo and I became the subjects of a police investigation. Certain anonymous letters had been posted to the police stating that we were trying to inflate the prices and keep some of the profit for ourselves. We insisted that we were working solely for a system under which the fishermen could receive their just benefits.

The merchants also testified in our favour, by stating that they agreed with the aims of the association, and that they played an active part in it and had a share of its capital. They stated that if they did not co-operate with us to maintain the market conditions, all production activities would stop. The police soon called off their investigation.

When Dogyoren was first established, nobody expected it to develop as much as it did, and, therefore, none of the directors had wanted to become president of Dogyoren. Finally, Demachi, a member of the Hokkaido Prefectural Assembly and of the Kamoenai FCA, said that he might undertake the post.

### Managing director

The other directors gave neither their approval nor disapproval. They simply said that it was best to leave all the management matters to me in my post as managing director. As Demachi also agreed to leave these affairs to me, he assumed the post of president. I went about my daily business, and when questions about hiring new personnel arose, I would ask Demachi for his advice or approval. He always told me to decide whom to hire, as I was the one who would work with the employees.

Nevertheless, he sometimes told others that I would never ask for his advice, and, for a while, I found his attitude troubling. Then, after several years during which our business and number of personnel increased greatly, Demachi announced a number of personnel transfers and structural reforms that I had not been consulted about.

Even though he had the power to make most decisions regarding Dogyoren, I protested these moves, because he knew nothing about the abilities or compatibility of the employees. Rumours that the relationship between the president and the managing director were bad spread rapidly through the fishing villages of Hokkaido.

From 1937 to 1941, I was devoted to the development of Dogyoren, but I decided to resign my post as managing director in 1941. There was talk in the FCAs of convening a special general meeting where Demachi would be asked to resign, so that I could be promoted to the post of president. I, however, intended to resign from Dogyoren, and persuaded them not to call a meeting. I then informed the board of directors of my resignation, but many of the directors still tried to convince me to stay on.

However, I had worked hard for Dogyoren and felt that I needed to rest for a while, so I decided not to continue.

Demachi resigned at the same time, and new directors were elected in June 1941.

After I had been off for a year, I was nominated to assume the post of president of the Hokkaido Marine Products Wholesalers Co-operative Association in May 1942. I accepted the position and worked for that co-operative for a year and a half, during which time I learned much more about fishing goods and about the distribution of fishery products.

In 1944, I moved again, to the newly established Hokkaido Fisheries Industry Organization, previously known as Dogyoren, which had been restructured and renamed by the military government. The FCAs were also forced to change back to Fisheries Associations, which were established separately in each municipality.

The co-operative movement, which was based on the principles of independence and solidarity, was thus forced to surrender its ideals to those of the military government.

#### **No excuses**

After the war, many people tried to make excuses for their co-operation with the government, but I firmly believed that I did not have to make any excuses regarding my devotion to the fisheries organizations. My motivation had always been simply to allow the fishermen to



work for their mutual benefit, even during wartime.

I remained in the position of managing director of the HFIO until 1949, when the New Fishery Co-operative Law was enacted. This law incorporated the international principles of co-operatives, which are standard the world over. §

This instalment is excerpted from *The Autobiography of Takatoshi Ando*, translated by Naoyuki Tao and James Colyn

## oneFish, many uses

**The oneFish Community Directory is a new Web-based tool for researchers and academics working in the area of fisheries**

**T**he oneFish Community Directory is a Web-based knowledge management system that draws together a broad cross-section of stakeholders within the fisheries and aquatic research community. The primary aim of oneFish is to raise the profile of fisheries and aquatic research, and reinforce its impact on responsible fisheries development.

oneFish represents a fundamental advance in devolved management information systems. It responds to long sought-after information, communication and networking needs of the many agencies currently actively engaged in the complex process of promoting more responsive fisheries and aquatic resources research and development. These include donors, NGOs, national aquatic research centres (NARS), international organizations such as FAO, universities, consultancies and others. The design of oneFish has been demand-led in that it integrates into one interactive system many of the communication ideas and needs articulated by these organizations.

It allows users to contribute information in electronic form to specific subject areas, including by email for those with limited Web access; and to search and retrieve information, files and other linkages across the whole oneFish domain. Institutions and special interest groups will be able to use oneFish to develop discussion groups and create 'virtual' offices; and many subject specialist Topic Editors will assist in the administration of specialized topics by editing, adding and ranking the information submitted to them.

The software underlying oneFish is being developed by SIFAR and the FAO Fisheries Department in partnership with the

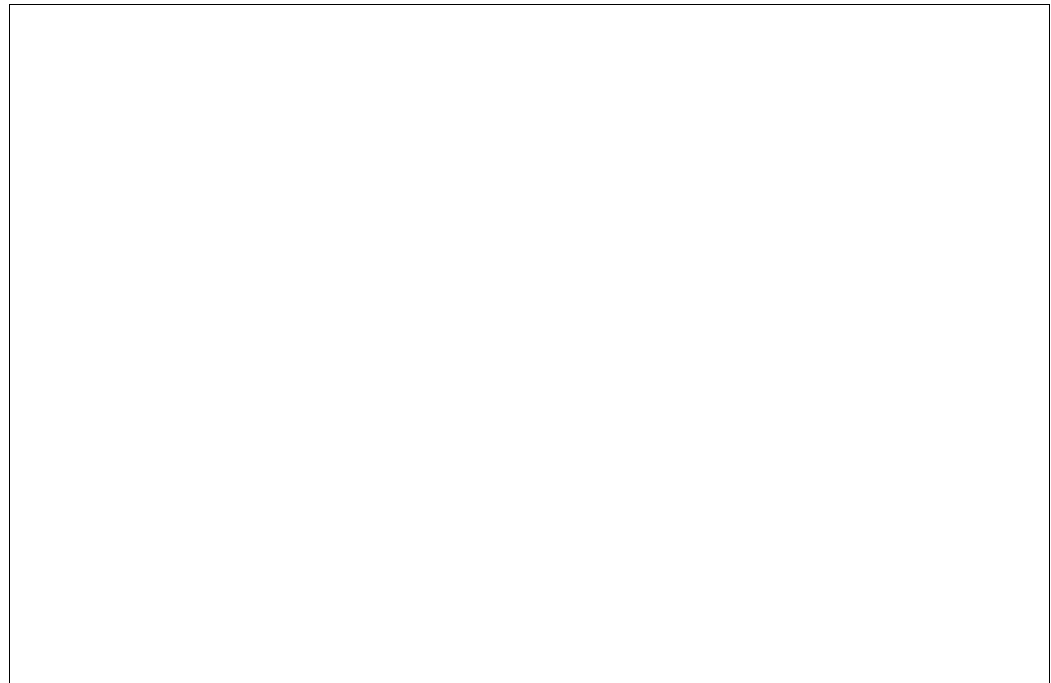
World Agriculture Information Centre (WAICENT). The design team has spent the last year developing a prototype which is now undergoing intensive testing by a small group of fisheries specialists. Version 1 will be released during April 2000.

Many of you who use the Internet will already be familiar with directories or portals such as Yahoo! and Netscape. Over the last few years, these have played a significant role in revolutionizing the ways in which vast amounts of information are both managed and accessed on the Internet. You may also be familiar with the new, 'open-content' directories like Netscape's Open Directory Project which recognize the need to devolve the management of information to the user community. By making available powerful Web infrastructure, they allow users to define and manage their own information needs, a strategy which has proven massively successful, as it enhances users' ability to obtain relevant information more easily and efficiently from an ever increasing morass of online electronic data.

The oneFish Community Directory draws on the design philosophy of these open-content directories; in fact, it goes much further. Rather like a thematic library, its specialist focus will ensure both quality of content and relevance to user needs.

### **Powerful repository**

oneFish is a powerful repository for information based around specific subject areas; however, in addition to linking Websites, it permits the uploading of most current electronic media (that file on your C drive; that bibliography sitting in your dusty diskette box; your favourite ListServe group; GIS maps, and so on) and



the creation of multiple relationships between these; it enables the establishment of virtual offices from which individuals and organizations can manage their knowledge (for example, projects, contacts) and share it, sometimes selectively, with others with similar interests.

**R**eferences to information that is not in electronic form can be added, as can links to electronic information stored elsewhere. In addition, oneFish will allow submission of notes and comments on other people's contributions, and the establishment and participation in discussions and debates on their own and related topics. Finally, opinions on current issues, news items and relevant diary dates can be added at any topic level in oneFish, thus enabling clearly identifiable, subject-specific headline pages.

Volunteer Topic Editors will assist in administration, by editing, adding, collating and ranking the information submitted to them. oneFish will deploy a comprehensive suite of editorial tools, allowing these Topic Editors to collaborate in the administration and development of the system.

The Topic Editors will be responsible for the content and quality of their own particular topic areas, culling out the bad and obsolete material, and keeping only the best.

Although oneFish will provide the opportunity for everyone to contribute, like any community, it requires ground rules. An Editor-in-Chief is responsible for developing and managing the top-level categories, overseeing the creation of new sub-categories, and removing inappropriate items. It will also be the role of the Chief Editor to facilitate the selection of topical material for news, create user polls and update the fisheries calendar.

To accommodate the many different ways in which individuals perceive things, oneFish offers several innovative approaches to information retrieval, one of which is the introduction of 'worldviews'. oneFish worldviews are multiple-topic trees, each of which leads the user down a unique pathway, but ultimately arriving at the same piece of information.

#### **Different pathways**

These pathways include: Top-down—a more formal approach to fisheries research and development, and Bottom-up—a more collaborative, people-centred and participatory view. Other worldviews are Geography; Ecosystem; Species; and People. While scientists might prefer Ecosystems or Species, field workers may find Bottom-up more relevant; institutional workers may find Top-down more appropriate to their needs. If you wish to

find information on a particular institution or country, then the People and Geography worldviews may make sense to you. In addition to all these pathways, a powerful search engine will facilitate simple and advanced searching and retrieval across the whole oneFish domain.

**W**hile oneFish builds on the design philosophy of Internet open-content directories, the overall concept of oneFish is a natural step forward in the development of aquatic information systems. For many years, various, often disparate, groups within the fisheries research community have been developing aquatic information systems—some on specialized subject areas, some for special formats or types of information—and providing, usually limited, access to these information systems through various means.

The most successful and enduring of these information systems, for example, the Aquatic Sciences and Fisheries Abstracts (ASFA) database, are those that foster input, co-operation and participation by those actually involved in fisheries and aquatic research.

Fisheries and aquatic bulletin boards and discussion lists are other examples of information or communication services that have grown to be very well used. Again, this is because they provide an avenue for those working within a specific thematic area to communicate, discuss and proffer their ideas and opinions, and feel that they are influencing the debate.

The concept of oneFish builds on this participatory approach. oneFish does not compete with other Internet resources—it unifies them within a holistic fisheries portal, while simultaneously providing context for them within relevant subject areas. In this sense, oneFish's approach to compiling and linking diverse information types from disparate sources is truly innovative.

oneFish is thus seen as an inclusive and facilitating communications tool which, through raising the profile of fisheries research, will encourage participatory approaches to disseminating and sharing of information.

oneFish will offer a new online Fisheries Project Information System (FIPIS) with several more dimensions to the original system operated from FAO. From the outset, oneFish will include over 5,500 project records imported from the old FIPIS. Soon after, project information from several major fisheries donor agencies, international institutions and projects involved in fisheries research will be added. This will provide a greater visibility of what research and development is being undertaken in the fisheries and aquatic sector, and who is supporting, funding and implementing that research.

oneFish will allow researchers and scientists on active projects to foster awareness of their work, and to more speedily disseminate interim results of research, including field notes, working papers and other data. It will also allow users to establish links between any project and any related information.

Access to the World Wide Web by many of the poorer developing countries is currently very limited or non-existent. Nevertheless, the explosion in global telecommunications, fuelled particularly by private sector investment and lowering costs, can not be ignored. There are also plans to provide regular CD-ROM outputs from oneFish from early 2001, as well as the additional facility of selective dissemination by email. This will ensure even wider access in areas where using the Internet is not yet feasible.

In addition to its role as a global facilitator of information flows, oneFish is expected to play an ever growing role for staffs of fisheries projects, in fisheries NARS, local fisheries organizations and NGOs.

#### **Growing networking**

Already, in many countries, local organizations and NGOs are using the Web and email for fostering more effective communications. Day by day, the numbers are accelerating. Linking these groups together will eventually serve to facilitate the greater integration of research with more general development objectives, such as the sustainable and economic use of resources, poverty alleviation, and the development of research proposals and projects that are



more responsive to the needs and capacities of all stakeholders.

oneFish aims to dissolve the traditional boundaries between research and the pressing needs of sustainable development. As oneFish develops, it will provide the fisheries research community with the largest fully integrated global collection of online information on fisheries research and development. oneFish will be a tool for all and, as a result, it will grow and develop according to the needs and requirements of those stakeholders, a truly responsive approach to the information needs of the fisheries and aquatic research community.

oneFish development is currently being sponsored by DFID (UK), Norway, ICEIDA, CIDA, IDRC, The World Bank, UNDP, and FAO. For more information, contact: oneFish Project, Support Unit for International Fisheries and Aquatic Research, FAO Fisheries Department, Viale delle Terme di Caracalla, Rome 00100 ITALY. ([www.oneFish.org](http://www.oneFish.org))



This article has been written by Tim Bostock (email: [tim.bostock@fao.org](mailto:tim.bostock@fao.org)), Joan Baron (email: [joan.baro@fao.org](mailto:joan.baro@fao.org)) and Greg Searle of FAO, Rome

## Not an easy task

**These comments on the implementation of South Africa's new fisheries policy are a rejoinder to an earlier SAMUDRA Report article**

In SAMUDRA Report No. 24 (December 1999), Brian O'Riordan presents an extensive review of the situation in South Africa's fishing sector. It is rather depressing reading: "a tale of chaos and corruption". Even for people who have spent more than two weeks touring the fisheries sector, there are disturbing trends and accounts, running completely counter to the goals of equity and the redressing of historical imbalances. Nevertheless, the article shows a poor understanding of the process, and it is even poorer in advancing "sweeping and enlightened reforms". Therefore, a few comments from another outsider, who has followed the process since 1994.

The policy process leading up to the Marine Living Resources Act (MLRA) of 1998 was a long and complicated one, from the first ANC-based initiatives in 1994, through almost five years of negotiating within the Fisheries Policy Development Committee, leading to the White Paper and the MLR Bill and then to the final MLR Act, approved by Parliament in May 1998.

Of course, a lot of things could have been done differently, but, by and large, this was an open process, incorporating a large number of actors, who had never met before. More groups could have been consulted and more effort could have been put into publicizing the final Act, but this would hardly have changed the result.

The fisheries policy of South Africa, just as in most other countries, is a compromise, where the outcome is defined by the political strength of the contending forces. Compared to the situation in most other African countries and quite a few European ones as well, the fisheries policy process in South Africa was transparent

and inclusive. The most crucial issue all through the policy planning was the extent to which the transformation process should be allowed to disturb the existing industrial set-up. Noting, as O'Riordan rightly does, that most resources are fully utilized, redistribution means taking away from Peter in order to give to Paul.

The greatest impediment to a large-scale redistribution has, of course, been 'big business', but not alone! Organized labour played along with big business all the while. Not surprisingly, the fishworkers' union (FAWU) and other unions would like to protect the employment of their members, thus emphasizing industrial stability. (That the same unions would now like to operate as quota owners as well is an interesting paradox, implying all the familiar problems that go with wanting to sit on both sides of the table. But this is a general phenomenon in South Africa, not limited to the fishing industry alone.)

At the end of the day, the South African fisheries policy is a 'negotiated revolution', just like the rest of the 'revolution' leading to ANC's remarkable rise to power in 1994. Parts of the negotiations precisely ensured that established owners and workers had a certain security and a 'sunset clause' for the bureaucrats. That we can lament, but to little avail. The challenge is to see what can be accomplished, given these limitations.

### Pros and cons

A lot can be said of quota systems and their usefulness in small-scale fisheries. It was, nevertheless, the system preferred by a great majority of politicians in the South African Parliament, including the ANC representatives. It could have been much

worse! In the White Paper, a suggestion was made to hand out transferable fishing rights for perpetuity, while, in the final Act, we are dealing with fishing rights leased to the operators for a maximum of 15 years duration. Furthermore, all transfers have to be authorized by the State, thereby limiting the freedom of the established owners.

**A**gain, there were alternatives, but the alternatives presented by the small-scale fishers never succeeded in attracting any political support. Open access within fixed TACs never caught on because such a system is a waste of effort, bad for marketing and generally benefits only the established 'highliners', that is, the most clever and efficient fishers. Other alternatives were rather unclear as to who should have the right to fish. That also applies to the idea of community quotas, which had been an administrative catastrophe in the past. Whatever the case, it is important to stress that South Africa has got a system rather different from what was originally envisaged, based on the ITQ systems of New Zealand and Iceland.

No doubt, there has been a tremendous interest for acquiring quotas. More than 5,000 have applied for the 1999/2000 fishing season. When one out of ten is successful, no wonder rumours quickly start circulating about corruption and undue influence. It is still worth having a historical perspective of this process. In the past, until 1998, the so-called apolitical Quota Board allocated the quotas. Then, friends and cronies of the Minister and members of the National Party were quite successful, and, later, also people with good ANC contacts. Today, it is clearly stated that the allocation of quotas is a political responsibility, where the Minister is accountable, together with the government.

There are, furthermore, criteria as to who should get access, and there has been established a process of redress for the unsuccessful. According to our investigations, there are very few cases where the Minister has actually intervened, overruling the recommendations of the Chief Director, based on the screening process in the Directorate of Marine and Coastal

Management (MCM). These procedures can, no doubt, be improved, but they are considerably better than the old, at least seen from the perspective of the new entrants.

Allocations, according to the new Act, have only been done for the last two years, so far with relatively modest results. If we start calculating from 1994, when the new dispensation got into power, the redistribution would constitute approximately 25 per cent of the important hake quota and 31 per cent of the West Coast rock lobster quota, to mention only two of the most disputed fisheries. A relatively large number of new entrants have been brought into the industry, with small quotas per entrant.

The large companies are still dominating, holding the lion's share of the total quotas, but the trend is definitely working in the direction of a more diversified ownership. Whether this is good or bad depends entirely on what the new entrants are doing with their quotas. At present, we have a number of 'paper quota owners', people who have been allocated a small quota and who then sell or lease it to established operators for cash. That is to be expected, since the two years needed to acquire equity is too long a period if you have no access to capital other than the value of the quota(s).

Whatever the result of the redistribution process, there are bound to be a large number of dissatisfied applicants. Everybody can not possibly receive a quota. In 1999/2000 alone, there were more than 900 applicants for West Coast rock lobster. If all, excluding the old operators but including the recent new ones, should have an equal share, this would have turned out to be 1.6 tonnes per operator, to be diminished every year, as new entrants enter the race. This is hardly the quantity that would make for a viable industry.

#### **Difficult aim**

Implementing a new and rather ambitious policy is difficult, and it will probably take years before the new administrative system is up and running. (Why do we expect wonders from a Third World country like South Africa, when even European fishing nations would have

problems of standing up to the same standards?) Unfortunately, the ideas put up by the Artisanal Fishers Association are not very helpful, even if they may have a considerable potential for political mobilization.

I certainly agree with O’Riordan that apartheid destroyed the artisanal fisheries of South Africa, but precisely for this reason, restitution is not a viable route. (After 40 years, who should be making restitution and with what?) Looking forward is, therefore, more productive. As of year 2000, there are at least five major problems which have to be solved:

The most important task at the moment is to get a transformation schedule or plan, outlining the political vision by year 2000/2001 and then, five years from now, set specific targets on how much is going to be reallocated in each of the 17 fisheries. Such a plan has been missing all along the process, creating considerable insecurity among established operators, and confusion among new entrants as to what is realistic or possible in terms of reallocation. Such a plan should also contain where (in which sector) new entrants can most easily be accommodated. It goes without further saying that certain sectors like West Coast rock lobster, abalone, longlining, etc. require much less capital than others like trawling for deep-sea hake.

Secondly, it is necessary to strengthen the capacity and competence of the unit dealing with applications in the fisheries directorate (MCM). This should also include the establishment of a watchdog unit to check the validity of the information forwarded by the applicants and for follow-up, to see that organizational entrepreneurs do not kick out the true fishermen as soon as they have secured a fishing right. Furthermore, it is necessary to simplify the allocation criteria, so that the process appears as transparent as possible.

Thirdly, there is an urgent need to establish training schemes, especially in business skills. Many of the new rights holders do not have even the most rudimentary business skills and, therefore, fall easy prey to established

owners in all types of ‘joint ventures’. If business entrepreneurs are the ones going to transform the South African fishing industry, they certainly need assistance also in terms of easy credit. The requirement of obtaining equity within two years based on the fishing right as the only collateral is clearly unrealistic. Assistance to create more efficient organizations should also be considered, keeping in mind that a number of programmes are much more efficient if run through organizations comprising the target groups.

Finally, there is a need to introduce a resource fee. In the MLR Act, there is a provision for introducing a leasing fee for the fishing right. This has not yet been introduced, probably due to heavy resistance from established operators. Nevertheless, a resource fee is, in the end, what society gets back from the fishing industry for having the privilege of using a national resource. Experiences, lately from Iceland, show the weak legitimacy of a policy where the national resource is handed out for free, benefiting only the original operators.

O’Riordan’s account ends with the moving in of a team of investigators, looking into the alleged corruption of the present fisheries administration. Today, we know that most of the fuss was due to certain bureaucratic shortcuts and had little to do with personal enrichment through bribery. I do not deny the possibility of bribes (quite common under the old dispensation), but I do think this is often too easy a way out of a dilemma, that is, of explaining why everybody can not get a quota! In South Africa, just as in Norway or the EU, the challenge is to weigh social equity against biological sustainability and economic efficiency. That is a truly political task, with few fixed answers. §

This response comes from Bjørn Hersoug of the Norwegian College of Fishery Science, University of Tromsø, Norway (email: bjoernh@nfh.uit.no)

## Common-property fishing rights

## Redistributing wealth

### The use of Individual Transferable Quotas as a resource management measure must not be summarily dismissed

**P**arzival Copes' arguments against the use of Individual Transferable Quotas (ITQs) for the management of fisheries ("Coastal resources for whom?", SAMUDRA Report No. 23, September 1999) are not particularly helpful to those responsible for making decisions on the formulation of management measures. Although ITQs will not work in many situations, they, nevertheless, provide an important tool which should not be rejected for the wrong reasons.

It is abundantly evident that overfishing is becoming more severe and more pervasive throughout the world and that it affects small-scale fisheries as much as it does large-scale fisheries. The basic problem is that the supply of fish stocks is limited and yet the demand for fish products is growing. This leads to rising prices and, in the absence of effective controls, increased fishing effort. The result is the depletion of stocks as well as the excessive use of capital and labour.

Better management of fisheries is essential. Management measures can deal either solely with the biological aspects or with both biological and economic aspects. In the past, many of the measures dealt only with the biological yield, ignoring the economic consequences. These kinds of measures included total catch limits, closed seasons, closed areas, mesh size controls and others designed to restore stocks to their maximum sustainable yields (MSY). These were frequently adopted because they presumably affected all fishermen equally and did not change the distribution of wealth (a presumption that was often wrong).

Although such measures may be desirable in conjunction with other measures, they

do not always achieve their objective of restoring the stocks. Moreover, they do nothing to prevent excessive fishing effort or conflict among competing users. The difficulty is that measures that prevent excessive fishing effort or that deal with conflict, require decisions on the distribution of wealth. This can not be avoided. As Copes has pointed out, an ITQ system provides individual quotas to some fishermen but not to others. What he did not point out, however, is that a system limiting fishing effort directly, by granting licences to some of the fishermen, also distributes wealth. He states that "to remain economically healthy, the small-boat sector must accept the need to keep fishing capacity in balance with available harvests. This will probably require occasional reductions in fleet size by buy-back, in order to offset likely advances in fleet productivity."

Copes has failed to note that the provision of territorial rights to a community of fishermen (which he advocates and which I agree may generally be desirable) provides wealth to that community and excludes fishermen who are not members of the community.

Copes states that "typically, most inshore fish resources have lent themselves well to harvesting by locally based small-scale fishermen." While this may currently be true in certain situations, it is becoming less and less valid, and is unlikely to continue into the future.

#### Population growth

It is clear that eventually, as population grows and demand increases, decisions on the distribution of wealth will have to be made. Even the exclusion of large-scale fishing vessels from the waters used by small-scale fishermen will not preclude the eventual necessity for determining



**Response**



how access within the group of small-scale users will be allocated. Since this is presently necessary in many situations and will be increasingly necessary in the future, it is desirable to examine all the various techniques for controlling access, including the use of ITQs.



This response has been sent in by Francis Christy, Senior Research Officer, IMARIBA, Washington DC, US (email: imariba@sprynet.com)

## Fishing technology

# Mechanization ahoy!

**Technological change has transformed the living standards of fishermen in southern Sri Lanka**

The post-war period in Sri Lanka was characterized by rapid rates of growth of population that exerted tremendous pressure on food supplies. In order to face the new challenges, the State, which assumed a regulatory role during the pre-war period, took an active role—one of reformism—to expand fish production. Many technological innovations have been introduced to fisheries since then, with major emphasis on mechanization. The State intervention in fisheries was mainly characterized by measures adopted to improve traditional crafts and gear, introduction of new fishing techniques and the development of fisheries infrastructure to facilitate reaping the full benefits of the above measures. In order to help the asset-poor fishermen to adopt the new technology, a large array of credit schemes were implemented through the State-owned banks. It was envisaged that all these measures would lead to large increases in production, while improving the living standards of the resource users.

Since the late 1930s, experiments have been conducted by the State to introduce suitable mechanized crafts into Sri Lankan fisheries, and the results of such experiments led to the introduction of four main types of mechanized vessels; mechanized crafts with outboard engines (the most commonly used craft is the 17-23 ft fibre-glass FRP boat); one-day operating craft (ODOC) with inboard engine; multi-day operating craft with inboard engine and ice compartment (MDOC); small trawlers (10-11 tonne boats).

The latter craft did not become very popular among the fishermen in Sri Lanka, mainly due to its high initial cost. The MDOC is the only craft used by the fishermen to exploit deep-sea fish resources. Along with the mechanized

craft, new fishing gear and fishing techniques were also introduced into Sri Lankan fisheries.

The new fish-catching technology introduced was essentially an 'output-enhancing' technology. With its ability to engage in year-round fishing, the mechanized craft enabled the fishermen to stabilize inter-temporal flows of fishing incomes. Yet, the new technology was highly capital-biased and its adoption demanded an array of inshore and offshore facilities.

A modern craft, such as the MDOC with accompanying gear, cost about SLRs 1,593,000 in 1994, as against SLRs 24,500 for a non-mechanized traditional craft (NMTC) and accompanying gear. By 1998, the cost of an MDOC with accessories amounted to SLRs 3-4 million (US\$ 1 = SLRs 70).

### Costs of crafts & accompanying gear (1994)

Type of Craft	Cost of Craft (SLRs.)	Cost of Gear (SLRs.)
MDOC <sup>1</sup>	1,307,000	205,300
ODOC <sup>1</sup>	784,621	77,500
FRP <sup>2</sup>	72,000	78,000
MTC <sup>3</sup>	14,100	58,000
NMTC <sup>4</sup>	5,700	6,200

1 with 34 hp engine

2 18.5 feet FRP boat with 15 hp OBM

3 Mechanized Traditional Craft—17.8 feet fibre glass canoe with 8 hp OBM

4 9 feet wooden *theppam*

(Source: Field studies, 1994)

### No savings

Although ordinary fishermen are unlikely to have savings sufficient enough to meet the heavy capital funds required for the purchase of modern crafts and gear, this technology showed a high rate of

diffusion within the coastal community of Sri Lanka.

**T**he 1970s marked the era of a 'blue revolution' (the technological revolution in marine fisheries), where the rate of adoption of mechanized fishing took place at a rapid pace. This period also coincided with rapid increases in fish production—from 85,229 tonnes of fish in 1971 to 206,843 tonnes in 1981. The degree of mechanization of fishing crafts reached the 50 per cent mark by the mid-1980s and remained around that level since then.

Quite interestingly, the State had played a commendable role as an agent of change or a catalyst in the drive towards the mechanization of Sri Lankan fisheries. A large amount of subsidies have gone into fisheries since the early 1960s to enable fishermen to acquire mechanized crafts and engines.

The increased craft issues during the 1960s and 1970s coincided with the period of rapidly increasing rate of mechanization of fishing crafts. The late 1970s and early 1980s also marked a significant increase in the amount of subsidies granted to fisheries.

It is quite apparent that the State has taken an active role in the process of technological change in fisheries. It has also been able to shift fishing effort from

one set of resources to another by changing the nature of craft and engine issued under subsidy schemes.

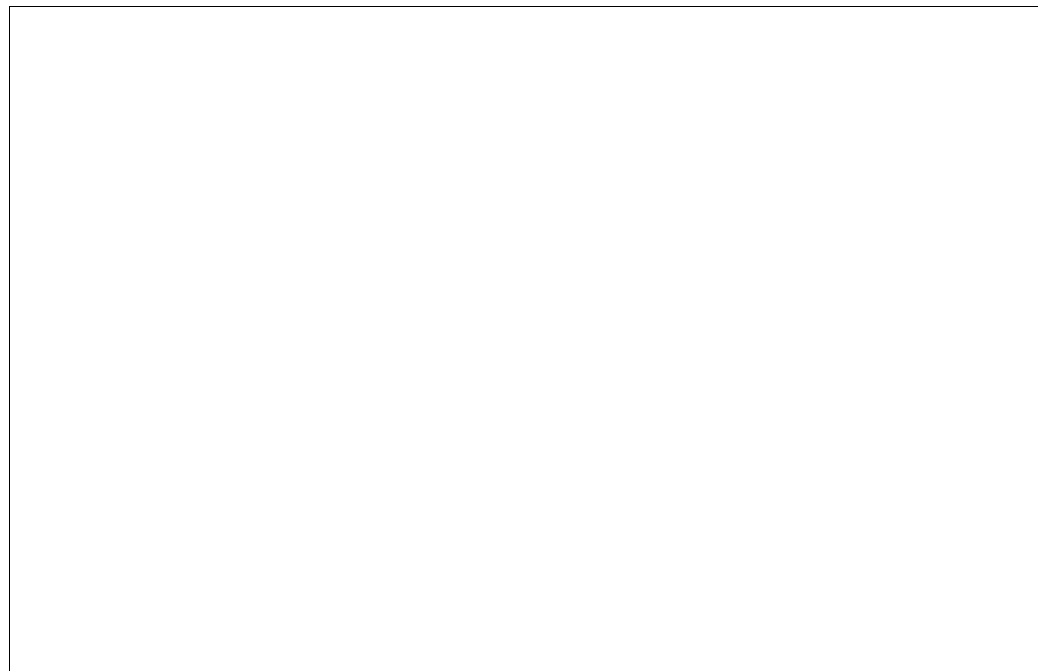
For Sri Lankan fishermen, both formal and informal sources of credit are important. The financial intermediaries involved in the formal sector consist of State-owned commercial banks, fisheries co-operatives and the Ministry of Fisheries, while the informal sources consist of private moneylenders, fish merchants, boutique owners, fellow fishermen and kinsmen.

While professional moneylenders of the informal credit market and the institutional credit agencies of the formal credit market are ready to advance credit at comparatively moderate rates of interest to the agriculturist who offers his land as a collateral, those very same lenders are reluctant to advance money to fishermen, considering that the latter have no reliable security to offer them, in compensation for the risk they take.

#### **No collateral**

Fishing craft and gear are the only assets owned by fishermen, and these depreciate rapidly and also bear the risk of damage and loss at sea. Therefore, fishermen's access to credit is limited by 'collateral-specific risks'. Therefore, fishermen are put at a serious disadvantage in the credit market because many lenders consider them less creditworthy. State involvement in





providing the fishermen with funds under various credit schemes can be viewed as a measure taken to redress the above situation.

**F**ixed capital, such as crafts, engines, gear and other accessories amount to sizeable investments. All types of craft owners in the south of Sri Lanka depend, to a considerable extent, on external funds to secure their fixed capital needs.

Credit has been important in the acquisition of both crafts and gear. Total borrowals added up to large amounts. The higher the degree of mechanization, the higher has been the average amount of credit required. Both formal and informal sources have been equally important for all types of craft owners in securing their fixed capital needs.

Formal sources have provided almost 60 per cent of all credit required by fishermen. Although they have played an equally important role, the co-operative lending schemes can be considered the most successful, taking into account the fact that lending facilities of this source were extended to all types of craft owners. One should also not undermine the important role played by the fish merchant, contributing 22 per cent to the total credit amount. Contributions of the moneylender and fellow fishermen have been quite low, which, among other

things, reveal the inability of these sources to meet the large loan amounts demanded by fishermen to acquire modern crafts and gear.

Naturally, we expect a fisherman adopting modern technology to perform better and live better than one who continues to use traditional technology. Comparison of living standards of fishermen across different technological categories will provide us with information on the relative strength of these technological types in making the fishermen better-off and, also on the pattern of social stratification of fishing communities.

There is a very high degree of variation of incomes of fishermen within a particular technological category. Interestingly, there are fishermen in modern fisheries whose incomes exceed SLRS 20,000 a month, which is comparable to the monthly salary of an executive in a private company or a university academic in Sri Lanka.

#### **Monthly returns**

The monthly returns of asset owners are higher than the monthly income of crew workers (with the exception of NMTTC), indicating that asset owners earn more than those who do not own fishing assets. Of course, if the asset owner is a fisherman, his income would be much higher (because he will receive a

crew-share as well). Evidently, the higher the degree of mechanization of fishing crafts, the higher would be the income of craft owners. Clearly, modernization of fisheries has brought about an increase in the living standards of fishermen.

#### Average incomes of selected occupational categories

Sub-sector	Occupational category	Average income (SLRs/month)
Agriculture	Paddy ploughing	3,465
	Tea plucking	1,958
	Rubber tapping	1,958
	Coconut husking	3,694
	Coconut plucking	3,522
Building construction	Master Carpenter	4,460
	Skilled Helper	3,336
	Master Mason	4,356
	Unskilled Helper	2,534
Fisheries	Crew Share - MDOC	8,654
	Crew Share - ODOC	4,741
	Crew Share - FRP	4,692
	Crew Share - MTC	3,919
	Crew Share - NMTC	2,694

Adopted from Central Bank, 1998

The incomes of fishermen engaged on mechanized crafts appear to be higher than those of other occupational categories (except crew workers of MTC, who earn incomes slightly below those earned by skilled workers in the building construction sector). The crew workers in traditional fishing earn the same monthly income as unskilled workers in other sectors, indicating their relative poverty, compared to many occupational categories.

In general, it is evident that fishermen who have adopted modern technology are earning higher incomes than skilled workers in the unorganized sector.

The new fish-catching technology introduced to Sri Lanka was essentially a productivity-enhancing technology that led to higher average annual fish catches. However, the adoption of new technology required the fishermen to make high capital commitments. The State has played an important role in helping the asset-poor fishermen in adopting the new technology, by way of craft and engine issues under subsidy schemes. Today, approximately half of Sri Lanka's fishing fleet consist of mechanized crafts.

Fishermen depended heavily on external funds to secure their fixed capital needs. The higher the degree of mechanization, the higher was the average amount of credit obtained. While both formal and informal sectors have catered to the fixed capital demand, the formal sources, such as the State-owned banks and fisheries co-operatives, have played a more important role in the provision of funds for the acquisition of modern mechanized crafts.

Comparison of incomes of fishermen across different technological categories revealed that fishermen who adopted mechanized fishing were able to increase the level of their incomes. Comparison of fishing incomes with those of other occupational categories revealed that fishermen engaged in mechanized crafts were earning higher incomes than those earned by most of the other occupational categories in the unorganized sector.

In general, it is well evident that modernization of fisheries has brought an increase in the living standards of the fishermen of southern Sri Lanka. 🇱🇰

This article has been written by Oscar Amarasinghe, Faculty of Agriculture, University of Ruhuna, Sri Lanka (email: [oscamara@dyanet.lk](mailto:oscamara@dyanet.lk))

# News Round-up

---

## ***A new home***

---

ICSF's Brussels Office has shifted to new premises, and Brian O'Riordan has taken over from Pierre Gillet as secretary. Please note the name of the new port of call: ICSF Brussels Office, Rue du Midi 165, B-1000 Brussels, **Belgium**. Tel: (32) 2 513 1565 Fax: (32) 2 513 73 43 Email: icsfbrussels@yucom.be

## ***Law's claws***

---

A new Marine Environmental Protection Law, which went into effect on 1 April, is expected to help **China** expand its fishery industry.

In recent years, the Fisheries Bureau, under the Agriculture Ministry, has recorded an average of 80 contamination cases in China's seas annually.

This has resulted in yearly losses of 150 million yuan (about US\$18.1 million). Marine pollution has

caused annual losses of 240,000 tonnes of aquatic products in

the Yellow and Bohai seas.

Compared to the 1982 version, the new marine code delegates the power of environmental protection in fishing grounds and fishing ports to the Fisheries Bureau, which will also act as the supervisor and investigator of water pollution.

## ***TED not dead***

---

Remember the contested US ban on import of shrimp from all nations not certified by the US State Department as trawling for shrimps with mechanized vessels fitted with turtle excluder devices (TEDs)?

Well, TEDs live. The WTO's Appellate Body had found that the US national certification requirement amounted to an obligation for exporters to adopt

essentially the same policy as the US and, as such, had an unjustifiably 'coercive effect' on foreign governments' policy decisions.

National certification also discriminated against exporters that did use TEDs in uncertified countries, as well as against Asian countries, which were given less time and technical assistance to adjust to the measure than their Latin American counterparts.

Furthermore, the Appellate Body deemed the certification process to be non-transparent and arbitrary.

It also faulted the US for not having seriously sought multilateral environmental co-operation aimed at protecting endangered sea turtles.

In response to these findings, the US did not lift the import embargo, but changed its application guidelines.

The centrepiece of the new guidelines is replacing the nation-by-nation certification requirement by a shipment-by-shipment certification

procedure. Changes were also made to implement the trade measure in a more transparent and non-discriminatory fashion.

In addition to the new guidelines, the US will offer technical training in the design, construction, installation and operation of TEDs.

While the US government thinks it has implemented the WTO ruling in full, its compliance measures are contested from two very different quarters: the complainants in the case and US conservation organizations.

The complainants—**India, Malaysia, Pakistan and Thailand**—still maintain that only lifting the import ban would constitute 'good faith implementation'.

US conservation organizations are equally dissatisfied. Earth Island Institute, the Humane Society of the United States, the American Society for the Prevention of Cruelty to Animals and the Sierra Club have brought a case against the new guidelines to the US Court of International

Trade, claiming that they would be impossible to monitor and enforce.

The litigants argue that shipment-by-shipment certification would not effectively protect sea turtles, and thus falls short of adequately fulfilling the law's ultimate purpose.

In April 1999, the Court of International Trade issued a preliminary ruling against shipment-by-shipment certification, finding it was 'on its face not in accordance' with Congressional intent in passing Section 609.

That section provides that shrimp harvested with technology that may adversely affect sea turtles protected by the US Endangered Species Act may not be imported into the US.

Both sides have submitted supplementary information to the Court, whose final decision is still pending.

Should the Court oblige the government to go back to nation-by-nation certification, a WTO compliance panel seems a near certainty.

### ***Hake stake***

**Argentina** has decided to cut this year's hake catch by

almost two-thirds of the tonnage fished in 1999, after a report warned that the South Atlantic stock was in a "critical state".

Hake is Argentina's top catch, making up half of the US\$1 billion fishing industry's annual exports, mainly to Spain, Japan, Brazil, Italy and the US.

After a 1994 deal granted the European Union (EU) rights to

catch hake, squid and cod under quotas, catches of hake off Argentine shores touched one million tonnes.

Argentina's commercial fleet caught 312,051 tonnes of hake in 1999, even though Argentina's National Fisheries Institute (NFI) had set a 188,200-tonne limit.

In a report, the NFI urged the government to suspend the hake catch altogether this year or at least limit it to 110,000 tonnes.

"The total biomass has been in decline over time, and the reproductive biomass was found to be below biologically

acceptable levels and was also showing the same trend," the NFI said. "The fall in the reproductive biomass is due to overfishing. Therefore, future catches will have to be low," it said. "We can only continue with a low-level catch this year."

Last year, some EU ships skirted attempts to suspend the hake catch, while 12,000 other fishermen were left unemployed during Argentina's deepest recession in a decade. Enforcement has been a chronic problem in Argentina's 200-mile economic zone.

### ***Gown under***

In Australia, women perform 50 per cent of administrative tasks, and contribute between 26 and 50 per cent of the family income.

While most seemed satisfied with their role, half of them yearn for better recognition and status for their work.

These findings come on the heels of the launch of the Women's Industry Network (WIN) Action Plan for women in the seafood industry and a Bureau of Rural Sciences (BRS) report on women in the fishing industry.

The Action Plan—Empowering Fishing Women to Capitalize

on Networks—responds to findings in the BRS report and provides a national framework for women in the seafood industry to work from, and set, goals.

The BRS report, *Fishing for Women: Understanding Women's Roles in the Fishing Industry*, commissioned by WIN, is an important part of the Action Plan. It provides the preliminary research necessary to better understand the role of women in the fishing industry.

One of the major findings of the report was that women's roles in the fishing industry were poorly reflected in statistics, including women's contributions to output and productivity.

The Federal Government is helping a number of

national non-government rural women's groups in several ways.

Among other things, it has given a grant of Aus\$10,000 for WIN through a programme designed for national NGOs.

*The image of the fishermen conjures up deep feelings: Biblical resonances of Galilee, echoes of childhood hymns, nostalgia for the last true hunters plying a trade that goes back to the very origins of humanity. The mind's eye fastens on the life ebbing from hundreds of tiny harbours and creeks around our coasts. We think of heroism in the face of winter danger, of the sea itself, and the struggle of mankind with the elements.*

— from *Living the Fishing* by Paul Thompson  
with Tony Wailey and Trevor Lummis



ICSF is an international NGO working on issues that concern fishworkers the world over. It is in status with the Economic and Social Council of the UN and is on ILO's Special List of Non-Governmental International Organizations. It also has Liaison Status with FAO. Registered in Geneva, ICSF has offices in Chennai, India and Brussels, Belgium. As a global network of community organizers, teachers, technicians, researchers and scientists, ICSF's activities encompass monitoring and research, exchange and training, campaigns and action, as well as communications. SAMUDRA REPORT invites contributions and responses. Correspondence should be addressed to the Chennai office.

The opinions and positions expressed in the articles are those of the authors concerned and do not necessarily represent the official views of ICSF.

SAMUDRA REPORT can now be accessed on ICSF's home page on the World Wide Web at <http://www.icsf.net>

**Published by**  
Sebastian Mathew for  
International Collective in Support of Fishworkers  
27 College Road, Chennai 600 006, India  
Telephone (91) 44-827 5303 Facsimile (91) 44-825 4457  
E-mail: [icsf@vsnl.com](mailto:icsf@vsnl.com)

ICSF Brussels Office:  
Rue du Midi 165, B-1000 Brussels, Belgium  
Telephone (32) 2 - 513 1565 Facsimile (32) 2-513 7343  
E-mail: [icsfbrussels@yucorn.be](mailto:icsfbrussels@yucorn.be)

**Edited by**  
SAMUDRA Editorial

**Designed by**  
Satish Babu

**Cover**  
ASRI, Indonesia

**Photographs courtesy of**  
AGR, Sebastian Mathew, Robert Fleurot  
Jeremy Hartly, Brian O'Riordan, Seafood New Zealand

**Additional news courtesy of**  
Mike Hagler, BRIDGES  
PR Wire Australia, China Daily

**Printed at**  
Nagaraj and Company Pvt. Ltd., Chennai

SAMUDRA REPORT No. 25 April 2000  
FOR LIMITED CIRCULATION ONLY

