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SAMUDRA REPORT

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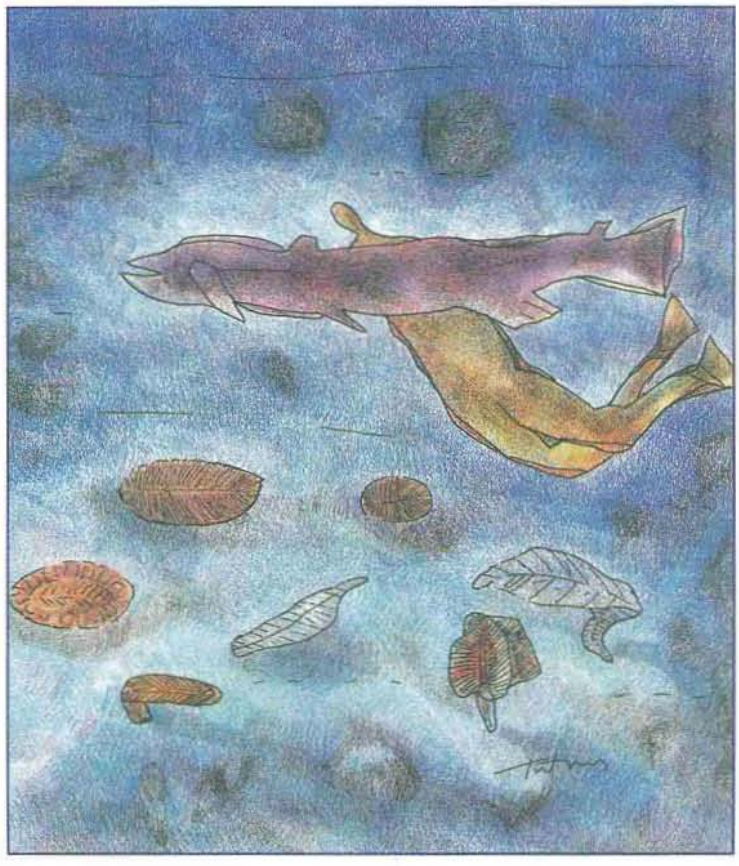

Contents

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Comment

A fish by any other name...

The issue of ecolabels, especially for marine products, is turning out to be quite a pretty kettle of fish. Take the case of the Marine Stewardship Council (MSC), a baby born of two mighty parents, Unilever and the World Wide Fund for Nature (WWF). Though it began its accreditation scheme last year, it is yet to demonstrate its clout in the markets of Europe and the US. Nonetheless, both Northern and Southern fish exporting countries are concerned about its potentially adverse impacts.

Developing countries, in particular, are keen that ecolabels do not become yet another barrier of entry into the lucrative fish markets of the North. But they can not make up their minds on whether FAO or WTO is indeed the appropriate forum to discuss technical guidelines for ecolabelling. While some countries are inclined towards an inclusive consultation within the FAO, several others would prefer to use the WTO forum. Countries like the US would like such matters to be left to the private sector.

For all the fears expressed, it is, however, difficult to imagine that access to Northern markets would be seriously affected by ecolabelling schemes. There are good economic opportunities for developing countries to cater to markets for ecolabelled fish, especially for fish caught by selective gear and practices, as well as for fish that originate from healthy stocks. Ecolabelling would only create a differentiated market where the labelled products would fetch a premium, compared to unlabelled products,

The North depends on the South for fish such as tuna, shrimp, lobster, cuttlefish and squid. Their markets can not turn too restrictive because, unlike in agriculture and forestry, the South boasts of a resource which the North can not easily substitute with its own products.

However, even if only a small fraction of the exports are sold under ecolabels, the revenue from such niche markets could enhance foreign exchange earnings and lead to better living standards in fishing villages. The artisanal and small-scale fishworkers who use selective gear and practices are likely to benefit most from ecolabelling schemes since their fishing methods are regarded to be the most environment-friendly.

For these reasons, developing countries should get actively involved in developing appropriate criteria for ecolabels. But whether WTO or FAO is the more appropriate forum to discuss ecolabelling is an important issue. FAO seems to be better placed for several reasons. First, unlike WTO, it is competent in fisheries matters. Second, it enjoys the trust of developing countries and seems to be still dominated by their interests. And third, unlike WTO**,** it could provide a better meeting ground for producing and consuming countries as well as other stakeholders in fisheries.

Even if countries would like to keep their options open to challenge unacceptable ecolabels, it may be difficult to question private ecolabelling initiatives at WTO, if these comply with the provisions of multilateral instruments in fisheries. This is because the Agreement on Technical Barriers to Trade (TBT) may not find the application of such multilateral instruments an act of discrimination. Moreover, the ruling of an earlier GATT arbitral panel which upheld the dolphin-safe' tuna labelling scheme in the us indicates that voluntary private ecolabelling schemes are unlikely to be challengeable at WTO, as long as they do not discriminate between domestic and foreign products. If unilateral private initiatives, where governments and producers have little say, are already imminent, and can not be easily influenced, wouldn't it be wiser to initiate an inclusive process to develop guidelines for ecolabels? Countries could ensure that their concerns are taken into account while developing the criteria for ecolabels. If this opportunity to set the agenda were to be missed, the net result would perhaps be a forced compliance with private, exclusive ecolabelling standards. That may not be in the best interests of developing countries in the long run.

Mozambique

A little help from South India

A unique exchange programme seeks to transfer artisanal fishing technologies from south India to Mozambique

In early October 1998 a group of Indians from the fisheries sector in the southern part of India landed at Maputo, the capital of Mozambique. Their mission: to help the traditional Mozambican fishermen learn to make and use fishing gear alien to Mozambique, to catch prawns and anchovies.

The idea for such an exchange programme was first mooted at the ICSF's general body meeting in Trivandrum in February 1998, when an invitee to the meeting, Simeaeo Lopes of the Social Development Department of IDPPE (Instituto de Desenvolvimento da Pesca de Pequena Escala), was struck by the diversity of fishing technologies available in south India. He was particularly surprised to find out, during an exposure trip to a fishing village, that artisanal fishermen in India have nets to catch prawns as well as anchovies—the trammel net and the anchovy gill-net.

Such gear were then unknown to the artisanal fishermen of Mozambique. Lopes conferred with ICSF and the South Indian Federation of Fishermen Societies (SIFFS) to work out the possibilities of sending a team of Indian fishermen to Mozambique to teach the local fishermen how to make and use these gear.

IDPPE, an autonomous body set up under the Mozambican Ministry of Fisheries to deal with issues relevant to the small-scale fishery sector, had another reason for the initiative. It was important to demonstrate that prawns could be caught by the traditional sector in Mozambique.

The absence of such artisanal fishing provided an excuse for industrial vessels (trawlers) to come very close—up to a kilometer—to the shore to catch prawns. In the process, they were destroying the artisanal fishermen's shore-nets which extend almost a mile into the sea. This had often led to a certain amount of conflict between the industrial and artisanal sectors, and Mozambican traditional fishermen were feeling grieved. IDPPE was thus keen on providing small-scale fishermen the technology for catching prawns so that government policy could be influenced to keep the trawlers at bay.

In the northern part of Mozambique, the most important gear used is the shore seine or beach seine to catch fish in shallow waters. As productivity has fallen, the fishermen have reduced the mesh size of their nets so that, at the cod end, they are now using mosquito nets to catch small fry which are then dried for the market.

In the absence of transportation and marketing facilities, there is hardly any market for quality fish, with demand confined to the nearby towns. Only the smaller fish, including dried juveniles, which go to the nearby rural markets command a reasonable price. This has led to the overexploitation of certain varieties of fish.

In discussions with Simeao Lopes and Rui Fa1cao of IDPPE, the Indian team had been told that the Mozambicans were specifically interested in two types of gear—the trammel net and the anchovy gill net.

From the Far East

The trammel net is a three-layered net, sometimes also called the 'disco' net in south India, not itself indigenous to India, but which appeared 15 years ago from the Par East and soon become very popular with the local fishermen. The anchovy gill-net is used from canoes and catamarans. The Indian team's brief was

to train their Mozambican counterparts in using—and setting—these nets.

The final structure of the exchange programme was designed to address the following objectives:

- the exchange programme would train Mozambican fishermen in fishing with anchovy gill-nets and trammel nets;
- the programme would train Mozambican fishermen to "set" both the nets and fine-tune the settings to suit the local geography;
- the Indian team would interact with the fishermen and staff of IDPPE, and provide them with the history of fisheries interventions in economic programmes as well as other areas such as trade unionization;
- at a deeper level, IDPPE was also concerned about the inequitable nature of fisheries development in Mozambique. Some of the staff of IDPPE who had had an exposure to the dynamics of fisheries development in countries like India felt that the fishermen and their organizations in Mozambique had many things to learn from the Indian experience.

The final programme was drawn up as a tri-partite programme involving ICSF, IDPPE and SIFFS. It was decided that a four-member team from India, consisting of two master fishermen, a translator and a documentalist would visit Mozambique in October 1998, and work through IDPPE for the actual training programme. The details of the 15-day programme in Mozambique was left to IDPPE to finalize.

At the outset, SIFFS decided to select fishermen from the southernmost district of Kanyakumari in the State of Tamil Nadu, where some of the most skilled fishermen can be found. They are competent, versatile all-rounders, proficient in a range of activities—from making their own nets to navigating under different sea conditions.

The fishermen in the team comprised Anthony Adimai, President, and P.Varghese, Secretary of the Kanyakumari District Fishermen Sangham's Federation, a member federation of SIFFS. They are also board members of SIFFS, with Adimai being the current chairman. The other two members of the team were V. Vivekanandan, a member of ICSF, and Satish Babu, Chief Executive of SIFFS.

First impression

At first impression, recalls Vivekanandan, the choice of the Indian fishermen seemed to have been influenced more by political than technical factors, but once the

exchange programme was over, there was absolutely no doubt that it was an excellent choice. Not only were the fishing skills of Adimai and Varghese exemplary, but their previous exposure to the outside world through their roles in SIFFS also imparted a broader vision to their perspectives.

In preparing for the exchange programme, the Indian team had long discussions centred around the suggestions of the master fishermen, Adimai and Varghese. The team also kept in mind the six-year old experience of a previous ICSF exchange programme involving the transfer of the same trammel net technology to Senegal.

Each fisherman was assigned responsibility for one net—Adimai was put in charge of the trammel net, while Varghese was responsible for the anchovy net. The team decided to take enough webbing to make nets large enough for the larger craft found in Africa, like the long pirogues. They were also prepared to demonstrate straightaway how to make and use a net.

To do so, they took along completely weaved nets of both types, ready to be cast out into the water to fish, as well as raw webbing to demonstrate the assembling of the nets during the 2-week stay in Mozambique.

Earlier, Adimai and Varghese had applied their minds to come up with pedagogic innovations—for example, to teach how to tie the knots for the trammel nets, they got the knots readied up to the penultimate stage, leaving the tying of the final knot as a demonstration lesson for the Mozambicans.

The team left Trivandrum for Maputo on 3 October 1998, and reached there a couple of days later. They carried with them about 100 kg of fishnet webbing, ropes, lead sinkers and PVC floats. They were received at Maputo by Rui Falcao.

After an initial briefing at IDPPE, the team left for the province of Nampula, in the extreme north of the country with Casim, head of field operations of IDPPE at Nampula. The team was taken to the village of Angoche, a three-hour drive from Nampula. The team interacted mainly with staff and some fishermen of the Angoche project of IDPPE, and was first involved with setting of both the nets. This was an instructive occasion, where it was soon found that despite not having a common language, fishermen could communicate reasonably well.

At first, the IDPPE project staff in Mozambique were surprised to see a trammel net, which they claimed to have already been tried. Apparently, a European adviser had recommended it for the project and a smallish second-hand Indian disco net was procured via Vietnam. The IDPPE had been using that to conduct its own trials.

However, according to Adimai and Varghese, the Vietnamese net found in Mozambique was not state-of-the-art. Over the 15 years that it has been in India, Indian fishermen have improvised on the original disco net and changed its design parameters so that the net today is a pale imitation of its original self.

Nonetheless, the Indians did not get off to a flying start. On the very first day that they went fishing, in the province of Nampula, they caught not a single fish. The completely barren expedition was a huge shock for the Indians, especially since the disco net is a non-specific, non-discriminatory net which can catch almost anything. Since few of the IDPPE project staff were very experienced in identifying fish species, the team did not have a clue to the anchovy seasons. They soon realized they had arrived in the wrong season. In Mozambique, the monsoon starts in mid-November, and only then do the anchovy species abound.

Unfavourable conditions

At Angoche, a town with a population of over 100,000, the sea was very clear. From experience, the Indian master fishermen knew that this was an unfavourable factor. Only turbid conditions, as occur during the monsoon, lead to plenty of fish during the day. Moreover, the sea bottom at Angoche was sandy, not very hospitable for prawns. But the Indian fishermen were more or less sure that there would be other species like tuna *for* which, unfortunately, they had not brought gear.

Mozambique : a brief sketch

With a relatively narrow but long (2,500 km) coastline, Mozambique (population 17 million) is on the east coast of Africa, just above South Africa. Along almost 1,200 km of the coastline from the central part to the north, adjoining the shallow waters between Madagascar and Mozambique can be found mangroves.

However, available information suggests that these water are not as productive as the water of, say, southwest India, in the same Indian Ocean. Though its coastline is four time as long as Kerala's, Mozambique's fish landings are, on average less than a fourth of Kerala's.

An erstwhile colony of the Portugese, Mozambique became independent only as late as 1975, through an armed insurrection led by the Marxist group, the Mozambican Liberation Front (FRELIMO). When the Portugese fled, most the capital which were in their hands fled too. Post —independent Mozambique was starved of capital and FRELIMO promoted the Soviet model of planned, centrally controlled. State-run economic development. This too discouraged the private sector, and contributed to the capital flight.

Before independence, mechanized trawlers, entirely owned by Portugese capital, operated in the shallow waters of the central-northern parts of Mozambique. This are , known as the Sofala Bank, is a good prawn ground. With the flight of the Portugese and their capital, the mechanized sector collapsed.

After independence, the Mozambican government entered into joint ventures with the Soviet Union and eastern Europe for mechanized fishing by large (over 25m) industrial trawlers with onboard freezing facilities. The government also began settling up co-operatives in the fisheries sector. Fishermen got all their inputs through the local co-operatives and all the fish they caught were sold through the co-operatives. These were reasonably successful in supply and distribution.

Today, there are 200 industrial vessels and 164 semi-industrial vessels-all trawlers- employing less than 10 per cent of the Mozambican workforce. Almost 90 per cent of fishermen are in the artisanal sector, operating small-scale, non motorized wooden canoes in very shallow waters just a mile off the coast.

At another village, the Indians saw that the Mozambican fishermen were catching juveniles of the species, including anchovies, at least two months from full adulthood. The juveniles were too small for the Indians' nets.

Yet another reason for the failure was timing. Normally, in India the disco net is set before dawn. At Angoche, for various reasons, the team never managed to set out before dawn. All the three trips at Angoche were generally disappointing. The fishermen caught only small sharks and crabs in meagre quantities, and no prawns at all.

At the next centre, Moma, further to the south, the situation turned out to be much better. Having learnt from the Angoche experience, the Indians had told the IDPPE staff that on arrival at Moma, they wanted a dialogue with a group of local fishermen. This helped them form an idea about fishing grounds and seasons. The first day that they set out early, the team was rewarded with near-bumper catches of shrimp. Much to the delight of the Indian team, the trammel net caught about 65 kg of shrimp in the three-hour fishing session.

The trammel net caught prawns in decent enough quantities to cause excitement among the IDPPE project staff. The local fishermen too were enthusiastic and curious on seeing the trammel net. They showered the Indians with questions on its catch potential, cost, availability, etc. So confident did they seem about the catching potential of the net that they decided to send three fishermen, by rotation, on the fishing trips.

Professionalism

The Mozambican fishermen were very surprised at the professionalism of Indian fishermen, their skills at navigating with the aid of star constellations, and their intuitive adaptability to the sea conditions. Gill-netting calls for specific skills of shooting and hauling the net, and, while hauling, removing the fish carefully from the net, These skills, taken for granted in Kanyakumari, India, were not

During the Marxist Soviet-inspired regime, the government bought and distributed outboard motors (OBMS), 700 of which are now in operation.

With the end, in 1992, of the 15-year civil war that erupted soon after independence, between FRELIMO and the Mozambique National Resistance (RENAMO), things began to change in Mozambique. The process was also hastened by the collapse of the old support systems represented by the Soviet Union and East European economies.

In the first multiparty general elections in 1994, FRELIMO came to power. It remains the dominant part, with RENAMO making up a sizeable opposition. FRELIMO soon set about reforming the economy, liberalising and opening it up, wooing capital, allowing goods to be freely imported and making foreign exchange much easier to obtain.

In the fisheries sector, the public sector collapsed. The co-operatives, which had not been functioning too badly, closed down. Government subsidies have disappeared and the absence of maintenance facilities have caused the OBMS to become disused. At present, the artisanal sector is left to fend for its own, with hardly any government inputs.

Although the economy has been opened up, the response of entrepreneurs and the private sector has been slow and inadequate. In the case of fisheries, for instance, no local net-making facility has yet been set up. Since the demand is seasonal and nets are difficult to stock, businesses would enjoy only poor levels of profitability.

Moreover, the cost of capital in Mozambique is very high, with bank prime lending rates, hovering around 25 per cent, though inflation is less than 10 per cent.

Due to capital scarcity and the effects of the long civil war, Mozambique's infrastructure is extremely poor. Whatever roads there are, are mere mud roads. In some major towns, the local governments have not been able to resurface the roads for the past 12 years. The towns have no electricity and so, ice/freezing plants are immediately ruled out.

Credit in the Mozambican fishing sector is also a major problem. There are no moneylenders, nor rights to land in rural areas.

evident in Mozambique, since the artisanal fishermen there had never had to use such nets.

Though Mozambique is several thousands of kilometres away from Kanyakumari, both places share a common ocean—the Indian Ocean. The Mozambique sea is generally much shallower. Although the Indians had prepared 500-mesh depth nets, they found they needed only 300-mesh depth. They used the extra 200-mesh to increase the length of the net.

That was about the only concession they had to make, for the Indian fishermen could easily identify with the sea in Mozambique. Furthermore, there was not a single species of fish they came across that they could not identify. For them, the Mozambican sea was second home, though cultural and social conditions may have been more difficult to adapt to.

After fishing in the mornings, the team would return to the village and start teaching the Mozambican fishermen how to make the nets. Some of the IDPPE project staff, thanks to their technical training, were quick to pick up net-making skills.

However, since there were no freezing facilities on shore, all the prawns caught had to be eaten by the Indians and Mozambicans themselves. (The trawlers that catch prawns in Mozambican waters have onboard freezing facilities.)

Wishing to learn more from the Indian experience, a return exchange programme was organized for the Mozambicans.

A five-member team from Mozambique, lea by Rui Falcao, visited India in December 1998. The team comprised one fisherman, two members of the IDPPE staff, a woman representative, and a representative of the fishing supplies industry.

Daily expeditions

Daily fishing expeditions for the fisherman and IDPPE staff members were arranged to expose them to the different fishing technologies of the region. There

were visits to fishing villages and fish markets as well as visits to fishermen societies, women's organizations, and SIFFS' ice plant and boatyards.

The group also visited the facilities of Matsyafed, the co-operative venture for fishermen started by the Kerala government. Some of the Mozambicans also visited Goa to meet manufacturers of net-making machines—and also for sentimental reasons: some of Rui's ancestors, it appears, came from Goa.

The return trip could achieve whatever gaps that existed in terms of things that the Indian team could not demonstrate in Mozambique. The team was stationed at Kanyakumari for most part, and worked closely with the two master fishermen who had originally visited Mozambique.

Since the Mozambicans have only been exposed to European large-scale businesses, the small-scale ventures of a developing country like India were eye-openers. They demonstrated the scope and power of appropriate, intermediate technology solutions.

The Mozambicans were also exposed to the institutional aspects of organizing commercial activities in fishing—new ways of organizing fishermen for, for instance, marketing and credit disbursements.

Ideally, the exchange programme should be viewed as just the very first step in a long process. If it is to continue the momentum it has generated, good follow-up will be needed.

It will be important to provide information and create institutional and other linkages for the Mozambicans to strengthen all aspects of the production and distribution system, e.g., supply lines, marketing channels for the nets, etc.

The odds are heavily stacked against any easy solution. So far, for instance, not a single meeting of fishermen's representatives from all parts of Mozambique could be organised in one central location—because there is no public transportation. Only a project like the IDPPE is even remotely equipped to bring Mozambican fishermen together.

For the Indian fishermen from Kanyakumari, apart from the learning experience gained from an exposure to a totally different economic, cultural and political system, the exchange programme was also a reaffirmation of their skills. And for SIFFS it was reassuring to learn that through Years of organisational work, a new generation of fishermen, skilled not only in fishing but also in administration and management has emerged in South India.

At one level, the exchange programme can be viewed as a mere example of the possibility of transferring' technology from one developing country' to another. Important as that may be, the more lasting benefit, perhaps, will be the realization of the potential of artisanal fishermen.

The Indo-Mozambican exchange programme has been very useful starting point for the Mozambican fishermen and their organizations to formulate a strategy' for the development of the sector. SIFFS has found the experience very valuable and is especially satisfied that the skills from one Southern fishworker organisation could prove so important in formulating the strategy' for the development of the fisheries of an entire nation.

This article is based on an interview with V. Vivekanandan, a member of ICSF, and one the participants in the exchange programme to Mozambique.

Ballast-water

Floating vendors of disease

The ballast-water found on modern tankers is a veritable source of disease vectors

A modern oil tanker carries, on average, 50, 000 tonnes of ballast, rising to 200,000 tonnes for the biggest ones. These tankers are aquariums on keels, carrying viruses, bacteria, jellyfish, molluscs, shellfish, crabs and fish from port to port. The enormous ballast-water tanks of ships are a medium for the introduction of alien species into the waters. The damage they wreak on ecosystems and human health is devastating, as the following examples reveal:

The American comb-jelly has ruined the traditionally rich fisheries of the Black Sea. It was introduced from America via ballast water. In a few years it had exploded in numbers. Although it is a tiny creature of just a few grams each, the stock by the end of the 1980s had reached a total weight of 900 million tonnes—ten times the world's yearly fish catch. It has now moved through the Bosporus into the Mediterranean.

The European zebra mussel has invaded the Great Lakes of the US and Canada. Introduced via ballast-water, it is now covering large areas of the seabed and is spreading to other American river systems. It clogs up water pipes and displaces natural organisms. The municipalities and industries affected expend approximately $360,000 per year on zebra mussel control; small municipalities spend, on average, $20,000. Nuclear power plants average an additional $825,009 of additional costs per year for zebra mussel control.

As the zebra mussel spreads to inland lakes and rivers across North America, such as the Mississippi River Basin and Lake Champlain, so do the costs to water users. Other invading species of fish (such as the sea lamprey, ruffe and round goby) can harm native fish. Reductions in native fish populations (such as lake trout, walleye, yellow perch and catfish) threaten a sport and commercial fishing industry that is valued at almost $4.5 billion annually and supports 81,000 jobs.

The re-introduction of cholera to South America in the 1990s is thought to have resulted from a freighter discharging ballast-water from China into Peruvian coastal waters. The water carried the *Vibrio cholerae* which flourished in algal blooms enriched with nitrogen and phosphorous from sewage and fertilizers. Algae are filtered and eaten by molluscs, crustaceans and fish that are, in turn, eaten by people.

Once it entered Latin America, the infection spread rapidly, encouraged by rapid urbanization and IMF- and World Bank-imposed cutbacks in sanitation and public health programmes. By December 1994, millions of Latin Americans had become ill, and about 11,000 had died. Reported cases are thought to be only a fraction of those infected.

Common to all the above-mentioned cases is the combination of the introduction of a species and a favourable situation for colonization. A 'healthy' ecosystem has a stronger immunity to alien species than a distorted one.

Against monoculture

When excess nutrients, overfishing and pollution are reducing the natural biological diversity, the ecosystem is going from a 'mature' system with high diversity to a pseudo-primary system which is less diverse and more open for newcomers. Nature 'hates' monoculture. It does everything to tear down what it regards as an immature situation. The introduction of a new species will thus be

more likely to succeed (from nature's point of view) in a monoculture—i.e. in a big city or in a polluted or overfished environment.

The introduction of organisms from one are a to another is nothing new. But there are two factors which make today's situation different from earlier times. Firstly, most ballast-water comes from, and ends up in, areas with a high population density and concentration of industry. It ends up in waters which have been under pressure from human activity for a long period of time.

The second factor is time and scale. Today's ships are bigger, and the bigger the body of water, the greater is the chance that an organism will survive the travel. The newer ships are also faster than the older ones. It took, for example, 30 years of traffic, from the time of Columbus' arrival, for smallpox to be introduced to the Americas, simply because most of the carriers of the disease died during the crossing of the sea and were thrown overboard.

In the old days, concrete materials like stones, lead, iron, sand and soil were used as ballast in ships. The difference today is that water—the primary medium of life—is being transported between the continents.

The issue of ballast-water and alien species has been discussed at several international forums, among them the International Maritime Organization of the UN. Common to these discussions is that they are of a technical nature. Proposals range from mid-water exchange (changing of ballast-water in the high seas) to treating the water with poison, hydrogen peroxide, ozone or UV-radiation.

Common to all these proposals is the fact that they are expensive. Some of them pose a threat to safety at sea (midwater exchange), to the ship (hydrogen peroxide which causes corrosion) or to the environment (poisonous chemicals). Virtually absent from the debate is any attempt to understand the phenomenon of economic globalization and how issues of trade, pollution and poverty go together to form a complex ecological problem.

This piece is by Gunnar Album of the Norwegian Society for the Conservation of Nature, Leines, Norway

Fisheries administration

Dabbling in change

The recent institutional changes in the Brazilian fisheries sector have several implications

The second half of 1998 saw important institutional changes wit bin the Brazilian fisheries sector, with the creation of the new Department of Fisheries and Aquaculture, under the Ministry of Agriculture. Under its jurisdiction lie issues such as a support policy for fisheries, and the regulation of fisheries. It appears that some functions, such as monitoring and enforcement will continue to be under the jurisdiction of IBAMA (Brazilian Institute of Environment).

At first glance, this is a positive change, because, since 1990, fisheries has been under IBAMA. IBAMA is part of the Ministry of Environment and is the agency responsible for environment conservation and management of natural resources, including forests and marine resources, In other words, the support for fisheries development is not the institutional focus. The focus is clearly on conservation rather than development. It has also been alleged that the priority within IBAMA has been forest management and conservation, and that fisheries has been given a back seat.

However, reactions to the creation of the new department have been varied. Different categories of actors within the fisheries sector in Brazil perceive the implications of this change differently.

Institutional changes in the Brazilian fisheries sector are not new. In the past, the subject of fisheries had been oscillating between the Naval Ministry and the Ministry of Agriculture. Despite these institutional shifts, there has been a surprising constancy in the policies towards this sector, especially towards the artisanal fisheries sector. For one, fisheries has never been a priority sector. The lack of systematic data about production and trade, especially concerning artisanal fisheries, contributes to the low importance accorded to fisheries and to the vicious circle of little support, low productivity and marginal political influence and power. For another, it has not been considered worthwhile to consult the artisanal fishery sector, either in the formulation of support policies or in their implementation. And finally, even the actions that are periodically formulated and implemented in a top-down fashion to support the fishery sector, due to economic or political compulsions, do not last long enough to make a significant impact.

Before fisheries was shifted to IBAMA, there was a specific department of fisheries under the Ministry of Agriculture—the 'Superintendencia' for Fisheries Development (SUDEPE). While not a ministry by itself, it was certainly an institutional space for fisheries. SUDEPE was created in 1962, and, in fact, developed a set of programmes which may be seen as a fisheries development policy. Its responsibilities included planning and executing programmes for the development of the fisheries sector, as well as supervising, inspecting and controlling exploration and exploitation of resources.

Under SUDEPE, in the 1960s and 1970s, the prevalent approach was to modernize the fisheries sector by prioritizing the development of the industrial sector. It was believed that this would enable Brazil to achieve an average annual production of one million tonnes of fish per year, enough also to increase exports.

Entrepreneurial aid

During this period, entrepreneurial groups in all parts of Brazil received

generous federal funds and other incentives, such as tax concessions and cheap credit, as well as subsidies for import of fishing materials. For example, in the Amazon Region, by Federal Law No. 5174, 'dated 27 October 1966, companies which invested in the region were entitled to tax exemptions.

In the case of the fisheries sector, this law facilitated the establishment of several fishing companies dealing with the capture, processing and export of fish and shrimp in the Amazonian estuary.

Thus, in addition to its other responsibilities, such as issuing licences and professional cards to fishermen, and defining and enforcing management measures, SUDEPE worked towards the development of the fisheries sector. However, as pointed out by members of MONAPE (National Movement of Fishers), it was a development of "the big ones"—exporters and fishing companies.

To be fair, SUDEPE also initiated programmes for the artisanal sector. The most important one was PESCART—Plan of Assistance for Artisanal Fisheries—taken up in collaboration with other federal institutions, which lasted from 1974 to 1980. This provided credit and technical assistance to fishermen's co-operative societies and also to individual fishers. This plan benefited nearly 25,000 fishers in the whole country, according to data presented by W. Hartman, a past member in a SUDEPE programme of international co-operation.

According to one of the scientists who worked in PESCART in the state of Para, this plan was dropped by SUDEPE in 1980, without any serious attempt at evaluating its performance. No other support programme for artisanal fishers was subsequently created.

Analysts such as L. Furtado and V. Loureiro, who have evaluated such plans, have concluded that they did not significantly alter the general thrust of giving preferential support to large-scale fisheries. For example, it has been shown that, between 1960 and 1978, the artisanal sector received only about 12 per cent of the total financial support that had been extended to the industrial sector as a consequence of government policies, including loans and fiscal exemptions. In the state of Para, between 1968 and 1980, only three per cent of the total support had been for investment in artisanal fisheries, through bank credit plans.

Credit for fishers

Another programme for supporting artisanal fisheries, PROPESCA, was initiated by SUDEPE between 1982 and 1983. This was mainly to provide credit to individual fishers. No technical assistance was, however, provided. Regarding its role of

monitoring and enforcement of management measures, it was only in the second half of 1980 that SUDEPE took more energetic action to control trawling in inshore waters, in the north of Brazil. A law to control trawling (No. 011 in 1987) was enacted by SUDEPE.

This was also a result of pressure from fishing communities and the Fishermen's Federation of Para. However, SUDEPE lacked the means to carry out effective supervision over the 562-km coastline and 98,000 sq km of continental waters in Para State.

Towards the end, even scientists in SUDEPE were more critical about the kind of development that had been pursued within the fisheries sector.

For instance, in the last report produced by the SUDEPE office in Para, in 1988, the important role of artisanal fishers in the regional and state economy was emphasized. The need for studies about the resources and ecosystems exploited by these fishers was highlighted.

In 1990, as part of a national programme to decrease federal expenditure, the government closed down several departments. SUDEPE was wound up, and the subject of fisheries was transferred to the newly created IBAMA under the Ministry of Environment. IBAMA also took over the functions of the erstwhile IBDE (Brazilian Institute of Forest Development).

Such a change attracted much criticism from all quarters—entrepreneurs, the Fishermen's Federation of Para and also from the scientists within SUDEPE itself. It was felt that there was little possibility of supporting the fisheries sector within the new structure.

According to a former scientist of IBAMA in Para, at first the role of IBAMA in the fisheries sector in the state was primarily oriented towards controlling resource overexploitation. It tried to control predatory fishing practices by both the industrial and the artisanal sector.

This fetched a lot of criticism from the entrepreneurs' lobby. They complained that IBAMA's only emphasis was on control and repression, and not on the development of fisheries. According to MONAPE, though, if IBAMA did nothing to support the artisanal sector, neither did it do anything to help the industrial sector. In that sense, the policies pursued by IBAMA were more balanced than those pursued by its predecessor, which where clearly biased towards the industrial sector.

Interesting initiatives

Moreover, in the past few years, some interesting initiatives have been pursued by IBAMA, such as those linked to the

co-management of resources. The vital role of coastal and riverine communities in the surveillance and management of fisheries resources has been progressively recognized.

In some areas, responsibilities for monitoring and enforcement have been undertaken in partnership with fishworkers' organizations. In some other fishing communities, environmental educational programmes have been initiated. In the State of Alagoas, for example, efforts have been made to raise awareness among fishworkers about the appropriate mesh-size of fishing nets.

Fisheries is once more under a special department, in which the emphasis is yet again on development rather than the conservation of resources. It is not yet clear what the future holds for artisanal fishworkers in Brazil.

Will there be a return to the policies of the erstwhile SUDEPE and a greater impetus to the indiscriminate growth of the industrial sector? Or will some sense of balance be restored through the adoption of policies that also protect and promote the artisanal sector and the better management of the resource base?

The only thing that is clear is that, at present, meagre federal funds will not really permit substantial allocation of resources for the fisheries sector.

This piece is by Maria Cristina Maneschy, a professor of sociology at the Federal University of Para in Belem, and Lourdes Furtado, a sociologist at the Museu Paraense Emilio Goeldi, Belem, Brazil

Report

Latin America

A first meeting

Latin American fishworkers recently came together for the first time to share their problems

San Cristobal, the largest island in the Galapagos archipelago of Ecuador, provided the setting for the First Latin American Meeting of Artisanal Fishworkers. Organized by the Federation of Artisanal Fishworkers of Ecuador (FENACOPEC), with the support of the Programme of Technical Co-operation for Fisheries (VECEP / EEC), the meeting took place from 25 to 28 November 1998.

The delegates came from the following organizations: SOMU (Union of Unified Maritime Workers), Argentina; ANPA (National Association of Artisanal Fishworkers), Columbia; FEREPA / BIO-BIO (Regional Federation of Bio-Bio / 8th Region Artisanal Fishworkers), Chile; FVPA (Venezuelan Federation of Artisanal Fishworkers); PENACOPEC (National Federation of Artisanal Fishworkers of Ecuador); and FIUPAP (Federation for Integration and Unification of Artisanal Fishworkers of Peru).

Chaired by Gabriela Cruz, President of FENACOPEC, the meeting was inaugurated by the Minister of industry, Foreign Trade and Fisheries, Hector Plaza.

He talked about problems caused by the global scarcity of fishery resources, and the consequences of the El Niño phenomenon in this part of the continent. He also expressed interest in the development of artisanal fisheries in Ecuador.

The main objective of the meeting was to arrive at an understanding of the issues of concern to the fishworkers of Ecuador and Latin America, particularly those relating to:

- their degree of organization;
- working practices geared towards the rational use and conservation of fishery resources;
- the development and establishment of management areas, and the use of aquaculture as a production alternative;
- labour laws and social security for fishworkers;
- a legal framework for fisheries management;
- creation of training institutions; and
- genuine and viable forms of credit to promote the full development of artisanal fishworkers in each country.

The significance of the Galapagos archipelago was highlighted by the Director of the Charles Darwin Station and by the Presidents of the Galapagos artisanal fisheries co-operatives. They described a special law that allows them to protect all their resources, and to regulate the ingress of people and species into their territory.

The meeting made particular mention of:

- making an exclusive zone or sea area available for artisanal fisheries;
- establishing a 5-mile coastal zone and a 2(10-mile territorial sea for coastal countries;
- the increasing population of sea lions in Ecuador, Peru and Chile which causes serious problems to artisanal fishworkers; and

- the pollution and environmental destruction caused by effluents from industrial fisheries, the tailings from mines, and the discharge of residues.

The following resolutions were adopted:

- to present the conclusions and proposals of the commissions, which were elaborated and approved at the meeting, to the authorities in Latin American States;

- to demand that all the Latin American countries ensure that the rights and guarantees recognized by the various Na Lena I Constitutions, International Treaties and Agreements, are met by implementing the following:

- a policy for comprehensive social security for artisanal fishworkers and their families.

- laws against the discharge of hydrocarbons into the soil, into rivers, lakes and seas, to protect artisanal fishworkers, and to provide compensation for any damage and harm caused. support for social and organizational activities directed and administered by the respective fishworker unions.

- incentives for fishworkers and their families in education, training and technical support, as well as protection of the environment and natural resources.

- to demand that artisanal fishworkers, as actors competent in all activities relating to fisheries, participate in science and technology programmes directed towards the management of living marine resources.

- to demand that Latin American governments define clear policies for artisanal fishworkers through addressing, in concrete terms, the laws concerning the 200-nautical mile limit.

- to demand a Second Latin American Meeting of Fishworkers to be held in Mar del Plata, Argentina.

- to establish a Latin American Confederation of Fishworkers' Associations and Unions, whose statutes will be decided during the Second Latin American Meeting of Artisanal Fishworkers.

The objectives of the Confederation are:

- to defend the conditions of life, work, income and social security of artisanal fishworkers and their families;

- to strengthen existing fishworkers' organizations and unions in all countries, and to establish them where they do not exist;

- to study, analyze, and develop proposals for the harvesting, management and conservation of living marine resources and fisheries development in general, and to make declarations, recommendations and demands on the national States and civil society as a whole;

- to develop a genuine and effective participation in international forums, working as a regional bloc, to advance our objectives;

- to participate actively in national policy debates on fish harvesting, and to promote the adoption of a responsible fisheries management for marine resources and ecosystems, which can protect and favour the access rights of the coastal communities to marine resources; and

- to spread the principles of worker solidarity so as to maintain, create and arrange the implementation of social programmes with national governments and/or fishworker organizations, which must be directed and administered by fishworkers through their trade unions and/or fishworker organizations.

In the case of Ecuador, taking into account the concerns expressed for Galapagos, the development of a new fisheries law is urgent, one which would allow the recovery of mangroves for the development of *Concha prieta* and the a rational harvest of shrimps in estuarine waters, as well as one which would limit the capacity of artisanal vessels and the number of individually owned vessels.

In the context of Latin America, in addition to the disappearance of customary fishing areas, direct trade is the main constraint for the development of the artisanal fisheries. Also problematic are the difficulties with the modernization of vessels and gear, and the lack of social security systems and life insurance.

This report is by Claudio Nizama Silva, secretary general of FIUPAP. It has been translated by Luz Pisua of Instituto Huayuna, Lima, Peru

Climate

Waiting for El Niño!

Not all fisherfolk are petrified by the arrival of the El Niño phenomenon, as reports from Peru indicate

The El Niño phenomenon of 1997-98 wreaked havoc in Peru. Torrential rams in several regions washed away roads, houses and existing infrastructure. The fishery sector was especially affected as fish production suffered dramatic declines. This was the story in most parts of Peru, as was highlighted in the last issue of SAMUDRA Report.

On a recent trip to the port of Tambo de Mora in Central Peru, however, one got a different picture after speaking to a group of women fishworkers there. Tambo de Mora is one of the few areas that actually benefited during the El Niño occurrence. In normal times, the main species caught here are *raya* (rayfish) and *pejerrey* (Peruvian silverside). In fact, this is one of the most important ports in Peru for rayfish. But rayfish does not have much of a market. In Lima, the main fish market in Peru, the demand for this species is insignificant. The fish, in salted and dried form, finds a limited market primarily in the inland and mountain regions of the country. So even though production is good, the income from the fishery is low—except during periods of El Niño!

During El Niño periods, this little port gets completely transformed, with the appearance of commercially valuable species, such as shrimp *(langostina).* In 1998, Tambo de Mora recorded a shrimp production of over 90 tonnes (see Table I). A similar phenomenon was observed during the El Niño of 1983. The El Niño of 1983 was a bit different in that, at that time, the shrimps had a reddish hue. During the recent El Niño the shrimps were whiter and bigger in size, but fewer in number. The price obtained was much higher—US$4 to $7 per kg, compared to about US$ I per kg during the El Niño of 1983.

Other commercially important species, such as lobster, also make an appearance, though in fewer numbers. However, fishworkers do not have the skills to harvest lobster, nor are they aware of how it should be consumed—They sell only what they catch incidentally.

The first appearance of shrimp in Tambo de Mora in 1998 was followed by a period of hectic activity. Fishermen rushed to equip themselves with trawls. There were others who were attracted by the lure of quick profits. They purchased new gear, motors and small boats capable of trawling in inshore waters, applied for licences and joined the scramble.

Those who joined the fishery were not only local fishermen. Also involved were workers on industrial vessels, workers in fish processing and fishmeal plants, government employees, workers in textile plants, busowners... They came from communities in the north, from places like Chancay, Huacho, Supe and Pucusana. The industrial sector, though not fishing directly, bought artisanal vessels to join in on the shrimp rush.

The boats worked seven days a week. Local fishermen worked alongside those from elsewhere, and there were no visible signs of conflict. Around 40 new vessels were estimated to have joined the fishery. Refrigerated trucks from Lima appeared on the port to carry away the shrimp.

Timing changes

Local fishermen changed the time they went out to sea, so as to be able to supply the trucks waiting to take the catch to Lima—instead of leaving at night and returning early morning, they left early morning to return by afternoon. Much money was made during the all-too-brief six-month shrimp boom.

Landings of Fish for Human Consumption
at the Port of Tambo de Mora (live weight in tonnes)

Species	1996	1997	1998
Ayanque	2.13		4.57
Babosa			0.27
Barbon			0.43
Bobo	82.97	24.81	24.85
Bonito	0.69		
Coco (coc croaker)			8.24
Chauchilla		8.97	28.21
Guitarra	0.98	4.33	3.65
Lamgostino (shrimp)			92.68
Lenguado (sole)			0.43
Lisa (striped mullet)			0.26
Loma (lorna drum)	4.09		1.38
Mojarilla			0.19
Pampano	0.43	0.40	22.85
Pejerrey (Peruvian silverside)	14.77		
Raya (ray)	83.60	10.34	17.75
Sierra			5.79
Tembladera	3.58	1.72	8.06
Tollo (humpback smoothhound)	3.49		1.66
TOTAL	204.82	50.57	221.26

Source : Regional Department of Fisheries, Pisco, Peru

Things reverted to normal in the early months of 1999. The shrimp disappeared, and once again rayfish became the principal catch. There refrigerated trucks were no longer to beseen. Those who had purchased boats and motors, are now looking for money to buy nets other than trawl-nets, which are of no use anymore.

A similar story can be heard a little further south of Tambo de Mora, in the Laguna Grande area, located inside the famous natural reserve of Paracas. Even during normal years the lagoon is a rich area for sedentary, shellfish species. But during periods of the El Niño, scallop production goes up manifold. In fact, scallop production during normal years is only 10 to 20 per cent of the production during the El Niño period (see Table 2).

These spurts in production also pose unique management problems, given the sedentary nature of the species, and lead to several conflicts since, at such times, there is an inflow of people from other areas, both from the south and north, where the fishery has been devastated by the impact of the El Niño. They come to join the scallop fishery in large numbers, to tide over the difficult period back home.

The previous El Niño of 1983, for instance, had seen a big increase in scallop

Landings of Fish for Human Consumption
At the Port of Laguna Grand (live wieght in tonnes)

	1996	1997	1998
Fish			
Cabinza	0.9		
Cabrilla (Peruvian rock seabass)			17.5
Cojinova (pulm ruff)		26.5	3.3
Corvina		154.9	
Caballa (mackerel)	0.3		
Chauchila			10.0
Jurel (southern jack mackerel)		44.3	20.0
Shellfish			
Almeja (carpet shell)		141.9	
Choro (colga mussel)	1,579.9	1.2	
Chanque (abalone)			
Caracol (chocolate rock shell)	70.1	0.4	
Calmar			
Conhca de Abanico (scallop)	232.5	188.3	
Erizo (sea urchin)	90.6	30.6	
Lapa	0.4	6.0	
Mejillones	2.8	108.3	
Crustaceans			
Cangrejo	116.4		43.9
Jaiva	68.0	69.2	2.1
Total	2,180.7	771.6	2,061.9

production that lasted for a three-year period. The pressure on the fishery increased too, due to the influx of people from other areas. This led to massive overfishing. Production of scallop then declined to a point where the fishery had to be closed down completely for a year.

However, despite the closure, a couple of enterprises with known political connections continued to purchase and process scallop illegally. Local fishers decided to protest against these illegal activities. They also decided to demand lifting the ban on scallop extraction. To force the authorities to heed their demands, the *syndicatos* (unions) and local associations of fishworkers went on strike, blocking traffic on the roads.

Subsequently, the local associations decided to observe some basic rules to regulate scallop extraction. Rules defining the maximum amount that could be caught by each vessel, minimum size of scallop, etc. were adopted. Local people formed associations. Some of them were able to obtain 'special concessions' from the Ministry of Fisheries to establish their rights to fertile areas in the lagoon. Others established informal rights over such areas.

However, with the El Niño came once again the massive influx of fishers and divers from the south and north. Almost 100 families from the south settled down in Laguna Grande, since there was no fish in their waters. Many more fishers came, but they returned to their communities after a few months. The ones who stayed back plan to continue in Laguna since they fear it may take another couple of years for the fish to recover in southern waters.

Situation changed

Many of these people had come even during the previous El Niño. However, this time they found the situation had changed. Local associations had delineated areas of the lagoon and refused to allow access to these areas to the new entrants. This gave rise to many conflicts. The locals even tried sending away the new entrants, resorting to threats and even violence. It has not been easy for the new entrants to stay on and eke out their living.

As during the previous El Niño, all systems of regulations broke down with the massive entry of outsiders into the fishery. However, this time the *syndicate* and the associations are determined to prevent a repeat of the previous collapse. The *syndicate* has had several discussions with the authorities and they are planning to enter into an arrangement with the Ministry of Fisheries and the captain of the port for better enforcement of regulations. Under this arrangement, the *syndicate* will provide part of the resources for better enforcement.

In the meantime, much money has been made during the scallop boom. Processing plants have been working non-stop, through the night. For people in the neighbouring communities, this has meant employment opportunities; it is a common sight to see women and men lined up outside processing plants late in the night, seeking to work the night shift. Exporters are raking in big profits.

Hardly surprising, then, that a few small coastal communities in Peru are waiting for the next El Niño!

This report has been compiled by Chandrika Sharma, Programme Associate of ICSF and Luz Pisua of Instituto Huayuna, Lima, Peru

Analysis

Ecolabelling

Label gabble

Fisheries' organizations in developing nations have stake in the formulation of ecolabels for fish and fishery products

Over the last few decades we have witnessed increasing concern with environmental issues, particularly in the industrialized world. The 'state' of the world has become an engaging issue for people in general. The focus is not only on issues of pollution and climate change, but also on the utilization of natural resources. One of the means by which this concern can be turned into action is through labelling schemes that provide the consumer with information on the environmental properties of a certain product. The growing concern over health and food safety has also helped raise interest in food labelling schemes—consumers are keen to know where products originate and how they are produced.

Increased competition in the retail sector is another factor fuelling the interest in ecolabelling. Labelled goods can provide a competitive advantage in the market place and may therefore help companies survive in a tough market. Ecolabelling might thus be a welcome device for players in the retail sector. Ecolabelling can also hold the potential to open up opportunities for traditional, specialized products which might be sold at premium prices in certain market segments.

The globalization of trade fisheries products makes nations actors in the increasingly environmentally-conscious European and American markets. This, in turn, makes the environment an issue of concern to fisheries managers fisheries sector in general, even in developing nations.

The history of ecolabelling in the fisheries sector is short and actual experiences of ecolabelling are limited, with the 'dolphin-safe' label on canned tuna probably providing the best-known example, along with the more recent 'turtle-safe' label put on shrimp and shrimp products. Both of these are single-issue labels that guarantee consumers a reduction of the by-catch of dolphins and turtles respectively. There are also ongoing attempts to extend organic labelling schemes to farmed species, though progress in this area has been slow.

Another type of initiative to ecolabel fish and fish products was recently taken by the joint efforts of Unilever and the World Wide Fund for Nature (WWF) through establishing the Marine Stewardship Council (MSC). The process of establishing the MSC has been long and, at times, a challenging process that went beyond the mere establishment of a new organization. The MSC suggests principles and criteria for the promotion of a more sustainable fishery.

The whole idea of ecolabelling is based on the principle of giving the consumer an opportunity to make environmentally sound decisions based on a 'green' label which will provide the consumer with all the necessary information. The buying power of consumers can be turned into a tool for the better management of fish resources by stressing the need for sustainable utilization by those dependent on fisheries.

Ecolabel standards

Those responsible for management will have to meet the demands of the ecolabel to secure market shares. If this mechanism is to work for the more sustainable management of fish resources, the principles and criteria must de facto represent a standard which will improve the management regime. Otherwise, the scheme will not contribute to better

management, but just add to the *cost* of the prod tic

The experience with ecolabelling initiatives within non-fisheries sectors have met with mixed success. The certification and labelling of tropical timber products does, in principle, support improved forest management practices but it has been claimed that improvement in the management of forests is minimal. Although the improvement in management standards is not necessary for the establishment of a certification scheme, it will be necessary for the continued credibility of the scheme with consumers.

In this case, the consumers are the large retail chains. Increased competition in the retail market is one factor which provides the consumer with greater choice but this consumer power is conditional. Consumers can do very little unless they are given access to environmentally friendly products. This means that they can do little if the large retail chains do not stock the products. This makes the purchase directors of large retail chains important allies of the MSC and other ecolabelling schemes.

Ecolabelling should be of interest to both the private sector and governments, and both parties could play the role of initiators of such schemes. Viewed as a marketing tool, ecolabelling will naturally seem to be a task for a private initiative. But ecolabelling in the fisheries sector, as in the case of the MSC, is an issue of management, which is normally regarded as a task for governments since it involves a range of other aspects, including the allocation of social and economic benefits. Ecolabelling can thus be a tool to implement political decisions.

Several issues have to be considered in comparing private and. State initiatives on ecolabelling in fisheries. The few available examples are all a result of private initiatives, although one could argue that governments have played a vital role through legislative action as the US government in the case of the dolphin—safe and turtle—safe labels.

The fact that ecolabelling has the potential to he more than a marketing tool complicates the process through which the scheme is established, even inure so when it is supposed to be a global scheme covering such fundamentally different types of fisheries as large-scale industrial fisheries and inshore traditional fisheries.

Need for sobriety

Obviously, this calls for sobriety in selecting aspects of a fishery which are to be evaluated for certification. It also manifests the importance of taking into consideration the different interests of all stakeholders.

What kind of process is most likely to provide an open consultation? A process initiated by private industrial companies with economic interests in the fisheries sector, even if done in co-operation with environmental organizations which have to rely on the public opinion for financial support? Or is it more likely to be a governmental initiative which, in fact, entails a scrutiny of its own management regime?

One wonders whether it is at all possible to create a single set of principles and criteria which can cover the whole variety of fisheries globally, while taking into account the views of all stakeholders through an open consultation process.

Despite the potential benefits of fish product labelling, the MSC initiative has met with skepticism from fisheries managers, the fisheries sector and environmental organizations other than WWF. The scepticism is largely founded on the perception that the MSC was established without a sufficiently open consultation process involving all the stakeholders. In particular, the process of developing the principles and criteria which would form the basis of certification of a fishery caused concern. Another concern focused on the potential role of a private multilateral organization in evaluating government management systems which are normally established through more democratic processes.

Particularly important are the commercial interests involved. In the case of the MSC, for instance, Unilever has committed itself to purchasing only MSC-certified fish by the year 2005.

This may be a useful target, but there are also dangers that such a commitment could lead to less stringent standards being applied to certification in order to maintain supplies of the raw material. Any labelling scheme, if it is to succeed, presupposes a certain level of credibility. It needs the support of a range of stakeholders. As a market-driven instrument for improved resource management, ecolabels must enjoy consumer credibility. Yet, even if there is a demand for certified goods, there is no guarantee that the principles and criteria used to assess their suitability for ecolabels are sufficiently rigorous to ensure a more sustainable utilization of fish stocks.

The management of living marine resources is a costly and difficult task. After decades of research, there is still not enough knowledgeto guarantee that the management regime decided upon will lead to an optimal utilization of the resource. Whoever initiates the process of ecolabelling will face much of the same uncertaintyas governments do.

...even if there is a demand for certified goods, there is no guarantee that the principles and criteria used to assess their suitability for ecolabels are sufficiently rigorous to ensure a more sustainable utilization of fish stocks.

This kind of uncertainty will obviously be even more relevant in fisheries where there exist few sound monitoring systems. This uncertainty will possibly, in the long run, undermine the credibility of ecolabelling schemes, as consumers begin to see no improvement in fish stocks even when a management regime in accordance with the scheme is in place.

Line of argument

The line of argument pursued by the WWF and Unilever in establishing the MSC has been that governments have failed to implement a regime providing a sustainable fishery. Therefore, there is a need to find alternative means by which the fisheries sector can be forced or encouraged to take responsible steps to improve the situation. Additionally, they pointed out, governments lack credibility with the general public. WWF and Unilever, therefore, argued that private ecolabelling initiatives supported by a well-known environmental organization would provide the necessary credibility.

The fishing industries in the Nordic countries have all been particularly sceptical of the MSC initiative. One reason for this is the involvement of WWF. This environmental organization, although it enjoys a credibility with consumers, has a particularly low credibility among those in the fisheries sector due to earlier conflicts on the protection of marine living resources. One should also remember that governments in this area are generally regarded as having a high credibility with the public.

The issue of consumer credibility seems to favour private initiatives, particularly if well-known environmental organizations are involved. On the other hand, due to the difficult conditions for monitoring in fisheries, such initiatives may not get the support of the fisheries sector, which is necessary to effectively implement any management regime

There are several reasons why ecolabelling should be a cause of particular concern for developing nations. Schemes like the MSC are created in the industrialized parts of the world, far removed from the realities confronting the fisheries of the developing countries. The good intentions of environmentalists and others in the industrialized parts of the world to improve the management of fish resources may not match the needs of the fisheries sector in such faraway areas.

The dolphin-safe label came into widespread use within a relatively short period of time. Indeed, it became almost impossible to find canned tuna which was not labelled as dolphin—safe, even when it originated from dolphin-free fisheries, illustrating how difficult it became to market tuna without the label. In addition, there was a great deal of uncertainty among consumers as to the labels meaning. The case of the dolphin-safe label shows that ecolabels have the potential to tune a market, making access impossible without the label. For a developing nation, this should be of special *concern*.

On the other hand, developing countries might have an advantage due to their traditional fishing practices, normally regarded, particularly by environmentalists, as being less of a threat to fish resources than the more industrialized practices adopted elsewhere.

Premium pricing

Products from these types of fisheries might command a premium price in certain market segments, but are rarely the main source of exported products. Developing countries will have to face the demands of the environmentally concerned consumer in a world where Claims have to be backed by figures and statistics.

The heated discussions over the last few years on ecolabelling of fish and fishery products has yielded few concrete results. Divergent interests and competing views on what should be labelled and for whose benefit have contributed to the debate.

There seems to be some reluctance to call things by their real names. This has also made it difficult to push the debate forward, as everyone expects some hidden agenda. Even the FAO Technical Consultation, in October 1998, on the feasibility of ecolabelling of fish and fishery products, gave some indication of this difficulty, when developing nations expressed concern that ecolabels were intended to be a trade barrier.

Developing nations are increasingly eager to access the growing import markets for fish and fishery products in Europe and the US. Some of these markets will require a label providing environmental accounts' for their products.

Such a label will undoubtedly have to enjoy the credibility of consumers in the market. To win such credibility it will obviously be necessary to co-operate with the institutions representing the interests and the environmental concerns of these consumers. There are signs of the development of regional schemes, following the failure of the attempt for a global process through the FAD. These processes will probably be partly governmental. It will be important for representative organizations in the fisheries of developing nations to take an active part in these processes.

This article is by Jonette N. Broathen, research fellow at the Norwegian College of Fisheries Science, Tromso, Norway

Individual Transferable Quotas

Feudalism at sea

Iceland's experience with ITQs is an eye-opener to the problems and prospects of fisheries management by quotas

During the past decade, fish resource management by a system of Individual Transferable Quotas or ITQs has been strongly promoted as a solution to the problems of ineffective management and economic inefficiency in the fisheries. The ITQ model is attractive to resource managers for a number of reasons. First, it leaves the difficult problem of distributing fishing quotas fairly and equitably among fishermen and fishing communities to the market mechanism, making life easier for the managers. Second, it leaves the problem of getting rid of excess fleet capacity to the market and thus removes the strain of buy-back programmes and compensations from government budgets. Third, it promises a more efficient fisheries industry in the future, which, in turn, will create a flow of tax revenues and even resource rentals into the governments' coffers.

To fishermen, or owners of fishing vessels, to be more specific, the system may also look quite attractive. Unsuccessful fishermen can sell their quotas to their more expansionist colleagues, thus receiving a fair compensation for leaving the industry. Those who want to expand, or need additional quota to fully utilize the capacity of their vessels, can buy it at a market price.

The aggregate result should be an economically sound fisheries industry, with improved job security and solid foundations for community development. This is, in short, the story told by the promoters of the ITQ system.

The Republic of Iceland was one of the first states to introduce ITQs as an overall management system in its marine fisheries. Those who are considering ITQs as a management option should, for that reason, be interested in studying the Icelandic case. Are there lessons to be learnt from the Icelandic experience?

From 1984 to 1990, fishing quotas for cod and other demersal species were allocated to fishing vessels according to catch records for 1980-83. Quotas could not be divided or removed permanently from vessels, except if a vessel was wrecked or sold abroad. Quota transfers that meant a reduction of total quota holdings within a municipality had to be authorized by municipal councils and local trade unions. Market transfers of quota shares were relatively rare during this period. Quota leasing, which means that a part of an annual quota held by' one boat is caught by another, was allowed from the start, and developed slowly and without much controversy until 1993.

By January 1991, the system was liberalized. Quota shares were allocated permanently, without any time limits. Quotas became divisible. They could be separated from vessels and transferred freely, as independent commodities, but only to other vessel owners.

While the 1990 fisheries law, in practice, allowed for a semi-privatization of the fishing rights in Icelandic waters, it also defined fish resources as public property. According to the law, the fishing rights defined and distributed under the law are not private property rights.

Confusing status

This somewhat confusing legal status of the quota shares evoked complicated debates over the issues of taxation, depreciation and the use of quota shares as collateral. How is it possible for a private person to buy or sell something which is public property? Would such a thing be liable to taxation? Should banks

accept public property as collateral for private loans?

Initially, investment in quota shares was considered as expenditure, and quota holdings were not treated as capital, which meant that they could not be used as bank collateral. In 1993, the Icelandic Supreme Court, however, found that quota holdings should be treated as private capital, and that they could be depreciated by the same rate as for copyrights—20 per cent annually.

At first, the collateral problem was solved by mutual agreements between banks and indebted boat owners to ensure that quota shares and vessels could not be separated without consulting the bank. In the long run, this situation became very unpractical (fishing vessels representing minor market value without quota shares) and quota shares were eventually allowed as collateral.

The generous depreciation rate for quota shares is also being removed, as it has led to a reduction in tax payments from the fishing industry. The official status of quota shares as public property, while they are treated as private property for all practical purposes, can not be upheld in the long run. This was illustrated by a Supreme Court decision in December 1998, which is detailed later on in this article.

As the ITQ system, in theory at least, should strengthen the foundations of the fishing industry, it should mean more secure and even better paid jobs at sea. On the basis of such future prospects, the Icelandic Union of Deckhands (SS) was basically positive to the introduction of ITQs. The Union of Skippers and Mates (FFS) was more sceptical, and soon became explicitly negative. Since the liberalization of the ITQ system in 1991, there has been a series of bitter conflicts between vessel owners and crewmen, resulting in repeated strikes and lockouts in the industry. The reason is found mainly in the changing dynamics in the fisheries industry under ITQs especially the implications of a growing leasing market for annual quotas.

The term 'quota leasing' covers different types of transactions to transfer rights to catch a certain amount of a certain fish species in the current year from one vessel to another. One form of transaction is an equal exchange of species—the rights to catch one species are paid for by the rights to catch another, based on an exchange rate between different species. A second form is leasing quota directly, which means that the right to catch a certain amount of fish is paid for in money, at a market price derived from supply and demand.

A third variety, which became increasingly common during 1992-93, is contract fishing, or what is often referred to among fishermen as 'fishing for others'. Fishing contracts are, in many cases, signed between vessel owners with small quota holdings and vertically integrated fishing / processing companies with large quota holdings. The vessels are then obliged to deliver their catches to the company. They receive a fixed price for the catch.

In 1993 this price was about half the market price in the case of cod fishing, the remaining 50 per cent being indirect payment for the leasing of quota from the company. The income of crew members is a fixed percentage of the price received for the catch, as defined by the share system. The practice of contract fishing outlined above means that the income of a crew on a vessel fishing under such a contract is bound to be substantially lower than the income of a similar crew on a similar vessel with sufficient quota holdings belonging to the vessel.

As contract fishing became more widespread, more crewmen experienced a drop in their income. According to their unions, there were several incidents of leasing contracts being arranged for the sole purpose of reducing the labour costs in the fisheries, a practice often referred to as 'quota-profiteering' *(kvotabrask).*

Feudal system

The system of contract fishing is often referred to as a feudal system of 'sea lords' and 'tenants'. Under the ITQ system, quota holdings are being concentrated in fewer and bigger companies, while there is a substantial fleet of fishing vessels with insufficient quota holdings for a year-round operation. In some cases,

vessels have been stripped of their quota, and sold cheaply to fishermen who intend to make a living by leased quotas. These boats, the so-called 'eunuchs', contribute to the high demand for leased quota and a high leasing price. In this situation, vertically integrated processor companies can, in fact, ask for bids from idle vessels, in order to have 'their fish' brought home at the lowest possible cost.

This, in short, was the background of the fishermen's strike in January 1994 and repeated strikes in the following years. The unions wanted to abolish the system of quota leasing, or even remove the entire ITQ system. The result has been a partial return to a system of negotiated minimum prices, and a special committee to resolve conflicts regarding prices and shares. There is a growing opinion that the share system should be reformed or even abolished to avoid the effects of ITQs upon the income of crewmen. The fact that the holders of quota shares also hold the strongest negotiating power in the industry has now been realized by the unions—despite the strikes, they have not achieved any fundamental change of the ITQ system.

After eight years of experience with the ITQ system, the controversies within the industry and in Icelandic politics are as strong as ever. Repeated polls among the Icelandic population show that most of the public is opposed to the system. It is, however, uncertain how, or if, the implementation of ITQs can be reversed without a massive economic loss. Quota shares are considered as private property for all practical purposes, and they represent a major capital value, relative to the national economy of Iceland. Companies with big quota holdings have strengthened their position, and quite a few of them have made investments in fisheries enterprises abroad. It is thus hard to imagine how the quota-capital could be returned to the public. In any case, the present owners of quota shares would claim full economic compensation from the government if their quota assets were to be confiscated,

However, it seems that we have not yet seen the end of the ITQ story in Iceland. In December 1998 the Icelandic Supreme Court reached a verdict in a case raised by a fisherman who had been denied a fishing licence and a catch quota. The denial was based on the fact that the fisherman in question had not been an owner of an active fishing vessel in the early 1980s, the period in which 'fishing experience' was converted into fishing rights.

Equal rights

Considering the Icelandic constitution, which claims equal employment rights for every citizen and the Fisheries Law of 1990, which defines the fish resources as public property, the Supreme Court found

the denial unlawful and unconstitutional. In short, the Court found that by implementing the ITQ system, the government had given away exclusive rights to the publicly owned Icelandic fish resources to a group of people who happened to be the owners of active fishing vessels at a certain point of time. Such an act could not be justified by the need to preserve the resources or by the best public interest.

So far, the Icelandic government has responded by making a minor change in the fisheries legislation. Any owner of a fishing vessel is now free to apply for a licence, which provides the opportunity to catch some quite rare fish species that are not managed under the ITQ system. However, catch quota for any of the major commercial species must still be bought or leased from the present owners. Provided that there are limited employment alternatives for fishermen, this change will probably only increase the demand for annual quota on leasing contracts, as more vessels with little or no quota can enter the market. This, in turn, may cause a further increase in leasing prices and, consequently, a downwards pressure upon the income of crewmen. Meanwhile, the capital value of quota shares will climb further upwards.

I have chosen to dwell upon some of the problematic issues involved in fisheries management by ITQs. I will not argue that there are no economic benefits from ITQs. I will rather ask who is enjoying these benefits, and at what cost to whom. Judging from the Icelandic experience, there seems to be little doubt that ITQ systems have major implications for the distribution of income, wealth and power. By learning from the experience of Iceland and other States that have implemented ITQs, it should be possible to make an informed judgement about the social costs and benefits of the system, as well as its moral and legal foundation.

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Value for money?

The UN's Commission on Sustainable Development may not be adding any value to international policymaking

Any discussion of the role the Commission on Sustainable Development (CSD) should play on fisheries issues needs to take into account the broader debate about international ocean governance and strengthening international agreements and institutions that deal with Environment and sustainable development. The debate about effectiveness has tended to focus on institutional restructuring, such as the proposal to create a World Environment Organization to counter-balance the World Trade Organization (WTO) or to give the Trusteeship Council a new role as guardian of the global commons, which would include oceans and the atmosphere.

We believe that critical intervention should not necessarily be focused on the structure of institutions and agreements, but on governments, specifically on the way in which governments engage in international negotiations. Government approaches are currently characterized by a tendency towards short-term thinking, lack of focus and lack of clear priorities.

In the first half of the 1990s, the international community produced a large number of new international instruments and institutions in the area of environment and sustainable development. These include the UN Fish Stocks Agreement, the FAG Code of Conduct for Responsible Fisheries, the Convention on Biological Diversity and the CSD. These and other instruments do not reflect a common vision of what a system for international co-operation on Environment and sustainable development should look like, but are the results of disparate negotiating processes, time pressures, political compromises and other similar factors. Without a plan for how instruments and institutions should relate to each other, the result was significant potential for overlap and duplication, and consequent inefficient and ineffective international decision-making. Consideration of fisheries in the Cm has been a discouraging case in point.

We are convinced that the nature of the challenges of sustainable development requires significantly strengthened international co-operation and a much better developed system of international agreements and institutions. However, looking at the limited progress achieved in the last few years through international negotiating processes that absorb an Increasing amount of resources, it is easy to understand why international policy-making does not always inspire confidence at national or local levels.

A few years ago, the UN General Assembly estimated the cost of producing a single page of UN documentation at more than US$900 (contrast this to the cost of inoculating a child against major diseases, at a fraction of the price). A look at the amount of paper UN meetings produce shows that the total costs are extraordinarily high. Especially if one adds costs such as those of government representatives attending the meeting, the price tag suggests that whenever possible, every single word should matter.

Politically difficult

Political factors frequently make it impossible to produce clear and specific decisions. Sometimes a broad, unspecific statement that expresses some level of agreement can be a very valuable outcome of a politically difficult meeting. International co-operation progresses through small steps. However, in the vast majority of cases it should be possible for

meetings, including those of the CSD, to produce outcomes that are much more result-oriented and that clearly add value.

In May 1996, the Fourth Session of the CSD reviewed Chapter 17 of Agenda 21, which deals with ocean issues. The resulting recommendations, which took days of negotiating time to produce, illustrate the problems described above.

As part of its review, the CSD considered the UN Fish Stocks Agreement, recently adopted after three years of intergovernmental negotiations. This involved the CSD entering into a debate on specific provisions of the Agreement and spending days on producing text which added very little, if anything, to what had already been agreed during the negotiations on the Agreement. The decision on "Implementation of International Fishery Instruments" welcomed the adoption of new instruments, including the UN Fish Stocks Agreement. It recommended that governments implement these instruments and emphasized general points covered by the UN Agreement and other instruments, for example, noting that the precautionary approach should be applied in accordance with the UN Agreement.

Re-opening negotiating issues at a low-level UN forum with little or no fisheries expertise is unlikely to be productive. Political factors obviously played the main role, but it was unclear what this exercise aimed to achieve. Observers who had participated in negotiations on the UN Fish Stocks Agreement shared concerns about the CSD's amateur approach, which clearly had the potential to undermine the work achieved through the UN Fish Stocks Agreement.

If the CSD wished to urge governments to become parties to the UN Fish Stocks Agreement, it should have been possible to draft and agree on appropriate text using very little time and effort. However, it is somewhat questionable if even that would have been good use of the international community's time: does the CSD's support for the Agreement add enough political weight to justify spending time on producing a recommendation on the point? As noted below, the practice of endorsing outcomes already agreed in other forums needs to be reviewed.

Looking at the negotiating time and resources that went into producing this outcome, one has to ask if fisheries is an area where the CSD can add any value, or if time and resources would be better spent on other issues instead. Similar problems have, however, occurred in other issue areas (e.g. other ocean issues, chemicals management). The general co-ordinating role the CSD might play on sustainable development is restricted by its low place in the hierarchy of UN bodies and now also by its record over the last five years. The challenge for the CSD will be to identify a very clearly defined role, which does not duplicate work that is dealt with more effectively in other forums. It seems unlikely that such a role could be found in the oceans area.

The CSD's main achievement has probably been increased participation of NGOs in the UN, in particular NCOs from developing countries. While this is an extremely valuable development, one could also argue that the CSD has actually functioned as a device for drawing the attention of NGOs away from more important (but less accessible) parts of the UN system. The CSD is a subsidiary body of the Economic and Social Council (ECOSOC) which, in turn, is a subsidiary body of the UN General Assembly. This places the CSD low in the hierarchy of UN bodies, under a body which has been far from a model of efficiency, none of which is conducive to efficient policymaking. The CSD has absorbed a large amount of NCO effort and resources, with very limited results.

The CSD's role on fisheries is particularly questionable because other forums with more appropriate mandates exist. These include the UN General Assembly, and possibly also the Meetings of States Parties to the UN Convention on the Law of the Sea (Los Convention) at UN Headquarters, and, among the specialized agencies, FAO.

UN Review

The UN General Assembly reviews the LOS Convention, fisheries and other ocean

matters in an annual debate, which covers all aspects of oceans' use and management. A key aspect is the integrated coverage of issues. It is an outstanding opportunity to consider priorities, exchange experiences and highlight successes and challenges at a global level. In its present form, the debate consists mainly of general statements and it is questionable whether it is productive use of UN time.

However, the formal role the Assembly has taken on for the UN Fish Stocks Agreement, combined with its reviews developments on large-scale drift-net fishing, illegal fishing and fisheries by-catch and discards, strongly reinforces the role of the Assembly on fisheries.

The Assembly has, in the past, dealt with the drift-net issue with considerable success. Its oversight function for the UN Fish Stocks Agreement now provides a key tool for monitoring progress oil the Agreement, making it extremely important that governments engage more actively in the Assembly debate.

As the UN Fish Stocks Agreement is an "Implementing Agreement" under the LOS Convention, Meetings of the States Parties to the Convention may also have a role to play. The States Parties have considered their role in reviewing ocean matters, but without reaching any definitive conclusions.

There are a number of outstanding issues not dealt with in detail by the UN Fish Stocks Agreement or the FAO Code of Conduct for Responsible Fisheries, The latter is an important voluntary instrument, developed in parallel with the legally binding UN Agreement. The outstanding issues include fishing fleet overcapacity, which was too thorny to resolve in negotiations on the UN Agreement or the FAO Code.

In 1998, FAO, as the lead technical agency on fisheries, hosted two technical consultations on overcapacity. At the preparatory meeting in July, initial discussion on national and international programmes of action (NPOA & IPOA) was undertaken by participating governments and the European Union.

At the more recent consultation during 26-30 October, a draft non-binding document on overcapacity (International Guidelines / Plan of Action for the Management of Fishing Capacity) was approved by representatives of 81 countries and the EU.

Scene set

The scene is now set for a formal declaration of commitment to take concrete action on overcapacity at both national and international level. The draft document was adopted by the Twenty-third Session of FAO's Committee on Fisheries (COFI, 15-19 February 1999).

The development to date, although not without difficulties, signal another opportunity for ensuring the conservation and sustainable use of world fisheries resources. Without doubt, FAO, with its technical expertise, data and long-standing role as facilitator on international fisheries issues, is the most appropriate body to deal with this complex issue. If the results of the FAO deliberations on Overcapacity appear on the agenda of the CSD in April 1999, important questions arise. What would be he desired outcome of the CSD's deliberation of this issue? Will the CSD add fly political impetus to moving these action plans on overcapacity forward?

A hard look at the system of international agreements and institutions in the area of environment and sustainable development shows that it is inefficient and anything but cost-effective, even taking into account the political constraints on international policymaking. In the first instance, the critical intervention point is government approaches.

This piece is by Joy Hyvarinen and Indrani Lutchman. Independent researchers working on fisheries issues

Women workers

Feeling insecure

Women workers in Chile's fish processing factories face bad working conditions and an insecure future

The Chilean fisheries sector provides large quantities of marine products for export. This has enabled it to establish a very effective and dynamic place for itself in international trade and given it a very important role in the national economy.

Its efficient growth and expansion, particularly in the last ten years, are shown by several macroeconomic indicators: the volumes produced and exported, foreign exchange generated levels of investment, increased productive capacity, increased job opportunities.

However, these positive trends in growth and expansion hide the social processes associated with export-oriented production, where social imbalances, inequities and exclusion form an integral part.

In order to analyze and explain these issues, we have focused on the main aspects of the working conditions and quality of jobs in the sector, with particular emphasis on the section of workers from the plants processing fish for human consumption (canned and frozen products).

It is particularly important to note that the growth and expansion of the overall sector, while producing a considerable expansion of the job market, has produced jobs that are extremely insecure in nature.

They are characterized by: insecure tenure; informal contractual relationships; subnormal salaries; a bad working environment; lack of access to health or pension schemes; negligent working arrangements; and barriers to forming unions for collective bargaining. So, although there are many more workplaces available, they are not associated with any improvements in the well-being of the workers.

It has been calculated that women represent nearly 50 per cent of the full-time workers in the sector, and in some parts of the production chain this percentage can rise to as high as 80 per cent. Some incomplete national-level statistics, which only include production units employing ten or more persons, show that there are around 10,000 full—time women workers. To this one must add an unknown number of part—time workers who can only gain employment according to production demands.

As well as being strongly biased towards employing women, the job market in the fishing industry has a marked division of labour by gender. Particular tasks are only allocated to men and others only to women. There is a tendency for the latter to be more short-term and insecure, and this is caused as much by cultural factors as by structural and economic ones.

The workers in this kind of industry are generally drawn from lower socioeconomic classes, have inadequate education and qualifications, large numbers of children, and are frequently women heads of households (i.e. the sole earner and provider).

Specific roles

They are usually best at undertaking tasks which involve handling raw material and, as a result, are assigned specific roles in the production process, including working in a production line with both unprocessed and finished products. They are able to undertake highly skilled manual tasks, which require the development of special abilities. But as these tasks are also very routine ones, they

pay low salaries and offer poor job security.

In terms of numbers and turnover of workers, it is the small-scale and low-technology enterprise sector that mainly employs part-time workers for fish processing. The processing of perishable products without access to cold-chain infrastructure, for example, obliges them to recruit this kind of manual labour.

While the job market in the fisheries sector is flexible, there are structural aspects which make the demand for manual labour vary over the year. Above all, adjustments must be made to take into account seasonal peaks and troughs in catches and production. It is also important to point out that the flexible numbers of male and female workers allows employers to evade the responsibilities and costs required in contracting a full-time workforce.

This makes possible subcontracting of workers, working out of home, and short-term contracts. This latter arrangement forms a central part of the economic strategy and commercial organization in fish processing plants.

Within the workforce there is a high turnover rate, where a large reserve of people cyclically enter and re-enter the job market, increasing the supply of cheap labour, thus forcing salaries down. The fishing industry also uses a system of variable salary rates, designed to avoid any salary indexation, any payment of minimum wages or other employment-related responsibilities. Any increase in pay rates is almost exclusively linked to productivity, and such payments are mainly conditional on productivity and profitability performances. The working days are long, with irregular hours, and are subject to variations according to the weather, season, volume and time of fish landings, and the time of deliveries and sales.

Processing plants are characterized by a combination of significant risk factors, and the more insecure the job, the greater these are. They are related to the technical nature of the work, and associated with damage to health.

The poor quality of the jobs is also revealed by the lack of opportunities for access and use of social security and pension schemes. The irregular working periods mean that the workers' benefits are interrupted, so that they have to fall back on the public health system, pleading poverty or dependency.

Intermittent work

As for pensions, considering the intermittent nature of the work and the low and unstable incomes, it is unlikely that the workers will be able to build up

sufficient individual funds to acquire a future pension adequate for their old age.

As far as labour laws are concerned, there are particular provisions that prevent part-time women and men workers from organizing themselves into unions and collectively bargaining for belier working conditions. This increases their vulnerability and reduces their rights.

The Chilean law has strengthened the concept of individual rights, and this has reduced the collective power of the unions and their capacity to negotiate. Only the unions of a particular firm can negotiate. Since part-time workers can only be affiliated to industry-wide unions, they are much more vulnerable. The most frequent complaint of part-time workers concerns salary and job security.

Full-time workers can affiliate themselves to the company unions which negotiate theft conditions of work. A group of company unions can establish a federation, and a group of federations can establish a confederation.

Through increasing the flexibility of the organization of their production processes, and by reducing their labour costs, businesses are attempting to maintain competitiveness without affecting their profit rates. This is making jobs even more insecure.

In addition to the benefits provided to the industrial sector by the State through its subsidy policies on credit export promotion, etc., and through the intensive exploitation of available marine resources, the absence of effective controls and the presence of abundant and cheap workforce have made possible the growth and expansion of the sector.

This article, translated by Brian O'Riordan, has been written by Estrella Diaz, a member of Hexagrama Consultants, Santiago, Chile, Diaz is a sociologist who specializes in issues of gender and employment

Fishery co-operatives-2

In the cradle

The second in a series on the pioneer of Japan's fishery co-operative movement focuses on the infancy period of the movement in Hokkaido

In 1933, the Japanese government launched its Farms and Fisheries Revitalization Policy, under which farming and fishing communities were to be revitalized to deal with the conditions of poverty brought about by the worldwide depression.

We referred to this policy as the 'Self-Rehabilitation Movement'; since the government did not actually do anything concrete, apart from providing low-interest loans to fishermen. Furthermore, the government eventually became incapable of financing any more such loans.

Certain farmers and fishermen were quick to criticize the government. They believed it was shirking its responsibility and that farmers were suffering since the government had no clearly defined policy. I, however, did not see things that way. I supported the concept of 'self-rehabilitation', based on my belief in the importance of self-help and independence.

Since my youth, I had been averse to the idea that I should be dependent on the assistance of others, and I had no desire to accept any part of the inheritance my parents would leave me.

Having closely observed the society of those days, I came to understand that people often squandered their money. I realized that if a person economized and accumulated money little by little, he could build up a reasonable amount of capital and thereby establish a successful enterprise. My dream was to do that.

The co-operative movement had not yet taken hold in the fishing villages of Hokkaido, and these villages, which were dependent on primary industries, were therefore defenceless in the dog-eat-dog world of capitalism. In the farming villages, however, co-operatives were developing slowly but steadily, and they began to establish, on their own, joint marketing systems for their rice and dairy products.

In 1933 the Japanese government revised the Fishery Law. With this revision, the Fishermen's Associations were renamed Fishery Co-operative Associations (FCAs), and the associations became responsible not only for managing the fishery rights, hut also for the use of the accumulated capital of the member fishermen, so that the associations could perform the economic activity of FCAs.

With those developments, I decided to devote myself to the development of the FCAs, and therefore requested to be transferred from the Hokkaido government's Fishery Licence Section to the newly established FCA Section, where I could apply the basic ideas behind the co-operative movement to the fishing sector, the one in the worst financial condition.

My first responsibility was to recruit qualified personnel for my staff. I was fortunate to be able to hire five excellent workers from other sections. I instructed them on the theories of the co-operative movement and discussed with them what type of co-operatives would be most suitable for the fishermen of Hokkaido. One of the primary concerns was whether the FCAs should be limited-liability, unlimited-liability or guaranteed-liability co-operatives.

Explanations

Thereafter, we had to explain to the fishermen the ideas and functions of co-operatives, and let them organize their

own co-operatives as they saw fit. Since the fishermen could not understand all the provisions of the Fishery Law which concerned FCAs, I had to interpret these provisions for the fishermen.

After much discussion with the fishermen, I compiled a Guideline for Establishing FCAs in Hokkaido'. Of course, before I distributed this manual to the FCAs, I submitted it for examination to the Japanese government.

I was surprised when they told me that such guidelines were unnecessary, and I realized that the government had no strategy for guiding the fishermen. Nevertheless, I eventually convinced the government that these methods would be successful, and the time came for us to act.

After considering how and where we should begin these reforms, I selected the Hakodate Fisheries Association (FA). The reason I chose the city of Hakodate, which is located at the southern tip of Hokkaido, was that it presented the most serious challenge in terms of establishing a co-operative.

Due to a massive fire earlier that year, the city was in a critical financial shape, particularly in the two areas which had been almost completely burned down—Omori-cho and Sumiyoshi-cho. Furthermore, the government was willing to provide Y70,000 through a fishery reconstruction fund, and Hakodate was a prime area to receive some of these funds.

I knew from experience that the best approach was to first tackle the most difficult part of any problem; the successive parts would then be easier to deal with. Furthermore, I believed that the human spirit becomes emboldened in the face of disaster. The fishermen in Hakodate who had lost their homes had to start from scratch, so I was convinced they would work as hard as was necessary.

I went to Hakodate and looked out over the burnt land. I then went to visit Kimura, the Chairman of the Omoro-cho Fishermen's Association, to take up the issue of establishing an FCA. After expressing my sympathies for their plight, I advised him that, if they wished to rebuild Hakodate's fisheries, they would have to accept the government loans of ¥70,000. I informed him that if they established an FCA for which all the member fishermen would work, it would not be so difficult for them to pay back the loan.

Changing fortunes

"Let's turn this misfortune into a blessing," I said. "If you retain the current form of your FA, you may not get the government loans." I persuaded Kimura that they had to reconstruct their FA into an FCA.

As he had no idea of what a co-operative was, I had to explain in detail regarding the ideals, functions, capital structure, and so on. I did so with the help of the booklet of guidelines mentioned above. I suggested that the Hakodate WA be an unlimited-liability co-operative. He again did not understand, so I explained to him as follows:

"If, for instance you get a loan from a bank, all the fishermen who are members of the FCA—and therefore shareholders of the FCA—must sign for the loan, and therefore all the members of the WA share joint responsibility for the loan."

"But," he asked, "What happens when we can not pay back the loan?"

"The bank could first seize your personal property," I replied, "since you have a fair amount of wealth and property. However, the bank would sooner make their claim on the property of one of the wealthiest individuals than on the property of hundreds of individual fishermen."

Of course, Kimura stated that he would never want such a situation to occur, but I continued to explain: "Such a situation is theoretically possible under the terms of the law. In that case, however, you could file a suit claiming that the FCA, as a single entity, has property, and leave it to the courts to decide. You could claim that your property, the seas, was not damaged by fire, as happened to Hakodate recently, and that your FCA owns exclusive fishing rights to the abundant resources of abalone, shell, kelp, and so on.

"The court would most likely decide that the FCA need pay back only the difference between the amount of the loans and the estimated selling price of the exclusive fishing rights, and the bank will therefore not be able to seize any of your property. In other words, the court will only be allowed to seize your property if the estimated cost of the fishing rights are insufficient to pay back the loans."

I then asked Kimura if he would consider selling the rights for, say, Y20,OOO-30,OOO, and he responded that such a thought would never cross his mind, since the local fishing grounds were excellent resources. I told him he was absolutely correct, and he therefore should have no reservations about accepting unlimited liability. Now, he said, he understood completely, and he would be more than willing to initiate an unlimited-liability FCA.

Influential person

Kimura was the wealthiest person in the town and a very influential person. Now that I had his support, I knew we could succeed in establishing an FCA. I asked

him to call a meeting of the fishermen, at which I explained all that I had told Kimura, Furthermore, I encouraged the fishermen to unite in the struggle against their poverty by establishing a co-operative. They all agreed and soon decided to establish an FCA in Omoricho.

Immediately afterwards, I went to Sumiyoshi-cho and made similar presentations to the people there. I stressed that, as a result of the fire, they were suffering under the same conditions as the people in Omori—cho, and that they should not lag behind the advances that the other town was making. The fishermen in Sumiyoshi-cho soon also approved the adoption of an unlimited-liability FCA.

I gained much confidence through these experiences and I began to promote the restructuring of FAs into FCAS throughout Hokkaido. Within a few years, we were able to establish FCAs in all areas of Hokkaido, and 90 per cent of them were unlimited—liability co—operatives.

The government officials had thought that it would be difficult for us to convince the fishermen to change their associations into FCAs, particularly with unlimited liability, so they were pleasantly surprised when they heard how successful we had been. Since that time, the FCAs in Hokkaido have been much more vibrant than those in any other prefecture. Although the process of establishing FCAs was going well, we still faced a difficult problem with respect to the exploitation of the fishermen by the merchants.

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

Individual Transferable Quotas

The other side

Chile's experience with fisheries management is a journey from the overexploitation of a common property resource to its privatization

With a coastline of 4,200 km and an Exclusive Economic Zone (EEZ) of 3.5 million sq km in the Southeast Pacific, Chile has, during the last 25 years, developed an extraordinary multi-species industrial fishery and expanded its intensive aquaculture in what is considered to be one of the five most productive marine areas of the world, where the cool, nutrient-rich upwelling Humboldt current supports large fish populations.

During the last 26 years of export-oriented, neoliberal economic policies, over 107 million tonnes of marine resources, with an export value of US$16,000 million, have been caught mainly from coastal waters. Most of the exports go to the Asian, European Union and US markets.

The neoliberal policy, established in the mid-1970s by the military junta, and continued by successive civilian governments, has reinforced a pattern characteristic of the Chilean economy: 87 per cent of exports are based on the exploitation of natural resources, with little value added.

During the 1980s and early 1990s, the fishing industry and aquaculture wore the most dynamic sectors of the economy, with average annual growth rates of 8.6 per cent. Today both sectors together generate US$2,000 million per year, which represents 12 per cent of the total value of Chilean exports.

Macroeconomic indicators show that in the Chilean fisheries, production peaked midway through the decade of the 1990s, when annual landings of 7.8 million tonnes per year elevated the country to third place amongst the major fishing nations, and to second place amongst the main producers and exporters in both fishmeal and salmon aquaculture.

Today, however, Chilean fisheries are under growing threats from both overfishing by, and overinvestment in, the industrial fishing fleet. In the 1998 season, when landings fell by 47 per cent over the previous year and 4,000 jobs were lost in the industrial fishing sector, we began to see the other side of the production and financial indicators—the environmental and social costs.

Virtually all the Chilean fisheries are tinder severe fishing pressure: 95 per cent of them are fully exploited, overexploited or slowly recovering. The industrial fleet has a potential fishing capacity of 35 million tonnes per year, and is mainly responsible for overfishing and the destruction of marine biodiversity in Chilean waters.

This situation has led to growing conflicts between the 60,000 artisanal fishermen and the industrial fleet, particularly over the illegal and destructive fishing operations of purse-seiners and trawler fleets along the entire length of the Chilean coast.

This has also led, since 1992, to an active transfer of the overcapacity of the industrial fleet from the Southern fishery to the Atlantic and Indian oceans. There, a long-liner fleet, owned by Spanish companies under Chilean flags, are developing illegal deep-sea fishing operations in the sub Antarctic waters.

Domestic consumption

While 89 per cent of Chilean fish resources are transformed into fishmeal and fish oil for industrial use, domestic consumption has decreased over the last 25 years. At present, with an annual average per capita

consumption of 4.2 kg of marine products, 22 per cent of the Chilean population of 3.2 million people is under 'nutritional risk', mainly in those areas richest in marine resources: Iquique, San Antonio, Talcahuano, Coronel, Lota, Chiloe and Aysen.

Since the middle of the 1990s, encouraged by the UN Fish Stocks Agreement process, the different sections of Chilean society, particularly the artisanal fishworkers, the trade union organizations of crew members in the industrial fleet, and environmental organizations, have increasingly criticized the lack of transparency, participation and social equity both in the government fisheries institutions and in their policies.

It is significant that radical modifications are now being proposed to the Chilean General Law on Fisheries and Aquaculture (LGPA), adopted in 1991 (see box). There is now a proposal to privatize fishery resources through the application of Individual Transferable Quotas (ITQs) to fully exploited fisheries.

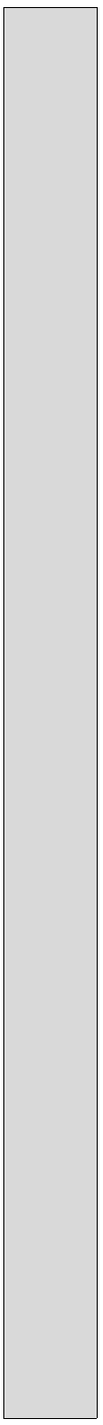
Notably, the 1991 law does not recognize any right of ownership or control over fish resources. Use rights are considered purely administrative in nature. The 'Special Fishing Licences' given are administrative concessions for individual quotas, sold through public auctions, for a fixed term of 10 years.

The ITQ proposal originally came up in the context of the overexploitation of the *jurel* (*Trachurus murphyi*, commonly called jack mackerel or scad) fishery, caused by a combination of factors, including overfishing and the impact of the recent El Niño. This species represents half of Chile's total catch. The proposal was later extended to all Chilean fisheries legally defined as fully exploited, such as sardine, anchovy, common hake, southern hake, golden conger and swordfish.

A 12-member subcommission of the National Fishery Council, composed mainly of representatives or advisers from large fishmeal companies, transnational corporations and bureaucrats, was set up in August 1998. This body worked for just 55 hours to develop—without any public consultations—a proposal to privatize Chilean fisheries through the system of ITQs. This was approved on 1 September 1998 by the National Fishery Council itself, despite strong opposition from the artisanal fishermen and representatives of the industrial fleet's skippers.

Proposal supported

The proposal was subsequently supported by the President and sent to the Parliament for discussion in March 1999. To justify the proposal to privatize



*The Chilean Gen*eral Law on Fisheries

The Chilean General Law on Fisheries and Aquaculture (LGPA), adopted in 1991, was one of the first laws developed by the civil government after 18 years of military dictatorship. It categorizes four types of fishery regimes.

General Access regime characterized by free access. This applies to all fisheries which do not fall in any of the other categories defined by the law.

Fully Exploited Fisheries: This applies to all fisheries where fishing is at a level equivalent to the maximum catch that each species is capable of supporting, without jeopardizing its long-term conservation. Total Allowable Catch (TAC) levels are set annually for these fisheries, and are applied within a system referred to as 'Special Fishing Licences'. These fisheries are closed to new entrants-be they from the industrial or artisanal fleet-while prohibiting any increase n the size of the fishing fleet. Ninety-five per cent of Chile's most important fisheries have been placed in this category.

Fisheries under Recovery: This applies to fisheries which have been overexploited and subjected to prolonged closures, as a result of which there has been a significant recovery in stock, sufficient to allow their return to commercial extraction. This is restricted through a system of 'Special Fishing Licences', where Individual Non-Transferable Fish Quotas with a 10-year old validity are auctioned.

Incipient fisheries: This applies to fisheries where fish catches amount to less than 10 per cent of the TAC. In these fisheries. 100 per cent of the TAC is auctioned of an Individual Non-Transferable Quotas.

There is also a provision for a special category of fisheries classified as 'Fisheries Under Investigation'.

Management measures for the fishery and the TAC are established annually by the Subsecretary of Fisheries, based on technical reports and political negotiations.

Chilean fisheries, it is being claimed that the LGPA provisions are inadequate to prevent overinvestment and overexploitation in the fisheries, and that the application of ITQs will improve the economic efficiency of the fishery.

The proposal is based on the logic that only individual ownership of fisheries resources will ensure that owners conserve and manage them rationally in the long term, increasing the economic efficiency of the fisheries.

It is proposed to establish a new administrative regime, titled 'The Special Fisheries Regime', which will modify the LGPA by incorporating the ITQ system. The proposal has some basic features:

- It recognizes and assigns fishing rights *free* and *in perpetuity* to boatowners who are currently operating in fully exploited fisheries;

- It uses catch history as the basic criterion to allocate the percentage share of the TAC to fishing rights. The owner, in perpetuity, of this individual fishing quota can divide, sell, lease, remove, or inherit it, converting it into a commodity to be commercialized in the national or international markets. No single quota owner may accumulate more than 35 per cent of the TAC for a particular fishery.

- For fisheries not previously subject to a TAC, as in the case of *jurel*, Article 40c, Paragraph 2, establishes that a fixed coefficient be used to calculate the proportion of the total fishing rights (the Total Fishing Effort) assigned to each vessel, which is based on a mathematical relationship between the size of the vessel's fish-hold multiplied by a coefficient particular to each geographic region. The use of this coefficient will enable the largest fishmeal companies in the Bio-Bio and Conception region, which own the greater part of the 135,000 cu m hold capacity of the purse-seine fleet, to acquire 50 per cent more quota than any other

company in the whole of the country.

The Fisheries Subsecretary will issue Special Fishing Licences to industries authorized to fish in fully exploited fisheries, allocating proportions of the TAC determined annually for the industrial sector. These licences will be issued for an indefinite period, and will be divisible, transferable, or leasable.

Each owner will decide the number and type of vessels to be used in the fishery. The vessels must be registered in the Chilean registry of fishing vessels and must comply with the laws governing fisheries and navigation.

If approved, the ITQ proposal will radically modify the LGPA, by privatizing indefinitely the common property resources of the Chilean people, without any form of social or economic compensation.

While the 200,000 people who depend directly or indirectly on marine resources in Chile have seen their livelihood threatened by overexploitation and overinvestment, no more than 13 of the largest companies (who are directly responsible for the marine resources crisis) will be the direct beneficiaries of this new law.

One of these is the Angelini Group, which now controls about 40 per cent of the fishmeal exports, using mainly *jurel* South American pilchard *(Sardinops sagux), anchoveta (Engrau/is ringens)* and *cabal/a* or mackerel *(Scomber japonicus peruaiius)* resources. In turn, two other companies control 80 per cent of common hake *(Merizeccins guyi)* catches, the most popular fish consumed in Chile.

A similar situation can be observed in the processing and export of fish from the southern fishery, which is based on austral hake, pink cusk eel, patagonian toothfish, southern blue whiting and hoki.

Multinationals' control

This fishery is controlled by just three transnationals: Pesca Chile (a subsidiary of Spain's Pescanova, the world largest hake producer), Endepes Ltd.(a subsidiary of Nippon Suissan Kaisha) and Frio Sur (associated with Icelander). They control 70 per cent of austral hake exports, while just two companies control over 80 per cent of patagonian toothfish *(L)issas dcli us eleginoides)* exports.

The principal long-term beneficiary of the ITQ proposal in Chile is perhaps the financial sector. It has backed the ITQ proposal as a means of obtaining legal guarantees for the 640 million loans decade of 1990s to finance overinvestment in the industrial fleet fishing for fishmeal.

The ITQ system will privatize fish resources by allocating exclusive quota rights to vessel owners on the basis of the vessel's historical percentage share of the catch, based on catch records over the past three years. In this way, artisanal fishermen, and small-and medium-sized owners will be excluded from most fisheries due to their scant financial means and lower percentage share of the catch in the past. In the case of Chile, the industrial fleet officially controls 87 per cent of total fish catches.

Moreover, under the proposed ITQ system, resources classified as 'associated' species will also become part of the quota allocated. 'Associated' species refer to a large number of white-fish species, such as *reineta (Brama australis), machuelo (Ethmidium maculatum)* and *sierra (Thyrsites atun).*

Currently, associated species are the principal catch of the artisanal sector, and are the main species eaten locally and nationally. They form the basis of the artisanal fishery and are destined for human consumption. It is, therefore, of particular concern that for most of the principal species for which quotas will be allocated, there are more than 30 associated species. For example, there are 32 species associated with the *juirel* fishery, 33 with the southern hake and 30 with the golden conger or cusk eel.

It is doubtful whether ITQs will do anything other than concentrate ownership in the hands of a few industrial fishing enterprises. Since the criteria for allocating quotas under the new system will be based on "historical catch records", there will be no reduction in the overcapitalized industrial fleet, and the artisanal sector will effectively be pushed out and excluded from the fishery. The artisanal sector, which provides the greatest number of jobs and is closely linked to the regional economy, will end up with a smaller share of the fishing quota. This is likely to herald their eventual removal from the Chilean fishery.

The experience with ITQs in New Zealand, Iceland and Canada demonstrate that ITQs do not simply involve a change in the ownership of marine resources. They involve a radical political, social and cultural change, where the role, responsibilities, priorities and authority of the State are profoundly modified, removing public control, by allowing the forces of the market to ultimately decide who will be allowed to fish.

At the same time, ITQs provide enormous social, economic and environmental incentives to large fishmeal companies and to European and Asian transnationals, allowing them to continue consolidating their control over the Southern fisheries.

People's hopes now rest on the negotiations being carried out by the under-secretary, who is trying to insert some changes into the ITQ project. These will hopefully include the allocation of a 'collective quota' to the artisanal sector, and will not link the associated species to the principal quotas.

Dark future

Faced with this dark future, citizens organizations are demanding that democratic control be exercised over the national natural resources and marine ecosystem, through strengthening people's participation, not only in the access to these resources, but also in the decision making processes, so that it will be possible to build an alternative model for fishery development, based on environmental sustainability and social equity.

This article is by Juan Carlos Cardenas and Patricio Igor Melillanca of Centro Ecoceanos, Chile. E-mail: ecoceano@entelchile.net

Website

FAO Fisheries Homepage

Fish on the Net

The Internet is often like a maze where you could easily get lost. To guide you, the first in a series on fisheries sites an the World Wide Web

The website of the Fisheries Department of the FAO (http://www.fao.org/waicent/faoinf/fishery/fishery.htm) is one of the most comprehensive websites on the Internet on fisheries. FAO aims to 'prepare, manage and disseminate the information that it produces to the widest possible audiences, in the most efficient manner, utilizing the latest technologies, at less cost.'

WAICENT (World Agricultural Information Centre) is FAO's primary information gateway. Though each FAO department has presented its information resources independently, users can access these data using a single search mechanism. The site has links to topics like World Food Summit, Biosafety, Food Safety, and Codex Alimentarius.

WAICENT is a good example of how information can be integrated across departments and divisions, and made available anywhere in the world. The centralized database of WAICENT can be accessed either through the FAO homepage or through its Fisheries Department page.

The emphasis of the FAO site is more on textual matter and statistical data. It provides the full texts of technical conferences, consultations and agreements (for example, the Code of Conduct for Responsible Fisheries, including technical guidelines, and the FAO Compliance Agreement), statistics of capture and culture fisheries production, and trade in fish and fish products.

Almost all the reports of FAO meetings, workshops and consultations are available in three languages—English, French and Spanish. The site is also a source for regional and country profiles, databases and other data on, for example, the world's fishing fleet and population of fishers.

SOFIA *(State of World Fisheries and Aquaculture)*, an annual publication of FAO, presents a global overview of trends in production and trade in fisheries and aquaculture. The 1998 edition, the latest available on the site, incorporates developments in fish production, utilization and trade. It identifies and discusses important issues related to the sector's future contribution to food security and economic growth.

More documents, such as the Review of the State of World Fishery Resources: Marine Fisheries, and the Review of the State of World Aquaculture, are also available on the FAO site.

The Virtual Library project of the David Lubin Memorial Library has specialized databases, electronic journals, library catalogue, special bibliographies and a list of the bookmarked sites of interest. The search window for the library catalogue is available on this site.

The David Lubin Memorial Library of the FAO is its main library which has branch libraries in the Fisheries and Forestry Departments, and the Nutrition and Statistics Divisions.

The search for data on FAOSTAT, the statistical database of FAO's WAICENT, can be defined in several ways—by country, commodity, region, or year, or by a combination of these. Data from 1961 to 1996 are available on FAOSTAT.

The data on marine and freshwater fish as well as processed products, arranged by groups, are available on FAOSTAT. Specific country wise searches for groups of

fishery resources like crustaceans, molluscs, and tunas can be carried out, Export and import as 'well as consumption and trade data are also available.

The country profile section of the page features crisp profiles of countries involved in fisheries. However, while FAO has made available in print profiles of 140 member countries, the website, at present, features only 42. In South America, for instance, only Argentina, Colombia and Uruguay figure, while Asia has no presence at all. Data in some of the country profiles have not been updated for about seven years. It would be useful to have up to date profiles of more countries.

The fisheries statistical data can be downloaded as zipped files. But, depending on connectivity speed, these files, often large, can take a long time to download. An alternative is to conduct specific searches. Though FAOSTAT gives various permutations and combinations of statistical data compiled from FAO's print publication, FAQ Yearbook of Fishery Statistics—is not as detailed as the book.

The FAQ site also gives links to the various downloadable software for organizing documentation of different kinds of fishery-related information and statistical data. All the data as well as the software available on this site can be downloaded free of cost.

This piece is by Omkar G. Krishnan, who works at ICSF's Documentation Centre in Chennai, India

Website

Women in Fisheries Newsletter

Yemaya

ICSF has just begun publishing a newsletter on gender and fisheries. Excerpts from the first issue:

This is to introduce the first issue of YEMAYA ICSF's newsletter on gender and fisheries (those curious about the name, please read the box below). The idea for such a newsletter was first proposed at ICSF's General Body meeting in Trivandrum in February 1998.

It was suggested that the newsletter carry news and views of people working on gender issues in fisheries in different parts of the world. Besides keeping people aware of what is happening, it could help sustain the links between those working on similar issues and help them network when required.

Subsequently, many of you extended support to the idea and agreed to send in periodic write-ups for the newsletter. For the present we propose to publish two issues each year.

This first issue brings to you the voices of women and men of fishing communities from different countries, representing their diverse realities. The work they do within the fisheries differs, as do the issues they confront and the level to which they have organized to deal with these.

What they do have in common, though, is the desire to defend and sustain the artisanal fisheries sector and their livelihoods that derive from this.

We hope that this newsletter contributes to the process of building a meaningful forum for sharing of experiences, views and strategies. At a time when the livelihood of artisanal fishing communities in several parts of the world is under threat, such an effort appears to be particularly vital.

Please do send us any comments and suggestions you may have to make the newsletter more relevant to your concerns. And please also send us suggestions on other people who could be interested in being part of this initiative.

We look forward to hearing from you and to receiving regular write-ups from you for inclusion in the newsletter.

The Mother Whose Children are the Fish

Afro-Brazilian in origin, Yemaya is the shortened name for Yey Omo Eja, meaning "Mother Whose Children are the Fish", a mother whose children are so numerous that they are uncountable.

In the Umbanda, Candomble and Yoruba religions of Brazil and Cuba, Yemaya is not only the mother of the waters, she is the mother of all the orixas (gods and goddesses).

Often represented as a mermaid of white and blue hues and sporting long black hair, Yemaya, also called Yemalla, Yemanya, Iemanja, Iamanya, Imanje arid La Balianne, represents fertility, and embodies all the characteristics of motherhood, caring and love.

Though Yemaya essentially epitomizes the maternal force of life and creation, she has many aspects, one of which is Yemaya Okute, a fierce warrior.

In Brazil, on New Year's Eve, her devotees set up elaborate beachfront altars, offering food, flowers (usually seven open white roses) and candles to be washed away by Yemaya with the morning tides.

For us, pondering over issues of gender arid fisheries, Yemaya seems to epitomize our concerns.

News Round-up

Get lost!

Coastal communities in **Somalia** are shooing away foreign ships engaged in illegal fishing in their country's territorial waters. Illegal fishing rose after the disintegration of the country into clan-based fiefdoms follows the overthrow of President Siad Barre in 1991.

Somalia's marine resources are rich and fisheries is the country's second largest industry after agriculture and the fourth largest earner of foreign exchange after livestock, banana and frankincense.

Banking on the lack of a central government in Somalia, foreign ships are using prohibited fishing methods.

These include drift-nets, dynamiting, breaking coral reefs and destroying the coral habitats where lobsters and other coral fish live.

As a result, even tiny female lobsters carrying eggs are killed indiscriminately during their reproductive cycle, something which was illegal before the civil war began in 1991.

To combat illegal fishing, local fishermen, armed with small firearms, have formed vigilante groups. When they capture a foreign fishing vessel, its occupants are forced to pay some cash as a fine for the illegal practice.

No to quotas

Over 2,000 fishery and fish processing workers, members of the Food and Allied Workers Union, marched to the Parliament of **South Africa,** protesting the month-long closure of a commercial rock lobster fishery after established quota holders went to court to challenge the government's plan to grant additional quota to new fishing concerns.

The Directorate of Sea Fisheries also has halted issuing quotas for hake, pilchard and anchovy until the court challenge is resolved.

Remember Exxon Valdez?

The Exxon Valdez Oil Spill Trustee Council has issued a report on the progress with recovery nearly a decade after the spill in Prince William Sound, Alaska, US. Only two of the nearly 24 species of affected animals are considered fully recovered-river others and bald eagles.

Species listed as recovering include pink salmon, mussels, sockeye salmon, common murres, clams, Pacific herring, sea otters, black oystercatchers and marbled murrelets. Species showing little or no signs of recovery include common loon, cormorants, harbor seals, harlequin ducks, killer whales and pigeon guillemots.

Recovery status is unknown for cutthroat trout, Dolly Varden trout, Kittlitz's murrelet, and rockfish.

EIA*s, please*

The Gloucester Fishermen's Wives Association (GFWA) has called upon the governments of the US, **Canada** and **Mexico** to quickly conclude negotiations for transboundary Environmental Impact Assessment (EIA). This move is necessary to adequately protect fishery resources which straddle the country borders.

At a US-Mexican Summit last month, President Clinton and President Zedillo expressed satisfaction "to be approaching agreement, along with Canada, on a trilateral arrangement to ensure the cross-border effects of many proposed projects and activities can be included in our respective environmental impact assessments, and the bordering states and their citizens will be able to participate in the assessment process."

Concurrently, meetings between the Canadian Environment Minister and the Mexican Secretary of the Environment, Natural Resources and Fisheries were taking place in Ottawa.

GFWA believes that five years is ample time to conclude negotiations on what

all parties have admitted are urgently needed provisions to cover proposed projects "likely to cause significant adverse transboundary effects."

An appeal

Ocean Watch, the National Ocean Watch Centre, based in New South Wales, **Australia**, is now engaged in a research project to document the mechanisms used by fishermen to reduce by-catch in non-trawl fisheries.

Duncan Leadbitter, Executive Birector of Ocean Watch (email: oceanwch@geko.net.au) would like to hear from fishermen, researchers and others.

He needs information on what type of actions (eg, avoiding areas of heavy by-catch abundance) and devices (eg, escape gaps) fishermen either use or know of.

Microbe attack

Researchers claim that previously unknown bacteria and viruses blooming in the earth's warming oceans are killing some marine life and threatening human health.

More and more reports are coming in of corals dying, shellfish getting diseased and waters being infected with human virus as the temperature in seas rise and pollution from the land intensifies.

The increase pathogens may be linked to a 1.8 degree rise in sea surface temperature detected in many areas. Some of the viruses detected in coastal waters are linked with heart disease, diabetes, meningitis and hepatitis. Around 10 per cent of the corals worldwide have died, researchers told a meeting of the American Association for the Advancement of Science. The warmer waters kill algae living on the corals, weakening them and making them more susceptible to infection. Often, the pathogens killing the corals, like viruses, bacteria and fungi, have not been previously identified. The loss of coral is significant because the reef-building animal is the basis for the health of the tropical seas.

Training courses

The Central Institute of Fisheries Technology (CIFT) of the Indian Council of Agricultural Research, based in Cochin, **India** has just announced training programmes for technical staff employed in fish processing units, women and young entrepreneurs.

The courses deal with different aspects of fisheries and fish processing, like training on HACCP concepts, laboratory techniques for identifying bacteria in fish and fish products, training in value-added fishery products, etc. CIFT can also arrange special need-based ad hoc programmes on specific requests. Further details can be had from the Director, CIFT, Willingdon Island, Cochin (Email: Kravi@cift.ker.nic.in.Tel: (91) 484 66 6845)

Moroctopus

A representative from the Ministry of Fisheries of Morocco told a cephalopod conference in Barcelona that there exists too much catching capacity in the octopus fisheries of Moroccan waters.

Catches have fallen by 50 per cent in just two years. After November 1999, when the current fisheries agreement with the EU expires, Morocco will stop issuing fishing licences for foreign vessels.

Foreign companies, however, will be allowed to form 50:50 joint ventures with Moroccan companies and will be able to invest in shore facilities. But all catches made in Moroccan waters will have to be landed in Moroccan ports.

Responsibly

Over 100 individual seafood companies in the US have enforced the Principles for Responsible Fisheries, formulated by the National Fisheries Institute, the Virginia-based fish and seafood trade association representing over 1,000 companies in the seafood trade.

These principles are designed to direct the efforts of fishermen and seafood businesses towards conserving the productivity of American fisheries, protecting water quality and contributing to the health and nutrition of consumers.

A Paumanok Picture

Two boats with nets lying off the sea-beach, quite still,
Ten fishermen waiting—they discover a thick school of mossbonkers— they drop the join'd seine-ends in the water,
The boats separate and row off, each on its rounding course to the beach, enclosing the mossbonkers,
The net is drawn in by a windlass by those who stop ashore,
Some of the fishermen lounge in their boats, others stand ankle-deep in the water, pois'd on strong legs,
The boats partly drawn up, the water slapping against them,
Strew'd on the sand in heaps and windrows, well out from the water, the green-back'd spotted mossbonkers.

Walt Whitman
— from *Leaves of Grass*

ICSF

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

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