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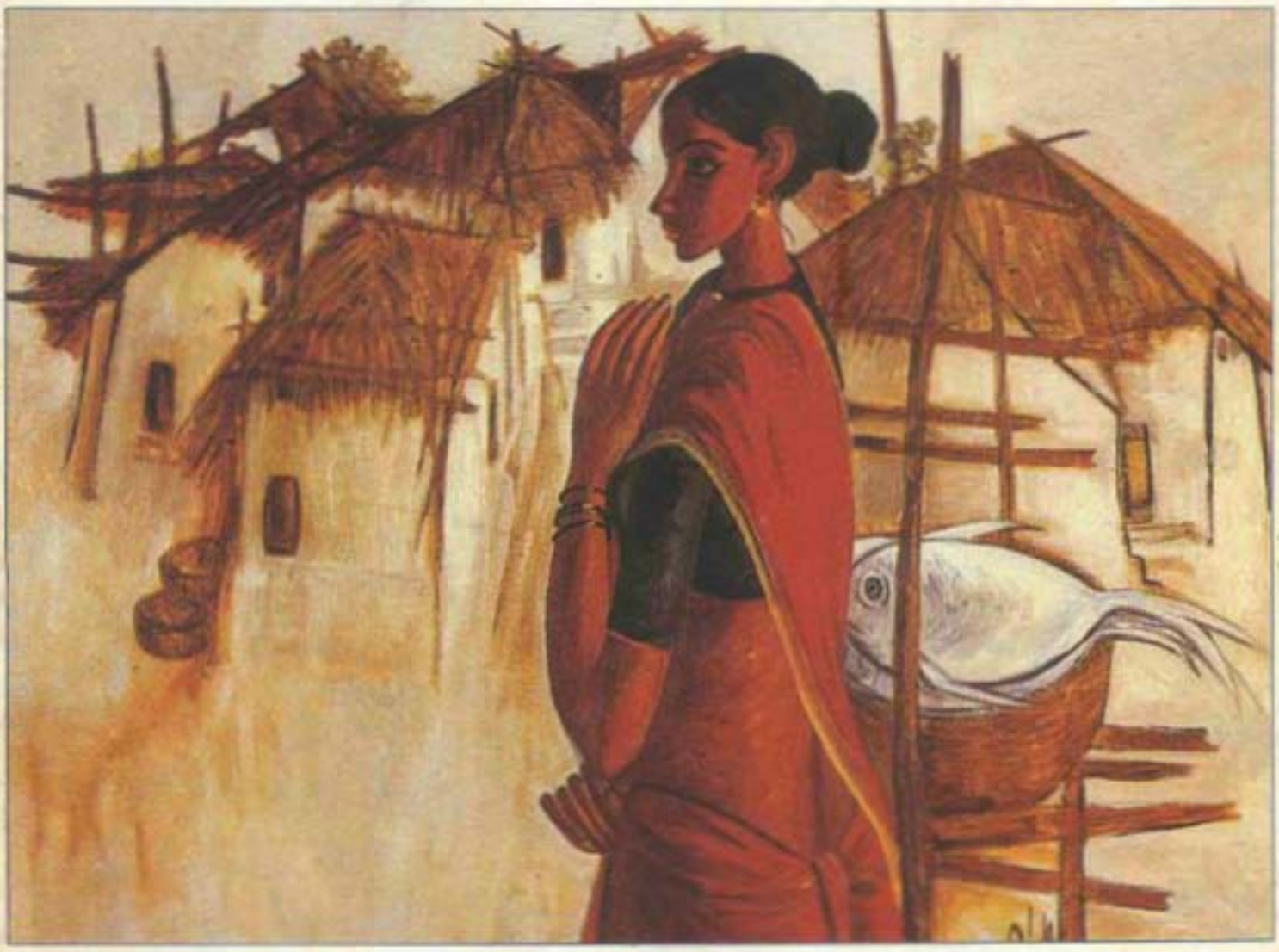

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Comment

Why bulldoze the seabed?

Trawlers have often been referred to as the Hoovers of the shelf bottom or as bulldozers unselectively mowing down fish and benthic species. Ever since its introduction over a century ago, fishworkers in different parts of the world have been voicing their concern about its immense destructive capacity.

In spite of this, the technology continued to develop and, during the Second World War, it incorporated many advancements developed by the navy. The introduction of trawlers led to bloodshed in the sea in the Malacca Straits, both off Malaysia and Indonesia. Now, from different parts of the world comes proof of its limitation: a staggering ability to overfish.

The decimation of ground stocks in many of the world's fisheries clearly demonstrates how this technology kills the resource base. The collapse of the cod fishery of Canada, the cape hake fishery of South Africa, and the overfishing of prawns and shrimp resources in many Asian countries stand brutal testimony to the destructive impact of trawling technology.

Worldwide experience to date has shown that monitoring, surveillance and enforcement have consistently failed to protect both resources and the livelihood of inshore fishworkers. Such collapse of fisheries threatens—either directly or indirectly—the livelihood of these fishworkers. Crucially enough, they are often the very ones without recourse to any other means. The article by Vicky Silk in this issue of SAMUDRA graphically illustrates how the fishery of Newfoundland, Canada was destroyed by trawling, and how this particularly affected women

To be sure, there could be instances where well-managed trawl fisheries may not prove very harmful. But today there is growing conviction that political circumstances the world over do not permit any wise management of trawl fisheries.

In economic, social and environmental terms, unmanaged trawl fisheries are the worst kind. And in physical terms, their destructiveness is matched only by dynamite fishing. Perhaps the time has come for everyone involved in fisheries to reassess the assumed values of this technology. This is especially necessary since the combination of trawling and corporate interest has catastrophic consequences.

Elsewhere in this issue, Nalini Nayak of India seeks the support of consumers in restraining trawling activities, given that attempts to manage them at sea have failed. It has perhaps become imperative to begin focusing on demand management, to strive for a situation where consumers themselves would dictate to suppliers in no uncertain terms what they would like to eat.

Imagine a time when fish consumers start proclaiming that they would prefer to consume only those fish and prawns caught with passive gears, or reared in extensive or semi-intensive tract, which do not destroy mangroves, for instance. Imagine a situation where the world's seafood eaters actually begin demanding only those fish processed in factories by managements which respect the dignity of labour and employ fishworkers on equitable terms.

Can we—indeed, should we—leave this to the realm of mere imagination?

Draggers in Newfoundland

Dragging women through suffering

The technology of dragging has ravaged the fishery of Newfoundland and caused grief most to the local women.

Dragger technology was first introduced in Eastern Canada in the late 1890s. At the time, it was poorly received by fishers who believed the technology would eventually destroy fish stocks. The Royal Commission of 1928 described otter trawls with mouths a hundred feet across, catching 130,000-250,000 lb of fish.

The Commission had then predicted that draggers would destroy the spawn of cod and haddock destroy the feed grounds take large quantities of immature and unmarketable fish and glut the market, making it impossible for inshore fishers to dispose of their catches.

The fact that our forefathers predicted the eventual outcome of dragger technology 70 years ago makes today's crisis even more of a tragedy.

Fishers vigorously protested the use of this gear because of its potentially negative impact on the inshore fishery.

Nevertheless, after the Second World War, the augmentation of the shore-based, fixed gear fishery with an industrial, mobile fleet became a reality.

Dragger technology was designed to enable the pursuit of a mobile offshore fishery. One of the advantages assumed for this type of gear was the possibility for greater exploitation of fish stocks on a year-round basis.

The technology provided better access to relatively unexploited stocks, thereby ensuring greater profits for its corporate owners.

Side trawlers were common until the late 1950s, when stern trawlers came to be widely accepted as being far superior. In side trawls, the gear is worked from the side of the boat; in stern trawlers, from the stern. The shift from side trawlers to modern-day draggers saw an incredible increase in the catch and carrying capacity of the boats. The side class trawlers of the 1950s had a gross tonnage of 300-500 GT, whereas the newer draggers have a 2,500-4,000 GT capacity.

Modern draggers are large boats, usually 120-160 ft long, with a capacity of up to about 300,000 lb of fish. They generally employ around 16 men who go on 8-25 day trips at sea.

During the peak years in the mid-1980s, boats of Fishery Products International (FPI) would sometimes show up with 400,000 lb of fish on board. This was before certain boxing and icing regulations decreased the carrying capacity of the big draggers.

Draggers are primarily owned by corporations such as FPI and National Sea, although there are smaller draggers in the 65ft range owned by smaller companies.

The fishing technique employed is called otter trawling or dragging, and involves huge nets attached to the boat by cables.

Large metal squares, called otter boards, weighing up to five tonnes each, keep the mouth of the net open.

Channelling fish

The otter boards drag along the bottom, smoothening the way for the gear while also channelling the fish into the mouth of the net. Once a school of fish is trapped between the huge otter boards, escape is unlikely. This type of gear is unselective, both in relation to the size of fish caught and the mix of species. It is also disruptive to the seabed.

From the perspective of the owners, this gear is considered to be more economically viable because it allows exploitation of large volumes of fish in a relatively short period of time with a greater percentage of profit.

One example of this approach is the winter dragger fishery of the northern cod, in which draggers fish the four main spawning grounds of this stock. When the fish notice spawning, they mass together by the thousands. This presents an ideal opportunity to catch most fish at low cost and effort.

The dragger fishery employs a broad range of modern fish-finding aids such as sonar, cableless net sounders, LORAN and automatic course recorders.

The dragger captains have access to scientific information about water temperatures, breeding ranges and other fish habits. This contributes to a highly intensive fishery. That is why modern dragger techniques have been dubbed 'instrument fishing'.

It is interesting to consider the rapacious nature of dragger technology. In terms of who designs, builds and operates the boats, it is an exclusively male technology. It is designed by men, for their own ownership and use. In Newfoundland, the workplace is 100 per cent male.

Dragger fishing approaches a natural resource with very little sensitivity or selectivity. Its main objective is to take what it wants as quickly and brutally as possible.

There is a parallel between this masculine orientation and the approach that many men within our patriarchal society take towards women, children and natural resources.

Table

Two fishing technologies: dragger vs. hand-line

	Dragger	Inshore hand-line
BOAT:	Atlantic Vigour Corporately owned 150-ft steefluill Cost: Can $2 million	Inshore hand-liner Privately owned 22-ft fibre glass hull Cost Can 22-20,000
CREW:	32 men Non-unionized Hired through Nova Services who take percentage of pay	1-2 people, male and/or female Unionized
SALES:	Primarily to own corporate interest	To worker-owned cooperative fish plant
FISHES:	Clams	Cod
GEAR:	Mobile 'track and catch' Offshore and year-around	Inshore fixed (hook-and-line) Seasonally, depending on migratory patterns of fish
CATCH:	May lose all income on occasion due to quality of clams Average catch 250,000-330,000 lbs clams in shell for 20-25 days fishing	Known in th emorning if there is a market for the days' catch and how much can be sold Average catch: 1,800-2,500 lb cod per day trip
FUEL:	Average consumption 375,000 liters per round trip of 20-25 days 1.36 litres fuel to catch 1 lb clam in shell	20 litres of gas per day trip 1 litre of fuel to catch 124 lb of cod

Not surprisingly, in a lengthy discussion of stern trawling, 14 men were reported to have had a frank discussion about the technology, yet not once did they mention the issues of conservation, over exploitation or social impact of the new gear.

Today's dragger fishery no longer involves uncertainty or chance: if the fish are there, they will be found.

As one observer says, we now have the technological capacity to track down the last fish in the ocean.

Dragger technology's effect is felt not just by the target species but by the by-catch species and the benthic habitat as well.

The table on the facing page provides some comparative information about a typical modern dragger and Newfoundland's traditional hook and line technology.

The problem of dragging has been discussed by Jim Beckett, a member of the Canadian Atlantic Fisheries Science Advisory Committee.

He points out that bottom dragging can damage the young of the target species.

It also decreases the survival rate of eggs by dislodging and destroying them. Once detached, the eggs become food for a broader range of predators.

Beckett argues that closure of vital areas to all fishing, or at least restructuring gear type to hook-and-line or floating gill nets, combined with closed seasons, could ease the problem of exploitation, particularly on spawing grounds.

To give an insight into the destructive potential of this gear type, Dr.Leslie Harris describes a mid-water trawl whose opening would allow 16 jumbo jets in a four by four formation to fly through it.

As of today, thanks to draggers, 17 of 20 Newfoundland ground fish species have a lower biomass than is normal, with a dozen of them having the lowest biomass ever recorded.

It is questionable whether or not the northern cod stocks will actually be able to ever recover.

Unwanted by-catch

The only problem that corporations, government officials and scientists will openly admit exists with dragger technology is that of unwanted by-catches and immature fish.

By-catch refers to anything living that gels caught and destroyed in the process of dragging for a target species.

Since draggers scoop up thousands of pounds of fish at a time, all of them under phenomenal pressure as they are dragged board, nothing survives.

Two common techniques used by dragger management officials in order to offset the few government regulations that exist are high-grading at sea and using smaller mesh liners in the cod end.

The process of high-grading refers to the illegal discard of valueless immature fish that are supposed to count against a boat's quota.

While 100 percent observer coverage of draggers was recognised by inshore fishers as one method of curtailing such corrupt practices, it was not until 1991 that this was actually achieved, just months before the moratorium was called.

It is apparent that the potential of draggers to decimate whole ecosystems is virtually unlimited.

This is obvious considering the catching capacity of a trawl, the highly sophisticated fish-finding technologies and the corporate greed that fuels the process.

There is an apparent unwillingness on the part of fishery scientists to err on the side of caution. This seems paradoxical since science preaches the importance of conservation and balance within ecosystems.

Another striking peculiarity of the approach of science to the fishery is that stock assessment in recent years has been based on the catches of the dragger fleet plus two annual DFO surveys.

Rather than judge the health of the stock by natural migratory patterns, it has been judged by the volume of the dragger catch.

Since tracking and catching technologies are so sophisticated, there is no accurate picture of what is truly available, in terms of normal abundance.

The harvesting effort of modern technology, combined with bad science and gross mismanagement, has had a negative impact particularly on women fishworkers of rural Newfoundland.

With the loss of the northern cod fishery, they have lost access to economic activities. Regulatory policies and the moratorium have also hit them badly.

Impact on women

In order to appreciate the impact that the introduction of dragger technology has had no women, it is necessary to take a look at the current status of women who

are either direct wage earners or indirect wage contributors in fishing households.

One could even argue that women's homes and communities have been forced on to the bargaining table by exclusively male unions, government and corporate policy makers.

The re-introduction of dragger technology in the 1950s, which coincided with Newfoundland's modernisation phase, sawwomen alienated from their traditional involvement with the industry.

Women have a major investment in the fishery; their jobs, households and ultimately, their communities are dependent on the health of the fishery.

Fish plants are almost always the largest employers in rural fishing communities, especially of women, and the steady decline in fish landings has meant a decline in fish plant work.

To give one perspective of what the traditional involvement of women was, consider a census taken between 1891 and 1921 on Fogo Island. It shows that the number of women engaged in the fishery at that time ranged from 40.5 percent to 43.4 percent of the total work-force.

It is also notable that, in the 1950s, trapmen of Seldom, Fogo Island, sent out their fish to be cured on a piece-work basis to other outports due to a shortage of female labour in Seldom.

The realisation that women workers were being displaced by overfishing was recorded in a 1991 government survey which discovered that 2,850 plant workers would not be eligible for unemployment insurance due to a shortage of fish landed.

In six of the eight districts where 20 percent or more workers would not be eligible, over half of these people were women.

The political issues at stake get high-lighted when one realises that government officials were aware of impending disaster, yet chose to turn a blind eye to many of the key issues.

Many plant workers who have a lengthy historical attachment to processing northern cod are currently not eligible for compensation due to the restrictive nature of the guidelines, which do not reflect the fact that cod landings have been in decline over the past.

Women are the most poorly compensated since they receive fewer hours of work at lesser rates of pay. 'The average NCARF benefit for female plant workers is Can $254 per week compared to Can S299 for male plant workers.

This decline has resulted in fewer weeks of work for thousands of people each summer. The federal government, in drawing up qualifying guidelines for the Northern Cod Adjustment and Recovery Program (NCARP), ignored one crucial fact.

This was that plant workers were findings it increasingly difficult to obtain unemployment insurance.

While fishers have always had the ability to manipulate the unemployment insurance system either by general averaging of their earnings or by transferring catches into the accounts of other fishers, plant workers have never had this advantage.

Loss of earnings

They have lost innumerable weeks of earnings because they can not hold back hours of work until they have enough in for a stamp.

Women are the most poorly compensated since they received fewer hours of work at lesser rates of pay. The average NCARP benefit for female plant workers is Can $254 per week, compared to Can $299 for male plant workers.

Single-parent women can wind up needing welfare benefits to top up their

NCARP wages. One woman with five children and no spouse support gets NCARP benefits worth Can $900 per month.

There is no recognition at all of women's 'ground crew' contribution and the undeniable amount of work they do within fishing households. Wages for housework and reproductive activities remain well outside the realm of reality as far as policy-makers are concerned.

Although there are now laws that recognise women's domestic labour through financial recompense in divorce settlements, the recognition seems to end there.

It is assumed that if the needs of the male head of the household are met, then surely all needs have been addressed. Household issues are not addressed, nor are some of the broader issues of community survival.

The current provincial government's commitment to downsizing the industry by half or more will leave communities economically devastated.

Many single-industry towns depend on the fishery as the sole source of employment. The closure of plants will mean huge losses to these communities and their residents.

While fish landed may be trucked around the province on a daily basis, a work-force is not nearly as mobile. Traditionally, men are more able to travel for work, have more transferable skills and are not burdened with the responsibilities of care-giving and home maintenance.

Women, on the other hand, look after children, extended families and the home. Many women are single parents, relying heavily on family and friends to help with child-care.

After the economic backbone is removed from many small communities through plant closures, economic pressures may well force mass compliance with what could easily be labelled forced resettlement. It can be argued that women have the most to lose from this process.

This article is written by Vicky Silk of the Canadian Oceans Caucus.

A new role for fisheries

The Namibian economy is moving away from its traditional mainstay, as it discovers the growing importance of fisheries

As Namibia revels in its hard-earned independence, its new vigour is fast being tempered by some hard economic realities.

The traditional backbones of its economy-mining and farming-are crumbling, with recession throwing thousands out of jobs. But the bright side of the picture is the growing shift to fisheries as the focus of economic growth and more jobs.

According to the South African Journal **Shipping News and Fishing Industry Review,** fish stocks off the Namibia coast have more than doubled since independence. This is due to the SWAPO government's improved management of access to the nation's fishing zones.

Previously, foreign trawlers—mainly Russian, East European and Spanish—had a virtually free run of Namibia's seas. They poached fish, froze them on board and transported the catch home for processing. Namibians benefitted little from all this activity.

Now, however, things are changing. Growth in the fisheries sector is impressive. In 1990 it contributed three per cent to the country's GDP, or R450 million, up 200 percent over 1989. In 1991 the share of GDP rose to six per cent and almost doubled the next year.

Estimates for the long term place the annual fish yields at nearly a million tonnes. This will fetch a revenue between R 0.8 billion and R 1.2 billion. Analysts expect a rise in the stocks of high-value hake and pilchard, while those of horse mackerel will decline.

Despite this cheery prognosis, the Namibian fisheries sector is hampered by poor production and marketing facilities. This could upset the country's hopes for greater export earnings.

The SWAPO government hopes to tackle these issues. It would like to see more of the catch processed on shore. It is also negotiating a Fisheries Agreement with the European Community (EC). This might not only create more jobs for Namibians but also bring in new joint ventures with European fish and food companies.

As things stand now, European fisheries policies threaten the fisheries and fish workers of coastal African countries like Namibia. This was spotlit recently at the 'Battle for Fish' Conference organized in Brussels by the Coalition for Fair Fisheries Agreements (CFA).

George Gavanga, branch secretary of the Namibia Food and Allied Workers Union (NAFAU), pointed to the need for joint venture enterprises to guarantee that Namibians are not restricted to manual labour aboard fishing vessels. They should instead receive secure contracts of employment, with scope for training and promotion.

But, unfortunately, inequity persists at home too. The Namibian Marine Law bans strikes at sea. It thus gives the fishing vessel's skipper the right to hire and fire fishworkers at will.

Often no link

Further, there is often no link between those working aboard the vessels and those in the factories on land, although they are employed by the same company.

There are other specific problems. In Walvis Bay, for instance, some employers seek shelter behind South Africa's claim

over the enclave and insist on the use of South African laws. In order to win higher wages and better working conditions for Namibian fishworkers, NAFAU has been negotiating with most fishing companies in Walvis Bay.

Though the union was formed in September 1987, it has been able to negotiate only since November 1992. Before that it was neither recognised nor registered in South Africa as a workers' representative.

Meanwhile, even as these obstacles persist, more and more Namibians are discovering the economic fruits of fisheries. The small seaside resort town of Henties Bay, for instance, recently saw the birth of the Indileni Community Enterprise.

This is a fishing co-operative project which controls and regulates the fishing activities of its members. A member is allowed to catch 30 fish or 30 kg of fish per day, or 60 fish or 60kg per vehicle.

The fact that black Namibians can now share in the earnings from fishing is a great and lasting encouragement. No one misses the old days when their participation was confined to passively helping out visiting South African anglers. Today Namibians are themselves fishing for a brighter future.

This article is based on the March 1993 Special Fishing Issue of *Namibia Development Briefing*, brought out by the Namibia Support Committee, UK and the Namibia Non-Governmental Organisation Forum

Common policy, uncommon muddle

The EC's Common Fisheries Policy is riddled with perilous implications, as protesting UK fishermen stress

As UK fishermen protest against their country's 'tie-up law', it is clear that all is far from well with the Common Fisheries Policy (CFP) determined for all European Community (EC) member states by the Commission of the European Communities (CEC). In December 1993, the British government withdrew its planned imposition of the controversial 'tie-up law', pending the judgement of the EC court in Luxembourg.

The CFP is based on the concept of a 'common fishing pool'. This includes all the coastal and 'territorial' seas of member states, and those within the Exclusive Economic Zone (EEZ) of the EC.

The EC's fishing pool is divided into discrete 'fishing areas', with specific stocks identified in each area. There are also 'fishing effort' limits and fishing quotas set for each area.

Fishing effort is based on gross registered tonnage (GRT) and horsepower (HP) of fishing vessels. Quotas are set for each individual stock. These are based on the recommendations of scientists who monitor catches (and thus, stock size).

They also scrutinize 'recruitment' to the fishery, i.e. estimates on how stock size will change in future years according to spawning population size and survival of young fish to the adult, or 'fishable',size.

There are also regulations set for the kinds of fishing gears which can be used (generally based on mesh size), fishing seasons and minimum landed size (MLS) for each species.

Each member state is allocated a share of the EC's fishing pool and the CEC sets limits on member state fishing capacity. Shares and fishing capacity are based on traditional fishing areas, fleet size, catch levels and bargaining power, among other factors.

The CEC in Brussels delegates to each member state the responsibility for the structuring of its fishing fleet to within the limits set for the fishing effort. It also allocates 'stock licences' to each member state. These establish the catch limits on each stock that can be taken from particular fishing areas.

Two of the principal methods for conserving fish stocks—the setting of overall catch limits (Total Allowable Catches-TACs) and individual size limits (MLS) for specific stocks—seem only to be resulting in large quantities of fish being dumped at sea or finding their way into the market illegally as 'black fish'.

The market for 'black fish' is causing serious concern for the catching and processing industries. 'Cheap' fish floods the market, depressing prices and making less of fish available for legal processing.

Bypassing auctions

It is claimed that much of the best quality fish is bypassing the legal auctions, and that many of the main landing ports are becoming dumping grounds for poor quality fish. Depressed prices in Europe have led to many violent protests against foreign boats landing fish.

In Brussels, EC bureaucrats are planning to reduce the fishing fleet by at least 40 percent, to match fishing effort to the catch limits set. Multi-Annual Guidance Programmes (MGAPs) have been devised and established for each member state.

These 'recommend' the levels of fishing effort a national fleet should apply within allocated fishing quotas.

This will involve significant decommissioning of vessels, cut-backs in fishing time or redeployment of vessels to other fishing waters (the waters of the South are a particular target for EC vessels).

Alongside MGAPs, the CEC has established 'decommissioning' grants for each member state, to help remove excess fishing capacity. In this, some states fare better than others.

For example, the MGAP for the UK calls for a 19 percent reduction in the number of boats over the next five years, but decommissioning grants fall far short of requirement.

Fishermen claim these targets are excessively harsh, and will be a disaster for the 4,500 boats and the 20,000 fishworkers employed aboard the UK fishing fleet.

In the case of the UK, the CFP is implemented through the Sea Fish (Conservation) Act and each 'Producer Organization' (PO) is allocated quota shares and fishing effort limits.

One of the corner-stones of the Act is the so-called 'tie-up law', the 1993 Sea Fish Licensing (Time at Sea) order.

Through this, the British government hopes to achieve the fleet reduction specified in the MGAP by limiting the number of days each vessel spends at sea. This time includes actual fishing time as well as 'steaming' time to and from fishing grounds.

The number of days each vessel is allocated varies with size and fishing regime, among other things and ranges from 80 to 250 days. In England over half the fleet have been given the minimum of 80 days, while in Scotland about 30 percent have received the minimum.

But UK fishermen are far from happy. In the early part of 1993, they captured British news headlines by protesting against the 'tie-up law'. Many ports were blockaded, shipping was disrupted, civil disturbance ensured and several arrests were made.

By June, these angry and rather ad hoc protests had become more organized and structured campaigns. The fishermen's organizations took legal advice. Based on this, they are now challenging the tie-up law.

Given that matters of EC law are involved, the case is likely to be referred to the EC court in Luxembourg. The proceedings could take up to two years to be resolved.

In the early part of 1993, UK fishermen captured British news headlines by protesting against the tie-up law'. Many ports were blockaded, shipping was disrupted, civil disturbance ensued and several arrests were made.

Meanwhile, the fishermen's wives organized an awareness and fund-raising campaign ('I'm A Fisherman's Friend') to support the legal campaign and to raise a 'fighting fund' to pay for the legal costs.

The Scottish Fishermen's Federation (SFF) hired an advertising agency to mount a media campaign in support of their cause.

In the mean time, in July 1993, the House of Commons Agriculture Committee observed that the 'days at sea restrictions applied to the whole fleet over 10m are unnecessarily draconian and amount for little more than decommissioning'.

Financial implosion

Its report ('The Effects of Conservation Measures on the UK Sea Fishing Industry') goes on to say that it could result in 'a catastrophic financial implosion, causing UK fishermen to sell pressure stock licences to foreign fishermen'.

'Pressure stocks' are those fish stocks considered to be under excessive fishing pressure, as opposed to'non-pressure stocks'.

The National Federation of Fishermen's Organisations (NFFO) is the apex body of all English fishermen's organizations.

It, along with the SFF, which represents the Scottish fishermen, have prepared packages of alternative measures to the Sea Fish (Conservation) Act.

Both federations propose new technical measures, closed areas and changes to licence aggregation rules. Both also argue for more decommissioning money.

The NFFO proposal contains a very comprehensive range of technical measures, tailored for different regions and fishing methods. These centre on:

- increased mesh size and separator trawls to improve selectivity, especially of vulnerable species and compulsory square mesh panels (in trawls).
- widespread increases in minimum leading size of fish and shellfish and a ban on the landings of ungutted fish.
- the setting up of protected areas to protect spawning and juvenile stocks.
- tightening up the existing licensing scheme.
- more decommissioning money, including the use of funds returned to the Reasury from taxes on the EC scheme and savings on enforcement costs following the abandonment of the 'days at sea' regime.

The NFFO argues that 'despite the economic dislocation, and bureaucratic intrusion generated, (the CFP) will not deliver significant conservation advantages'.

As for the SFF proposal, amongst its most radical aspects are the suspension of the white fish TACs and quotas for one year, and permission for the fishermen to land and sell all they catch over the legal minimum size.

To replace the TACs, the SFF proposes to limit fishing effort through a fair 'days at sea' system. It also proposes shifting management from controlling the output of fishing to controlling the input effort.

The other aspects of the proposal include:

- a properly funded decommissioning scheme
- an immediate review of the MGAP
- further technical conservation measures, including regulating mesh size and shape (a mix of

diamond and square mesh panels in certain types of trawls).

- achieving reduction in fleet tonnage through revised capacity aggregation rules on licences.
- licensing the shore-based industry (salesmen, transporters and buyers)
- establishing closed areas

These important grassroots fishermen's initiatives represent serious alternative measures to the fisheries legislation imposed through centralized non-consultative EC processes from Brussels.

There are certain aspects of the proposals which could be implemented unilaterally by the British government. This may encourage similar initiatives to be taken by fishermen's organizations throughout the European Community.

This would call for a fundamental rethinking of the way the CEP is formulated and implemented.

However, some of the more radical proposals, such as the SFF's proposed moratorium on quotas, and the call for closed areas, can only be implemented if agreed to by the EC.

Evidently, the British government did not introduce the 'days at sea' regime to conserve fish stocks. Rather, it was merely a means of meeting the MGAP fleet reduction targets imposed by Brussels.

Given this fact, it would seem unlikely that the UK will take unilateral action in support of its fishworkers.

The high-handed actions of British government officials have not only backfired, but have also served tounite the fishing community struggle to protect their livelihoods.

This article is written by Brian O'Riordan of the Intermediate Technology Development Group, Rugby, UK

No cosy relationship

Fishing agreements between the EC and ACP countries are beset with problems, as the experience of Senegal reveals

Some developing countries which are signatories to the Lome Convention and are called the ACP (Africa, Caribbean and Pacific) countries have also signed fisheries agreements with the European Community.(EC)

The EC maintains two types of relations with these countries in the fishing sector commercial ones throught the signing of these agreements, and relations of co-operation through the Lome Convention.

This double relation poses problems of coherence in development decisions and policies since they lie across two grids of the relationship which clash at several points.

Both partners—EC and ACP—need to emphasise the importance of the fishing sector in their national economies and markets.

For the ACP countries, this sector is as, or even more, essential for nutritional reasons as for economic ones. The sector is marked by the importance of artisanal and traditional fishing, the level of technology, low initial investment and a large work force.

A typical bilateral agreement is characterised by the payment of financial compensation, to which are added dues paid directly by vessel owners who have been granted fishing licenses.

In 1991 there were 20 fisheries agreements between the EC and ACP countries. That year the EC spent 195 million ECU—more than half its budget—for fishing.

The EC wishes to increase the number and importance of such agreements since it is difficult to get into similar agreements with other countries like Canada and the United States. Further, EC waters are over exploited, while the demand in the domestic market is only growing.

Some agreements are being currently negotiated (as with Namibia) or being reviewed (as with Senegal). These are pending the deliberations of the joint EC/ACP Commission on fishing which considers unacceptable the conditions set by the ACP countries.

Despite the importance of these agreements for both the EC and the ACP countries, it is surprising that there is a dearth of documents evaluation them. Nor is there any appropriate methodology to assess these agreements.

The experience of Senegal is typical of EC ACP fishing agreements. The first agreement with Senegal was signed in 1979, before the EC's Common Fisheries Policy.

Senegal has 47,000 artisanal fishermen. They comprise over seven per cent of the active populations and bring in more than 70 per cent of the total volume of fish caught and over half the commercial value of this catch.

Economic analysis

The Senegalese Institute of Agricultural Research in association with the Dakar Thiaroye Centre for Oceanographic Research (CRODT) attempted to assess the situation.

Its study, published in 1991, analysed the economic benefits for Senegal of agreements with the EC.

But, unfortunately, only state accounts are analysed. There is no mention of the number of jobs created, the cost of

equipment and repair, aspects of processing and packaging, among others.

On the positive side, signing these agreements helped the country's balance of payments to the tune of approximately 41 million ECU. The financial compensation by the EC represents a mere 10 percent of this total.

Under the agreement, Senegal will provide aid and subsides to foreign owners, like a reduction in tax on marine diesel fuel (thus undercutting fuel pricing in the local market).

In 1987 these subsides amounted to 5.5 million francs, almost as much as the sum paid by EC ships for fishing licences.

The norms for investments have been greatly relaxed to favour vessel owners who have the freedom to transfer the capital and income generated. The effect on the creation of jobs was minimal.

In 1987 the number of Senegalese sailors working on foreign fishing vessels was only 1,482 scarcely three per cent of the total number of seagoing fishermen in senegal. Furthermore, the handling of fish landed by the foreign fleet accounts for a mere 10 percent on the activity of the post of Dakar.

There are several stumbling blocks in the path of artisanal fishing in certain ACP countries as a result of these agreements. This is clear from Senegal's experience.

The Commission states it has not been officially informed by the authorities of ACP countries of offences committed by EC vessels. But numerous on the spot witnesses point to loss of equipment and above all, human life—suffered by small craft from collisions with foreign industrial vessels.

A recent study of CREDETIP of Senegal indicated such widespread damage 48 seagoing fishermen died on 1990-91, following collisions with industrial vessels. These collisions took place both within and outside the zone reserved for artisanal fishing.

The growing scarcity of catch forces pirogues to travel ever increasing distances away from the coast. Further, in Senegal EC trawlers and authorised to fish in a zone beyond about six nautical miles.

Taken hostage

Senegal has also seen an instance when the owner of a trawler was taken hostage after he was found fishing in a zone reserved for artisanal fishing.

Apart from his disrespect for the traditional zones of artisanal fishing, the sector is also hampered by the poor level of funding and research. Artisanal vessels are badly equipped or often not provided

at all with equipment for security and safety at sea.

Senegalese fishermen set out in undecked boats for trips lasting five to 10 days, with no navigational instruments or signalling devices. Accidents with trawlers outside the artisanal zones are often the result of this. The lack of refrigerators or isothermic cases leads to a large amount of post-catch loss. Moreover, conditions of hygiene aboard these craft are often deplorable.

The operation of industrial fleet causes over exploitation of resources. In Senegal the ratio of fish rejected to fish retained by trawlers is 2.5 in hot season and 1.6 in the cold season. This, therefore, means that at certain periods of the year, industrial fishing rejects 2.5 times more fish than it effectively preserves. A recent study by CRODT estimates that all fishing ground in the Senegalese plateau are at the limit of exploitation and there is there fore the risk of diminishing supplies.

Many ACP countries have poor means of control and surveillance to carry out regulations. In Senegal, due to the lack of official services, the traditional fishermen themselves have created look-out brigades to control the entry of trawlers into zones reserved for artisanal fishermen.

Within the framework of the fishing agreements, joint ventures have been developed in the ACP countries. The Mellick Plan envisages a reduction in fishing effort in EC waters through the transfer of fishing vessels via these joint ventures. Thus; the fishing company ACF (Armament Cooperatif Finisherien) is to receive a sum of 4.5 million ECU for transferring three trawlers to Senegal for hake fishing. This represents the equivalent of a third of the total aid paid to Senegal in financial compensation and still only covers the transfer of three vessels.

The diminishing fish resources result in considered reduced earnings for both artisanal and industrial fishermen. This, inturn, has dramatic, though little known, social results. After a trip to Senegal, the testimony of the Comite Local des Peches du Guilvinec in France conveyed the opinion of EC fishermen. A gilt head fish bought for eight francs a kilogram from a Senegalese fisherman arrives on the Paris market costing 44 francs and Breton fishermen auction the fish at prices starting at 90 francs.

Without calling into question the use of industrial fleets in ACP countries and the foreign exchange this generates, several steps must be taken by the EC to carry along artisanal fishing in the process of development, thereby helping populations who live off the sector.

A support fund for artisanal fishing must be created within the framework of the Lome Convention. This will provide access to credit for equipment and infrastructure as well as funding for professional organisations. It is necessary to strengthen the presence and participation of professionals in defining fishing policies and notably when signing agreements with the EC.

Means of control and survelliance of foreign fleets fishing in ACP waters must be developed. Research work in ACP countries should be oriented towards the study and support of artisanal fishing. Within the framework of the Lome Convention, an observatory on artisanal fishing can be set up in ACP countries to collect data, analyses and studies aimed at decision-makers.

Other forms possible

Despite the problems that abound, examples, from outsides the ACP region show that the development of the fishing sector can also come about through a recognition of the role of artisanal fishing in the process of economic and social development. It is possible to create other forms of organisations and relations different from the often too unbalanced ones prevailing in the ACP countries, which stand alone against the EC.

This piece is abridged from a study by Dominique Corlay for the Comite Catholique Contre La Faim et pour le Developpement (Catholic Committee against Hunger and for Development)

Fish as food

Not by fish alone

Alongside the tradition of Japan's fish-eating culture lies the fact that it is the world's largest market for seafood

On the global fisheries scene, Japan's presence is colossal and inescapable. Japan accounts for a third of the worked trade in seafood, importing more than four million tons of fishery-related products from over 120 countries each year.

As a seafood market, Japan is particularly attractive for its prices. On average, the unit price for imported marine products is double that prevailing elsewhere in the world.

While the world's fisheries produced 96,925,900 tons of seafood in 1991, the Japanese consumed 12,202,000 tons. Of this 2,850,000 tons were imported.

As one Japanese observer notes, It is not an exaggeration to say that how we eat fish affects the world's marine ecosystem and also the people who are dependent on them.

Yet such anxieties about managing and restricting the country's fisheries sector to cope with these repercussions are not widespread in Japan. Instead, they are often brushed aside on the ground of Japan's tradition as a fish-eating culture'.

The growth in Japanese fish production had three district periods. At the beginning of the century, during the Meiji era, Japan's fish production was 1,570,000 tons. Within one century the production rose fourfold.

The first phase of growth, when motorised boats were introduced, lasted until the end of the Second World War. The production then amounted to four million tons.

The second phase, marked by the advent of distant-water fishing, ended in the mid 1970s. By then production was close to 10 million tons. The third phase of growth saw production exceeding 12 million tons, thanks mainly to the increase in catches of pelagic species like mackerel and pilchard.

Larger boats, bigger gear and greater freezing capacity expanded the domestic market too, bringing into its grip even remote rural areas. Previously discarded whale and tuna meat now came to be sold as 'fish sausages'.

During the 1970s the annual per capita fish consumption was 38.9 kg. By 1989 this had almost doubled to 72.1 kg.

By then Japanese distant-water vessels were already losing their fishing grounds abroad. At one time their contribution to the national fish production was close to a third of the total. As this share declined rapidly, Japan's officials and companies were quick to bemoan the loss.

But there was hardly any discussion on how this might have come about through oversupply to the domestic Japanese market itself or how the market could have changed to help create a 'fish-eating culture'.

Joint ventures

The decline in the production by distant water vessels necessitated greater imports into Japan.

To retain access to fishing grounds, distant-water fishing companies themselves established joint ventures in the coastal countries they operated in.

The Japanese government grants special import quotas to such joint ventures. Some analysts believe that the rapid growth of imports into Japan during the

1970s resulted from this significant shift from national distant-water fisheries to joint venture companies.

With more of pilchard being caught by large-net purse-seiners and round haul nets off-shore, the share of pelagic species in the total catch increased.

In 1975 the catch by these two types of gear was two million tons. This rose to 5.4 million tons by 1986. Of this more than three million tons were of a single species of Japanese pilchard.

Nonetheless, more that a third of the national production of fish (9,268,000 tons in 1991) is not eaten by humans. Over two-thirds of the pilchard caught went to produce fish-meal, which was then used for fertilisers and cattle feed. Non-human consumption of fisheries products rose from a million tons in 1960 to 2.4 million tons in 1974 and 3.9 million tons in 1991.

But now production of pilchard has dropped 20 percent, from 4.5 million tons in 1988 to 3.5 million tons. This has hit fish-meal producing companies. It has also led to more imports of fish-meal.

Today the official fisheries policy in Japan is said to be geared towards encouraging development based on 'resource management'. This is supposed to include in its ambit farming, nurturing, hatcheries, biotechnology and the construction of fish reefs in coastal areas.

Nevertheless, it has had little effect. Japans coastal environment remains destroyed and unfit for the survival of shellfish, for example. This renders ineffective the hatcheries meant for abalone and other types of shellfish.

Some fisheries analysts predict a global supply shortage of 25 million tons in the next century. This is ironic news for a country which is said to have the world's most productive fishing grounds and the sixth largest exclusive economic zone.

The question clearly is: How will Japan cope with the challenge of increasing production without sacrificing the various needs of the different sectors of its fishers?

This article is written by Naoko Kakuta of Greenpeace Japan

Sulawesi fisherfolk

A bridge to remote communities

Through bottom-up planning, an NGO in Sulawesi shows how to bridge the gap between government and remote local communities

On a map, the 13,000 or so islands that comprise Indonesia seem strategically placed like so many stepping stones bridging the ocean that divides Singapore and Australia. West to east they straddle 5,000 km of sea, from the Straits of Malacca a just north of the Torres strait. And north of south, they extend over 2,000 km, from the southern shores of Sumba to the northernmost point of Sumatra.

The island of Sulawesi—formerly Celebres—lies at the very heart of this sprawling archipelago, stretching across the equator like a dancer.

It has for centuries been home to the seafaring Bugis people. Their reputation as highly able sailors and navigators, skilled fisherfolk and expert boat builders is legendary.

The southern part of Sulawesi (Sulawesi Selatan) produces the largest of Indonesia's proud *pinisi perahus*—huge sailing craft which trade in all manner of goods throughout the multi-thousand is-land archipelago, but which are rapidly dying out as motorisation replaces sail power.

The rich diversity which characterises In-donesia—over 300 ethnic groups speaking more than 250 languages—is reflected in microcosm in the island peoples and the ecology of Sulawesi.

On the extreme southern tip of eastern Sulawesi is Kolono Bay. It comprises a narrow channel about 15 miles long and two to three miles wide, lying in the lee of the northern tip of the island of Button (Pulau Butung).

The western side of the bay offers little shelter, being bordered by steep hills and dense forest. The breeze tends to whip up a wild and choppy sea over the long fetch of the bay.

This makes venturing out in small boats an arduous and hazardous task, fraught with the risk of capsize. The long fetch and lack of shelter render most of the bay an insecure anchorage.

Towards its northern end there are tidal mud flats which at low tide stretch up to 500m into the bay. The eastern side is a maze of tidal channels, mud flats and dense mangrove forests, which are home to a rich and unique fauna and flora.

The combination of highly productive mangrove swamps and shallow seas reaching far offshore, multiple coral reefs and small islands provides for a rich and diverse fishery.

The people who live in this area fall into three main groups. The indigenous people—the Telakis—follow a traditional way of life based on shifting 'slash-and-burn' agriculture and fishing.

There are two groups of immigrants—the Bugis and the Bajos—who are mainly seafaring coastal people deriving their livelihood from the sea.

Subsistence livelihood

They operate the hundreds of lift net platforms which cluster around the shallow sheltered coastal waters, often many miles offshore. While they also works as crew on the perahus trading inter-island, they mainly derive a subsistence livelihood from the sea and the coastal belt through a diverse range of fishing and farming activities.

The Department Perikanan (Department of Fisheries) works with community

groups throughout the Kolono Bay area. Its activities incorporate the usual services of a government fisheries department.

In his particular area, a British NGO, Voluntary Service Overseas (VSO), provides advisory services through a VSO Fisheries Specialist, Dr Steve Creech. He is on a two-year assignment to help the Department Perikanan to improve its 'bottom-up planning' mechanisms.

One of the specific problems faced by the department is that its headquarters staff (who are responsible for managing its programmes of work) live in the regional capitals, which is a four to six hour drive over rough terrain from the field projects.

This situation has les Dr. Creech to place more emphasis on working directly with the fishing groups, supporting their organization and strengthening their in situational structure.

The department has established a prawn hatchery for tiger prawns (*Penaeus monodon*) and is encouraging fishing groups to build prawn ponds in the lower tidal areas of the mangrove swamps.

However, there seems to be a conflict between this activity and a central government decree which prohibits the clearance of mangroves for any purpose. The clearance of mangroves for prawn ponds is a violent and destructive process. Trees have to be felled to allow for access. For each pond, up to one hectare of mangrove has to be completely cleared.

It is not possible to extract and use timber for productive purposes, given the distance of the prawn ponds from the centres of population.

Thus, from the magnificent 40-60 ft high trees, the potentially valuable mangrove wood is simply cut up and burned on site. The fishing groups who build these ponds are very aware of the need for a rational policy on conservation.

They are thus actively lobbying the Department Perikanan to establish conservation zones where the construction of prawn ponds will not be allowed.

in the short term, the unrestrained destruction of one of the most valuable coastal habitats may not have a serious impact on the larger environment. But unless action is taken now to establish a rational conservation policy, the longer-term capacity of the coastal environment to provide a sustainable livelihood will be seriously threatened.

In many of the communities around Kolono Bay, there is a well-structured division of labour. Men involve themselves with sea-based tasks and women take responsibility for

shore-based tasks like making nets and marketing fish.

Traditionally, much of the catch is dried on simple reed mats. While this technique has the advantage of using locally available materials of low cost, it is relatively labour-intensive and the quality of the product is quite poor. The fish have to be regularly turned to expose their lower sides to the sun and air.

This demands constant attention and labour. When it rains, the mats are rolled up and stored under or inside the houses. This rolling up of the mat crushes and misshapes the fish, resulting in much spoilage and wastage.

The VSO / Department Perikanan project is supporting a local initiative in the Bugis village of Warwaranu, where a group of women has come up with a novel method of fish drying. Their idea is to substitute the traditional reed mats with small-meshed netting, which is spread over 2 x 1.5 m wooden frames raised one metre off the ground.

This system allows for even drying of both sides of the fish. In case of rain, the frames can be stacked underneath the Bugis houses (which stand on stilts) or covered with plastic sheeting.

There is almost no wastage of fish dried by this method and improvements in quality mean that the new product commands a 70 percent premium over the old one. Moreover, the new system of drying is only marginally more expensive than the traditional system.

These community-based project activities seem to be making an important contribution. They strengthen the local communities' capacity to initiate and implement their own projects.

At the same time, these activities help them voice their concerns and needs to those in positions of authority.

Hopefully, the bridge that VSO is trying to build between these remote communities and the government fisheries department will enable their voices to be heard.

This article, written by Brian O'Riordan of the Intermediate Technology Development Group, UK. is based on a short visit to the south-east part of Sulawesi island.

Batticaloa district

Fishing to the tune of gunfire

The ethnic conflict in Sri Lanka has ruined the traditional livelihood of fishing families in Batticaloa

The fight for a separate Tamil state in the north and east of Sri Lanka has continued throughout the last decade, affecting all sectors of society. In Batticaloa district, since 1990, thousands—civilians well as armed forces—have been killed or injured, hundreds detained and probably over a thousand have disappeared.

Many young men have joined one or other of the armed forces. Everyone has been affected. Children have grown up knowing only war.

Batticaloa district in north-east Sri Lanka has a 120-km coastline, three lagoons and 200 irrigation tanks. Naturally, it has a large fishery resource. This implies a significant potential for economic growth and social well-being.

However, with a population of 420,000, the district has the lowest per capita income in Sri Lanka, its lowest literacy rate (66 percent, against the national average of 86 percent) and the highest drop-out rate from schools.

Batticaloa has a majority Tamil population (71 percent) and a considerable Moor population (24 percent). At three per cent, the Sinhalese are a minority. More than a third of the people are involved in fisheries (in the lagoons, sea and inland) and associated activities. Batticaloa is famous for its tiger prawns, which are caught in the lagoons.

Possibly due to the easy access and lower expenditure required for lagoon fishing, there has not been a long tradition of fishing in the sea.

Until 1982, marine fishing was mainly done by migrant Sinhalese fishermen from the south and Mannar, using labour from Batticaloa. Many coastal fishermen from the south migrated to Batticaloa for six months during the south-west monsoon and supported a second family there. This tradition declined with increased mechanisation of craft, which made fishing possible during the monsoon and high winds.

The breaking out of the conflict ensured that Sinhalese migrant fishermen no longer visit Batticaloa. This ended a mutually beneficial relationship.

Soon the temporary settlements of the Sinhalese fishermen started to become more permanent structures and they were provided with a police post for 'security reasons'.

The migrants then came to be regarded as part of the state's plan to 'colonise' Batticaloa. They thus became targeted for anti-Sinhala action.

From the mid-1950s, the Sri Lankan government tried to improve the productivity of the fisheries sector throughout the island by mechanising existing craft, introducing new ones and popularising improved fishing techniques.

This was mainly to curb the import of fish and to improve the nutritional level of the population—70 percent of the animal protein consumed locally was from fish. The state concentrated on the coastal, off-shore and deep sea fishery.

Local production rose

By 1982, imports were still high. Although local production had risen significantly, with production had risen significantly with increased deep sea, offshore and coastal catches, demand had also grown with the population. The shortage in

supply led to higher prices and traders increased their margins.

It was sometimes felt that fishermen is land wide did not benefit from these increased prices. But it does seem that both boat owners and crewmen on motorised craft had annual incomes considerably higher than comparable socio-economic groups such as owner-cultivators. Only crewmen on non-mechanised traditional craft earned incomes similar to those of agricultural workers.

Despite these relatively high incomes, fishermen tended to fall increasingly into debt. This was probably due to a high expenditure on consumption—on clothing, recreation, education and 'luxuries', as well as food and drink. They tended not to save cash, perhaps because of their irregular and seasonal income.

Major repairs to craft or replacement of gear were often financed through credit, which would normally be settled at the end of a good season. The more affluent fishermen tended to move away from the industry.

The fisheries sector did not attract new entrants. Fishing was seen as a caste-based vocation practised largely by the Karayar in the Tamil community (and the Karawa in the Sinhalese). Customary fishing rights were vested in fishing communities. Outsiders were not allowed to fish in community fishing grounds and labour was recruited from within the community itself.

It seems the government's objectives of minimising imports and improving the national nutritional levels are not being met—SL Rs727 million worth of canned and dried fish were imported between January and June this year. Short supplies and high demand have pushed the price of fish well beyond the reach of the poor in the country.

From the fishermen's point of view, higher prices have compensated for decreased catches, but their standards of living remain low due to the unpredictable and seasonal nature of income.

Many fishermen have been killed in the past decade by the Si Lanka Army (SLA) or the Liberation Tigers of Tamil Eelam (LTTE). Many fishing communities are far from urban centres and are sometimes the target of security operations and consequent round-ups.

Women rarely involved

In batticaloa, women are rarely involved in fishing activities. If the father in the family used to be a breadwinner, and is killed or missing, the mother and children have to somehow find enough on their own to survive. The extended family helps

if it can. Often, women have to find new ways of earning money and children have to drop out of school to fetch some extra money or look after their younger brothers and sisters.

In September 1993, over 36,000 people in Batticaloa were registered with the government as displaced—either living in or outside refugee camps.

Those so registered receive dry rations from the government, as they are usually not able to carry out their normal means of earning a living.

Among the displaced are many fishing families. Those still living in camps tend to be the poorer ones. A number of young men and women from the wealthier groups have gone abroad.

In one village, five boats and gear remained unused as everyone in the family who might use them had emigrated to Western countries; the families were merely keeping the equipment until the residency status of their children abroad was confirmed.

The result was reduced employment opportunities for fishworkers in Batticaloa. In one of the traditional methods of fishing—beach-seine or karai valai—Sinhalese migratory fishermen used to come to the east coast with a skeleton crew and employ up to 60 Tamil fishworkers on a karai valai. Since June 1990, the Sinhalese migratory fishermen have not come to the Batticaloa coast. The government has not reallocated the karai valai fishing sites to others. This renders an estimated 3,000 or more fishworkers unemployed.

The sri Lanka government is encouraging all displaced people to return to their homes, when these are in 'cleared' areas—where the state security apparatus feels it is in control rehabilitation can be implemented.

Those who do resettle receive several grants, including a SL Rs.2,000 resettlement allowance, a SL Rs.4,000 productive enterprise grant and a SL Rs.15,000 reconstruction grant. Not all of these are available immediately on resettlement, as the government departments do not have enough money.

For security reasons, the SLA has not yet allowed some of the resettled fishing communities to begin fishing again. They have to find alternative ways of making a living, as dry rations are only supplied for three to six months after resettlement.

Property destroyed

Fishermen's property and productive as sets, including boats, have been destroyed (see Table 1).

Several government and non-government organizations have helped replace boats and gear through grants or loans. Many fishermen are unwilling to take loans to replace their boats. They fear these will be

Table 1

CRAFT IN BATTICALOA DISTRICT

Craft available (July 1993)	Number	Craft Lost (1978-1992)	Number
3.5 ton mechanized boats	133	3.5 ton mechanized boats	14
17-23 ft fibreglass boats	122	17-21 ft fibreglass boats	120
Lagoon *thonies*	1,413	Outboard motors	46
Sea *thonies*	407	Lagoon canoes	2,015
Madal *vallam*	253	Sea-going craft	410
Theppam	15	Beach seines	75

Source:Batticaloa Kachcheri (District Administration Centre)

Table 2

FISH PRODUCTION IN BATTICALOA DISTRICT
(figures in metric tonnes)

Year	Marine	Lagoon	Crab	Prawn	Cuttlefish	Total
1980	6,675	402	22	48	8	7,137
1981	8,837	375	18	94	11	9,335
1982	9,283	342	24	81	9	9,739
1983	4,098	271	9	22	5	4,603
1984	3,582	360	15	37	14	4,008
1985	3,256	375	16	69	11	3,727
1986	3,356	142	12	74	19	3,503
1987	3,382	141	9	29	15	3,576
1988	3,432	207	13	19	16	3,687
1989	3,218	223	17	23	19	3,500
1990	2,938	21	6	21	7	2,983
1991	1,472	310	48	30	36	1,896
1992	2,380	368	20	30	9	2,807

Source: Batticaloa District Fisheries Extension Office

destroyed again, leaving them with an outstanding loan they have no means of repaying.

Both the Indian Peacekeeping Force (IPKF) and the SLA imposed security zones in coastal areas and lagoons at different times.

This was because the LTTE used these to transport men and materials. A near total ban on night fishing in the lagoon was also imposed. In some areas within sight of army camps, limited numbers of fishermen were issued fishing permits and their movements were restricted. They had to conform to zones of operations and time deadlines for fishing, and harbour their boats near the army camp.

There has also been a total ban on using boats with outboard engines, except from Valaichenai and Muhathuvaram fishery harbours. Both lagoon and sea fishermen used to start out around midnight and return at daybreak. These restrictions meant reporting to the security camp before 5.30 p.m. and returning only after daybreak, even if the weather turned unfavourble during a trip.

This left them very little time to sell their catch, mind the gear and get some rest, before going back to fish at 5.30 p.m. Some of these restrictions have been eased this year.

Over the last 10 years, there has been a fall in fish production (see Table 2). The peak production of fish was in 1982 for marine species and in 1980 for those from the lagoons. The decline in catch since 1983 could be due to the ethnic violence.

While 1991-92 were good years for lagoon fishing, a substantial reduction in the catch level of prawns caused incomes to drop during that period. Fishermen feel this is primarily due to the degradation and pollution of the lagoons. It could also be due to restrictions on marine fishing.

When fishing was banned at sea but allowed on lagoons, several marine fishermen fished on the lagoons, using craft and gear which was inappropriate for lagoon fishing.

Demand for fish in, and from, Batticaloa is great. The traditional supply of fish islandwide, from Mannar, Jaffna, Mullaitivu and Trincomalee has been

disrupted by the conflict. Since 1990, for religious and political reasons, the government has not supported fish culture in inland irrigation tanks.

Prawns, shrimps and crabs from the lagoon have a market outside the district, but only for a short season. From the late 1970s, large export companies advanced credit to both lagoon and sea fishermen, and paid high prices for these seafood.

With the uncertain security situation reducing the supply for export, the large export-oriented companies no longer extend credit. A few local entrepreneurs have started exporting crabs and prawns to Colombo and to East Asian export markets.

Traditionally, the big traders in fish come from the Sinhalese and Muslim communities. The war has disrupted this. A few traders dominate the Batticalcoa market. They buy fish at auctions at the landing sites where the lack of competitive buying has kept prices low. Due to the problems of preservation and transport, fish is sold almost exclusively in the local market.

There are many problems with preservtion and transport. One is the shortage of ice. There were only two ice factories. One was staffed mainly by Sinhalese, who had to leave after the violence in the late 1980s, and the equipment there is now in poor repair. The other factory was damaged.

Despite the existence of a large market fo dried fish within Sri Lanka, fish tends to be dried only when there is a surplus. Much of this used to come from Mannar, but now has to be imported from south India.

Transporting anything within and around Batticaloa is a problem. Vehicle movement is restricted and military check-ponts delay shipments. Even landing sites situated a few kilometres outside Batticaloa town are frequently unable to access their usual markets.

At present, the caste barriers seem to be coming down. Many seasonal fishermen do some farming and farmers do some fishing-agricultural production is low and farmers need supplementary income. Some lagoon fishermen fish at sea; some part-time fishermen also have other occupations, including government jobs.

Many of the earlier community and co-operative organizations no longer function. The relationship between the different ethnic groups has greatly the different ethnic groups has greatly worsened due to the conflict and many of the earlier community leaders have either been killed or have left Batticaloa.

It is clear that all inverventions in Batticaloa must take account of the current security situation and recognize that this is unlikely to change soon. Such initiatives must dry to identify the needs of fishermen and fishing communities through consultation and dry to rebuild relationships between the different ethnic groups.

Develop local capacity

Many agencies have been providing more boats and gear for use on the lagoon, despite the fact that it seems to be over-fished. It may be more important to try and maintain the lagoon environment. Further, mroe attention needs to be paid to developing local capacity for marine fishing and for the preservation and marketing of fish.

This article is based on a 'Needs Assessment' study of fishing communities in Batticaloa by Mano Rajasingam.

Individual Transferable Quotas

Chase profits, forget conservation

The system of Individual Transferable Quotas fuels the corporate motive for profits, not the urge to conserve resources

New Zealand is not the only country to use an Individual Transferable Quota (ITQ) system for fisheries management. But it has a more comprehensive programme than other nations and is therefore regarded by commentators as the leading exponent of this system.

As other countries consider privatising their fisheries, the New Zealand experience provides a salutary example to assess the effectiveness of ITQs for fisheries management.

During the 1960s and 1970s, commercial fishing in New Zealand expanded dramatically with the development of export markets, especially to Australia, Japan and the United States.

This period was marked by the declaration of the 200-mile Exclusive Economic Zone (EEZ), the introudction of sophisticated vessels and new fishing technology, and the beginnings of the systematic exploitation of the deep water fisheries.

Prior to this, the industry was mainly supplying the domestic market with prime inshore species such as snapper, grouper, tarakihi, trevalli, gurnard and rock lobster. Before international acceptance of the EEZ in 1983, the deep water species were fished mainly by foreign nations, principally the USSR, Japan, Korea and Taiwan. These fleets used mainly trawlers but also long-liners and squid-jiggers. The species they caught included particularly orange roughy, hoki tunas and squid and also orec dories and southern blue whiting.

With the declaration of the EEZ, the government initially entered into bilateral agreements with these nations. These were the foreign ventures. The large New Zealand companies were, however, lured by visions of a lucrative virgin resource and they too became interested in fishing these species.

The government encouraged the formation of joint ventures. This eventually led to the phasing out of most foreign ventures. The fishery had become 'New Zealandised', as the largest companies bought deep water vessels which were made surplus by the collapse of over-fished Atlantic stocks.

The Quota Management System was introduced for deep water species in 1983 and for inshore species in 1986. Prior to this, the domestic inshore fisheries were operated from all the ports around the coast, with Auckland being the largest.

Under the ITQ system, quotas were aggregated to the larger companies. Operations, therefore, tended to become consolidated in the largest ports, reducng fleets in the smaller ones. With the development of the deep water fisheries, Nelson has become the largest fishing port in the country.

Officials in the Ministry of Agriculture and Fisheries (MAF) point to several reasons for the introduction of ITQs in the coastal fishery. These include the declaration of the EEZ, high inflation, a downturn in international markets, trade barriers and protectionist policies.

Real impetus

The real impetus, however, came from an organization, the Federation of Commercial Fishermen, which comprised mainly owner-operators. They were adamant that a 40 percent reduction in fishing effort was necessray in order to save their fisheries.

These fishermen had already experienced the failure of various management regimes: limited entry, controlled fisheries, closed areas and seasons, and a plethora of input controls including horsepower reductions. They were thus ready to support innovative approaches.

ITQs are stated as a right to harvest a specified tonnage of the Total Allowable Catch (TAC) from a stock in a given Quota Management Area (QMA). However, they are widely regarded as a property right to the fish.

Issued in perpetuity, ITQs are freely transferable between New Zealand residents or companies with less than 20 per cent foreign ownership.

Aggregation limits restrict the quota holder from having more than 20 per cent of the TAC for any species in a given QMA for inshore species for 35 per cent for deep water species. Quota holders must pay resource rentals to the government. These are paid on quota held, not on catches.

Restructuring for the introduction of the new system began with stock assessments of the main commercial stocks. TACs were based on estimates of maximum sustainable Yield (MSY) from either reported catches of MAF trawl surveys. The former were probably too large because fishers had been intensively fishing for catch history, while the latter were probably too small due to conservative assumptions about vulnerability to gear.

At present, 32 species in some 169 management units are managed under the quota system. In addition, there are 117 species fished under a permit system. In addition, there are 117 species fished under a permit system.

Preliminary invetigations showed that in a fleet of nearly 4,000 vessels, the top 50 landed 45.2 per cent of the catch, while the bottom 2,500 landed just 4.6 per cent. Clearly, therefore, these 50 vessels were the largest trawlers operated by the big companies who were already working in the deep water.

If the real intention had been to reduce fishing effort in the inshore fishery by 40 per cent, then surely restructuring should have started here. Instead, in the name of 'professionalising' the industry, the first step taken was to eliminate the 'part-timers'.

Maori fishers

This had a serious impact on several sections: Maori fishers working in small ports and communities, seasonal workers—both Maori and Pakeha (non-Maori New Zealander)—as well as the so-called 'life-sytle' or subsistence fishers.

The already high levels of rural unemployment were aggravated and the livelihood of many coastal communities disrupted, creating major social and economic hardship.

Meanwhile, the real part-timers—corporates such as Fletchers and Carter Holt Harvey (CHH), who had their primary activities in other domains such as construction, forestry, and pulp and paper-finished up with most of the quota. Clearly, social justice was not a major objective.

After eliminating the part-timers, provisional allocations were made to the remaining fishers, based on the average catch during the best two of the last three fishing years. For certain species, some of these allocations were greater than the TACs. So there were two rounds of tender (an auction system) to buy back the excess quota at NZ $42.4 million.

For the species where insufficient quota was tendered, pro rata cuts were made. Then as it turned out, 1,400 of the 1,800 fishermen involved appealed against their allocation. The appeal process, only recently completed, led to more quota for many fishermen.

In the case of some species, particularly snapper, it raised the TAC to levels higher than before the ITQ system was introduced. This thereby negated the process. Further, crew were completely overlooked in the buy-back operation. Also, some of those who had sold their operations later obtained permits to fish for non-quota species. They thus re-entered the fishery and could then lease quota from other quota holders.

The ITQ system has particularly hit Maoris, the indigenous people of New Zealand who have played a major role in fisheries. They were seriously affected by the exclusion of part-timers.

Maoris believe that the exclusive property rights aspect of the ITQ system was contrary to their fishery rights unde Article 2 of the Treaty of Waitangi.

Consequently, they took the Muriwhenua, Ngai Tahu and other claims to the Waitangi Tribunal. They also resorted to other court actions during the latter 1980s.

Together these resulted in a successful High Court injunction on the progressive expansion to bring more species under the Quota Management System (QMS). Although subsequent agreements did allow the inclusion of four more species (squid, jack mackerel, rock lobster and southern scallops), it generally prevented others from being through in.

Under the 1840 Treaty of Waitangi, Maoris believed they were entitled to 'full, exclusive right entitled to 'full, exclusive right to their fisheries', i.e. 100 per cent. But 'in a spirit of partnership', they claimed only 50 per cent. The Maori Fisheries Act of 1989 provided for the transfer of a mere 10 per cent of total fishing quota to the maori Fisheries Commission.

These claims were, however, supposedly settled at the end of 1992 in two ways: by the Treaty of Waitangi (Fisheries Claim) Settlement Act and the government financing a 50 per cent Maori shareholding for the purchase of Sealord products Litd., New Zealands's largest fishing company, through a partnership between Maoris and Brierly Investments Ltd.

This purchase, together with other quota already held by the Maori Fisheries Commission, gave Maoris control of a large portion of New Zealand fisheries.

Yet, 13 Iwi (tribes) opposed the settlement, saying their 'treaty rights were not for sale'. They wanted quote to provide jobs for their people, not shares in Sealord. The issue is one of sovereignty and traditional rights versus monetary vaues and capitalistic enterprise.

This 'dial' however, does clear the way for MAF to bring in more of the 117 non-quota species currently managed under a permit system. The fishing industry is arguing that 30 of these species should come under the ITQ system.

ITQs were introduced ostensibly to conserve the stocks, improve economic efficiency and reduce government regulation. The system has, however, failed to achieve these objectives.

The contest between catch levels and conservation is very stark. After seven years of ITQ management in the inshore fishery and three more in the deep water, six of New Zealand's seven main export species are in danger.

Ownership has far from fostered an at titutde of harvesting a renewable but finite resource. Instead, it seems to encourage an ethos where everything in the marine ecosystem is preceived as available for exploitation and maximising of profit.

The basic point is that, large or small, the operators are 'driven' by a profit goal; they do not identify with the goal of conservation which they push as hard as they can. Indeed, the industry seems to be in a feeding frenzy, seemingly interested only in maximising profits. It aims to double its achievement of NZ $1 billion in export earnings by the year 2000. With quota brokers adding an additional profit layer and non-fishing owners of quota leasing it at exorbitant rates to fishers, the conservation incentive seems lost.

Thus, in practice, ownershpi of quota does not provide the claimed incentive to consreve. Most of the quota has been aggregated to the bigger companies.

In fact, the three largest control 53 per cent of the quota. Such enterprises are more driven by balance sheets, return on investment and pressure from shareholders than by any concern for the long-term state of the marine ecosystem.

Despite legal limitations on foreign ownershp, there is a real fear of growing foreign control. ITQs are a transferable property right linked in various ways to the global market. The species under most severe pressure of depletion are all fished for lucrative markets overseas.

Fear of foreign control

In this context, mechanisms such as joint ventures and financing arrangements for new vessels increase the potential for overseas interests, especially translational corporations, to gain greater control of New Zealand fisheries.

This article is written by Leith Duncan, an environmental fisheries consultant based in New Zealand

Artisanal fisheries

A skewed kind of development

The results of top-down development policies for fisheries are not always satisfactory, as the case of Tanzania exemplifies

Along the Tanzanian coast fishing is primarily carried out by village based artisanal fisherfolk who use traditional technology and small-sized boats. Their knowledge of marine ecology and fishing techniques is based on generations of experience. Their methods are essentially sustainable and non-destructive, and their management practices are sophisticated enough to maintain a sound resource base.

However, during the past century, colonialism and the subsequent post-independence interventions have introduced new factors into Tanzanian fisheries. These have affected not only traditional fisherfolk but also the ecology of coastal waters.

While some technologies have increased effectiveness in certain cases, others have non-sustainable and destructive properties. They threaten the livelihood of traditional fisherfolk, the ecological balance and judicious resource utilisation.

Tanzania's coastal fish populations and catches display great diversity. However, there are no reliable statistics of the country's marine fish catches.

Based on acoustic and trawling surveys by large sophisticated research vessels, foreign 'experts' have estimated the biomass and potential yield of Tanzania's marine fisheries resources.

But their estimates, which are based on very selective and scanty data, vary widely. They are not good enough for estimating the populations of inshore tropical multi-species fish. A more useful and realistic result can be achieved in collaboration with local fisherfolk themselves.

These fisherfolk have been exchanging ideas and designs with their counterparts from Arabia, Persia, South Asia and Polynesia. These can be seen in the similarities in boats and gear across the Indian and western Pacific oceans.

In Tanzania, intertidal resources can be reached by walking and wading at low tide. A great variety of fish, crabs, bivalves, gastropods and various bait or ganisms are collected by hand, with sharp sticks or *nyavu* (hand nets). This calls for a thorough knowledge of tidal cycles as well as the distribution and habits of the organisms.

Uzio (long rows of stakes) stretch across the sandy or muddy tidal flats and fish are collected in an enclosure during low tide. *Wando* rows of stakes function similarly in a zigzag pattern off mangrove estuaries to capture fish and prawns.

In shallow watres, *kaniki* (cloth) is used to catch *uduvi* (small shrimps) which can be dried, while *kimia* (cast net) is used to ensnare small fish.

To capture fish and lobsters, fishermen swim and dive over the coral reefs. Madema and *towe* (hexagonal basket fish traps) use a variety of bait for different purposes and conditions. Fish (and, rarely, lobsters) swim into the traps and cannot escape.

Local techniques

Juya (seine nets) are hauled in by teams of fisherfolk into shallow water over seagrass beds, while swimmers splash and imitate seagull calls to try to prevent the fish from escaping.

In another technique, *jarife* (drag nets) are similarly used along the beach as well as in tidal channels.

Fishing offshore from boats, *mishipi* (hand lines) with baited hooks are dangled at suitable locations or trolled behind a moving boat.

Wavu (gill nets) are set near the bottom of the surface to ensnare fish swimming into them. Large nets are used further offshore on moonless nights.

Many different traditional boat designs are used in Tanzania. The most common is *ngalawa*, a slim dug-out boat with two outriggers and a mast and sail, 3-9m long. *Mtumbwi* is a simpler dug-out canoe used mainly in more sheltered waters.

Hori is a larger dug-out, with a more flattened cross-section, and able to venture further offshore.

Dau is a planked boat with a pointed shape at both ends, usually 5-7 m long. Mashua is a large planked boat with a flat transom, 6-12 m long.

The traditional coastal fishing village communities of Tanzania are similar in many ways to peasant farming communities. They share economic, social, political and cultural patterns.

Communalistic modes of production persist, and extended-family relations are strong. Hospitality and friendliness to strangers are customary.

The influence of contact with Indian Ocean travellers and traders is generally stronger in fishing communities than in farming communities. The Islamic religion is relatively widespread.

Social relations are often quite hierarchical, with differences existing between *tajiri* (a rich owner) and *mvuvi* (a fisherman), between *nahodha* (captain) and *baharia* (sailor) and between men and women.

These traditional fishing communities manage resources carefully. Fishing village are generally located around particular coral reefs, mangrove creeks, river estuaries, and so on.

The village community exercises customary jurisdiction over the resources. It uses its knowledge of the ecology and sustainability of resources to manage fishing access, practices and intensity.

Code of conduct

Strict codes of conduct apply, and infringements are punished. Outsiders and migrant fishermen must seek permission to fish in zones controlled by particular communities.

For example, fishermen from Zanzibar are granted permission to fish offshore from Kunduchi and Msasani during the *nguru* peak season each year so that they may

have access to the larger markets of Dares Salaam, and they may also fish reefs round adjacent islands such as Mbudya. Some Junduchi and Msasani fishermen also fish off the island of Pungume, south of Zanzibar.

Conflicts arise of customary laws are not respected. In 1993 fisherfolk of Pongwe village, on the east coast of Zanzibar, had overexploited the pweza (octopus) on the stretch of reef which they customarily use. They had to request for premission from the neighbouring village of Uroa to share octopus resources. The Pongwe fishermen then had to bear the brunt of great teasing by the Uroa fisherfolk because they had not managed their own resources wisely.

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Life in the fishing communities along the coast of Tanzania was drastically disrupted when the German imperialists imposed their rule by force from 1885. Resistance to colonisation was considerable and fierce battles were fought along the coast. These were finally brutally suppressed by 1905.

British colonialism took control of Tanganyika in 1919. The general domination and subjugation of the people affected fishing communities, but the British were not especially interested in the exploitation of fisherfolk or fishery resources because they did not have the technology to export such products to Europe. A small fisheries department and a research facility was established in Zanzibar, but the British were primarily concerned with sport fishing.

The struggle for Tanzania's independence was supported by the most of the fisherfolk. Only a small number of mwiny and sheikh felt insecure about their privileged status in the face of the nationalist struggle as a broad democratic movement.

The attainment of independence for Tanganyika in 1961, and the revolution in Zanzibar in 1964, was followed by the formation of the United Republic of Tanzania.

Important progressive changes were made, but the structure of the civil service imitated the colonial government. The Fisheries Division reflected this trend. The ranks were rapidly expanded and attempts made to improve extension services and statistical records.

Few of the officials themselves came from coastal fishing communities or had any experience with such fisheries. This is the case even today. Fisheries officials received training primarily in modern industrial-type fishing technology in Europe, North America and Japan.

International thinking amongst fisheries authorities and multilateral agencies tended to equate 'modernisation' with 'development'. This influenced Tanzanian fisheries officials too.

Post-independence development plans emphasised a modern industrial-scale fishery export sector. A joint venture for prawn fishing with modern trawlers was entered into with the Taiyo company of Japan in 1969. But the terms were unfair to Tanzania and the licence was revoked in 1971.

Public corporation

In 1974, the Tanzanian Fisheries Corporation (TAFICO) was formed as a public company. It has engaged in trawling for prawns for export. In terms of catches of fish and prawns, the enormous

Review

investments in TAFICO have not been justified for Tanzania.

Most of the boats and equipment have been donated as 'aid' and the present Japanese-controlled operations export prawns to Japan. Plans are presently under way o 'privatise' TAFICO by selling it to foreign capital, in accordance with World Bank structural adjustment directives.

The Fisheries Division has also attempted to promote development at the village level through extension services and supply of equipment and infrastructure, parituclarly after the ujamaa-village policies since 1967. These have been met with mixed success.

A 'top-down' approach was often adopted. The officials are usually sceptical of the coastal fishing communities who, in turn, are sceptical of official impositions and interventions. Though taxation and registration of ownership of boats began in 1975, the relationship between officialdom and fisherfolk did not improve.

Fisheries training centres were established at Kunduichi and Mbegani. But the trainers were European 'experts' and Tanzanians trained in Europe. The curricula emphasised theoretical training and 'advanced' foreign technology. The ample facilities were under utilised and largely inappropriate.

Though the graduate diploma holders became fisheries officials, they soon found that the theories and technologies they had learned had little in common with daily fishing in the coastal villages.

In response to criticisms about the lack of relevance, fisherfolk were identified as a 'target group' and training programmes instituted to teach selected fishermen how to mend nets and maintain outboard engines. Few recognized the traditional fisherfolk as being the real 'experts' nor were they made to participate in planning and decision-making. Research in fisheries and marine ecology has been carried out at the University of Dar es Salaam, which includes a research station at Kunduchi (now inactive), and the Institute of Marine Sciences at Zanzibar, and also at the Tanzania Fisheries Research Institute at Kunduchi.

Some of the basic and applied research can be considered relevant but much is of no interest to the majority of fisherflok in Tanzania. The most inappropriate purchase was that of a large and useless research vessel 'Kaskazi' which is still anchored and rusting off Zanzibar.

In contrast, the Botany Department co-ordinated important research on the maping of mangroves along the entire Tanzanian cost and investigated socioeconomics issues from the point of view of the fisherfolk.

The Institute of Marine Sciences has been particularly active recently in addressing problems relevant to the traditional fisherfolk, organizing workshops with them, and influencing government policy on coastal zone management.

One interesting example of the introduction of new technology is the case of the Greek fisherman who came to Tanzania in 1961. He used lamps on moonless nights to attract zooplankton and subsequently fish (primarily dagaa) and then scooped them up.

Local fisherfolk were impressed with the results and soon imitated the techniques, including some of their own adaptations using senga (scoop nets). The fishing of dagaa in this way does not negatively influence other habitats or resources. This example confirms that local fisherfolk are not opposed to new ideas and technology perse, even if they are reluctant to accept certain imposed changes about which they are not convinced.

Some types of new technology are very destructive. Dynamite explosives are used mainly by urban-based fishing units to blast the coral reefs. This kills and stuns fish in the vicinity. They are scooped up easily with hand nets. A dynamite - fisher—man 'gets rich quick' but the explosions smash the corals and destroy the habitat of fish and other reef-dwelling organisms.

Extensive destruction

After repeated dynamite blasting, increasingly extensive areas of reefs are

destroyed and the productivity declines drastically. As the productivity of reefs near to towns declines, the dynamite fishermen venture further and further from the urban centres to blast productive reefs up and down the coast.

Trawlers disrupt the conditions of the ocean bottom, especially seagrass. Large quantities of fish are dumped as 'by-catch' or 'trash fish' to make space in the freezers for export bound prawns. Trawlers may also destroy nets and traps, with little thought about compensation.

Very serious conflicts have broken out between fishermen perpetrating the use of dynamite and local traditional fisherfolk. Those of the coastal villages have organized themselves to protect their coral reefs fromthe dynamite users.

This has been quite effective in many areas, but in several serious cases, people have been killed in fierce clashes during the past two decades.

In some cases, granting of land for the building of luxury tourist hotels has infringed upon the fisherfolk's rights of passage and customary access to resources.

Foreign tourist interests have taken over coral islands and fishworkers are even forbidden to take refuge there from storms.

Proposals for setting aside areas of coral reefs as marine parks mean well for conservation. Some conservationists even wish to prevent non-destructive traditional fishing practices in these parks.

In planning and implementing measures for the conservations of the reefs, it would seem much more sensible to co-operate with the local fisherfolk.

Such steps are being discussed on Mafia island between the fisherfolk, Fisheries Division officials and researchers from the Institute of Marine Sciences.

The experience of Tanzanian fisherfolk has shown thta some forms of 'development' are genuinely positive. However, many interventions actually engender neo-colonial relations of inequality. This ultimately acts to the detriment of the interests of the traditional fisherfolk.

This article is written and Illustrated by Ian Bryceson, a Tanzanian marine biologist now living in Norway

Viewpoint

ICSF Cebu conference

What, yet another conference?

The forthcoming Cebu conference of ICSF should think of new consumer-supported campaigns to ensure eco-friendly shrimp culture

I think most of us in ICSF are wary of large conferences as they tend to mean large expenditure, with very little actually achieved in the end. But somehow, we seem to feel justified about the last two confereces, in Rome and Bangkok.

The first provided a stimulus for the mobilisation of fishworkers the world over, while the second brought together leaders of the new movements who pledged to remain the 'beacons of the sea'.

We are now on the eve of a third conference and I feel that unless we share some of our concerns about what we expect from another conference, we may not arrive at something dynamic and meaningful. While all of us will respond separately to the conference's Status Paper already circulated, there are other issues which need to be addressed.

One of the main problems related to resource depletion all over the world is the use of overefficient and ecologically destructive technology. In most Asian countries, fishworkers have been fighting trawl fishing which focuses on catching prawns in the inshore waters.

More recently, they are also protesting the destruction of mangroves in the mad rush for intensive brackish water aquaculture. The impact of both of these activities is far-reaching.

The impetus for this type of overfishing and intensive culture is the export market for shrimps and prawns which are foreign exchange earners for the exporting countries. Due to this fact, no government in the Asian region is willing to take any serious measure to heed the demands of the small fishworkers' struggle to control trawling or even ban it in the inshore waters. There is much less awareness about the problems resulting from the destruction of mangroves by intensive aquaculture. I fear that the Cebu conference will resolutely pinpoint these dangers once again and may come up with some nice, pretty statements on coastal resource management.

While I do believe in the need for such management, I feel this only once again places all the pressure on the coastal communities. They are the ones who have to bear the burden of policing their resources, while there is no involvement fromt he communities who relish the so-called 'delicious seafood' produced at the cost of the very livelihoods of the coastal people.

I therefore advocate that ICSF, as an international support group, links this question to a larger consumer campaign and finds ways of intervening in the importing countries with actions designed to encourage the import of only eco-friendly shrimps and prawns.

Eco-friendly shrimps

We, of course, need to clarify what 'ecofriendly' means. Such shrimps and prawns should be those

- caught in passive gears
- cultured semi-intensively without destroying mangroves or the water system
- cultured from fingerlings produced in hatcheries and not from natural waters.
- processed by exporters who respect labour rights, particularly those of women workers, who

The Cebu Conference

Nearly 10 years have elapsed since the international Conference of Fishworkers and their Supporters (ICFWS) was convened in Rome in 1984.

Most of the issues raised at that meeting about the rights of fishworker's to participate in the management of the fisheries which sustain them have since gained international recognition.

However, the last decade has seen escalating conflicts at sea and on land between different interest groups, while the international fishing fleet continues to grow beyond the regenerative capacity of the seas.

The rights of fishworkers to resources and their traditional livelihoods are yet to be fully recognised. These are disturbing trends, and need urgent attention.

The international Collective in Support of Fishworkers (ICSF) believes that it is now time to convene a follow-up conference to the 1984 ICFWS.

This is now scheduled for June 2-7, 1994 and will be held in Cebu, the Philippines. Selected participants from over 40 countries are expected to attend. The conference will mark a decade of fishworkers' struggles since the ICFWS initiative in Rome.

The specific objectives of the conference are:

- to enable fishworkers and their supporters to consider the current status of the world's fisheries and the coastal environment.
- to facilitate better awareness of transnational linkages in fisheries such as multilateral and bilateral fishery agreements, and North-South trade regimes.
- to understand the ramifications of nascent participatory resource management in fisheries and the coastal zone, and to discuss the role of fishworkers' organiations in the developing programmes and strategies for true equitable management of coastal resources.
- to strengthen fishworkers' initiatives towards organising their struggles in the face of increasing pressure on the environment and the fishery stock, and to assist fishworkers to establish an agreed framework of strategies to counter the forces that are ranged against them.
- to estabilsh a three-year programme of work for ICSF in support of the conference decisions

The conference should help strengthen the fishworker's movements. Not only will it provide a perspective on the issues of equity and sustainability in fisheries, but it will also help fishworkers' organizations chalk out strategies to counter inequitable fishing methods as well as international fisheries agreements.

For ICSF, the Cebu conference will be of particular significance. It will be an important aid in designing ICSF's triennial programme, keeping in mind the needs and priorities of fishworkers' organizations.

comprise the majority in processing plants

I feel confident that such strategies can be worked out, particularly when I see the success that other compaigns have had like the dolphin-friendly tuna compaign or the embargo on the import of Indian carpets produced by exploiting child labour. I feel a compaign of this nature may initiate other compaigns in areas where the growing market economy penetrates and destroys the livelihoods of marginal people the world over.

I also feel this is another way in which we can concretely express our support to the small-scale fishworkers.

This piece is written by Nalini Nayak, Project Leader, Women in Fisheries Programme of ICSF

Review

Books

FISHING FOR DEVELOPMENT: SMALL-SCALE FISHERIES IN AFRICA. Edited by I. Tvedten and B. Hersoug. The Scandanavian Institute of African Studies. Uppsala. 1992. Pages 227. £ 12.95

Don't reinvent the wheel

Policy-makers should not ignore the traditional strengths of Africa's artisanal fisheries sector, argue the contributors to this book

Ever since the Indo-Norwegian Fisheries Project in Kerala, India, initiated by Norway in 1952, development aid projects have been launched in many develoing countries around the world. These projects have in general turned out to be gross failures. They have often exacerbated conflicts in the inshore waters.

This volume is a compendium of papers presented at a seminar, Socio-economic Conditions for Development of Artisanal Fisheries in Africa, organized by the Scandinavian Institute of African Studies and the Norwegian College of Fisheries Science.

It provides an interesting overview of the artisanal fisheries sector of sub-Saharan Africa.

The net reulsts of these projects in Africa are graphically summarised by Else Skjonsberg, one of the contributors to this volume: 'Defunct fish processing units, disintegrating harbours and piers, closed down workshops, wrecked boats, and non-functioning outboard engines, concrete wells from which no water is drawn and market stands that never served their purpose are dire reminders of inadequacy and wastage.

Notwithstanding most of the development assistance being given to the industrial sector and a state policy overwhelmingly in support of industrial fisheries, it is indeed significant that the artisanal sector has continued to develop in Africa. In countries like senegal and Ghana, for example, 'primitive canoes' spearhead one of the most important economic sectors. It is all the more impressive that the artisanal fisheries in these countries and employment, while the general economy was in decline.

In spite of this proven track record, lament the editors of *Fishing for Development*, after almost two decades of considerably costly fisheries projects, 'we still know more about the different species of fish in African waters than we know about African artisanal fishermen, both in terms of quantity, migrations and internal dynamics'.

This book tries to correct this anomaly by choosing to '...underline the opinion that artisanal fisheries are not remnants doomed to extinction', despite the expansion of 'modern fisheries'.

Inter-disciplinary perspective

Various contributors-primarily from the Nordic countries-look at the salient aspects of artisanal fisheries in Africa, from an inter-disciplinary perspective. They explain the possible reasons for the failures of development aid projects. They also suggest conditions under which external interventions may be justified.

While the first part of the book deals with the socio-economic aspects related to the viability and dynamism of the artisanal sector, the second part focuses on failures or misconceptions of development efforts. It then discusses under what conditions artisanal fisheries can be successfully developed. In a contribution, Eyolf Jul-Larsen looks at the endogenous

conditions existing within African production systems in small-scale fisheries.

Based on the migratory pattern, technological innovation, changes in the organization and relations of production, increase in productivity and output, Jul-Larsen concludes that 'West African fisheries emerge as a highly efficient and productive economic system'.

The growth of a regional market network that adapts to the rules and values of the traditional societies' has played a crucial role in attaining this efficiency.

Jul-Larsen further maintains that 'substantial economic growth does not necessarily require modernisation, defined as capitalistic relations of production', if the institutions and social regulations of the traditional societies can be extended and redefined.

Through family networks and credit-cum-marketing relationships, observes econoimst Jean-Philippe Platteau, the fishermen make investments in new technologies without collateral security. These traditional arrangements act an socially acceptable substitutes for collateral.

The volume attempts to explain why the fishermen resist changes that are imposed externally.

It also goes into the effect of national and international migration among fishermen, the importance of the dual economy of fishing and agriculture and the extent to which they supplement each other.

On the basis of these, Else Skjonsberg argues for transcending the sectoral approach to fisheries development, to steer away from an emphasis on biology and technology, and to understand the fishing economy, its interlinkage with other sectors and industries, before making any external intervention.

The last two papers in the book deal with resource management issues. They caution against any application of the 'Western model' of fisheries management. Ossi Lindqvist and Hanna Molsa draw attention to how 'local cultures, languags, traditions and habits interwine in the practice of artisanal fishery' and argue for a management policy based on sociopolitical considerations, rather than fisheries biology. Adaptive management and self-management are more relevant.

Paul Degnbol goes further in his paper by making a rather radical suggestion that perhaps 'the best way to introduce management in an artisanal context may be not to introduce it at all, but to assist in creating an environment which is supportive to (sic) intentional or inadvertent management by the fishing communities'.

Fishing for Development goes a long way in unravelling the potential of the artisanal fisheries sector in Africa. Instead of repeatedly 'reinventing the wheel'—with disastrous consequences-this volume strongly suggests that policy-markers will benefit more by taking the 'primitive canoes' of Africa more seriously than they are often inclined to.

Left to itself

If you are fishing for development—in a metaphoric sense—left to itself, the chances of development of the artisanal fisheries sector are much higher than when inappropriate external interventions are made through development aid.

In comprehensible language, *Fishing for Development* quite convincingly demonstrates the strengths of artisanal fisheries and underscores the significance of this time-tested paradigm for furthering fisheries development if Africa.

This review is written by Sebastian Mathew, Executive Secretary of ICSF

News Round-up

From the ocean without fish...

It was no ordinary rail journey. In November 1993, the environmental organization Sierra Club of **Canada,** organized a caravan of environmental activists to cross Canada by rail on what came to be known as the 'Clayoquot Train'. They started in St.John's, Newfoundland, where the northern cod fishery has had to be shut down after stocks collapsed under the pressure of overfishing by offshore industrial trawlers.

From this ocean with no fish, the caravan set out across the country, stopping for rallies and protests, picking up more people along the way. The destination on the west coast was Clayoquot Sound-a beautiful and endangered remnant of the old-growth rain-forest of British Columbia, where logging rights are held by the giant forestry company MacMillian Bloedel. All summer, protesters were being arrested as they tried to blockade logging roads leading into the forest.

...to the forest without trees

By the time the Clayquot Train activists reached the clear-cut, scarred west coast-the forest with no trees-over 500 people had been arrested. The first ones to be dealt with by the courts were jailed on sentences of 30-45 days.

When the police moved in to clear the blockades, many activists remained on the road to face arrest.

Among them was Bernard Martin, an inshore fisherman from Petty Harbour, **Newfoundland,** who had been sent on the Clayoquot Train by the Canadian Oceans Caucus.

He explained his decision to stand firm and face arrest as a spontaneous act. But his subsequent actions have been deliberate and carefully considered. He has chosen not to plead guilty, though it might have led to more lenient treatment.

Instead, he chose to plead 'not guilty' and have his day in court. This was to be a forum to expose the plight of Newfoundland's coastal communities.

According to Irene Novaczek, chairperson of the Canadians Oceans Caucus, there are distinct parallels between the ecological disaster in Canada's coastal zone and the on-going unsustainable destruction of Canadian forests.

Filming the fishing

Such ruining of a fishery has rarely been documented powerfully in the visual medium. One person who has attempted to do so on celluloid is Canadian David Coole. His recent short documentary film **Long Line**, produced by the Atlantic Filmakers' Co-operative, takes off from the crisis in the Atlantic Canadian fishery to dwell on the larger theme of man's relationship with the environment.

Addressing Latin America

These links are now being grasped all over the world. Thus, how development policies affect artisanal fisheries in **Latin America** and the Caribbean was the subject of an international seminar last May in Ancona, Italy. It was organized by the Comitato Internatiozionale per lo Syiluppo dei Popli (CISP-International Committee for the Development of Peoples) in collaboration with the Ancona trade Fair, the Italian Ministry of foreign Affairs and the European Community Commission.

The meet brought together experts for international agencies as well as NGOs and artisanal fisherman's organizations from Latin American Countries. As they shared their experiences, they acquired new strategic outlooks on development policies and programmes carried out in some Latin American countries as part of international co-operation.

Tokyo talk

Transcontinental co-operation of another kind occurs this month in Tokyo, where citizens' opinions on UNCED's Agenda 21 will be aired as the Japanese NGO, Peoples' Forum 2001, **Japan,** organizes an international symposium on the environmental future. The discussion sessions focus on energy, recycling, fishery resources, international finance systems and trading. Departing from customary practice, the participants come from the worlds of government and business too. The Forum believes this is a good way to bridge the traditional gap between these sections and NGOs.

EC *studies hard*

Gaps, however, are aplenty in the area of scholarship in fisheries research. Now, the **European Community** (EC) fisheries ministers have agreed to thoroughly investigate industrial fishing, thanks largely to pressure from the UK fisheries minister. A Working group is also expected to set priorities for future research work

on the effect of industrial fishing on the marine ecosystem, sea birds and small cetaceans. The group is expected to produce a report by the end of April 1994.

Who's who of coral reef protectors

A different type of report is being put together by **Greenpeace** which is compiling a Coral Reef Network Directory. This will be a unique listing of NGOs working worldwide to protect coral reefs. With profiles of these organizations and details of their activities and areas of expertise, the directory promises to be a comprehensive publication. Greenpeace welcomes contributions from NGOs working exclusively on coral reef issues as well as those with a single reef-oriented project.

Rumblings down under

Closer to an area famous for reefs, trouble is brewing in **New Caledonia** in the South Pacific. In its quest for the 'coquille Saint Jaques', a shellfish which is a luxury food on the menus of Northern consumers, an Australian fishing company is likely to destroy a traditional fishing ground. This belongs to the 'kanak' fishermen of the island of Tanlo, at the far north of New Caledonia. Their fishing zone, which is used by all the small scale fishermen of the area, is situated inside the lagoon surrounding the island. Its ecosystem is said to be a closed and fragile one.

Societe Sodinor, the society for kanak fishermen, which is based in Poum village, fears the company's planned processing plant will be come the base for trawlers to operate in the lagoon. The dragnets they use to catch shelfish will then destroy the seabed, the kanak fishermen worry.

Military-guided fishing...

Worried too are those who try to fish in Burmese seas. The SLORC military junta of **Burma** keeps a keen and stern watch over fishing in Burmese waters. Last year, it revoked old Thai fishing company contracts as they violated SLORC regulations. But from the beginning of this year, SLORC has given fishing permits to 281 boats belonging to eight Thai firms. This was the outcome of bilateral agreements.

Under the new Burmese law, illegal foreign boats caught fishing in Burmese waters will be sentenced to 47 years imprisonment.

The new regulations prevent the Thai companies from making direct contact with the Burmese military regime.

Thailand's Fisheries Department will select the Thai firms which will enter into contracts with SLORC. This thus institutes a government relationship between SLORC and Thailand.

...or responsible fishing?

Relationships between NGOs and the FAO are bound to suffer with the drafting of the FAO Code of Conduct for Responsible Fishing. A number of NGOs present at the July session of the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks expressed concern about NGO participation in the drafting of the Code. They feel that FAO has not yet made any real effort to consult them, even though at the March 1993 session of the FAO Committee on Fisheries, governments agreed on the active participation of all concerned organizations, including NGOs.

Irresponsible farming

In **South India**, large stretches of productive rice fields are currently being converted into shrimp farms. This causes the enclosed saline water to seep into the paddy fields, making them unfit for rice cultivation. According to S.Jagannathan, president of the Tamil Nadu Grama Swaraj Movement, the large volume of sea water pumped in by pipelines, which extend deep into the sea, interferes with the operations of artisanal fishermen. This in effect imperils their livelihoods.

Dam harm

Equally imperiling is the construction of the Pak Mun Dam in **Thailand,** across the Mun River, a major tributary of the Mekong. All but one of the river's 16 rapids will be flooded or dynamited. This World Bank-funded project will displace 250 families. The tropical forest of Kaeng Tana National Park will also be affected by the flooding. Already, fish catches in the Mun River have been reduced to almost nil.

Sent to the can

Not wanting to be reduced to submission, the workers of the Pacific Fishing Company (PAFCO) in Levuka, **Fiji** went on strike last August.

Most of the 600 workers of the state-owned canning company are women. With the government declaring the strike illegal, the workers remain locked out and the factory closed.

Can this agreement, please

Also coming to a close-in October 1994-is the fisheries agreement between **Senegal** and the European Community (EC).

To launch a campaign against the renewal of the agreement, CNPS, the national fishermen's organization of Senegal, will discuss strategies at its second Congress during 24-26 March.

Make and Break Harbour

How still lies the bay in the light western airs
Which blow from the crimson horizon
Once more we tack home with a dry empty hold
Saving gas with the breezes so fair
She's a kindly Cape Islander, old, but still sound
But so lost in the longliner's shadow
Make and break, and make do, but the fish are so few
That she won't be replaced should she founder.

It's so hard not to think of before the big war
When the cod went so cheap but so plenty
Foreign trawlers go by now with long seeing eyes
Taking all, where we seldom take any
And the young folk don't stay with the fisherman's way
Long ago, they all moved to the cities
And the ones left behind, old and tired, and blind
Can't work for 'a pound for a penny'.

In Make and Break Harbour the boats are so few
Too many are pulled up and rotten
Most houses stand empty, old nets hung to dry
Are blown away, lost, and forgotten.

I can see the big draggers have stirred up the bay
Leaving lobster traps smashed on the bottom
Can they think it don't pay to respect the old ways
That Make and Break men have not forgotten?
For we still keep our time to the turn of the tide
And this boat that I built with my father
Still lifts to the sky! The one lunger and I
Still talk like old friends on the water.

---

song by Canadian folk singer Stan Rogers
from his album *Home in Halifax*

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SAMUDRA REPORT invites contributions and responses. All correspondence should be addressed to ICSF's Madras office.